

Technical Information

Section 1



GENERAL INFORMATION

An essential step in ensuring that a hydraulic system is safe and delivers optimum performance and service life is selecting the correct fluid conveying components.

Although a lot of the work undertaken in this industry is the replacement of existing components with a duplicate it is still good practice to check the product against the application especially if the service life of the product to be replaced was not acceptable or when fault finding on an existing system.

In some cases a problem with a hose assembly or other fluid conveying products can point to an underlying problem with the system itself or possibly the products have been incorrectly specified originally.

A simple method to assist in remembering the key selection criteria is the anagram:

F.A.C.T.O.R.S.

F = Fluid
A = Application
C = Connections
T = Temperature
O = Operating Pressures
R = Rate(s) of Flow
S = Size

F - FLUID

The materials in the products selected must be compatible with the fluid that is to be conveyed. Compatibility considerations will vary between products depending on the fluid in question.

When checking product fluid compatibility the following should be taken into account;

Hose; where the application requires the use of chemicals or special oils it is advisable to ensure that the cover is also resistant. For gaseous applications it is possible that permeation could occur. Permeation, sometimes referred to as effusion, is the migration of fluid through the pores of the tube polymer resulting in gradual fluid loss. Where permeation occurs it is important to ensure that as well as the hose tube the reinforcement and cover are compatible. When conveying gaseous liquids it is advisable to pin-prick the cover to prevent fluid build-up under the cover causing blistering. Continual build-up of fluid in this blistering could eventually cause the cover to split resulting in potential hazards such as the release of toxic fumes, fire or even explosions.

Couplings & other products; As well ensuring the body material is compatible any seals in hose connectors, positional adaptors, quick release couplings, ball Valves, live swivels etc are also compatible.

A - APPLICATION

When selecting products it is important to check how and where they are going to be used as this will help to assess the likely demands that will be placed on the products.

Some of the aspects to consider are;

- Is the product going to be installed on mobile equipment or industrial plant?
- Is the application static or dynamic?
- Any installation constraints?
- Any mechanical loadings? Care should be taken not subject products to tension or torsional loads.
- Will it be subjected to constant impulsing?
- What fluid lines best suit the application? Flexible or rigid?
 - ❖ Flexible (hose). Hose has advantages such as;
 - *Easier to route around obstacles*
 - *Helps to dampen sound*
 - *Can absorb pressure spikes*
 - *Less prone to damage from vibration or movement*
 - *Generally easier to replace in the field*
 - ❖ Rigid (pipe or tube). Advantages of rigid lines;
 - *Less susceptible to mechanical damage*
 - *Good heat dissipation*
 - *Tube can be bent to tight radii*
 - *Does not breakdown through ageing*
- If selecting hose consider the following:
 - ❖ Does the cover need to be abrasion resistant?
 - ❖ Does it need to be non-conductive?
 - ❖ Any requirement for the hose to meet any specific Industry specifications? Such as mining, marine, military etc.
 - ❖ O.D of hose if it to run over pulleys (forklift application)
 - ❖ Composition of hose, rubber or thermoplastic? Note; Thermoplastic hose types are excellent for use in the marine and food industries.

Taking the time to get a good overview of the application will help when considering other aspects in the selection process, some of which are interrelated (such as pressure, flow & size).

Some accessory products such as Quick Release Couplings & Ball valves have specific selection requirements that need to be considered. These are discussed in detail in the relevant training modules.

C - CONNECTIONS

When replacing an existing hose assembly match the existing end connections with the new ones.

If a new assembly is being specified consider what interface (thread/sealing face) type would best suit the application. In most cases the type of connection is determined by the exit thread of the adaptor fitted to the port machined into the component to which the assembly is being fitted.

Confirm what style of hose connection is required (or preferred by the customer), where wire braided hose is being used it is possible to fit either Crimp or Re-usable (field attachable) and in low pressure applications a Push-On.

For 90° hose connections check the configuration required e.g. compact or swept bend style.

Rigid lines: pipe or tube

For pipe the most common connection is the welded type, this can be either a socket or butt weld style. Of these the butt weld should be preferred for high pressure however the socket style is the most commonly used due to the ease of assembly.

For tube there are three main options;

1. Flareless type
2. Flare type
3. Socket weld

T - TEMPERATURE

Two aspects of temperature must be considered when selecting products;

1. Fluid temperature; Check capability of product to withstand system fluid temperature, both minimum and maximum. Hydraulic systems can generate heat but this should not be excessive in well designed systems. The most common causes of excessive heat are undersized components or flow restrictions within the system.

2. Ambient temperature;

The exposure to high or low ambient temperatures should also be considered. Generally there are not many issues associated with this.

Hose is most likely to be affected, some situations where a problem could occur are;

When an installation requires hose to be run near a hot manifold it may be advisable to use a heat shield or sleeving.

Where a hose is subjected to a high ambient temperature in conjunction with an elevated fluid temperature the service life may be reduced.

Hose used in a cold environment, such as hoses on a forklift working in a coolstore, may have exhibit cracking on the cover.

Notes;

1. The viscosity rating of most hydraulic oils is set at a temperature of 40° Celsius.
2. Rubber polymers are affected differently by hot air than hot oil.
3. Rubber stores heat

O - OPERATING PRESSURES

Determine maximum system or circuit pressures, this may vary depending on the circuit function. Always take into account the possibility of pressure spikes when establishing the maximum pressures that could be generated in a system.

Remember to look at the application or function, this will help to visualise the possible loadings on the product.

For example, the crowd cylinder circuit on an excavator is more likely to be subjected to spike pressure than the slew circuit.

Always ensure that the product is working within a 4:1 safety factor. That is; the maximum pressure the product will be exposed to is less than 25% of the products minimum burst pressure. Where pressure spikes or impulsing can occur it is good practice, where this is possible, to specify a product that will be working at 75% of its pressure rating for normal system pressure, this will give a safety buffer to absorb spikes.

Note;

Any product fitted between the pump and valve will always be exposed to the highest pressures of the system.

R - RATES OF FLOW

There are two areas to look at with regards to fluid flow.

Volume;

This is the amount of fluid that will be flowing through the product in a given time. When selecting product it is best to look at the maximum flow that is to be conveyed. Maximum pump output is a good starting point but consideration should also be given to return flow from the piston side of cylinders, this can be high depending on the bore to annulus ratio of the cylinder.

Volume is usually measured in Gallons (imperial) or Litres (metric) per minute.

Velocity;

This is the speed of the fluid through the product and is directly related to the fluid volume and the product size. Fluid speed is a key factor in determining pressure drops and heat build up in systems.

Velocity is stated as; feet per second (imperial) or metres per second (metric)

S - SIZE

The size (flow area) of the product is key part in ensuring the system functions efficiently.

The flow area of the product and the volume of fluid determines the velocity of the fluid in the system. If the fluid velocity is too high then in some cases excessive pressure drop or heat generation can occur. A Nomograph is the easiest method of determining fluid velocity for any given volume versus product size.

Notes;

The potential service life of products can be significantly reduced if they are constantly operating at maximum limits.

Some areas of the selection process are interrelated however the key to correct product selection is the understanding of the application and what is required of the product.

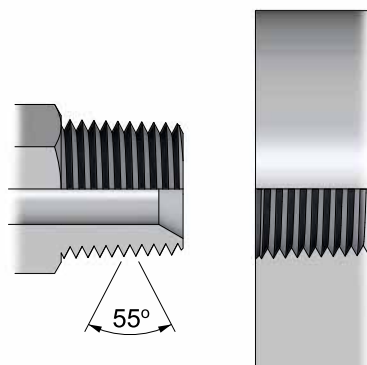
B.S.P.T. - BRITISH STANDARD PIPE TAPER

Taper: 1 in 16 by diameter

Thread Angle: 55°

The BSPT (British Standard Pipe Taper) male is intended to mate with the BSPT female only. Although the taper male will screw into BSP Parallel fixed female sockets, this is not recommended practice where avoidable as a reliable seal cannot be guaranteed.

While many BSPT males are coned 30° and will mate with BSP Parallel swivel nut females, this is not recommended practice as the taper form can deform the parallel thread and reduce the integrity of the seal.



Thread Size & TPI	Male Thread O.D. BSPT*	Female Thread I.D. BSPT
1/8-28	9.7	8.5
1/4-19	13.1	11.4
3/8-19	16.6	14.9
1/2-14	20.9	18.6
5/8-14	22.9	20.6
3/4-14	26.4	24.1
1-11	33.2	30.2
1.1/4-11	41.9	38.9
1.1/2-11	47.8	44.8
2-11	59.6	56.6

*Basic gauge plane diameter at basic gauge depth

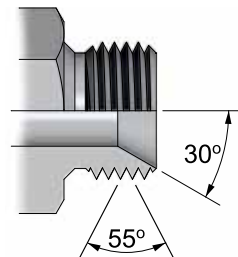
B.S.P.P. - BRITISH STANDARD PIPE PARALLEL

Thread Angle: 55°

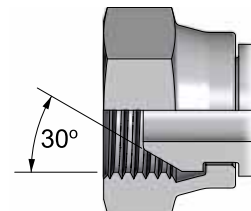
The British Standard Pipe Parallel (BSPP) male is typically coned 30° and will mate with either a BSPP swivel nut female or a BSPP female port.

BSPP female ports are normally spot faced, sealing is by either a soft metal washer, a bonded seal or a captive "O" ring.

In some cases, the port is chamfered to accept an "O" ring seal. (Similar to the U.N.O. style).

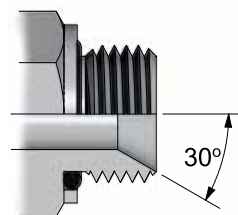


BSPP male



BSPP swivel nut female

Thread Size & TPI	Male Thread O.D. BSPP	Female Thread I.D. BSPP	Torque Settings BSPP nuts
1/8-28	9.7	8.5	12 Nm
1/4-19	13.1	11.4	26 Nm
3/8-19	16.6	14.9	47 Nm
1/2-14	20.9	18.6	79 Nm
5/8-14	22.9	20.6	104 Nm
3/4-14	26.4	24.1	128 Nm
1-11	33.2	30.2	160 Nm
1.1/4-11	41.9	38.9	200 Nm
1.1/2-11	47.8	44.8	270 Nm
2-11	59.6	56.6	350 Nm

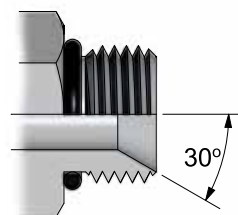


BSPP male with captive o-ring seal

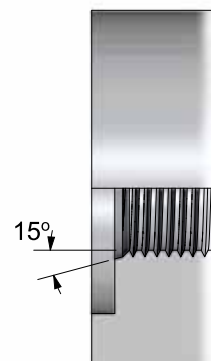


BSPP female port (spot-faced)

N.B. Torque values are nominal and supplied as a guide only.



BSPP male with o-ring seal



BSPP female port (chamfered)

N.P.T. - NATIONAL PIPE THREAD

N.P.T.F.; National Pipe Taper Fuel

N.P.S.M.; National Pipe Straight Mechanical

N.P.S.F.; National Pipe Straight Fuel

Taper: 1 in 16 by diameter.

Thread Angle: 60°

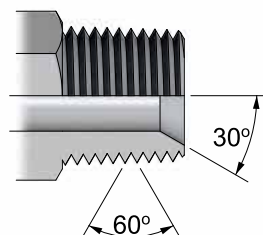
The National Pipe Taper Fuel (NPTF) male is coned 30° and will mate with the NPTF female port (taper), the National Pipe Straight Mechanical (NPSM) female (swivel nut female with 30° sealing cone), or the National Pipe Straight Fuel (NPSF) female port (parallel).

As NPTF is a “dryseal” thread, no sealing medium is required. However a sealing medium can be used to prevent thread galling.

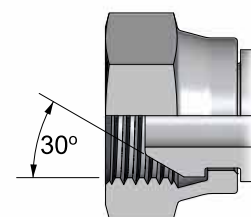
Thread Size & TPI	Male Thread O.D.	Female Thread I.D.	
		NPTF	NPSF/SM
1/8-27	10.0	8.6	8.7
1/4-18	13.3	11.2	11.4
3/8-18	16.7	14.7	14.9
1/2-14	20.8	18.2	18.8
3/4-14	26.1	23.5	23.9
1-11.1/2	32.7	29.5	30.2
1.1/4-11.1/2	41.4	38.3	39.1
1.1/2-11.1/2	47.5	44.4	45
2-11.1/2	59.3	56.2	57



**NPTF female
port (taper)**



**NPTF male
(taper)**



**NPSM swivel
nut female**



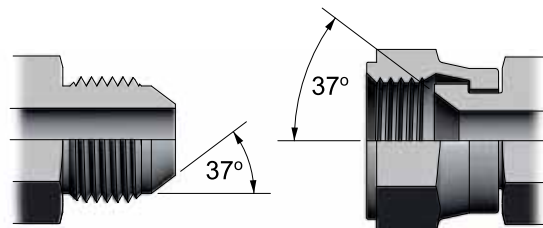
**NPSF female
port (parallel)**

J.I.C / U.N. O-RING THREAD

J.I.C. and U.N. "O"-Ring threads are both of the Unified National Form.

J.I.C. refers to the 37° flare type sealing face. The J.I.C. female is usually a swivel nut, but can also be a fixed socket (port) with a 37° sealing face in the base of the socket.

U.N. "O"-Ring refers to the thread type and "O"-Ring for sealing. The female U.N.O port has a chamfer to accept the o-ring.



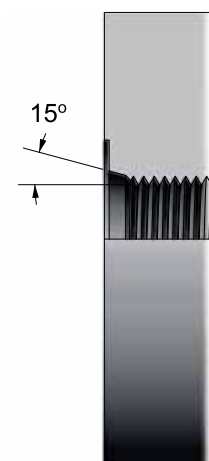
JIC male

JIC swivel
nut female

Thread Size & TPI	Female Thread I.D.	Tube O.D.	Torque Settings	
			JIC	UN"O"
7/16 x 20 UNF	9.8	1/4"	14 Nm	21 Nm
1/2 x 20 UNF	11.5	5/16"	19 Nm	25 Nm
9/16 x 18 UNF	13.0	3/8"	30 Nm	34 Nm
3/4 x 16 UNF	17.4	1/2"	50 Nm	72 Nm
7/8 x 14 UNF	20.3	5/8"	80 Nm	100 Nm
1 1/16 x 12 UN	24.8	3/4"	130 Nm	176 Nm
1 3/16 x 12 UN	28.2	7/8"	140 Nm	220 Nm
1 5/16 x 12 UN	31.2	1"	156 Nm	290 Nm
1 5/8 x 12 UN	39.2	1.1/4"	188 Nm	350 Nm
1 7/8 x 12 UN	45.5	1.1/2"	268 Nm	460 Nm
2 1/2 x 12 UN	61.5	2"	346 Nm	540 Nm



UNO male



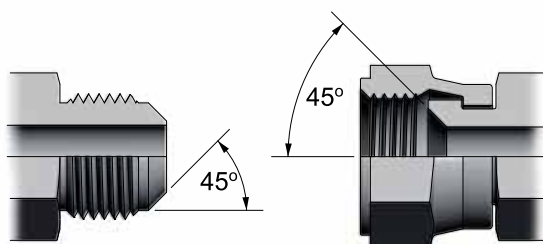
UNO female
port
(chamfered)

N.B. Torque values are nominal and supplied as a guide only.

S.A.E. - SOCIETY OF AUTOMOTIVE ENGINEERS O.R.F.S. - O-RING FACE SEAL

This system utilises the U.N. thread series and a 45° flare sealing face. Primarily used in the automotive and refrigeration industries.

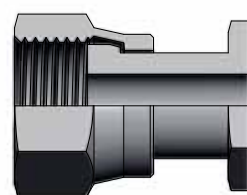
This system uses an "O"-Ring for sealing. The "O"-Ring is housed in the face of the male and is compressed by the face of the female on connection. Connecting threads are U.N. form.



SAE male

SAE swivel
nut female

ORFS male

ORFS swivel
nut female

Thread Size & TPI	Tube O.D.	Female Thread I.D.
7/16-20	1/4"	9.8
1/2-20	5/16"	11.4
5/8-18	3/8"	14.3
11/16-16	7/16"	16
3/4-16	1/2"	17.5
7/8-14	5/8"	20.5
1.1/16-14	3/4"	24.8
1.1/4-12	7/8"	30.1
1.3/8-12	1"	33.2

Thread Size & TPI	Female Thread I.D.	Tube O.D.	"O"-ring size	Torque Settings *
9/16-18 UNF	12.8	1/4"	5/16x1/16	14-16 Nm
11/16-16 UN	16.0	3/8"	3/8x1/16	24-27 Nm
13/16-16 UN	19.1	1/2"	1/2x1/16	43-47 Nm
1-14 UN	23.5	5/8"	5/8x1/16	60-69 Nm
1.3/16-12UN	26.1	3/4"	3/4x1/16	90-95 Nm
1.7/16-12 UN	34.2	1"	15/16x1/16	125-135 Nm
1.11/16-12 UN	40.6	1.1/4"	1.3/16x1/16	170-190 Nm
2-12 UN	48.0	1.1/2"	1.1/2x1/16	200-225 Nm

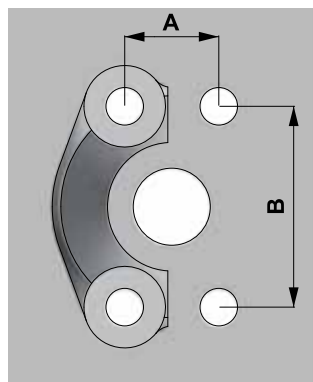
N.B. Torque values are nominal and supplied as a guide only.

S.A.E. O-RING FLANGES (SAE - J518)

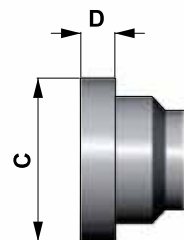
These connections utilise an “O”-Ring for sealing and are widely used for connecting to pump and motor parts as well as end terminations for pipe runs.

The “O”-Ring is housed in the flange head face and seals on a flat face female port, the flange is held in place by two clamp halves (or a one piece clamp) which are secured by four bolts.

SAE flanges are available in two pressure classes: **Standard Series, Code 61**, which goes to 5000 psi (dependent on size), and the **High Pressure Series, Code 62**, which is rated to 6000 psi for all sizes.



**SAE flange
clamp / port
bolt spacing**



**SAE flange
head
dimensions**

Nominal Flange Size	A (mm)		B (mm)		C (mm)		D (mm)	
	Code 61	Code 62	Code 61	Code 62	Code 61	Code 62	Code 61	Code 62
1/2	17.48	18.24	38.1	40.49	30.18	31.75	6.75	7.75
*5/8	19.8	-	42.90	-	34.0	-	6.73	-
3/4	22.23	23.80	47.63	50.80	38.10	41.28	6.73	8.76
1	26.19	27.76	52.37	57.15	44.45	47.63	8.0	9.53
1.1/4	30.18	31.75	58.72	66.68	50.80	53.98	8.0	10.29
1.1/2	35.71	36.50	69.85	79.38	60.33	63.50	8.0	12.57
2	42.88	44.45	77.77	96.82	71.42	79.38	9.53	12.57

Nominal Flange Size	Pressure Rating		"O"-ring size		UNC Bolt size		Bolt torque	
	Code 61	Code 62	Code 61 and 62	AS568A number	Code 61	Code 62	Code 61	Code 62
1/2	5000 psi	6000 psi	3/4x1/8	210	5/16x1.1/4	5/16x1.1/4	20-25 Nm	20-25 Nm
3/4	5000 psi	6000 psi	1x1/8	214	3/8x1.1/4	3/8x1.1/2	28-40 Nm	34-45 Nm
1	5000 psi	6000 psi	1.5/16x1/8	219	3/8x1.1/4	7/16x1.3/4	37-48 Nm	56-68 Nm
1.1/4	4000 psi	6000 psi	1.1/2x1/8	222	7/16x1.1/2	1/2x1.3/4	48-62 Nm	85-102 Nm
1.1/2	3000 psi	6000 psi	1.7/8x1/8	225	1/2x1.1/2	5/8x2.1/4	62-79 Nm	158-181 Nm
2	3000 psi	6000 psi	2.1/4x1/8	228	1/2x1.1/2	3/4x2.3/4	73-90 Nm	271-294 Nm

**The 5/8* size flange is not part of the SAE standard. It is included in the J.I.S. standards and is used by Komatsu and other O.E.M's.*

N.B. Torque values are nominal and supplied as a guide only

Caterpillar flanges used on XT3 hose are the same as the SAE Code 61, XT5 flanges have the same diameter as the SAE Code 62 but are thicker in the flange head.

French Gaz (Poclain) flanges are completely different to, and will not interchange with the SAE flanges.

J.I.S. - JAPANESE INDUSTRIAL STANDARDS

Japanese Industrial Standards (J.I.S.) incorporate B.S.P. and metric threads as well as flanges in their connection standards.

Taper Threads:

Type R; BSPT Male (*Identical to BSP standard*)

Parallel Threads:

Type G; BSPP Male (*Identical to BSP standard*)

Type C; BSPP Swivel Nut Female (*Identical to BSP standard - for thread data please refer to BSPP section*)

Type F; BSPP Swivel Nut Female, 30° Flare Seat

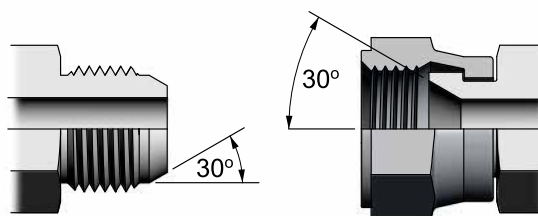
Type M; Metric, Male, 30° Cone

Type MF; Metric, Swivel Nut Female, 30° Flare Seat

“O”-Ring Flanges:

Type I; Equivalent to Code 61 (*Identical to SAE standard*)

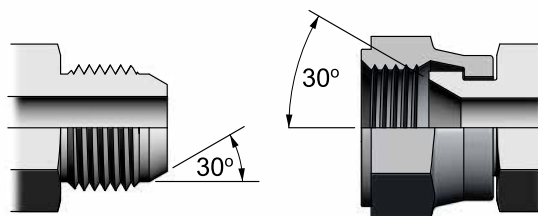
Type II; Equivalent to Code 62 (*Identical to SAE standard*)



Type F JIS male

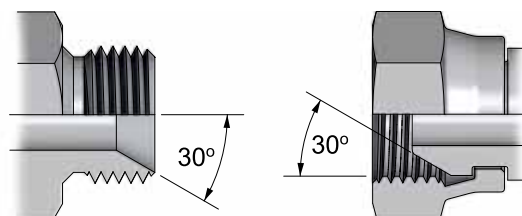
For thread data please refer to BSPP section

Type F JIS swivel nut female



Type MF JIS male

Type MF JIS swivel nut female



Type M JIS male

Type M JIS swivel nut female

THREAD SPECIFICATIONS			
Metric Threads (J.I.S)		Komatsu Threads (Metric)	
14-1.5*	12.5	14-1.5*	12.5
18-1.5*	16.5	18-1.5*	16.5
22-1.5*	20.5	22-1.5*	20.5
27-2.0	25	24-1.5	22.5
33-2.0	31	30-1.5	28.5
42-2.0	40	33-1.5	31.5
50-2.0	48	36-1.5	34.5
60-2.0	58	42-1.5	40.5

* denotes interchange sizes between JIS and Komatsu.

D.I.N. METRICS 24° CONE SYSTEM

The D.I.N. System allows for the connection of hose assemblies and tube in three main pressure series:

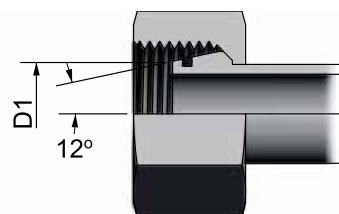
Series LL;	Extra Light, up to 100 bar
Series L;	Light up to 250 bar
Series S;	Heavy up to 640 bar

The pressure ranges are determined by the tube O.D. and the thread size e.g. a 12mm light coupling has an 18mm thread O.D. whereas a 12mm heavy coupling has a 20mm O.D. thread.

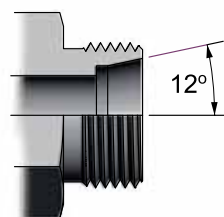
N.B: Rated coupling pressures are subject to the design pressures of the tube or hose being used.

Tubing is connected to the D.I.N. Male by the use of a cutting ring and nut. Hose assemblies can be connected by swivel nut females having either a spherical seal, 24° cone seal (can be fitted with "O"-Ring), or a standpipe with cutting ring and nut. Hose can also be connected directly to tube by use of a hose tail with the D.I.N. Male form

The male form will accept all three female styles shown (right).



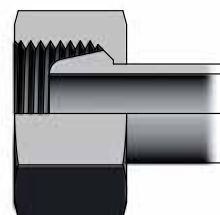
DIN 24° cone female with o-ring



DIN 24° cone male



DIN cutting ring and nut on tube



DIN female swivel nut with spherical seat

THREAD SPECIFICATIONS LIGHT (L) SERIES			
Thread O.D. & Pitch	Female Thread I.D.	Diameter D1 (mm)	Tube O.D.(mm)
M12-1.5	10.5	7.2	6
M14-1.5	12.5	9.2	8
M16-1.5	14.5	11.6	10
M18-1.5	16.5	13.8	12
M22-1.5	20.5	16.8	15
M26-1.5	24.5	19.8	18
M30-2.0	28	23.8	22
M36-2.0	34	29.8	28
M45-2.0	43	37.2	35
M52-2.0	50	44.2	42

THREAD SPECIFICATIONS HEAVY (S) SERIES			
Thread O.D. & Pitch	Female Thread I.D.	Diameter D1 (mm)	Tube O.D.(mm)
M14-1.5	12.5	7.2	6
M16-1.5	14.5	9.2	8
M18-1.5	16.5	11.6	10
M20-1.5	18.5	13.8	12
M22-1.5	20.5	15.8	14
M24-1.5	22.5	17.8	16
M30-2.0	28	22	20
M36-2.0	34	27	25
M42-2.0	40	32	30
M52-2.0	50	40	38

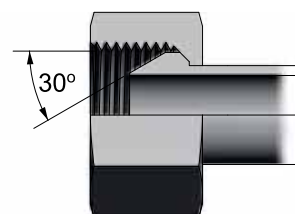
* N.B. Diameter D1 is nominal and may vary between manufacturers.

D.I.N. METRICS 60° CONE SYSTEM

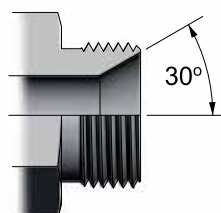
This series utilises a 60° cone seating angle and is used for the connection of hose assemblies and tube. It differs from the 24° series in that the threads are predominately 1.5mm pitch and there is no light or heavy pressure ranges.

The D.I.N. 60° male will accept the universal (spherical seat) female, a 60° coned female and tube fitted with a cutting ring and nut.

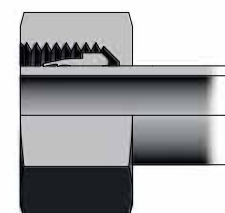
THREAD SPECIFICATIONS		
Thread O.D. & Pitch	Female Thread I.D.	Tube O.D.(mm)
M10-1.0	9.0	5
M12-1.5	10.5	6
M14-1.5	12.5	8
M16-1.5	14.5	10
M18-1.5	16.5	12
M22-1.5	20.5	15
M26-1.5	24.5	18
M30-1.5	28.5	22
M38-1.5	36.5	28
M45-1.5	43.5	35
M52-2.0	56.5	42



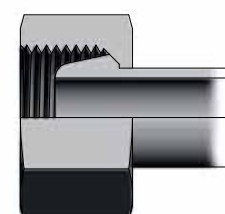
DIN 60° cone female



DIN 60° cone male



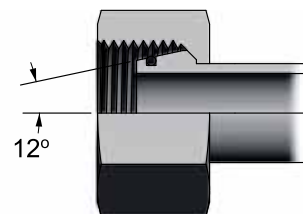
DIN cutting ring and nut on tube



DIN female swivel nut with spherical seat

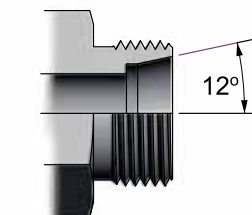
I.S.O. METRICS (INTERNATIONAL STANDARDS ORGANISATION)

The I.S.O. series of couplings is similar to the D.I.N. light and heavy in function. The male has a 24° included angle sealing cone and a recessed counter bore for locating the tube when used in conjunction with a cutting ring and nut. The male will also accept a swivel nut female with either a cone or a spherical seal.

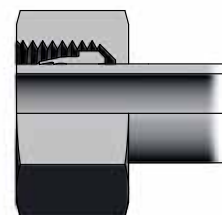


**ISO (24° cone)
female with o-ring**

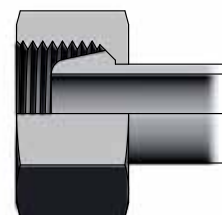
THREAD SPECIFICATIONS		
Thread O.D. & Pitch	Female Thread I.D.	Tube O.D.(mm)
M12-1.0	11.0	6
M14-1.5*	12.5	8
M16-1.5*	14.5	10
M18-1.5*	16.5	12
M20-1.5	18.5	14
M22-1.5*	20.5	15
M24-1.5**	22.5	16
M27-1.5	25.5	18
M30-1.5	28.5	22
M33-1.5	31.5	25
M36-1.5	34.5	28
M39-1.5	37.5	30
M42-1.5	40.5	32
M45-1.5	43.5	35
M48-1.5	46.5	38
M52-1.5	50.5	40



**ISO (24° cone)
male**



**ISO cutting ring and
nut on tube**



**ISO female swivel
nut with spherical
seat**

* Interchange with D.I.N. Light

** Interchange with D.I.N. Heavy

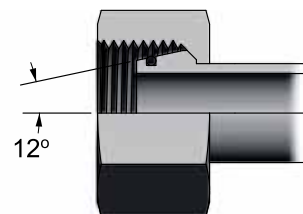
FRENCH METRICS (GAZ & MILLIMETRIQUE SERIES)

The series are similar to the D.I.N. 24° type where the male has a 24° included angle sealing cone and a recessed counterbore for locating the tube.

The male will accept a cutting ring and nut for use with tube or a swivel nut female with either a cone or spherical seal.

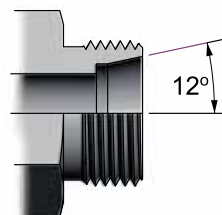
The Gaz and Millimetrique series are identical in all respects except for the O.D. of the tube:

- Gaz series uses fractional number O.D. metric tubing.
- Millimetrique series uses whole number O.D. metric tubing.

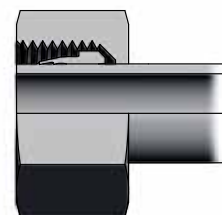


French 24° cone female with o-ring

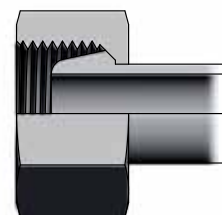
THREAD SPECIFICATIONS LIGHT (L) SERIES			
Thread O.D. & Pitch	Female Thread I.D.	Diameter	
		GAZ	Millimetrique
M12-1.0	11.0	-	6
M14-1.5	12.5	-	8
M16-1.5	14.5	-	10
M18-1.5	16.5	-	12
M20-1.5	18.5	13.25	14
M22-1.5	20.5	-	15
M24-1.5	22.5	16.75	16
M27-1.5	25.5	-	18
M30-1.5	28.5	21.25	22
M33-1.5	31.5	-	25
M36-1.5	34.5	26.75	28
M39-1.5	37.5	-	30
M42-1.5	40.5	-	32
M45-1.5	43.5	33.5	35
M48-1.5	46.5	-	38
M52-1.5	50.5	42.25	40
M54-2.0	52.0	-	45
M58-2.0	56.0	48.25	-



French 24° cone male



Cutting ring and nut on tube

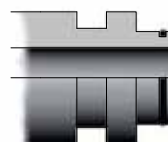


French female swivel nut with spherical seat

STAPLE-LOK COUPLINGS

Originally designed in Germany for underground mining equipment, the Staple-lok requires no spanners for connection or disconnection. The male and female are pushed together and held with a retaining staple or "U" clip.

Sealing is achieved by the captive "O"-Ring located on the male spigot. The female can either be fixed or swivel type. The coupling is not designed to swivel under pressure.

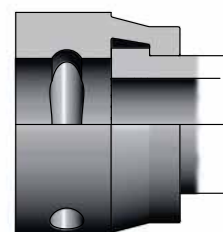


Staple-lok male



Staple-lok fixed female

Coupling Dash Size	Imperial Size	Male O.D.		Female I.D.	
		inch	mm	inch	mm
-4	1/4	0.58	14.8	.59	15.0
-6	3/8	0.78	19.8	.79	20.0
-8	1/2	0.94	23.9	.95	24.1
-12	3/4	1.13	28.8	1.14	29.0
-16	1	1.53	38.9	1.54	39.1
-20	1.1/4	1.80	45.7	1.81	46.0
-24	1.1/2	2.16	54.9	2.17	55.1
-32	2	2.52	64.0	2.53	64.3



Staple-lok swivel female

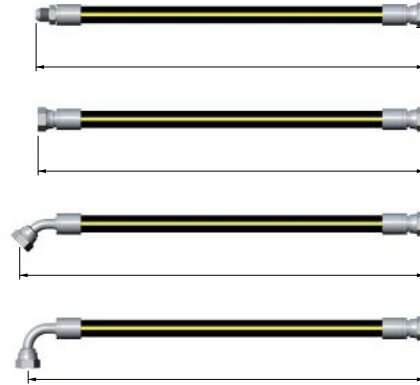


Staple-lok staple

STRAIGHT HOSE ASSEMBLY LENGTH

Overall hose assembly lengths are determined by measuring the centreline length between the coupling end faces for straight couplings, or through the sealing face centreline for angled couplings (examples to right).

Sufficient length allowance should be made to compensate for hose contraction and expansion under operating procedures.



BENT HOSE ASSEMBLY LENGTH

For installations that require a 180° bend in the hose assembly, the overall length can be calculated as follows:

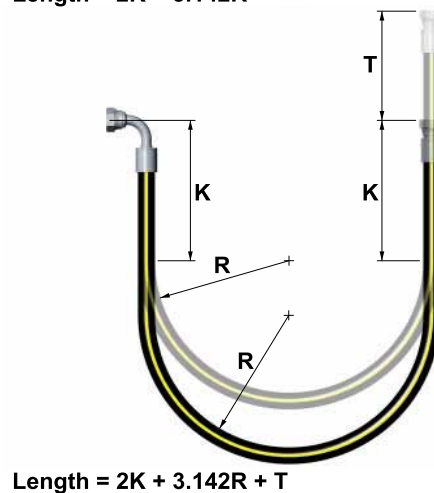
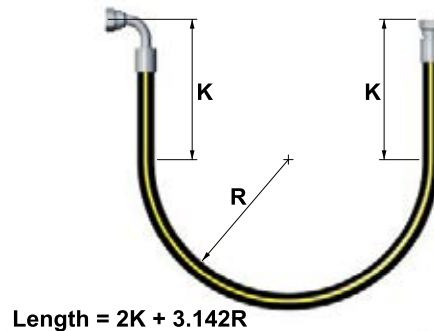
Static Installations

To avoid localised concentration of bending strain on the hose couplings, a free distance (K) of hose should be designed into the length of each assembly. Distance "K" includes length of coupling and adaptor (if used). Dimension "R" should not be less than the manufacturer's recommended bend radius for the hose used. Refer to chart below for "K" dimensions of hoses with I.D. from 3/16" to 2".

Hose I.D.	3/16	1/4	5/16	3/8	1/2	5/8	3/4	1	1.1/4	1.1/2	2
K (mm)	110	130	130	160	180	210	210	260	260	260	310

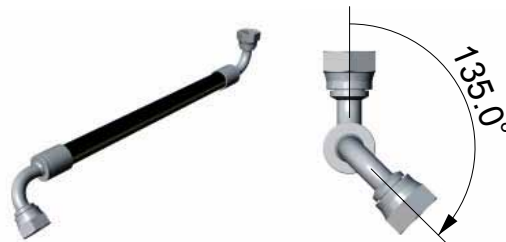
Dynamic Installations

When a hose assembly is subjected to relative motion between the two end couplings, additional hose length is required to accommodate the travel distance. In the diagram (right) "T" represents the amount of travel.



Off-Set Angle Measurement

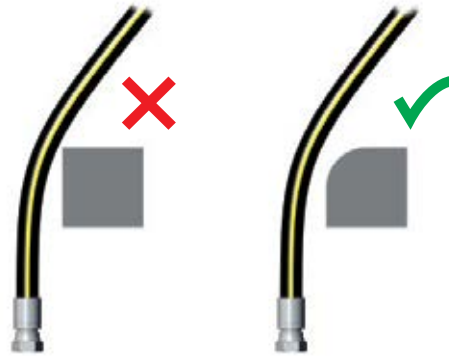
Place hose assembly in line of sight position with coupling furthest away facing upwards. Determine off-set angle by comparing relative position of closest coupling to the far coupling in a clockwise direction.



1. Hose Protection

Protect the hose cover from damage such as abrasion, erosion, snagging, and cutting. Where possible, route hose to reduce abrasion from hose rubbing other hose or objects that may abrade it (Fig. 1). Special abrasion-resistant hoses and hose guards are available for additional protection. Special consideration may also need to be given to hose assemblies near heat sources.

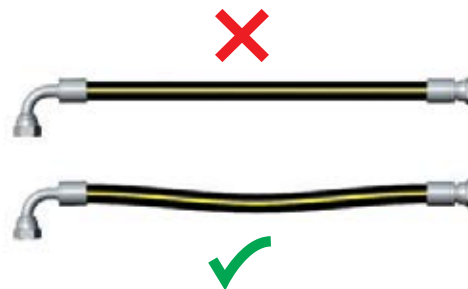
Fig. 1



2. Hose And Machine Tolerances

Avoid tension on hose assemblies and adaptors. Design hose to allow for changes in length due to machine motion and tolerances (Fig. 2). Failure to do so may result in seal or assembly failure.

Fig. 2



3. Torsional Twist

Do not transfer torque to hose while installing. This transfer of torque can result in torsional twist, which may result in premature hose assembly failure. Use swivel type couplings or adaptors for ease of alignment as needed to prevent twisting during installation. Use the brand lay-line as a guide to ensure the hose is not pre-loaded with torsional twist when installed (Fig. 3).

Fig. 3



4. Minimum Bend Radius

The minimum bend radius for hose supplied by Hydraulink is detailed in this catalogue. Routing at less than minimum bend radius is not recommended and may reduce hose life.

Prevent sharp bending at the hose/fitting juncture (Fig. 4a). Unnecessary stress at this point may result in leaking, hose rupturing, or the hose assembly blowing apart.

Stress at this point can be minimised by ensuring adequate hose length (Fig. 4b), or by use of angled adaptors and couplings (Fig 4c).

Fig. 4a

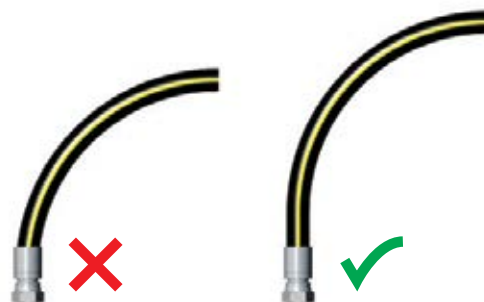


Fig. 4b

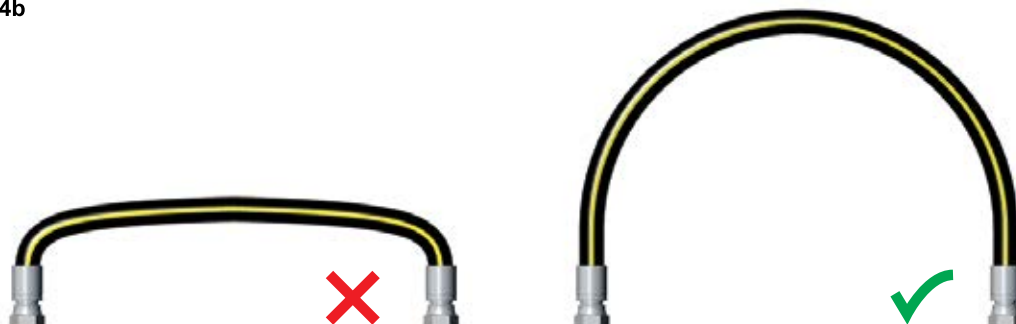


Fig. 4c



5. Hose Length Change

Hydraulic hose can expand longitudinally when pressurised, and this hose length change must be considered when specifying or installing hose assemblies (Fig. 5) When clamping hose lengths, always place clamps to avoid stressing the fitting end.

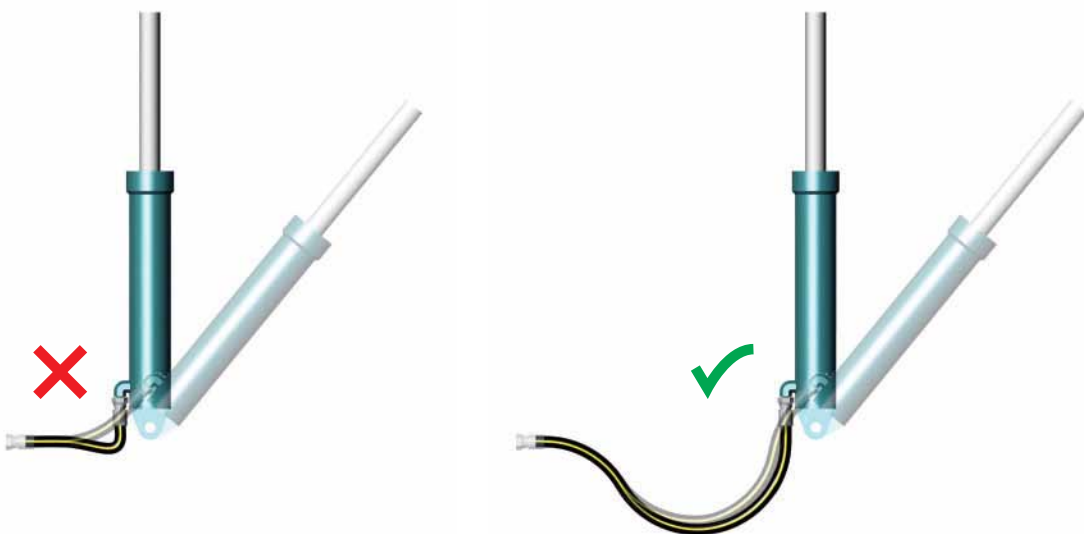
Fig. 5



6. Relative Movement

When specifying or installing hoses that have movement relative to each other, provide adequate hose length to absorb the required movement and prevent bends occurring that are smaller than the minimum bend radius (Fig. 6a).

Fig. 6a



SLIMLINE WIRE BRAID HOSE

H17

R17 ONE/TWO WIRE BRAID HOSE

BRAIDED WIRE REINFORCED HOSE - SAE 100R17

- Due to manufacturing tolerances, the external dimension is an average.
- Recommended for: Medium pressure hydraulic applications.
- Suitable for: Mineral & vegetable oils, water-based solutions, water, air & inert gases.
- Internal tube: Synthetic rubber.
- Reinforcement: One high-tensile steel braid for sizes -04, -06, -08 and two high-tensile steel braids for sizes -12, -16:
- External cover: Weather & high abrasion resistance synthetic rubber. MSHA approved.
- Temperature range: -40°C to 100°C (125°C discontinuous)
- Standards: SAE 100R17.
- Characteristics: Compact construction, extra flexible.



Part Number	Internal Size	Internal Diameter - DN	Internal Diameter - inches	External Diameter - mm	Working Pressure - psi	Working pressure - bar	Min burst pressure - psi	Min burst pressure - bar	Min bend radius - mm
H17-04ST	04	6	1/4	12.3	3000	210	12000	840	50
H17-05ST	05	8	5/16	14.0	3000	210	12000	840	55
H17-06ST	06	10	3/8	15.9	3000	210	12000	840	65
H17-08ST	08	12	1/2	19.1	3000	210	12000	840	90
H17-12ST	12	19	3/4	28.0	3000	210	12000	840	100
H17-16ST	16	25	1	35.3	3000	210	12000	840	150

H16

R16 TWO WIRE BRAID HOSE

BRAIDED WIRE REINFORCED HOSE - SAE 100R16

- Due to manufacturing tolerances, the external dimension is an average.
- Recommended for: medium pressure hydraulic applications.
- Suitable for: Mineral & vegetable oils, water-based solutions, water, air & inert gases.
- Internal tube: Synthetic rubber.
- Reinforcement: Two high-tensile steel braids.
- External cover: H.A.R.C weather & high abrasion resistance synthetic rubber. MSHA approved.
- Temperature range: -40°C to 100°C (125°C discontinuous)
- Standards: Meets or exceeds SAE 100R16, EN857 2SC.
- Characteristics: Compact construction, extra flexible.



Part Number	Internal Size	Internal Diameter - DN	Internal Diameter - inches	External Diameter - mm	Working Pressure - psi	Working pressure - bar	Min burst pressure - psi	Min burst pressure - bar	Min bend radius - mm
H16-04ST	04	6	1/4	13.2	6100	420	24400	1680	45
H16-06ST	06	10	3/8	16.7	5100	350	20400	1400	65
H16-08ST	08	12	1/2	20.1	5100	350	20400	1400	90

H19

R19 TWO WIRE BRAID HOSE

BRAIDED WIRE REINFORCED HOSE - SAE 100R19

- Due to manufacturing tolerances, the external dimension is an average.
- Recommended for: Medium pressure hydraulic applications.
- Suitable for: Mineral & vegetable oils, water-based solutions, water, air & inert gases.
- Internal tube: Synthetic rubber.
- Reinforcement: One high-tensile steel braid for sizes -04, -06 -08 & -10 and two high-tensile steel braids for sizes -12 & -16.
- External cover: Weather & high abrasion resistance synthetic rubber. MSHA approved.
- Temperature range: -40°C to 100°C (125°C discontinuous)
- Standards: SAE 100R19.
- Characteristics: Compact construction, extra flexible.



Part Number	Internal Size	Internal Diameter - DN	Internal Diameter - inches	External Diameter - mm	Working Pressure - psi	Working pressure - bar	Min burst pressure - psi	Min burst pressure - bar	Min bend radius - mm
D19-10ST	10	16	5/8	23.8	4100	280	16400	1120	100
H19-12ST	12	19	3/4	27.8	4100	280	16400	1120	120

MULTISPIRAL HOSE

HX6K

FOUR/SIX SPIRAL WIRE HOSE

SPIRALLED WIRE REINFORCED HOSE - SAE 100 R15



- Due to manufacturing tolerances, external dimension is an average.
- Recommended for: Extremely high pressure and high impulse hydraulic applications.
- Suitable for: Conveying mineral & vegetable oils, water-based solutions, water, air & inert gases.
- Internal tube: Synthetic rubber.
- Reinforcement: Four (six for -20, -24) alternating layers of spiralled, high tensile steel wires.
- External cover: Weather & abrasion resistant synthetic rubber. MSHA approved.
- Temperature range: -40°C to +121°C (125°C discontinuous)
- Standards: Hydraulink proprietary. Exceeds SAE 100 R15.
- Characteristics: Extra flexible, 1/2 SAE bend radius

Part Number	Internal Size	Internal Diameter - DN	Internal Diameter - Inches	External Diameter - mm	Working Pressure - psi	Working pressure - bar	Min burst pressure - psi	Min burst pressure - bar	Min bend radius - mm
HX6K-06	06	10	3/8	20	6100	420	24400	1680	65
HX6K-08	08	12	1/2	23	6100	420	24000	1680	90
HX6K-10	10	16	5/8	26.6	6100	420	24000	1680	100
HX6K-12	12	19	3/4	30.6	6100	420	24000	1680	120
HX6K-16	16	25	1	37.8	6100	420	24000	1680	165
HX6K-20	20	32	1 1/4	49.3	6100	420	24000	1680	300
HX6K-24	24	38	1 1/2	57	6100	420	24000	1680	350

HX4K

FOUR SPIRAL WIRE HOSE

SPIRALED WIRE REINFORCED HOSE - SAE 100 R12

- Due to manufacturing tolerances, external dimension is an average.
- Recommended for: Very high pressure hydraulic applications.
- Suitable for: Mineral & vegetable oils, water-based solutions, water, air & inert gases.
- Internal tube: Synthetic rubber
- Reinforcement: Four alternating layers of spiralled, high tensile steel wires.
- External cover: Weather and abrasion resistant synthetic rubber. MSHA approve.
- Temperature range: -40°C to +121°C (125°C discontinuous)
- Standards: Hydraulink proprietary. Exceeds EN 856 R12. SAE 100 R12.
- Characteristics: Extremely flexible, 1/2 SAE bend radius.



Part Number	Internal Size	Internal Diameter - DN	Internal Diameter - Inches	External Diameter - mm	Working Pressure - psi	Working pressure - bar	Min burst pressure - psi	Min burst pressure - bar	Min bend radius - mm
HX4K-06	06	10	3/8	19.7	4100	280	16400	1120	65
HX4K-08	08	12	1/2	22.7	4100	280	16400	1120	90
HX4K-10	10	16	5/8	26.3	4100	280	16400	1120	100
HX4K-12	12	19	3/4	30	4100	280	16400	1120	120
HX4K-16	16	25	1	37	4100	280	16400	1120	150
HX4K-20	20	32	1 1/4	44.6	4100	280	16400	1120	210
HX4K-24	24	38	1 1/2	51.6	4100	280	16400	1120	290

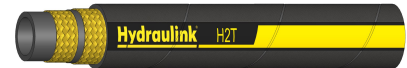
WIRE BRAID HOSE - 1SN/2SN

H2T

TWO WIRE BRAID HOSE

BRAIDED WIRE REINFORCED HOSE - EN 853 2SN

- Due to manufacturing tolerances, the external dimension is an average.
- Recommended for: High to medium pressure hydraulic applications.
- Suitable for: Mineral & vegetable oils, water-based solutions, water, air & inert gases.
- Internal tube: Synthetic rubber.
- Reinforcement: Two high tensile steel wire braids.
- External cover: Weather & abrasion resistant synthetic rubber. MSHA approved.
- Temperature range: -40°C to +100°C constant (125°C discontinuous).
- Standards: EN 853 2SN, SAE 100R2AT.



Part Number	Internal Size	Internal Diameter - DN	Internal Diameter - Inches	External Diameter - mm	Working Pressure - psi	Working pressure - bar	Min burst pressure - psi	Min burst pressure - bar	Min bend radius - mm
D2T-05	05	8	5/16	16	5100	350	20400	1400	115
H2T-04	04	6	1/4	14.3	5800	400	23200	1600	100
H2T-06	06	10	3/8	18.4	4800	330	19200	1320	125
H2T-08	08	12	1/2	21.3	4000	275	16000	1100	180
H2T-10	10	16	5/8	24.7	3600	250	14400	1000	205
H2T-12	12	19	3/4	28.6	3100	215	12400	860	240
H2T-16	16	25	1	37.2	2400	165	9600	660	300
H2T-20	20	32	1 1/4	46.7	1800	125	7200	500	420
H2T-24	24	38	1 1/2	53.7	1300	90	5200	360	500

H1T

ONE WIRE BRAID HOSE

BRAIDED WIRE REINFORCED HOSE - EN853 1SN

- Due to manufacturing tolerances, the external dimension is an average.
- Recommended for: Medium pressure hydraulic applications.
- Suitable for: Mineral & vegetable oils, water-based solutions, water, air & inert gases.
- Internal tube: Synthetic rubber.
- Reinforcement: One high-tensile steel braid.
- External cover: Weather & abrasion resistant synthetic rubber. MSHA approved.
- Temperature range: -40°C to 100°C (125°C discontinuous)
- Standards: EN 853 1SN, SAE 100R1AT.



Part Number	Internal Size	Internal Diameter - DN	Internal Diameter - inches	External Diameter - mm	Working Pressure - psi	Working pressure - bar	Min burst pressure - psi	Min burst pressure - bar	Min bend radius - mm
D1T-32	32	51	2	63.9	580	40	2320	160	630
H1T-04	04	6	1/4	12.8	3250	225	13000	900	100
H1T-06	06	10	3/8	16.9	2600	180	10400	720	125
H1T-08	08	12	1/2	19.9	2300	160	9200	640	180
H1T-12	12	19	3/4	27.1	1500	105	6000	420	240
H1T-16	16	25	1	35.1	1300	87	5200	348	300
H1T-20	20	32	1 1/4	42.5	900	62	3600	248	450
H1T-24	24	38	1 1/2	49.8	725	50	2900	200	500

HIGH TEMPERATURE HOSE

H2CXT

HIGH TEMP TWO WIRE BRAID HOSE

FAHRENHEIT HIGH TEMP - BRAIDED WIRE

REINFORCED HOSE - EN 857 2SC



- Due to manufacturing tolerances, the external dimension is an average.
- Recommended for: High to medium pressure hydraulic applications.
- Suitable for: Mineral & vegetable oils, diesel, water-based solutions, water, air & inert gases.
- Internal tube: Synthetic rubber.
- Reinforcement: Two high tensile steel wire braids.
- External cover: Weather & abrasion resistant synthetic rubber. MSHA approved.
- Temperature range: -40°C to +135°C constant (150°C discontinuous). Air not higher than 121°C
- Standards: EN 857 2SC, SAE J30

Part Number	Internal Size	Internal Diameter - DN	Internal Diameter - Inches	External Diameter - mm	Working Pressure - psi	Working pressure - bar	Min burst pressure - psi	Min burst pressure - bar	Min bend radius - mm
H2CXT-04	04	6	1/4	13.4	5800	400	23200	1600	50
H2CXT-06	06	10	3/8	17.3	4800	330	19200	1320	65
H2CXT-08	08	12	1/2	20.5	4000	275	16000	1100	90
H2CXT-10	10	16	5/8	24.2	3600	250	14400	1000	100
H2CXT-12	12	19	3/4	27.8	3100	215	12400	860	120
H2CXT-16	16	25	1	34.7	2400	165	9600	660	150
H2CXT-20	20	32	1 1/4	43.3	1800	125	7200	500	210
H2CXT-24	24	38	1 1/2	49.6	1300	90	5200	360	300

PRESSURE WASHER HOSE

HJW250

PRESSURE WASHER HOSE 250 BAR BRAIDED WIRE REINFORCED HOSE

- Due to manufacturing tolerances, the external dimension is an average.
- Suitable for: Water, water-soap, emulsion.
- Internal tube: Synthetic rubber.
- Reinforcement: One high-tensile steel braid.
- External cover: Weather & high abrasion resistance synthetic rubber. Blue cover.
- Temperature range: -40°C to +150°C.
- Standards: Proprietary.
- Characteristics: Compact construction, extra flexible.



Part Number	Internal Size	Internal Diameter - DN	Internal Diameter - inches	External Diameter - mm	Working Pressure - psi	Working pressure - bar	Min burst pressure - psi	Min burst pressure - bar	Min bend radius - mm
HJW250-04	04	6	1/4	12.8	3625	250	14500	1000	100
HJW250-04 B	04	6	1/4	12.8	3625	250	14500	1000	100
HJW250-06	06	10	3/8	16.9	3625	250	14500	1000	120
HJW250-06 B	06	10	3/8	16.9	3625	250	14500	1000	120

HJW400

PRESSURE WASHER HOSE 400 BAR BRAIDED WIRE REINFORCED HOSE

- Due to manufacturing tolerances, the external dimension is an average.
- Suitable for: Water, water-soap, emulsion.
- Internal tube: Synthetic rubber.
- Reinforcement: Two high-tensile steel braids.
- External cover: Weather & high abrasion resistance synthetic rubber. Blue cover.
- Temperature range: -40°C to +150°C.
- Standards: Proprietary.
- Characteristics: Compact construction, extra flexible.



Part Number	Internal Size	Internal Diameter - DN	Internal Diameter - inches	External Diameter - mm	Working Pressure - psi	Working pressure - bar	Min burst pressure - psi	Min burst pressure - bar	Min bend radius - mm
HJW400-06	06	10	3/8	17.5	5800	400	23200	1600	80
HJW400-06 B	06	10	3/8	17.5	5800	400	23200	1600	80
HJW400-08	08	12	1/2	20.9	5800	400	23200	1600	100

JACKING HOSE

DSJ

TWO WIRE BRAID JACKING HOSE

BRAIDED WIRE REINFORCED JACK HOSE

- Due to manufacturing tolerances, the external dimension is an average.
- Static (non-impulse) pressure rating for hydraulic jack applications only, reduced safety factor (2:1)
- Recommended for: Hydraulic jack applications.
- Suitable for: Mineral & vegetable oils.
- Internal tube: Synthetic rubber.
- Reinforcement: Two high-tensile steel braids.
- External cover: Weather & high abrasion resistance synthetic rubber. MSHA approved.
- Temperature range: -40°C to +100°C (150°C discontinuous)
- Standards: Proprietary. (Meets performance requirements of former IJ100 standard)
- Characteristics: Compact construction.



Part Number	Internal Size	Internal Diameter - DN	Internal Diameter - inches	External Diameter - mm	Working Pressure - psi	Working pressure - bar	Min burst pressure - psi	Min burst pressure - bar	Min bend radius - mm
DSJ-04	04	6	1/4	13.3	10000	700	20000	1400	50
DSJ-06	06	10	3/8	17.3	10000	700	20000	1400	65

PILOT LINE HOSE

H1PL

ONE WIRE BRAID HOSE

PILOT LINE HOSE WITH EMBOSSED LAYLINE

- Due to manufacturing tolerances, the external dimension is an average.
- Recommended for: Pilot line applications.
- Suitable for: Mineral & vegetable oils, water-based solutions, water, air & inert gases.
- Internal tube: Synthetic rubber.
- Reinforcement: One high-tensile steel braid.
- External cover: Weather & abrasion resistant synthetic rubber. MSHA approved.
- Temperature range: -40°C to 100°C (125°C discontinuous)
- Standards: EN 853 1SN, SAE 100R1AT.



Part Number	Internal Size	Internal Diameter - DN	Internal Diameter - inches	External Diameter - mm	Working Pressure - psi	Working pressure - bar	Min burst pressure - psi	Min burst pressure - bar	Min bend radius - mm
H1PL-04	04	6	1/4	11.5	1750	120	7000	480	25
H1PL-06	06	10	3/8	14.8	1450	100	5800	400	40

ENDURO MULTISPIRAL HOSE

ENDURO6000

ENDURO ST COVER - FOUR/SIX SPIRAL WIRE HOSE
SPIRALLED WIRE REINFORCED HOSE - SAE 100
R15 - MILLION IMPULSE CYCLES

- Comes with SuperTuff (ST) cover for increased protection against abrasion in severe operating environments
- Recommended for: Extremely high pressure and high impulse hydraulic applications.
- Internal tube: Synthetic rubber, resistant against hydraulic fluids (HL, HLP, HLPD, HVLP, HFA, HFAS, HFB, HFC) and bio-degradable hydraulic fluids.
- Reinforcement: Four (six for -24) alternating layers of spiralled, high tensile steel wires.
- External cover: Weather & abrasion resistant synthetic rubber. MSHA approved.
- Temperature range: -40°C to +121°C
- Standards: ISO 18752-CC, Exceeds SAE 100 R15.
- Characteristics: Extra flexible, up to 1/2 SAE bend radius



Part Number	Internal Size	Internal Diameter - DN	Internal Diameter - Inches	External Diameter - mm	Working Pressure - psi	Working pressure - bar	Min burst pressure - psi	Min burst pressure - bar	Min bend radius - mm
ENDURO60 00-06	06	10	3/8	20.2	6100	420	24400	1680	65
ENDURO60 00-08	08	12	1/2	22.9	6100	420	24400	1680	90
ENDURO60 00-10	10	16	5/8	26.5	6100	420	24400	1680	100
ENDURO60 00-12	12	19	3/4	30.5	6100	420	24400	1680	120
ENDURO60 00-16	16	25	1	37.5	6100	420	24400	1680	150
ENDURO60 00-20	20	32	1 1/4	47.3	6100	420	24400	1680	400
ENDURO60 00-24	24	38	1 1/2	57.4	6100	420	24400	1680	460

ENDURO5000

ENDURO ST COVER - FOUR/SIX SPIRAL WIRE HOSE
SPIRALLED WIRE REINFORCED HOSE - SAE 100
R13 - MILLION IMPULSE CYCLES

- Comes with SuperTuff (ST) cover for increased protection against abrasion in severe operating environments
- Recommended for: Extremely high pressure and high impulse hydraulic applications.
- Internal tube: Synthetic rubber, resistant against hydraulic fluids (HL, HLP, HLPD, HVLP, HFA, HFAS, HFB, HFC) and bio-degradable hydraulic fluids.
- Reinforcement: Four (six for -32) alternating layers of spiralled, high tensile steel wires.
- External cover: Weather & abrasion resistant synthetic rubber. MSHA approved.
- Temperature range: -40°C to +121°C
- Standards: ISO 18752-CC Exceeds SAE 100 R13.
- Characteristics: Extra flexible, up to 1/2 SAE bend radius

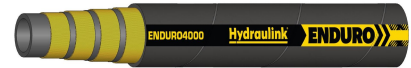


Part Number	Internal Size	Internal Diameter - DN	Internal Diameter - Inches	External Diameter - mm	Working Pressure - psi	Working pressure - bar	Min burst pressure - psi	Min burst pressure - bar	Min bend radius - mm
ENDURO50 00-06	06	10	3/8	20.2	5510	380	22040	1520	65
ENDURO50 00-08	08	12	1/2	22.9	5510	380	22040	1520	90
ENDURO50 00-10	10	16	5/8	26.5	5510	380	22040	1520	100
ENDURO50 00-12	12	19	3/4	30.5	5510	380	22040	1520	120
ENDURO50 00-16	16	25	1	37.9	5075	350	20300	1400	150
ENDURO50 00-20	20	32	1 1/4	45.9	5075	350	20300	1400	210
ENDURO50 00-24	24	38	1 1/2	53.4	5075	350	20300	1400	250
ENDURO50 00-32	32	51	2	71.5	5075	350	20300	1400	540

ENDURO4000

ENDURO ST COVER - FOUR SPIRAL WIRE HOSE
SPIRALLED WIRE REINFORCED HOSE - SAE 100
R12 - MILLION IMPULSE CYCLES

- Comes with SuperTuff (ST) cover for increased protection against abrasion in severe operating environments
- Recommended for: Extremely high pressure and high impulse hydraulic applications.
- Internal tube: Synthetic rubber, resistant against hydraulic fluids (HL, HLP, HLPD, HVLP, HFA, HFAS, HFB, HFC) and bio-degradable hydraulic fluids.
- Reinforcement: Four alternating layers of spiralled, high tensile steel wires.
- External cover: Weather & abrasion resistant synthetic rubber. MSHA approved.
- Temperature range: -40°C to +121°C
- Standards: ISO 18752-CC Exceeds SAE 100 R12.
- Characteristics: Extra flexible, up to 1/2 SAE bend radius



Part Number	Internal Size	Internal Diameter - DN	Internal Diameter - Inches	External Diameter - mm	Working Pressure - psi	Working pressure - bar	Min burst pressure - psi	Min burst pressure - bar	Min bend radius - mm
ENDURO4000-32	32	51	2	68.0	4060	280	16240	1120	390

LOW PRESSURE HOSE

HSD

SUCTION AND DELIVERY HOSE

FIBRE AND WIRE REINFORCED HOSE

- Suction and delivery hose for unleaded fuels (EN228:2017) with up to 50% aromatic content
- Suitable for industrial oils, diesel oils (EN 590:2017), fuel oils (DIN 51 603 parts 1 - 5) and mineral oil-based hydraulic oils
- Safety Factor 3:1
- Vacuum resistance up to -0.9 bar
- Internal tube: NBR, black, electrically conductive, smooth
- Reinforcement: Textile wrapped, zinc plated double steel wire helix
- External cover: SBR/EPDM, black, resistant to ozone and weather, abrasion resistant, resistant to oil (according SAE J517:2017), cloth impression.
- -40°C / +90°C, oils +100°C



Part Number	Internal Size	Internal DN	Internal Diameter (in)	External Diameter (mm)	Working Pressure (psi)	Working pressure (bar)	Min burst pressure (psi)	Min burst pressure (bar)	Min bend radius (mm)
HSD-12	12	19	3/4	29	145	10	435	30	45
HSD-16	16	25	1	35	145	10	435	30	55
HSD-20	20	31	1.1/4	42	145	10	435	30	65
HSD-24	24	38	1.1/2	48	145	10	435	30	80
HSD-32	32	51	2	61.8	145	10	435	30	130
HSD-40	40	63	2.1/2	75.5	145	10	435	30	180
HSD-48	48	76	3	88.2	145	10	435	30	350

HIGH PRESSURE HOSE

G2

TWO WIRE BRAID HOSE

BRAIDED WIRE REINFORCED HOSE - SAE 100R2

Type AT



- Due to manufacturing tolerances, the external dimension is an average.
- Recommended for: High pressure hydraulic applications.
- Internal tube: Nitrile based.
- Reinforcement: Two braids of high tensile steel wire.
- External cover: NBR/PVC based. MSHA approved.
- Temperature range: -40°C to +100°C constant and +121°C intermittent.
- Standards: SAE 100R2AT. SAE 100R2S. EN 853 2SN. ISO 1436.
- Characteristics: G2 hose is compatible with biodegradable hydraulic fluids like synthetic esters, polyglycols and vegetable oils as well as petroleum-based fluids.

Part Number	Internal Size	Internal DN	Internal Diameter - inches	External Diameter - mm	Working Pressure - psi	Working pressure - bar	Min burst pressure - psi	Min burst pressure - bar	Min bend radius - mm
6G2	06	10	3/8	18.8	4800	330	19200	1320	130
20G2	20	31	1.1/4	47.5	1825	125	7300	500	420

G2XH

HIGH TEMP. TWO WIRE BRAID HOSE
BRAIDED WIRE REINFORCED HOSE - SAE 100R2
Type S



- Due to manufacturing tolerances, the external dimension is an average.
- Recommended for: High temperature, high pressure hydraulic applications
- Internal tube: CPE based.
- Reinforcement: Two braids of high tensile steel wire.
- External cover: CSM based. MSHA approved. Blue.
- Temperature range: -40°C to +150°C.
- Standards: EN 853 2SN. SAE 100R2S - high temperature. ISO 1436.
- Characteristics: G2XH hose is compatible with biodegradable hydraulic fluids like synthetic esters, and vegetable oils as well as petroleum-based fluids.

Part Number	Internal Size	Internal DN	Internal Diameter - inches	External Diameter - mm	Working Pressure - psi	Working pressure - bar	Min burst pressure - psi	Min burst pressure - bar	Min bend radius - mm
4G2XH	04	6	1/4	15.0	6000	420	24000	1680	100
6G2XH	06	10	3/8	18.8	5000	350	20000	1400	130
8G2XH	08	12	1/2	21.8	4250	290	17000	1160	180
10G2XH	10	16	5/8	24.9	3625	250	14500	1000	200
12G2XH	12	19	3/4	29.0	3100	215	12400	860	240
16G2XH	16	25	1	37.6	2500	170	10000	680	300

M2T

TWO WIRE BRAID SLIMLINE HOSE

BRAIDED WIRE REINFORCED HOSE - SAE 100R16



- Due to manufacturing tolerances, the external dimension is an average.
- Recommended for: High pressure hydraulic applications. Easy to route and to install in tight areas.
- Internal tube: Nitrile based.
- Reinforcement: Two braids of high tensile steel wire.
- External cover: NBR/PVC based. MSHA approved. Dual green stripe layline.
- Temperature range: -40°C to +100°C.
- Standards: Gates proprietary. Exceeds SAE 100R16.
- Characteristics: M2T hose has smaller exterior dimensions and significantly tighter bend radius than specified in SAE 100R16.
- Optional: M2T-MTF: the range of M2T is also available with the Gates special MegaTuff™ cover which offers 300 times the abrasion resistance of the standard cover as per ISO 6945, superior ozone/weathering resistance - please contact Hydraulink for further details and availability.

Part Number	Internal Size	Internal DN	Internal Diameter - inches	External Diameter - mm	Working Pressure - psi	Working pressure - bar	Min burst pressure - psi	Min burst pressure - bar	Min bend radius - mm
4M2T	04	6	1/4	13.7	6000	420	24000	1680	50
6M2T	06	10	3/8	17.5	5000	350	20000	1400	65
8M2T	08	12	1/2	20.6	4300	300	7200	1200	90
10M2T	10	16	5/8	24.1	3800	260	15200	1040	100
12M2T	12	19	3/4	27.9	3500	240	14000	960	120
16M2T	16	25	1	35.1	2500	140	10000	560	680

CM2T

TWINLINE TWO WIRE BRAID HOSE

TWINLINE BRAIDED WIRE REINFORCED HOSE - SAE 100R16

- Due to manufacturing tolerances, the external dimension is an average.
- Recommended for: High pressure and return lines such as boom arm and forklift applications.
- Internal tube: Nitrile based.
- Reinforcement: Two braids of high tensile steel wire.
- External cover: NBR/PVC based. MSHA approved. Dual green stripe layline.
- Temperature range: -40°C to +100°C.
- Standards: Gates proprietary. EN 857 2SC. ISO 1436.
- Characteristics: No need to use clamps as the two lines are vulcanised together to form one single unit. CM2T twin hose is compatible with biodegradable hydraulic fluids like synthetic esters, polyglycols and vegetable oils as well as petroleum-based fluids.
- Gates recommends minimum split length of 250 mm depending on the application. Do not expose hose reinforcement when splitting hoses.



Part Number	Internal Size	Internal DN	Internal Diameter - inches	External Diameter - mm	Working Pressure - psi	Working pressure - bar	Min burst pressure - psi	Min burst pressure - bar	Min bend radius - mm
6CM2T	06	10	3/8	17.7	4800	330	19200	1320	90
8CM2T	08	12	1/2	20.8	4000	275	16000	1100	130

M4K-XTF

TWO WIRE BRAID HOSE

BRAIDED WIRE REINFORCED HOSE - 4000psi



- Due to manufacturing tolerances, the external dimension is an average.
- Recommended for: High pressure hydraulic applications. Easy to route and to install in tight areas.
- Internal tube: Nitrile based.
- Reinforcement: Two braids of high tensile steel wire.
- External cover: NBR/PVC based. MSHA approved.
- Temperature range: -40°C to +100°C constant and +121°C intermittent.
- Standards: SAE 100R19. ISO 11237-1. Meets or exceeds EN 857 2SC performance requirements.
- Characteristics: Alternative to spiral hoses in high pressure lines where flexibility is required. M4K hose is compatible with biodegradable hydraulic fluids like synthetic esters, polyglycols and vegetable oils as well as petroleum-based fluids.
- Special item - please contact Hydraulink for further details and availability.
- -XTF (XtraTuff™) hose lasts up to 25 times longer than standard hose during hose-to-hose and hose-to-metal abrasion tests per ISO 6945.

Part Number	Internal Size	Internal DN	Internal Diameter - inches	External Diameter - mm	Working Pressure - psi	Working pressure - bar	Min burst pressure - psi	Min burst pressure - bar	Min bend radius - mm
6M4K-XTF	06	10	3/8	17.5	4000	280	16000	1120	65
8M4K-XTF	08	12	1/2	20.8	4000	280	16000	1120	90
10M4K-XTF	10	16	5/8	25.0	4000	280	16000	1120	100

M3K

ONE/TWO WIRE BRAID HOSE
BRAIDED WIRE REINFORCED HOSE - SAE 100R17



- Due to manufacturing tolerances, the external dimension is an average.
- Recommended for: High pressure hydraulic applications. Easy to route and to install in tight areas.
- Internal tube: Nitrile based.
- Reinforcement: -4, -5, -6, -8: one braid of high tensile steel wire; -10, -12, -16: two braids of high tensile steel wire.
- External cover: NBR/PVC based. MSHA approved.
- Temperature range: -40°C to +100°C constant and +121°C intermittent.
- Standards: SAE 100R17. ISO 11237-1. Meets or exceeds EN 857 1SC/2SC performance requirements.
- Characteristics: M3K hose is compatible with biodegradable hydraulic fluids like synthetic esters, polyglycols and vegetable oils as well as petroleum-based fluids.
- Optional: M3K-XTF: the range of M3K is also available with the Gates special XtraTuff™ cover which offers 25 times the abrasion resistance of the standard cover as per ISO 6945, superior ozone/weathering resistance - please contact Hydraulink for further details and availability.

Part Number	Internal Size	Internal DN	Internal Diameter - inches	External Diameter - mm	Working Pressure - psi	Working pressure - bar	Min burst pressure - psi	Min burst pressure - bar	Min bend radius - mm
4M3K	04	6	1/4	12.2	3000	210	12000	840	50
6M3K	06	10	3/8	16.0	3000	210	12000	840	65
8M3K	08	12	1/2	20.2	3000	210	12000	840	90
10M3K	10	16	5/8	25.2	3000	210	12000	840	100
12M3K	12	19	3/4	29.0	3000	210	12000	840	120
16M3K	16	25	1	37.7	3000	210	12000	840	150

J2AT

TWO WIRE BRAID JACK HOSE

BRAIDED WIRE REINFORCED JACK HOSE



- Due to manufacturing tolerances, the external dimension is an average.
- Static (non-impulse) pressure rating for hydraulic jack applications only.
- Recommended for: Hydraulic jack applications. Meets Material Handling Institute specification IJ 100 for hydraulic hose and assemblies used with jacking systems.
- Internal tube: Nitrile based.
- Reinforcement: Two braids of high tensile steel wire.
- External cover: NBR/PVC based. MSHA approved.
- Temperature range: -40°C to +49°C constant.
- Standards: Gates proprietary.

Part Number	Internal Size	Internal DN	Internal Diameter - inches	External Diameter - mm	Working Pressure - psi	Working pressure - bar	Min burst pressure - psi	Min burst pressure - bar	Min bend radius - mm
4J2AT	04	6	1/4	15.0	10000	690	20000	1380	100
6J2AT	06	10	3/8	18.8	10000	690	20000	1380	130

MEDIUM PRESSURE HOSE

G1

ONE WIRE BRAID HOSE

BRAIDED WIRE REINFORCED HOSE - SAE 100R1

Type AT



- Due to manufacturing tolerances, the external dimension is an average.
- Recommended for: Medium pressure hydraulic applications.
- Internal tube: Nitrile based.
- Reinforcement: One braid of high tensile steel wire.
- External cover: NBR/PVC based. MSHA approved.
- Temperature range: -40°C to +100°C constant and +121°C intermittent.
- Standards: SAE 100R1AT. SAE 100R1S. EN 853 1SN. ISO 1436.
- Characteristics: G1 hose is compatible with biodegradable hydraulic fluids like synthetic esters, polyglycols and vegetable oils as well as petroleum-based fluids.

Part Number	Internal Size	Internal DN	Internal Diameter - inches	External Diameter - mm	Working Pressure - psi	Working pressure - bar	Min burst pressure - psi	Min burst pressure - bar	Min bend radius - mm
3G1	03	5	3/16	11.9	3625	250	14500	1000	100
4G1	04	6	1/4	13.5	3275	225	13100	900	100
6G1	06	10	3/8	17.5	2600	180	10400	720	130
8G1	08	12	1/2	20.8	2325	160	9300	640	180
10G1	10	16	5/8	23.9	1900	130	7600	520	200
12G1	12	19	3/4	27.9	1525	105	6100	420	240
16G1	16	25	1	35.8	1275	90	5100	360	300
20G1	20	31	1.1/4	43.4	925	63	3700	252	420

G1H

HIGH TEMP. ONE WIRE BRAID HOSE
BRAIDED WIRE REINFORCED HOSE - SAE 100R1
Type AT



- Due to manufacturing tolerances, the external dimension is an average.
- Recommended for: High temperature, medium pressure hydraulic applications.
- Internal tube: Nitrile based.
- Reinforcement: One braid of high tensile steel wire.
- External cover: CSM based. MSHA approved.
- Temperature range: -40°C to +135°C constant and +150°C intermittent.
- Standards: SAE 100R1AT. SAE 100R1S. EN 853 1SN. ISO 1436.

Part Number	Internal Size	Internal DN	Internal Diameter - inches	External Diameter - mm	Working Pressure - psi	Working pressure - bar	Min burst pressure - psi	Min burst pressure - bar	Min bend radius - mm
4G1H	4	6	3/8	13.5	2750	190	11000	758	102
6G1H	6	10	5/8	17.5	2250	155	9000	620	127
8G1H	8	12	3/4	20.3	2000	138	8000	552	178
10G1H	10	16	5/8	23.9	1500	104	6000	414	200
12G1H	12	19	3/4	27.9	1250	86	5000	345	240
16G1H	16	25	1	35.8	1000	69	4000	276	300
20G1H	20	31	1.1/4	43.4	925	63	3700	252	420
24G1H	24	38	1.1/2	49.8	725	50	2900	200	500

ACR

HIGH TEMP. OIL/AIR RETURN
BRAIDED WIRE REINFORCED HOSE - FABRIC
COVER



- Due to manufacturing tolerances, the external dimension is an average.
- For -24 and 32 sizes please see alternative ACP series.
- Recommended for: Pressurised hot oil return lines and air compressor lines, power steering, tilt cab cylinders, engine and transmission coolant and filtration lines.
- Internal tube: CPE based.
- Reinforcement: One braid of high tensile steel wire.
- External cover: Oil resistant textile braid, impregnated with synthetic rubber. MSHA approved.
- Temperature range: -40°C to +150°C. Phosphate ester fluids: -40°C to +100°C.
- Air: -40°C to +121°C.
- Vacuum range: To 30In.Hg (760mm.Hg)
- Standards: Gates proprietary. Meets the requirements of SAE J1019 performance specifications for use in high temperature transmission oil systems and high temperature lubrication oil systems using petroleum based oils.
- Characteristics: Very good resistance to weathering and ozone. ACR hose is compatible with a variety of fluids such as hydraulic oil, phosphate esters.

Part Number	Internal Size	Internal DN	Internal Diameter - inches	External Diameter - mm	Working Pressure - psi	Working pressure - bar	Min burst pressure - psi	Min burst pressure - bar	Min bend radius - mm
4ACR1000	04	6	1/4	13.2	1000	70	4000	280	50
6ACR1000	06	10	3/8	17.0	1000	70	4000	280	65
8ACR1000	08	12	1/2	20.2	1000	70	4000	280	90
10ACR1000	10	16	5/8	24.0	1000	70	4000	280	100
12ACR1000	12	19	3/4	29.2	1000	70	4000	280	120
16ACR1000	16	25	1	33.0	1000	70	4000	280	150
20ACR1000	20	31	1.1/4	41.7	1000	70	4000	280	210
24ACR500	24	38	1.1/2	49.5	500	35	2000	140	380
32ACR500	32	51	2	63.0	500	35	2000	140	460
40ACR500	40	63	2.1/2	75.4	500	35	2000	140	560
48ACR500	48	76	3	88.9	500	35	2000	140	610

LOW PRESSURE HOSE

LOL

PUSH-LOCK FIBRE BRAID HOSE BRAIDED FIBRE REINFORCED HOSE



- Due to manufacturing tolerances, the external dimension is an average.
- Recommended for: Petroleum-based hydraulic oils, antifreeze solutions, water, hot lubricating oils and air. Suitable for low-pressure cleaning and pneumatic systems, return lines and low pressure lines. Push-Lock hose and couplings are not recommended for pressure surge applications or critical applications.
- Internal tube: Nitrile based.
- Reinforcement: One fibre braid.
- External cover: Oil and abrasion resistant synthetic rubber (blended nitrile). MSHA approved.
- Temperature range: -40°C to +100°C constant and +121°C intermittent.
- Standards: Gates proprietary.
- Characteristics: Available in 6 colours for easy colour coding. Easy to assemble.
- Suffix A = black, B = blue, C = grey, G = green, R = red, Y = yellow. Please note some size/colour combinations are not held in inventory and are subject to minimum order requirements.

Part Number	Colour	Internal Size	Internal Diameter - inches	External Diameter - mm	Working Pressure - psi	Working pressure - bar	Min burst pressure - psi	Min burst pressure - bar	Min bend radius - mm
3LOLA	Black	03	3/16	10.4	300	21	1200	84	75
4LOLA	Black	04	1/4	11.9	300	21	1200	84	75
4LOLB	Blue	04	1/4	11.9	300	21	1200	84	75
4LOLY	Yellow	04	1/4	11.9	300	21	1200	84	75
5LOLA	Black	05	5/16	14.0	300	21	1200	84	75
6LOLA	Black	06	3/8	15.9	300	21	1200	84	75
6LOLB	Blue	06	3/8	15.9	300	21	1200	84	75
6LOLC	Grey	06	3/8	15.9	300	21	1200	84	75
6LOLG	Green	06	3/8	15.9	300	21	1200	84	75
6LOLR	Red	06	3/8	15.9	300	21	1200	84	75
6LOLY	Yellow	06	3/8	15.9	300	21	1200	84	75
8LOLA	Black	08	1/2	19.6	300	21	1200	84	130
8LOLB	Blue	08	1/2	19.6	300	21	1200	84	130
10LOLA	Black	10	5/8	23.9	300	21	1200	84	150
10LOLB	Blue	10	5/8	23.9	300	21	1200	84	150
12LOLA	Black	12	3/4	26.9	300	21	1200	84	180
12LOLB	Blue	12	3/4	26.9	300	21	1200	84	180

GTH

PUSH-LOCK FIBRE BRAID HOSE

BRAIDED FIBRE REINFORCED HOSE - SAE 100R6



- Due to manufacturing tolerances, the external dimension is an average.
- Recommended for: Hydraulic oil lines, heavy-duty transmission oil cooler lines and glycol anti-freeze solutions. Push-Lock hose and couplings are not recommended for pressure surge applications or critical applications.
- Internal tube: Nitrile based.
- Reinforcement: One fibre braid.
- External cover: Neoprene based.
- Temperature range: -40°C to +135°C constant and +149°C intermittent.
- Vacuum range: -3, -4, -5, -6: 28In.Hg (710mm.Hg). -8: 18In.Hg (450mm.Hg). -10, -12: 15In.Hg (380mm.Hg). -16: 10In.Hg (250mm.Hg)
- Standards: Gates proprietary. Meets or exceeds requirements of SAE 100R6.

Part Number	Internal Size	Internal DN	Internal Diameter - inches	External Diameter - mm	Working Pressure - psi	Working pressure - bar	Min burst pressure - psi	Min burst pressure - bar	Min bend radius - mm
4GTH	04	6	1/4	12.7	400	30	1600	120	65
5GTH	05	8	5/16	14.2	400	30	1600	120	75
6GTH	06	10	3/8	16.0	400	30	1600	120	75
8GTH	08	12	1/2	19.8	400	30	1600	120	100
10GTH	10	16	5/8	23.1	350	25	1400	100	130
12GTH	12	19	3/4	26.9	300	20	1200	80	150

FLEET APPLICATION HOSE

C5C

ONE WIRE NOMINAL BORE HOSE

BRAIDED WIRE REINFORCED HOSE - SAE 100R5



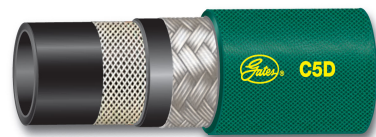
- -Size is based on nominal bore of corresponding tube size.
- Due to manufacturing tolerances, external dimension is an average.
- Recommended for: Medium pressure hydraulic petroleum-based oil lines in impulse applications, lube oil, air and water in applicat

Part Number	Internal Size	Internal Diameter - mm	Internal Diameter - inches	External Diameter - mm	Working Pressure - psi	Working pressure - bar	Min burst pressure - psi	Min burst pressure - bar	Min bend radius - mm
4C5C	04	5	3/16	13.2	3000	210	12000	840	75
5C5C	05	6	1/4	14.7	3000	210	12000	840	85
6C5C	06	8	5/16	17.0	2250	155	9000	620	100
8C5C	08	10	13/32	19.6	2000	140	8000	560	115
10C5C	10	12	1/2	23.4	1750	120	7000	480	140
12C5C	12	16	5/8	27.4	1500	105	6000	420	165
16C5C	16	22	7/8	31.2	800	55	3200	220	190
20C5C	20	28	1.1/8	38.1	625	45	2500	180	230
24C5C	24	35	1.3/8	44.5	500	35	2000	140	270
32C5C	32	46	1.13/16	56.4	350	24	1400	96	340
40C5C	40	60	2.3/8	73.2	350	24	1400	96	600

C5D

ONE WIRE NOMINAL BORE HOSE

MULTI-FLUID BRAIDED WIRE REINFORCED HOSE



- -Size is based on nominal bore of corresponding tube size.
- Due to manufacturing tolerances, the external dimension is an average.
- Recommended for: Petroleum-base or phosphate ester fluids; diesel fuels and filtration lines, transmission coolant lines, ho

Part Number	Internal Size	Internal Diameter - mm	Internal Diameter - inches	External Diameter - mm	Working Pressure - psi	Working pressure - bar	Min burst pressure - psi	Min burst pressure - bar	Min bend radius - mm
4C5D	04	5	3/16	13.2	1500	105	6000	420	25
5C5D	05	6	1/4	14.7	1500	105	6000	420	40
6C5D	06	8	5/16	17.0	1500	105	6000	420	45
8C5D	08	10	13/32	19.6	1250	85	5000	340	50
10C5D	10	12	1/2	23.4	1250	85	5000	340	50

C5M

ONE WIRE NOMINAL BORE HOSE

MARINE FUEL BRAIDED WIRE REINFORCED HOSE



- -Size is based on nominal bore of corresponding tube size.
- Due to manufacturing tolerances, the external dimension is an average.
- Reference SAE J1942/-1 for USCG-approved working pressures.
- Recommended for: On-shore/off-shore and marine diesel fuel and

Part Number	Internal Size	Internal Diameter - mm	Internal Diameter - inches	External Diameter - mm	Working Pressure - psi	Working pressure - bar	Min burst pressure - psi	Min burst pressure - bar	Min bend radius - mm
5C5M	05	6	1/4	14.7	500	35	2000	140	25
6C5M	06	8	5/16	17.0	500	35	2000	140	32
8C5M	08	10	13/32	19.6	500	35	2000	140	45
10C5M	10	12	1/2	23.4	500	35	2000	140	60
12C5M	12	16	5/8	27.4	500	35	2000	140	70
16C5M	16	22	7/8	31.2	500	35	2000	140	90

P1T

ONE WIRE BRAID PILOT HOSE

BRAIDED WIRE REINFORCED HOSE FOR PILOT CONTROL



- Due to manufacturing tolerances, the external dimension is an average.
- Recommended for: Pilot control hydraulic applications. Easy to route and to install in tight areas.
- Internal tube: Nitrile based.
- Reinforcement: One braid of high tensile steel wire.
- External cover: Neoprene based.
- Temperature range: -40°C to +100°C constant and +120°C intermittent.
- Standards: Gates proprietary.
- Characteristics: P1T hose features superior flexibility providing a very tight bend radius as well as resistance to expansion, kinking and abrasion.

Part Number	Internal Size	Internal DN	Internal Diameter - inches	External Diameter - mm	Working Pressure - psi	Working pressure - bar	Min burst pressure - psi	Min burst pressure - bar	Min bend radius - mm
4P1T	04	6	1/4	11.0	1750	120	7000	480	25

PS188

POWER STEERING HOSE

BRAIDED FIBRE HOSE FOR POWER STEERING



- Due to manufacturing tolerances, the external dimension is an average.
- Recommended for: Power steering pressure lines.
- Internal tube: CSM based.
- Reinforcement: Two high strength nylon braids that resist high temperatures and allow for expansion for system noise dampening.
- External cover: CSM based.
- Temperature range: -40°C to +150°C. Standards: Gates proprietary. Designed to meet requirements of SAE J2050 specifications.

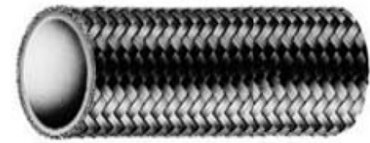
Part Number	Internal Size	Internal DN	Internal Diameter - inches	External Diameter - mm	Working Pressure - psi	Working pressure - bar	Min burst pressure - psi	Min burst pressure - bar	Min bend radius - mm
6PS188	06	10	3/8	18.0	1500	105	6000	420	85

PTFE HOSE

R14

STAINLESS BRAIDED PTFE HOSE

PTFE HOSE WITH STAINLESS STEEL BRAIDED COVER



- Due to manufacturing tolerances, the external dimension is an average.
- Recommended for: Air compressor discharge, hot oil fluids, hot and greasy environments.
- Internal tube: Non-conductive white, smooth bore Teflon®/PTFE.
- Reinforcement.
- External cover: AISI 304/S15 or BS970-1 1996 quality hard drawn tensile stainless steel wire.
- Temperature range: -54°C to +204°C. Characteristics: The PTFE hose tube is virtually inert to all chemicals and solvents. It is resistant to fuming Sulphuric and Nitric Acids, Amines, Antioxidants and Methanol. It is only known to react with elemental alkali metals (molten or in solution), Fluorine and Chlorine Trifluoride.
- NOTE: A damaging electrostatic charge can build up inside the hose when electrically resistive fluids are being transmitted at very high flow rates (particularly if the hose assemblies are lengthy).

Part Number	Internal Size	Internal DN	Internal Diameter - inches	External Diameter - mm	Working Pressure - psi	Working pressure - bar	Min burst pressure - psi	Min burst pressure - bar	Min bend radius - mm
R14-03	03	5	3/16	7.9	4000	275	12000	825	50
R14-04	04	6	1/4	9.35	3250	224	9750	672	76
R14-05	05	8	5/16	11.3	3160	218	9500	655	102
R14-06	06	10	3/8	12.65	2660	183	8000	552	127
R14-08	08	12	1/2	16.55	2330	161	7000	483	152
R14-10	10	16	5/8	19.75	1660	114	5000	345	178
R14-12	12	19	3/4	22.96	1500	103	4500	310	203
R14-16	16	25	1	27.8	1000	69	3495	241	310

THERMOPLASTIC HOSE

R8X

FIBRE BRAID THERMOPLASTIC HOSE
BRAIDED FIBRE REINFORCED SLIMLINE HOSE -
SAE 100R8



- Due to manufacturing tolerances, the external dimension is an average.
- Recommended for: High pressure hydraulic applications requiring increased resistance to abrasion.
- Internal tube: Polyester elastomer.
- Reinforcement: One or two braids of aramid fiber.
- External cover: Abrasion resisant polyurethane, black, pinpricked, white ink-jet branding.
- Temperature range: -40 °C to +100 °C, limited to +70 °C for air and water-based fluids.
- Standards: Meets or exceeds SAE 100R8.
- Characteristics: R8X is a compact high pressure hose for use with petroleum, synthetic or water based hydraulic fluids. Suitable for general fluid power transmission like earthmoving, agricultural machinery and forklift trucks. Also suitable for many industrial gases (check for compatibility).

Part Number	Internal Size	Internal DN	Internal Diameter - inches	External Diameter - mm	Working Pressure - psi	Working pressure - bar	Min burst pressure - psi	Min burst pressure - bar	Min bend radius - mm
3R8X	03	5	3/16	8.9	5000	350	20000	1400	30
4R8X	04	6	1/4	11.5	5000	350	20000	1400	50
6R8X	06	10	3/8	15.5	4000	280	16000	1120	60
8R8X	08	12	1/2	19.9	3500	245	14000	980	80
12R8X	12	19	3/4	26.9	2300	165	9200	660	150
16R8X	16	25	1	34.2	2000	140	8000	560	200

R8XNC

FIBRE BRAID THERMOPLASTIC HOSE

NON-CONDUCTIVE FIBRE REINFORCED HOSE - SAE 100R8



- Due to manufacturing tolerances, the external dimension is an average.
- Recommended for: High pressure hydraulic applications requiring increased resistance to abrasion and electrical non-conductivity.
- Internal tube: Polyester elastomer.
- Reinforcement: One or two braids of aramid fiber.
- External cover: Abrasion resistant polyurethane, orange, non-pinpricked, black ink-jet branding.
- Temperature range: -40 °C to +100 °C, limited to +70 °C for air and water-based fluids.
- Standards: Meets or exceeds SAE 100R8.
- Characteristics: R8XNC is a compact high pressure hose for use with petroleum, synthetic or water based hydraulic fluids in applications requiring high electrical insulation or non-conductivity; e.g. High voltage equipment, Safety and rescue equipment, Aerial platforms, Cranes.
- Special item - please contact Hydraulink for further details and availability.

Part Number	Internal Size	Internal DN	Internal Diameter - inches	External Diameter - mm	Working Pressure - psi	Working pressure - bar	Min burst pressure - psi	Min burst pressure - bar	Min bend radius - mm
4R8XNC	04	6	1/4	11.5	5000	350	20000	1400	50
6R8XNC	06	10	3/8	15.5	4000	280	16000	1120	60
8R8XNC	08	12	1/2	19.9	3500	245	14000	980	80

R8XT

TWINLINE THERMOPLASTIC HOSE

BRAIDED FIBRE REINFORCED SLIMLINE HOSE -
SAE 100R8



- Due to manufacturing tolerances, the external dimension is an average.
- Recommended for: High pressure hydraulic applications requiring increased resistance to abrasion.
- Internal tube: Polyester elastomer.
- Reinforcement: One or two braids of aramid fiber.
- External cover: Abrasion resistant polyurethane, black, pinpricked, white ink-jet branding.
- Temperature range: -40 °C to +100 °C, limited to +70 °C for air and water-based fluids.
- Standards: Meets or exceeds SAE 100R8.
- Characteristics: R8X is a compact high pressure hose for use with petroleum, synthetic or water based hydraulic fluids. Suitable for general fluid power transmission like earthmoving, agricultural machinery and forklift trucks. Also suitable for many industrial gases (check for compatibility).
- Please note customised multi-line combinations of different hose types or diameters can also be produced to customer requirements.

Part Number	Internal Size	Internal DN	Internal Diameter - inches	External Diameter - mm	Working Pressure - psi	Working pressure - bar	Min burst pressure - psi	Min burst pressure - bar	Min bend radius - mm
3R8XT	03	5	3/16	8.9	5000	350	20000	1400	30
4R8XT	04	6	1/4	11.5	5000	350	20000	1400	50
6R8XT	06	10	3/8	15.5	4000	280	16000	1120	60
8R8XT	08	12	1/2	19.9	3500	245	14000	980	80

R18NEO

FIBRE BRAID THERMOPLASTIC HOSE
LOW TEMP. FIBRE REINFORCED HOSE - SAE
100R18



- Due to manufacturing tolerances, the external dimension is an average.
- Recommended for: Medium pressure hydraulic applications exposed to low temperatures, or cyclic and quick temperature changes, such as cool-stores. Ideal for forklift applications
- Internal tube: Polyester elastomer.
- Reinforcement: Two braids of synthetic fiber.
- External cover: Special polyurethane cover, black, non-pinpricked, white ink-jet branding.
- Temperature range: -40 °C to +100 °C, limited to +70 °C for air and water-based fluids.
- Standards: Meets or exceeds SAE 10018.
- Characteristics: R18 is a medium pressure hose suitable for petroleum or synthetic based hydraulic fluids in hydraulic systems of forklifts. Optimum bonding characteristics and special cover also make it an ideal for equipment operating in cold environments, while maintaining a high level of flexibility.

Part Number	Internal Size	Internal DN	Internal Diameter - inches	External Diameter - mm	Working Pressure - psi	Working pressure - bar	Min burst pressure - psi	Min burst pressure - bar	Min bend radius - mm
4R18NEO	04	6	1/4	11.8	3000	210	12000	840	35
5R18NEO	05	8	5/16	14.3	3000	210	12000	840	45
6R18NEO	06	10	3/8	16.5	3000	210	12000	840	45
8R18NEO	08	12	1/2	21.2	3000	210	12000	840	70
10R18NEO	10	16	5/8	26.1	3000	210	12000	840	100

R18TNEO

TWINLINE THERMOPLASTIC HOSE

BRAIDED FIBRE REINFORCED HOSE - SAE 100R18



- Due to manufacturing tolerances, the external dimension is an average.
- Recommended for: Medium pressure hydraulic applications exposed to low temperatures, or cyclic and quick temperature changes, such as cool-stores. Ideal for forklift applications
- Internal tube: Polyester elastomer.
- Reinforcement: Two braids of synthetic fiber.
- External cover: Special polyurethane cover, black, non-pinpricked, white ink-jet branding.
- Temperature range: -40 °C to +100 °C, limited to +70 °C for air and water-based fluids.
- Standards: Meets or exceeds SAE 10018.
- Characteristics: R18 is a medium pressure hose suitable for petroleum or synthetic based hydraulic fluids in hydraulic systems of forklifts. Optimum bonding characteristics and special cover also make it an ideal for equipment operating in cold environments, while maintaining a high level of flexibility.

Part Number	Internal Size	Internal DN	Internal Diameter - inches	External Diameter - mm	Working Pressure - psi	Working pressure - bar	Min burst pressure - psi	Min burst pressure - bar	Min bend radius - mm
4R18TNEO	04	6	1/4	11.8	3000	210	12000	840	35
6R18TNEO	06	10	3/8	16.5	3000	210	12000	840	45

R7

FIBRE BRAID THERMOPLASTIC HOSE
BRAIDED FIBRE REINFORCED HOSE - SAE 100R7



- Due to manufacturing tolerances, the external dimension is an average.
- Recommended for: Medium pressure hydraulic applications requiring increased resistance to abrasion.
- Internal tube: Polyester elastomer.
- Reinforcement: One or two braids of synthetic fiber. External cover: Abrasion resistant polyurethane, black, pinpricked, white ink-jet branding.
- Temperature range: -40 °C to +100 °C, limited to +70 °C for air and water-based fluids.
- Standards: Meets or exceeds SAE 100R7.
- Characteristics: R7 is a medium pressure hose for use with petroleum, synthetic or water based hydraulic fluids. Suitable for general fluid power transmission like earthmoving, agricultural machinery and forklift trucks. Also suitable for many industrial gases (check for compatibility).
- Not suitable for use on forklift mast application below ambient temperatures.

Part Number	Internal Size	Internal DN	Internal Diameter - inches	External Diameter - mm	Working Pressure - psi	Working pressure - bar	Min burst pressure - psi	Min burst pressure - bar	Min bend radius - mm
3R7	03	5	3/16	9.6	3000	210	12000	840	25
4R7	04	6	1/4	12.2	3000	210	12000	840	35
5R7	05	8	5/16	14.3	2700	190	10800	760	45
6R7	06	10	3/8	16.0	2300	160	9200	640	55
8R7	08	12	1/2	20.3	2000	140	8000	560	75
12R7	12	19	3/4	27.1	1300	90	5200	360	140

R7NC

FIBRE BRAID THERMOPLASTIC HOSE
NON-CONDUCTIVE FIBRE REINFORCED HOSE - SAE
100R7



- Due to manufacturing tolerances, the external dimension is an average.
- Recommended for: Medium pressure hydraulic applications requiring increased resistance to abrasion and electrical non-conductivity.
- Internal tube: Polyester elastomer.
- Reinforcement: One or two braids of synthetic fiber. External cover: Abrasion resistant polyurethane, orange, non pinpricked, black ink-jet branding.
- Temperature range: -40 °C to +100 °C, limited to +70 °C for air and water-based fluids.
- Standards: Meets or exceeds SAE 100R7.
- Characteristics: R7NC is a medium pressure hose for use with petroleum, synthetic or water based hydraulic fluids in applications requiring high electrical insulation or non-conductivity; e.g. High voltage equipment, safety and rescue equipment, Aerial platforms, Cranes.

Part Number	Internal Size	Internal DN	Internal Diameter - inches	External Diameter - mm	Working Pressure - psi	Working pressure - bar	Min burst pressure - psi	Min burst pressure - bar	Min bend radius - mm
3R7NC	03	5	3/16	9.6	3000	210	12000	840	25
4R7NC	04	6	1/4	12.2	3000	210	12000	840	35
5R7NC	05	8	5/16	14.3	2700	190	10800	760	45
6R7NC	06	10	3/8	16.0	2300	160	9200	640	55
8R7NC	08	12	1/2	20.3	2000	140	8000	560	75
12R7NC	12	19	3/4	27.1	1300	90	5200	360	140

R7T

TWINLINE THERMOPLASTIC HOSE

BRAIDED FIBRE REINFORCED HOSE - SAE 100R7



- Due to manufacturing tolerances, the external dimension is an average.
- Recommended for: Medium pressure hydraulic applications requiring increased resistance to abrasion.
- Internal tube: Polyester elastomer.
- Reinforcement: One or two braids of synthetic fiber.
- External cover: Abrasion resistant polyurethane, black, pinpricked, white ink-jet branding.
- Temperature range: -40 °C to +100 °C, limited to +70 °C for air and water-based fluids.
- Standards: Meets or exceeds SAE 100R7.
- Characteristics: R7 is a medium pressure hose for use with petroleum, synthetic or water based hydraulic fluids. Suitable for general fluid power transmission like earthmoving, agricultural machinery and forklift trucks. Also suitable for many industrial gases (check for compatibility).
- Please note customised multi-line combinations of different hose types or diameters can also be produced to customer requirements.
- Not suitable for use on forklift mast application below ambient temperatures.

Part Number	Internal Size	Internal DN	Internal Diameter - inches	External Diameter - mm	Working Pressure - psi	Working pressure - bar	Min burst pressure - psi	Min burst pressure - bar	Min bend radius - mm
4R7T	04	6	1/4	12.2	3000	210	12000	840	35
6R7T	06	10	3/8	16.0	2300	160	9200	640	55

PAINTSPRAY HOSE

PS1B

ONE WIRE BRAID THERMOPLASTIC
BRAIDED WIRE REINFORCED HOSE FOR
PAINT/SOLVENTS



- Due to manufacturing tolerances, the external dimension is an average.
- Recommended for: Airless paint spray systems or applications requiring high chemical resistance to solvents and aggressive fluids.
- Internal tube: Polyamide PA6.
- Reinforcement: One braid of high tensile steel wire.
- External cover: Polyurethane, blue, non-pinpricked, black ink-jet branding.
- Temperature range: -40 °C to +100 °C, limited to +70 °C for air and water-based fluids.
- Characteristics: PS1B is a high pressure hose with blue cover, particularly designed for paint spray and solvent applications with increased resistance to abrasion, mechanical strength and providing electrical conductivity. Due to low dissipation rate of tube, the hose is also suitable for many industrial gases (check for compatibility).

Part Number	Internal Size	Internal DN	Internal Diameter - inches	External Diameter - mm	Working Pressure - psi	Working pressure - bar	Min burst pressure - psi	Min burst pressure - bar	Min bend radius - mm
4PS1B	04	6	1/4	11.6	4400	310	12000	840	40
6PS1B	06	10	3/8	15.5	3200	225	12800	900	65

PS2B

TWO WIRE BRAID THERMOPLASTIC
BRAIDED WIRE REINFORCED HOSE FOR
PAINT/SOLVENTS



- Due to manufacturing tolerances, the external dimension is an average.
- Recommended for: Airless paint spray systems or applications requiring high chemical resistance to solvents and aggressive fluids.
- Internal tube: Polyamide PA6.
- Reinforcement: Two braids of high tensile steel wire.
- External cover: Polyurethane, blue, non-pinpricked, black ink-jet branding.
- Temperature range: -40 °C to +100 °C, limited to +70 °C for air and water-based fluids.
- Characteristics: PS2B is a high pressure hose with blue cover, particularly designed for paint spray and solvent applications with increased resistance to abrasion, mechanical strength and providing electrical conductivity. Due to low dissipation rate of tube, the hose is also suitable for many industrial gases (check for compatibility).

Part Number	Internal Size	Internal DN	Internal Diameter - inches	External Diameter - mm	Working Pressure - psi	Working pressure - bar	Min burst pressure - psi	Min burst pressure - bar	Min bend radius - mm
8PS2B	08	12	1/2	20.2	4300	300	17200	1200	85

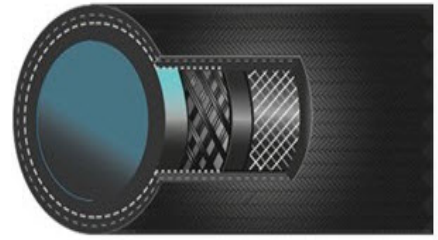
LPG HOSE

LPG

LPG SERVICE HOSE

WIRE AND FIBRE REINFORCED HOSE FOR LPG

- Due to manufacturing tolerances, the external dimension is an average.
- Recommended for: LPG service line for mobile plant, particularly forklift trucks.
- Internal tube: Synthetic rubber, LP Gas, oil and low temp resistant.
- Reinforcement: One textile and one stainless wire braid.
- External cover: Textile braid.
- Standards: Meets AS/NZ 1869 Class D, AGA Certificate no. AGA5318



Part Number	Internal Size	Internal Diameter - mm	Internal Diameter - inches	External Diameter - mm	Working Pressure - psi	Working pressure - bar	Min burst pressure - psi	Min burst pressure - bar	Min bend radius - mm
5LPG	05	8	5/16	17.1	350	24	1400	96	

MVAP

LPG VAPORISER HOSE

UNREINFORCED VAPORISER HOSE FOR LPG

- Due to manufacturing tolerances, the external dimension is an average.
- the 18mm ID will clamp down to suit 5/8, or stretch over 3/4.
- Recommended for: High temperature gas transportation hose up to +125C.
- Internal tube: Synthetic rubber, LP Gas resistant.
- Reinforcement: n/a
- External cover: Textile braid.



Part Number	Internal Size	Internal Diameter - mm	Internal Diameter - inches	External Diameter - mm	Working Pressure - psi	Working pressure - bar	Min burst pressure - psi	Min burst pressure - bar	Min bend radius - mm
18MVAP	10-12	18	5/8-3/4	25.4	110	8	440	32	

EXTREMELY HIGH PRESSURE HOSE

EFG6K

FOUR/SIX SPIRAL WIRE HOSE

SPIRAL WIRE REINFORCED HOSE - SAE 100R15



- Due to manufacturing tolerances, external dimension is an average.
- Recommended for: Extremely high pressure and high impulse hydraulic applications.
- Internal tube: -6, -8, -10, -12, -16, -20: Nitrile based; -24: Neoprene based.
- Reinforcement: Four (six for -20, -24) alternating layers of spiralled, high tensile steel wire.
- External cover: Neoprene based, MSHA approved.
- Temperature range: -40°C to +121°C
- Standards: SAE 100R15. Meets or exceeds performance requirements of EN 856 4SP (-8) and EN 856 4SH (-12, -16)
- Characteristics: Extremely flexible. Compatible with biodegradable hydraulic fluids like synthetic esters, polyglycols and vegetable oils and petroleum-based fluids in sizes -06 to -20 (not -24)

Part Number	Internal Size	Internal DN	Internal Diameter - inches	External Diameter - mm	Working Pressure - psi	Working pressure - bar	Min burst pressure - psi	Min burst pressure - bar	Min bend radius - mm
6EFG6K	06	10	3/8	20.5	6000	420	24000	1680	65
8EFG6K	08	12	1/2	24.0	6000	420	24000	1680	90
10EFG6K	10	16	5/8	27.6	6000	420	24000	1680	100
12EFG6K	12	19	3/4	31.4	6000	420	24000	1680	120
16EFG6K	16	25	1	38.7	6000	420	24000	1680	150
20EFG6K	20	31	1.1/4	50.0	6000	420	24000	1680	210
24EFG6K	24	38	1.1/2	57.4	6000	420	24000	1680	250
32EFG6K	32	50	2	71.1	6000	420	24000	1680	635

EFG5K

FOUR/SIX SPIRAL WIRE HOSE

SPIRAL WIRE REINFORCED HOSE - SAE 100R13



- Due to manufacturing tolerances, external dimension is an average.
- Recommended for: Extremely high pressure and high impulse hydraulic applications.
- Internal tube: -6 to -20
- Nitrile based: -24, -32: Neoprene based.
- Reinforcement: Four (six for -20, to -32) alternating layers of spiralled, high tensile steel wire.
- External cover: Neoprene based, MSHA approved.
- Temperature range: -40°C to +121°C
- Standards: EN 856 R13. SAE 100R13. Meets or exceeds performance requirements of EN 856 4SP (-10, -12) and EN 856 4SH (-20).
- Characteristics: Extremely flexible. Compatible with biodegradable hydraulic fluids like synthetic esters, polyglycols, vegetable oils and petroleum-based fluids in sizes -06 to -20 (not -24 or -32)

Part Number	Internal Size	Internal DN	Internal Diameter - inches	External Diameter - mm	Working Pressure - psi	Working pressure - bar	Min burst pressure - psi	Min burst pressure - bar	Min bend radius - mm
8EFG5K	08	12	1/2	24.0	5000	350	20000	1400	90
12EFG5K	12	19	3/4	31.4	5000	350	24000	1400	120
16EFG5K	16	25	1	38.7	5000	350	24000	1400	150
20EFG5K	20	31	1.1/4	50	5000	350	24000	1400	210
24EFG5K	24	38	1.1/2	57.4	5000	350	24000	1400	250
32EFG5K	32	51	2	71	5000	350	24000	1400	635

EFG4K

FOUR SPIRAL WIRE HOSE

SPIRAL WIRE REINFORCED HOSE - SAE 100R12



- Due to manufacturing tolerances, the external dimension is an average.
- Recommended for: Extremely high pressure and high impulse hydraulic applications.
- Internal tube: Nitrile based.
- Reinforcement: Four alternating layers of spiralled, high tensile steel wire.
- External cover: Neoprene based, MSHA approved.
- Temperature range: -40°C to +121°C
- Standards: Gates proprietary. EN 856 R12. SAE 100R12. Meets or exceeds performance requirements of EN 856 4SP (-16, -20).
- Characteristics: Extremely flexible. Compatible with biodegradable hydraulic fluids like synthetic esters, polyglycols and vegetable oils as well as petroleum-based fluids in sizes -06 to -20 (not -24)

Part Number	Internal Size	Internal DN	Internal Diameter - inches	External Diameter - mm	Working Pressure - psi	Working pressure - bar	Min burst pressure - psi	Min burst pressure - bar	Min bend radius - mm
6EFG4K	06	10	3/8	20.5	4000	280	16000	1120	65
8EFG4K	08	12	1/2	24.0	4000	280	16000	1120	90
10EFG4K	10	16	5/8	27.6	4000	280	16000	1120	100
12EFG4K	12	19	3/4	30.7	4000	280	16000	1120	120
16EFG4K	16	25	1	38.0	4000	280	16000	1120	150
20EFG4K	20	31	1.1/4	47.0	4000	280	16000	1120	210

EFG3K

FOUR SPIRAL WIRE HOSE

SPIRAL WIRE REINFORCED HOSE - SAE 100R12



- Due to manufacturing tolerances, the external dimension is an average.
- Recommended for: Extremely high pressure and high impulse hydraulic applications.
- Internal tube: Nitrile based.
- Reinforcement: Four alternating layers of spiralled, high tensile steel wire.
- External cover: Neoprene based, MSHA approved.
- Temperature range: -40°C to +121°C
- Standards: Gates proprietary. EN 856 R12. SAE 100R12. Meets or exceeds performance requirements of EN 856 4SP (-16, -20).
- Characteristics: Extremely flexible. Compatible with biodegradable hydraulic fluids like synthetic esters, polyglycols and vegetable oils as well as petroleum-based fluids in sizes -06 to -20 (not -24)

Part Number	Internal Size	Internal DN	Internal Diameter - inches	External Diameter - mm	Working Pressure - psi	Working pressure - bar	Min burst pressure - psi	Min burst pressure - bar	Min bend radius - mm
24EFG3K	24	38	1.1/2	53.5	3000	210	12000	840	500
32EFG3K	32	51	2	66.8	3000	210	12000	840	630



HYDRAULINK BRANDED HOSES



GENERAL INFORMATION

Hydraulink has established itself as a proven hydraulic hose & fitting specialist for over 70 years. With the selection of braided and multi spiral hoses on offer, the Hydraulink range of hoses will satisfy all of your needs.

The Super Tuff “ST” range of braided hoses come standard with flame and abrasion resistant features – ideal for use in harsh and adverse environments.

For general pressure-wash applications up to 400 bar, the Hydraulink range of Jet Wash hoses are designed to be easier to handle and use due to their light, flexible and compact design.

All Hydraulink branded hoses are easily identifiable for fast fix and replacement, and are readily available across our nationwide network of service centres and mobile service vans.



	Range	Construction	Constant Pressure	MSHA (Flame Resist)	HARC Abrasion	Compact
●	Braided	H1T	1 Wire	✓		
		H2T	2 Wire	✓		
●	X SPIRAL	HX4K	Multi Spiral	✓		
		HX5K	Multi Spiral	✓		
		HX6K	Multi Spiral	✓		
●	X SPIRAL Enduro ST	HX4K-ST	Multi Spiral	✓	✓	
		HX6K-ST	Multi Spiral	✓	✓	
●	ST SuperTuff	H17	1 & 2 Wire	✓	✓	✓
		H19	2 Wire	✓	✓	
		H16	2 Wire	✓	✓	✓
●	Jet Wash	HJW250	1 Wire	250bar		
		HJW400	2 Wire	400bar		

HOSE SELECTION & SERVICE LIFE RECOMMENDATIONS

Extracts from SAE J1273 SEP2014: Recommended Practices for Hydraulic Hose Assemblies

1. Scope—SAE J1273 provides guidelines for selection, routing, fabrication, installation, replacement, maintenance, and storage of hose and hose assemblies for fluid-power systems. Many of these SAE Recommended Practices also may be suitable for other hoses and systems.

5. Hose Selection and Routing—A wide variety of interacting factors influence hose service life and the ability of each fluid-power system to operate satisfactorily, and the combined effects of these factors on service life are often unpredictable. Therefore, these documents should not be construed as design standards. For applications outside the specifications in SAE J517, SAE J514, or other relevant design standards, performance of hose assemblies should be determined by appropriate testing. Carefully analyze each system. Then design routings and select hose and related components to meet the system-performance and hose-service-life requirements, and to minimize the risks of personal injury and/or property damage. Consider the following factors:

5.1 System Pressures—Excessive pressure can accelerate hose assembly failure. Analyze the steady-state pressures, and the frequency and amplitude of pressure surges, such as pulses and spikes. These are rapid and transient rises in pressure which may not be indicated on many common pressure gauges and can be identified best on high-frequency-response electronic measuring instruments.

For maximum hose service life, hose selection should be based on a system pressure, including surges, that is less than the hose maximum working pressure. Hose may be used above its maximum working pressure where reduced life expectancy is acceptable. SAE J1927 provides one method to help predict wire-reinforced hose service life for a given hydraulic application, where the surge pressure peaks vary, and/or the highest pressure peaks occur infrequently.

5.2 Suction—For suction applications, such as inlet flow to pumps, select hose to withstand both the negative and positive pressures the system imposes on the hose.

5.3 External Pressure—In certain applications, such as in autoclaves or under water, the external environmental pressures may exceed the fluid pressure inside the hose. In these applications, consider the external pressures, and if necessary, consult the manufacturers.

5.4 Temperature—Exceeding hose temperature ratings may significantly reduce hose life. Select hose so the fluid and ambient temperatures, both static and transient, fall within the hose ratings. The effects of external heat sources should not raise the temperature of the hose above its maximum operating temperature. Select hose, heat shields, sleeving, and other methods for these requirements, and route or shield hose to avoid hose damage from external heat sources.

HOSE SELECTION & SERVICE LIFE RECOMMENDATIONS (cont'd)

5.5 Permeation—Permeation, or effusion, is seepage of fluid through the hose. Certain materials in hose construction are more permeable than others. Consider the effects of permeation when selecting hose, especially with gaseous fluids. Consult the hose and fluid manufacturers for permeability information.

5.6 Hose-Material Compatibility—Variables that can affect compatibility of system fluids with hose materials include, but are not limited to:

- a. Fluid pressure
- b. Temperature
- c. Concentration
- d. Duration of exposure

Because of permeation (see 5.5), consider compatibility of system fluids with the hose, tube, cover, reinforcement, and fittings. Consult the fluid and hose manufacturers for compatibility information.

NOTE— Many fluid/elastomer compatibility tables in manufacturers' catalogs show ratings based on fluids at 21 °C, room temperature. These ratings may change at other temperatures. Carefully read the notes on the compatibility tables, and if in doubt, consult the manufacturer.

5.7 Environment—Environmental conditions can cause hose and fitting degradation. Conditions to evaluate include, but are not limited to:

- a. Ultraviolet light
- b. Salt water
- c. Air pollutants
- d. Temperature (see 5.4)
- e. Ozone
- f. Chemicals
- g. Electricity
- h. Abrasion

If necessary, consult the manufacturers for more information.

5.8 Static-Electric Discharge—Fluid passing through hose can generate static electricity resulting in static-electric discharge. This may create sparks that can puncture hose. If this potential exists, select hose with sufficient conductivity to carry the static-electric charge to ground.

5.9 Sizing—The power transmitted by pressurized fluid varies with pressure and rate of flow. Select hose with adequate size to minimize pressure loss, and to avoid hose damage from heat generation or excessive velocity. Conduct calculations, or consult the manufacturers for sizing at flow velocities.

5.10 Unintended Uses—Hose assemblies are designed for the internal forces of conducted fluids. Do not pull hose or use it for purposes that may apply external forces for which the hose or fittings were not designed.

5.11 Specifications and Standards—When selecting hose and fittings for specific applications, refer to applicable government, industry, and manufacturer's specifications and standards.

HOSE SELECTION & SERVICE LIFE RECOMMENDATIONS (cont'd)

5.12 Unusual Applications—Applications not addressed by the manufacturer or by industry standards may require special testing prior to selecting hose.

5.13 Hose Cleanliness—The cleanliness requirements of system components, other than hose, will determine the cleanliness requirements of the application. Consult the component manufacturers' cleanliness information for all components in the system. Hose assemblies vary in cleanliness levels; therefore, specify hose assemblies with adequate cleanliness for the system.

5.14 Hose Fittings—Selection of the proper hose fittings for the hose and application is essential for proper operation and safe use of hose and related assembly equipment. Hose fittings are qualified with the hose. Therefore, select only hose fittings compatible with the hose for the applications. Improper selection of hose fittings or related assembly equipment for the application can result in injury or damage from leaks, or from hose assemblies blowing apart (see 4.2, 6.2, 6.3, and 6.4).

5.15 Vibration—Vibration can reduce hose service life. If required, conduct tests to evaluate the frequency and amplitude of system vibration. Clamps or other means may be used to reduce the effects of vibration. Consider the vibration requirements when selecting hose and predicting service life.

5.16 Hose Cover Protection—Protect the hose cover from abrasion, erosion, snagging, and cutting. Special abrasion-resistant hoses and hose guards are available for additional protection. Route hose to reduce abrasion from hose rubbing other hose or objects that may abrade it.

5.17 External Physical Abuse—Route hose to avoid:

- a. Tensile loads
- b. Side loads
- c. Flattening
- d. Thread damage
- e. Kinking
- f. Damage to sealing surfaces
- g. Abrasion
- h. Twisting

5.18 Swivel-Type Adapters—Swivel-type fittings or adapters do not transfer torque to hose while being tightened. Use these as needed to prevent twisting during installation.

5.19 Live Swivels—If two components in the system are rotating in relation to each other, live swivels may be necessary. These connectors reduce the torque transmitted to the hose.

5.20 Slings and Clamps—Use slings and clamps to support heavy or long hose and to keep it away from moving parts. Use clamps that prevent hose movement that will cause abrasion.

5.21 Minimum Bend Radius—The minimum bend radius is defined in SAE J343 and is specified in other SAE standards and hose manufacturer's product literature. Routing at less than minimum bend radius may reduce hose life. Sharp bending at the hose/fitting juncture may result in leaking, hose rupturing, or the hose assembly blowing apart (see 4.2)

5.22 Elbows and Adapters—In special cases, use elbows or adapters to relieve hose strain.

5.23 Lengths—Unnecessarily long hose can increase pressure drop and affect system performance.

HOSE SELECTION & SERVICE LIFE RECOMMENDATIONS (cont'd)

When pressurized, hose that is too short may pull loose from its fittings, or stress the fitting connections, causing premature metallic or seal failures. When establishing hose length, use the following practices:

5.23.1 MOTION ABSORPTION—Provide adequate hose length to distribute movement and prevent bends smaller than the minimum bend radius.

5.23.2 HOSE AND MACHINE TOLERANCES—Design hose to allow for changes in length due to machine motion and tolerances.

5.23.3 HOSE LENGTH CHANGE DUE TO PRESSURE—Design hose to accommodate length changes from changing pressures. Do not cross or clamp together high- and low-pressure hoses. The difference in length changes could wear the hose covers.

5.24 Hose Movement and Bending—Hose allows relative motion between system components. Analyze this motion when designing hose systems. The number of cycles per day may significantly affect hose life. Also avoid multiple planes of motion and twisting motion. Consider the motion of the hose when selecting hose and predicting service life. In applications that require hose to move or bend, use these practices:

5.24.1 BEND IN ONLY ONE PLANE TO AVOID TWISTING

5.24.2 PREVENT HOSE BENDING IN MORE THAN ONE PLANE—If hose follows a compound bend, couple it into separate segments, or clamp it into segments that flex in only one plane.

7. Hose Installation and Replacement—Use the following practices when installing hose assemblies in new systems or replacing hose assemblies in existing systems:

7.1 Pre-Installation Inspection—Before installing hose assemblies, examine:

- a. Hose length and routing for compliance with original design
- b. Assemblies for correct style, size, length, and visible nonconformities
- c. Fitting sealing surfaces for burrs, nicks, or other damage

NOTE— When replacing hose assemblies in existing systems, verify that the replacement is of equal quality to the original assembly.

7.2 Handling During Installation—Handle hose with care during installation. Kinking hose, or bending at less than minimum bend radius may reduce hose life. Avoid sharp bending at the hose/fitting juncture (see 5.21).

7.3 Twist Angle and Orientation—Pressure applied to a twisted hose may shorten the life of the hose or loosen the connections. To avoid twisting, use the hose lay line or marking as a reference.

7.4 Securement and Protection—Install necessary restraints and protective devices. Determine that such devices do not create additional stress or wear points.

7.5 Routing—Review proper routing practices provided in Section 5 and make appropriate corrections to obtain optimum performance.

HOSE SELECTION & SERVICE LIFE RECOMMENDATIONS (cont'd)

7.6 Assembly Torque—The connection end of a hose fitting is normally threaded to obtain a tight pressure seal when attached to a port, an adapter, or another fitting. Sometimes bolts or screws provide the threaded connection. Each size and type of connection requires different torque values, and these may vary due to type of material or exterior coating.

Follow appropriate torquing instructions to obtain a proper pressure seal without over-torquing. A properly calibrated torque wrench should be used to tighten each connection, except when the manufacturer specifies tightening a specified number of hex flat turns beyond finger tight to obtain a seal.

7.7 System Checkouts—In hydraulic or other liquid systems, eliminate all air entrapment after completing the installation. Follow manufacturers' instructions to test the system for possible malfunctions and leaks.

7.7.1 TO AVOID INJURY DURING SYSTEM CHECKOUTS:

- a. Do not touch any part of the system when checking for leaks (see 4.1).
- b. Stay out of potentially hazardous areas while testing hose systems (see Section 4).
- c. Relieve system pressure before tightening connections.

8. Maintenance Inspection—A hose and fitting maintenance program may reduce equipment downtime, maintain peak operating performance, and reduce the risk of personal injury and/or property damage. The user should design and implement a maintenance program that suits the specific application and each specific hose in that application.

8.1 Inspection Frequency—Evaluate factors such as the nature and severity of the application, past history, and manufacturers' information to establish the frequency of visual inspections and functional tests.

8.2 Visual Inspection (Hose and Fittings)—Visually inspect hose and fittings for:

- a. Leaks at hose fitting or in hose
- b. Damaged, cut, or abraded cover
- c. Exposed reinforcement
- d. Kinked, crushed, flattened, or twisted hose
- e. Hard, stiff, heat cracked, or charred hose
- f. Blistered, soft, degraded, or loose cover
- g. Cracked, damaged, or badly corroded fittings
- h. Fitting slippage on hose
- i. Other signs of significant deterioration

If any of these conditions exist, evaluate the hose assemblies for correction or replacement.

8.3 Visual Inspection (All Other Components)—When visually inspecting hose and fittings, inspect for related items including:

- a. Leaking ports
- b. Damaged or missing hose clamps, guards, or shields
- c. Excessive dirt and debris around hose
- d. System fluid: level, type, contamination, condition, and air entrainment

If any of these are found, address them appropriately.

HOSE SELECTION & SERVICE LIFE RECOMMENDATIONS (cont'd)

8.4 Functional Test—Functional tests determine if systems with hose are leak free and operating properly. Carry out functional tests per information from equipment manufacturers.

9. Hose Storage—Age control and the manner of storage can affect hose life. Use the following practices when storing hose.

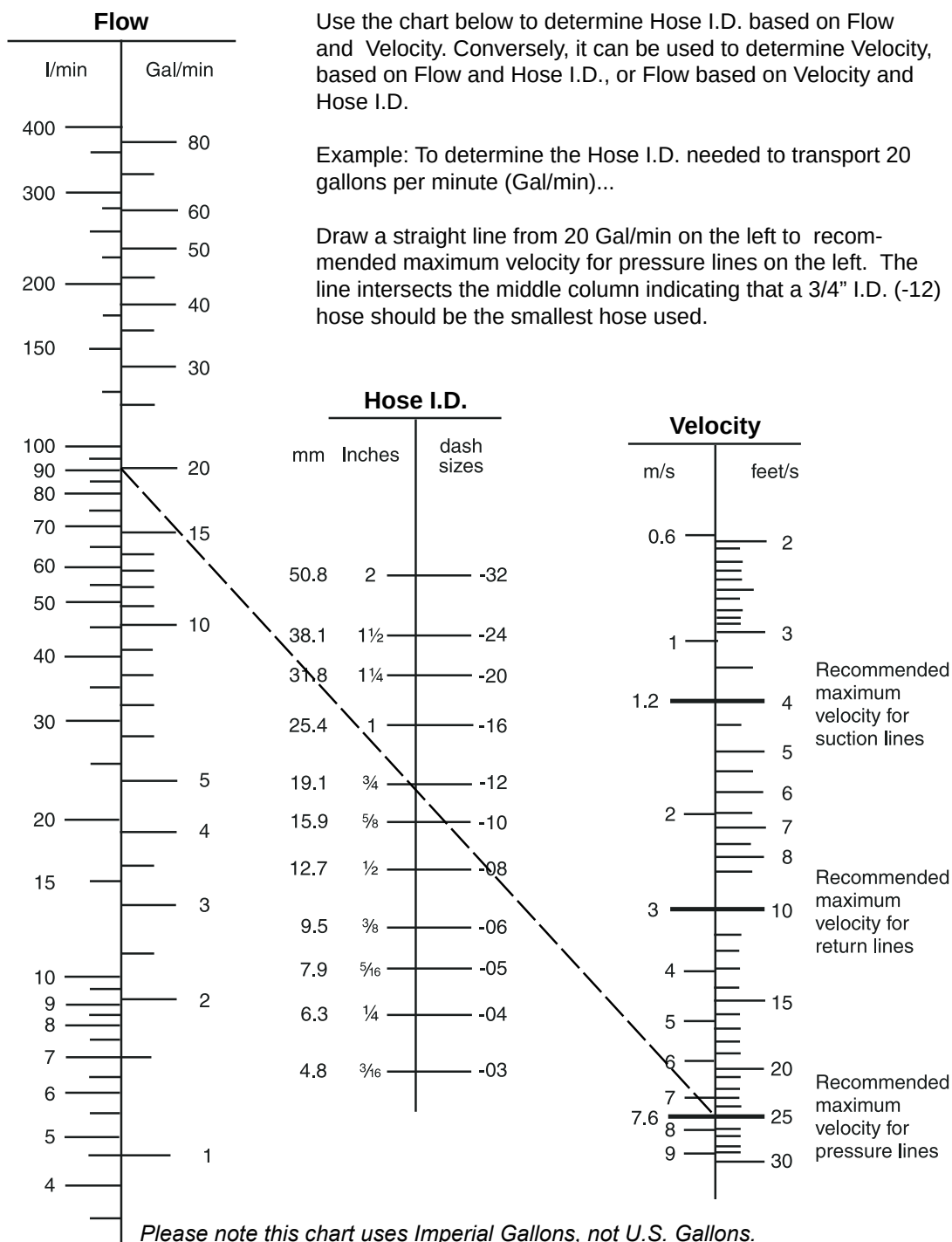
9.1 Age Control—Maintain a system of age control to determine that hose is used before its shelf life has expired. Shelf life is the period of time when it is reasonable to expect the hose to retain full capabilities for rendering the intended service.

Store hose in a manner that facilitates age control and first-in, first-out usage based on manufacturing date on hose or hose assembly. Per SAE J517:

- a. Shelf life of rubber hose in bulk form, or in hose assemblies passing visual inspection and proof test, is forty quarters (ten years) from the date of vulcanization.
- b. Shelf life of thermoplastic and polytetrafluoroethylene hose is considered to be unlimited.

NOMOGRAPHIC CHART

Flow Capacity of Hose Assemblies Recommended Flow Velocities

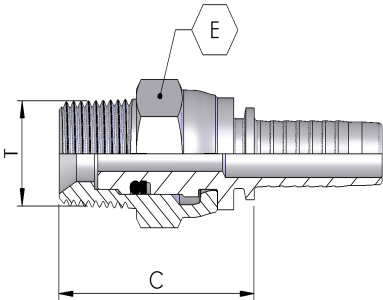


Our product range is constantly evolving and Hydraulink reserve the right to change technical specifications without notice

BSP TAPER

S14

BSPT MALE STRAIGHT
BSP TAPERED MALE STRAIGHT SWIVEL

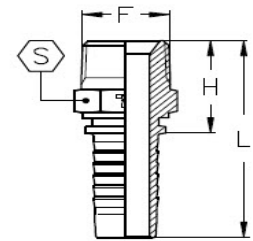


Part Number	BSPT Male Thread (T)	Hose I.D (Inches)	Hose I.D (mm)	Dash size	Hex A/F (E)	Cutoff - C
S14-0606	3/8-28	3/8	9.5	06	22	45.6
S14-0808	1/2-28	1/2	12.7	08	25	47.3

S15

BSPT MALE STRAIGHT

BSP TAPERED MALE STRAIGHT



Part Number	BSPT Male Thread (F)	Hose I.D (Inches)	Hose I.D (mm)	Dash size	Hex A/F (S)	Cutoff (H)	Length mm (L)	Working Pressure (bar)	Working Pressure (psi)
S15-0203	1/8-28	3/16	5	03	12	20	45	350	5000
S15-0204	1/8-28	1/4	6.3	04	12	21	49	350	5000
S15-0404	1/4-19	1/4	6.3	04	15	25	53	350	5000
S15-0406	1/4-19	3/8	10	06	15	26	56	350	5000
S15-0408	1/4-19	1/2	12.7	08					
S15-0604	3/8-19	1/4	6.3	04	19	26	54	280	4000
S15-0605	3/8-19	5/16	8	05	19	26	54	280	4000
S15-0606	3/8-19	3/8	10	06	19	27	57	280	4000
S15-0608	3/8-19	1/2	12.5	08	19	28	64	280	4000
S15-0804	1/2-14	1/4	6.4	04					
S15-0806	1/2-14	3/8	10	06	22	32	63	280	4000
S15-0808	1/2-14	1/2	12.5	08	22	33	66	280	4000
S15-0810	1/2-14	5/8	16	10	22	33	69	280	4000
S15-0812	1/2-14	3/4	19	12					
S15-1010	5/8-14	5/8	15.9	10	25	35			
S15-1208	3/4-14	1/2	12.7	08	27	36.2			
S15-1210	3/4-14	5/8	16	10	27	35	71	280	4000
S15-1212	3/4-14	3/4	19	12	27	36	77	280	4000
S15-1216	3/4-14	1	25.4	16	35	41.7			
S15-1612	1-11	3/4	19	12	36	41	82	280	4000
S15-1616	1-11	1	25	16	36	44	101	280	4000
S15-1620	1-11	1 1/4	31.8	20	44.45	52			
S15-2016	1 1/4-11	1	25.4	16	46	45.6			
S15-2020	1 1/4-11	1 1/4	31.5	20	46	51	118	210	3000
S15-2424	1 1/2-11	1 1/2	38	24	50	54	137	185	2700
S15-3232	2-11	2	51	32	65	64	160	175	2500

BSP PARALLEL

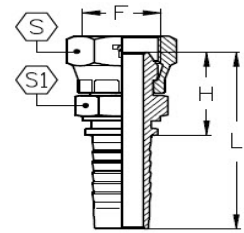
S01H

BSP FEMALE STRAIGHT

BSP 60° CONE FEMALE SWIVEL NUT STRAIGHT

BACK HEX

- ISO 12151-6



Part Number	BSPF Female Thread (F)	Hose I.D (Inches)	Hose I.D (mm)	Dash size	Hex A/F (S)	Hex A/F (S1)	Cutoff (H)	Length mm (L)	Working Pressure (bar)
S01H-0204	1/8-28	1/4	6.4	04	14	16	25		
S01H-0404	1/4-19	1/4	6.3	04	19	14	24	52	450
S01H-0405	1/4-19	5/16	7.9	05	19	16	25		
S01H-0406	1/4-19	3/8	9.5	06	19	19	27		
S01H-0408	1/4-19	1/2	12.7	08	19	22	27		
S01H-0604	3/8-19	1/4	6.3	04	22	17	26	54	450
S01H-0605	3/8-19	5/16	7.9	05	22	19	26		
S01H-0606	3/8-19	3/8	10	06	22	17	26	57	445
S01H-0608	3/8-19	1/2	12.7	08	22	22	29		
S01H-0806	1/2-14	3/8	10	06	27	22	29	60	415
S01H-0808	1/2-14	1/2	12.5	08	27	22	30	63	415
S01H-0810	1/2-14	5/8	15.9	10	27	25	31		
S01H-0812	1/2-14	3/4	19	12	27	28	35		
S01H-1008	5/8-14	1/2	12.7	08	28	25	32		
S01H-1010	5/8-14	5/8	15.9	10	28	25	32		
S01H-1206	3/4-14	3/8	9.5	06	32	28	33		
S01H-1208	3/4-14	1/2	12.7	08	32	28	33		
S01H-1210	3/4-14	5/8	15.9	10	32	28	35		
S01H-1212	3/4-14	3/4	19	12	32	27	36	76	350
S01H-1216	3/4-14	1	25.4	16	32	35	42		
S01H-1612	1-11	3/4	19	12	38	38	39		
S01H-1616	1-11	1	25.4	16	38	38	42		
S01H-1620	1-11	1 1/4	31.8	20	38	44	48		
S01H-2016	1 1/4-11	1	25.4	16	51	41	43		
S01H-2020	1 1/4-11	1 1/4	31.8	20	51	44	47		
S01H-2424	1 1/2-11	1 1/2	38.1	24	55	51	51		
S01H-3232	2-11	2	50.8	32	70	70	58		

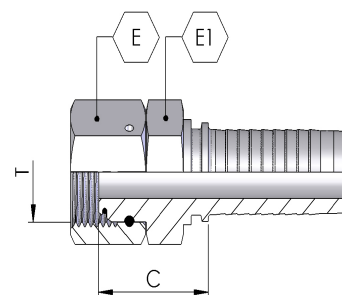
S01XH

BSP FEMALE STRAIGHT

BSP 60° CONE FEMALE SWIVEL NUT STRAIGHT

BACK HEX HEAVY DUTY

- ISO 12151-6

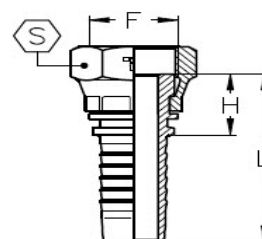


Part Number	BSPP Female Thread (T)	Hose I.D (Inches)	Hose I.D (mm)	Dash size	Hex A/F (E)	Hex A/F (E1)	Cutoff - C
S01XH-1212	3/4-14	3/4	19	12	32	28	36
S01XH-1616	1-11	1	25.4	16	38	38	42

S02C

BSP FEMALE STRAIGHT

BSP FLAT FACE FEMALE SWIVEL NUT STRAIGHT



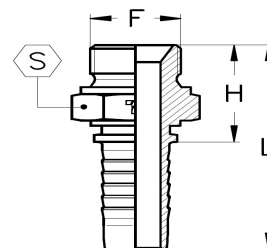
Part Number	BSPP Female Thread (F)	Hose I.D (Inches)	Hose I.D (mm)	Dash size	Hex A/F (S)	Cutoff (H)	Length mm (L)	Working Pressure (bar)	Working Pressure (psi)
S02C-0404	1/4-19	1/4	6.3	04	19	15	43	450	6500
S02C-0606	3/8-19	3/8	10	06	22	17	47	445	6500
S02C-0608	3/8-19	1/2	12.7	08	22	16			
S02C-0806	1/2-14	3/8	10	06	27	19	49	415	6000
S02C-0808	1/2-14	1/2	12.5	08	27	19	52	415	6000
S02C-1208	3/4-14	1/2	12.5	08	32	23	56	350	5000
S02C-1212	3/4-14	3/4	19	12	32	22	63	350	5000

S12

BSP MALE STRAIGHT

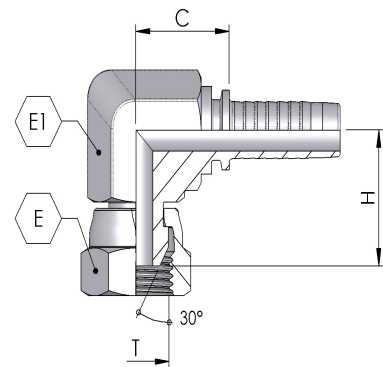
BSP 60° CONE MALE STRAIGHT

- ISO 12151-6



Part Number	BSPP Male Thread (F)	Hose I.D (Inches)	Hose I.D (mm)	Dash size	Hex A/F (S)	Cutoff (H)	Length mm (L)	Working Pressure (bar)	Working Pressure (psi)
S12-0404	1/4-19	1/4	6.3	04	19	25	53	450	6500
S12-0406	1/4-19	3/8	10	06	19	25	55	445	6500
S12-0604	3/8-19	1/4	6.3	04	22	27	55	450	6500
S12-0605	3/8-19	5/16	8	05	22	27	55	350	5000
S12-0606	3/8-19	3/8	10	06	22	27	58	445	6500
S12-0608	3/8-19	1/2	12.5	08	22	28	61	415	6000
S12-0804	1/2-14	1/4	6.3	04	27	32	60	415	6000
S12-0806	1/2-14	3/8	10	06	27	32	62	415	6000
S12-0808	1/2-14	1/2	12.5	08	27	33	66	415	6000
S12-0812	1/2-14	3/4	19	12	27	34	74	350	5000
S12-1208	3/4-14	1/2	12.5	08	32	36	69	350	5000
S12-1212	3/4-14	3/4	19	12	32	37	77	350	5000
S12-1616	1-11	1	25	16	41	45	101	380	5500

S25
BSP FEMALE 90° ELBOW
BSP 60° CONE FEMALE SWIVEL NUT 90° ELBOW
COMPACT



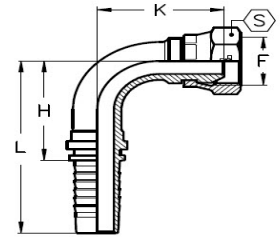
Part Number	T	Hose ID (Inches)	Hose ID (mm)	Hose Dash Size	E	E1	C	H	PN (bar)
S25-0404	1/4-19	1/4	6.3	04	19	14	19	21	400
S25-0604	3/8-19	1/4	6.3	04	22	19	22	25	400
S25-0606	3/8-19	3/8	10.0	06	22	19	23	25	400
S25-0806	1/2-14	3/8	10.0	06	27	24	25	31	350
S25-0808	1/2-14	1/2	12.5	08	27	24	25	31	350
S25-1010	5/8-14	5/8	15.9	10	29	30	32		
S25-1212	3/4-14	3/4	19.0	12	32	27	32	36	315
S25-1616	1-11	1	25.0	16	41	36	42	42	250
S25-2020	1 1/4-11	1 1/4	31.8	20	51	47	64		

S51

BSP FEMALE 90° ELBOW

BSP 60° CONE FEMALE SWIVEL NUT 90° ELBOW

- ISO 12151-6

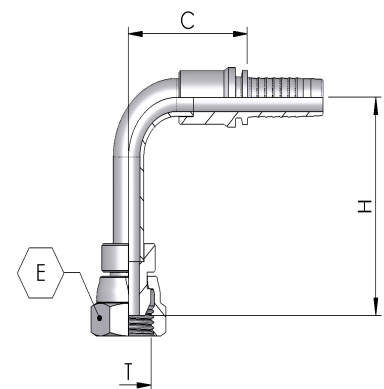


Part Number	BSPP Female Thread (F)	Hose I.D (Inches)	Hose I.D (mm)	Dash size	Hex A/F (S)	Drop (K)	Cutoff (H)	Length mm (L)	Working Pressure (bar)
S51-0204	1/8-28	1/4	6.3	04	14	28	26	54	350
S51-0404	1/4-19	1/4	6.3	04	19	28	26	54	450
S51-0604	3/8-19	1/4	6.3	04	22	32	26	54	450
S51-0606	3/8-19	3/8	10	06	22	35	31	61	445
S51-0806	1/2-14	3/8	10	06	27	38	31	61	415
S51-0808	1/2-14	1/2	12.5	08	27	42	37	70	415
S51-1010	5/8-14	5/8	16	10	30	46	45	80	350
S51-1208	3/4-14	1/2	12.5	08	32	48	37	70	350
S51-1210	3/4-14	5/8	16	10	32	50	45	80	350
S51-1212	3/4-14	3/4	19	12	32	56	54	95	350
S51-1616	1-11	1	25	16	41	72	71	128	380
S51-2020	1 1/4-11	1 1/4	31.5	20	50	88	87	154	325
S51-2424	1 1/2-11	1 1/2	38	24	60	104	105	188	290
S51-3232	2-11	2	51	32	75	137	140	237	250

S57

BSP FEMALE 90° ELBOW

BSP 60° CONE FEMALE SWIVEL NUT 90° ELBOW EXTENDED



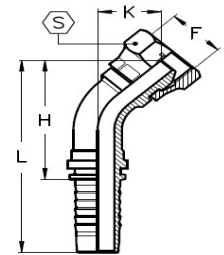
Part Number	BSPP Female Thread (T)	Hose I.D (Inches)	Hose I.D (mm)	Dash size	Hex A/F (E)	Drop	Cutoff mm (C)
S57-0606	3/8-19	3/8	9.5	06	22	60	53
S57-0808	1/2-20	1/2	12.7	08			

S60

BSP FEMALE 45° ELBOW

BSP 60° CONE FEMALE SWIVEL NUT 45° ELBOW

- ISO 12151-6



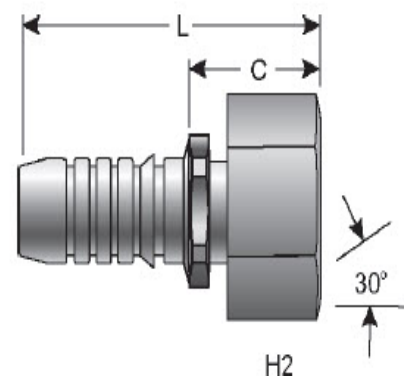
Part Number	BSPP Female Thread (F)	Hose I.D (Inches)	Hose I.D (mm)	Dash size	Hex A/F (S)	Drop mm (K)	Cutoff mm (H)	Length mm (L)	Working Pressure (bar)
S60-0404	1/4-19	1/4	6.3	04	19	16	37	65	450
S60-0604	3/8-19	1/4	6.3	04	22	19	40	68	450
S60-0606	3/8-19	3/8	10	06	22	19	42	73	445
S60-0806	1/2-14	3/8	10	06	27	21	44	75	415
S60-0808	1/2-14	1/2	12.5	08	27	22	49	82	415
S60-1010	5/8-14	5/8	16	10	30	24	54	90	350
S60-1212	3/4-14	3/4	19	12	32	28	66	106	350
S60-1616	1-11	1	25	16	36	41	86	142	380
S60-2020	1 1/4-11	1 1/4	31.5	20	43	50	103	169	325
S60-2424	1 1/2-11	1 1/2	38	24	51	60	123	203	290
S60-3232	2-11	2	51	32	65	75	160	257	250

GS-FBSPORX (GS01)

BSP FEMALE STRAIGHT

GATES GS BSP 60° CONE FEMALE SWIVEL NUT STRAIGHT

- FOR GATES 20EFG4K, 20EFG5K, OR 20EFG6K HOSE ONLY.
- USE WITH GATES GSF4N OR GSF6N FERRULES ONLY.



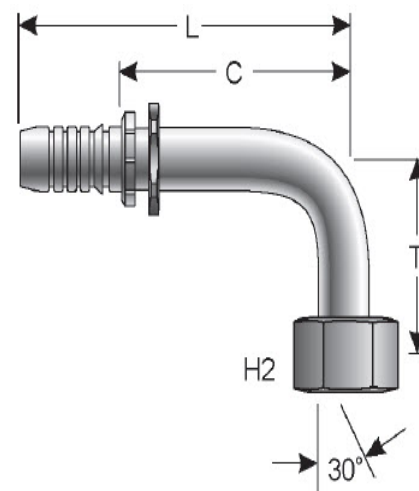
Part Number	BSPP Female Thread	Hose I.D (Inches)	Hose I.D (mm)	Dash size	Length mm (L)	H2 (mm)	Cutoff mm (C)
20GS-20FBSP ORX	1 1/4-11	1 1/4	31.8	20	116.6	50	45.5

GS-FBSPORX90 (GS51)

BSP FEMALE 90° ELBOW

GATES GS BSP 60° CONE FEMALE SWIVEL NUT 90° ELBOW

- FOR GATES 20EFG4K, 20EFG5K, OR 20EFG6K HOSE ONLY.
- USE WITH GATES GSF4N OR GSF6N FERRULES ONLY.



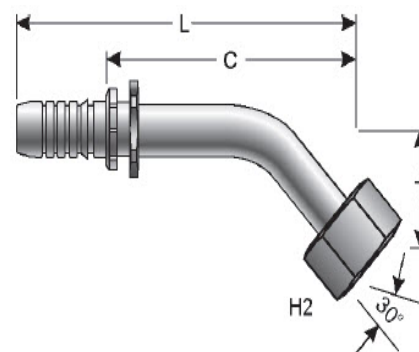
Part Number	BSPP Female Thread	Hose I.D (Inches)	Hose I.D (mm)	Dash size	Length mm (L)	H2 (mm)	Cutoff mm (C)	Drop mm (T)
20GS-20FBS PORX90	1 1/4-11	1 1/4	31.8	20	180.6	50	109.5	80

GS-FBSPORX45 (GS60)

BSP FEMALE 45° ELBOW

GATES GS BSP 60° CONE FEMALE SWIVEL NUT 45° ELBOW

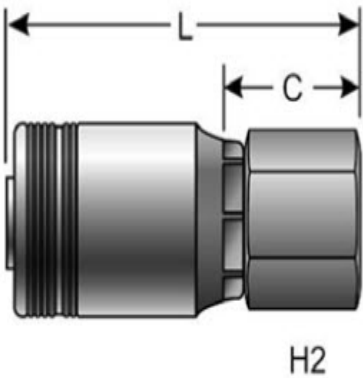
- FOR GATES 20EFG4K, 20EFG5K, OR 20EFG6K HOSE ONLY.
- USE WITH GATES GSF4N OR GSF6N FERRULES ONLY.



Part Number	BSPP Female Thread	Hose I.D (Inches)	Hose I.D (mm)	Dash size	Length mm (L)	H2 (mm)	Cutoff mm (C)	Drop mm (T)
20GS-20FBS PORX45	1 1/4-11	1 1/4	31.8	20	191	50	119.9	37.6

GSM-FBSPORX (GSM01)
BSP FEMALE STRAIGHT
GATES GSM BSP 60° CONE FEMALE SWIVEL NUT
STRAIGHT ONE PIECE

- FOR GATES 24 AND 32 EFG5K OR EFG6K HOSE ONLY.



Part Number	BSPP Female Thread	Hose I.D (Inches)	Dash Size	Hose I.D. (mm)	Length mm (L)	H2 (mm)	Cutoff mm (C)
24GSM-24FBS PORX	1 1/2 - 11	1 1/2	24	38.1	154	55	58.8
32GSM-32FBS PORX	2 - 11	2	32	50.8	183.9	70.1	69.9

JIC

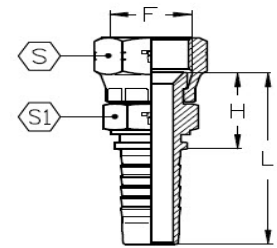
S05H

JIC FEMALE STRAIGHT

JIC 37° FLARE FEMALE SWIVEL NUT STRAIGHT

BACK HEX

- ISO 12151-5/SAE J516



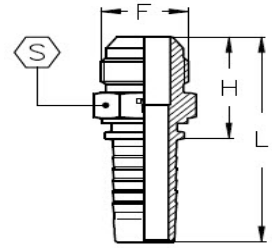
Part Number	JIC Female Thread (F)	Hose I.D (Inches)	Hose I.D (mm)	Dash size	Hex A/F (S)	Hex A/F (S1)	Cutoff (H)	Length mm (L)	Working Pressure (bar)
S05C-0905	9/16-18	5/16	8	05	19		15.5	43.5	350
S05H-0703	7/16-20	3/16	5	03	14	12	19	44	415
S05H-0704	7/16-20	1/4	6.3	04	14	14	20.5	48.5	415
S05H-0706	7/16-20	3/8	10	06	14	16	21	51.5	350
S05H-0804	1/2-20	1/4	6.3	04	17	14	21	49	400
S05H-0806	1/2-20	3/8	10	06	17	16	21.5	52	350
S05H-0904	9/16-18	1/4	6.3	04	19	14	22	50	350
S05H-0906	9/16-18	3/8	10	06	19	16	22.5	53	350
S05H-0908	9/16-18	1/2	12.5	08	19	19	24.5	57.5	350
S05H-1206	3/4-16	3/8	10	06	22	19	24.5	55	350
S05H-1208	3/4-16	1/2	12.5	08	22	19	25.5	58.5	350
S05H-1210	3/4-16	5/8	16	10	22	22	26.7	62.5	350
S05H-1408	7/8-14	1/2	12.5	08	27	22	27.5	60.5	350
S05H-1410	7/8-14	5/8	16	10	27	22	27.7	63.5	350
S05H-1412	7/8-14	3/4	19	12	27	27	30	70.5	350
S05H-1708	1 1/16-12	1/2	12.5	08	32	25	30.3	63.3	350
S05H-1710	1 1/16-12	5/8	16	10	32	25	30.5	66.3	350
S05H-1712	1 1/16-12	3/4	19	12	32	27	31.8	72.3	350
S05H-1716	1 1/16-12	1	25.4	16	32	32	35		
S05H-1912	1 3/16-12	3/4	19	12	36	30	34.5	75	280
S05H-1916	1 3/16-12	1	25.4	16	35	35	39		
S05H-2112	1 5/16-12	3/4	19	12	41	32	35.5	76	280
S05H-2116	1 5/16-12	1	25	16	41	32	39.5	96	280
S05H-2616	1 5/8-12	1	25	16	50	41	46	102.5	210
S05H-2620	1 5/8-12	1 1/4	31.5	20	50	41	42.8	114.5	210
S05H-2624	1 5/8-12	1 1/2	38.1	24	50	41			
S05H-3020	1 7/8-12	1 1/4	31.5	20	60	46	51	117.5	185
S05H-3024	1 7/8-12	1 1/2	38	24	60	46	53	135.5	185
S05H-4032	2 1/2-12	2	51	32	75	60	69	165.5	175

S18

JIC MALE STRAIGHT

JIC 37° FLARE MALE STRAIGHT

- ISO 12151-5/SAE J516



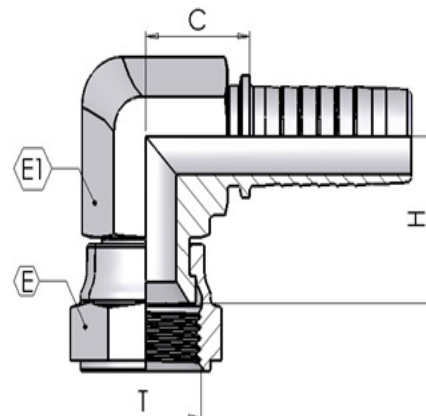
Part Number	JIC Male Thread (F)	Hose I.D (Inches)	Hose I.D (mm)	Dash size	Hex A/F (S)	Cutoff (H)	Length mm (L)	Working Pressure (bar)	Working Pressure (psi)
S18-0704	7/16-20	1/4	6.3	04	12	25.5	53.5	400	5800
S18-0804	1/2-20	1/4	6.3	04	14	25.5	53.5	400	5800
S18-0904	9/16-18	1/4	6.3	04	15	26.6	54.6	350	5000
S18-0905	9/16-18	5/16	8	05	15	26.6	54.6	350	5000
S18-0906	9/16-18	3/8	10	06	15	26.6	57.1	350	5000
S18-1204	3/4-16	1/4	6.4	04	22	32			
S18-1206	3/4-16	3/8	10	06	19	29.7	60.2	350	5000
S18-1208	3/4-16	1/2	12.5	08	19	30.7	63.7	350	5000
S18-1406	7/8-14	3/8	10	06	24	34.3	64.8	350	5000
S18-1408	7/8-14	1/2	12.5	08	24	35.3	68.3	350	5000
S18-1410	7/8-14	5/8	16	10	24	35.5	71.3	350	5000
S18-1412	7/8-14	3/4	19	12	27	37.3	77.8	350	5000
S18-1708	1 1/16-12	1/2	12.5	08	27	38.9	71.9	350	5000
S18-1710	1 1/16-12	5/8	16	10	27	39.1	74.9	350	5000
S18-1712	1 1/16-12	3/4	19	12	27	39.9	80.4	350	5000
S18-1716	1 1/16-12	1	25	16	32	43	99.5	350	5000
S18-1912	1 3/16-12	3/4	19	12	32	41.6	82.1	280	4000
S18-1916	1 3/16-12	1	25.4	16	32	46	94		
S18-2112	1 5/16-12	3/4	19	12	34	42.1	82.6	280	4000
S18-2116	1 5/16-12	1	25	16	36	45	101.5	280	4000
S18-2616	1 5/8-12	1	25	16	46	48	104.5	210	3000
S18-2620	1 5/8-12	1 1/4	31.5	20	46	50.5	117	210	3000
S18-3024	1 7/8-12	1 1/2	38	24	50	57	139.5	185	2700
S18-4032	2 1/2-12	2	51	32	65	68.5	165	175	2500

S29

JIC FEMALE 90° ELBOW

JIC 37° FLARE FEMALE SWIVEL NUT 90° ELBOW

COMPACT



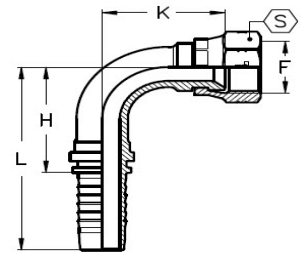
Part Number	T	Hose ID (Inches)	Hose ID (mm)	Hose Dash Size	E	E1	C	H	PN (bar)
S29-0704	7/16-20	1/4	6.3	04	14	14	18	17	350
S29-0804	1/2-20	1/4	6.4	04	16	21	20		
S29-0904	9/16-18	1/4	6.3	04	19	14	18	19	350
S29-0906	9/16-18	3/8	10.0	06	19	19	23	22	350
S29-1206	3/4-16	3/8	10.0	06	22	19	23	23	310
S29-1208	3/4-16	1/2	12.5	08	22	24	25	27	310
S29-1408	7/8-14	1/2	12.5	08	27	24	25	27	240
S29-1410	7/8-14	5/8	16.0	10	27	24	25	27	240
S29-1708	1 1/16-12	1/2	12.7	08	32	36	32		
S29-1710	1 1/16-12	5/8	15.9	10	32	36	32		
S29-1712	1.1/16-12	3/4	19.0	12	32	27	32	30	240
S29-1912	1 3/16-12	3/4	19	12	35	45	40		
S29-2116	1.5/16-12	1	25.0	16	41	36	42	38	210

S55

JIC FEMALE 90° ELBOW

JIC 37° FLARE FEMALE SWIVEL NUT 90° ELBOW

- ISO 12151-5/SAE J516

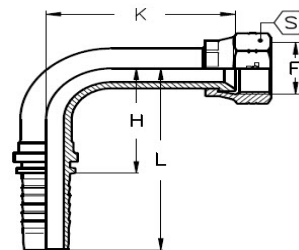


Part Number	JIC Female Thread (F)	Hose I.D (Inches)	Hose I.D (mm)	Dash size	Hex A/F (S)	Drop mm (K)	Cutoff (H)	Length mm (L)	Working Pressure(bar)
S55-0703	7/16-20	3/16	5	03	14	21	21	46	415
S55-0704	7/16-20	1/4	6.3	04	14	26	25.5	53.5	415
S55-0804	1/2-20	1/4	6.3	04	17	26	25.5	53.5	400
S55-0904	9/16-18	1/4	6.3	04	19	27	25.5	53.5	350
S55-0906	9/16-18	3/8	10	06	19	33	31	61.5	350
S55-1206	3/4-16	3/8	10	06	22	33	31	61.5	350
S55-1208	3/4-16	1/2	12.5	08	22	39	37	70	350
S55-1406	7/8-14	3/8	10	06	27	31	31	61.5	350
S55-1408	7/8-14	1/2	12.5	08	27	40	37	70	350
S55-1410	7/8-14	5/8	16	10	27	45	45	81	350
S55-1412	7/8-14	3/4	19	12	27	54	55	95	350
S55-1708	1 1/16-12	1/2	12.5	08	32	40	40	73	350
S55-1710	1 1/16-12	5/8	16	10	32	47	45	81	350
S55-1712	1 1/16-12	3/4	19	12	32	53	55	95	350
S55-1716	1 1/16-12	1	25	16	32	71	71	122	280
S55-1912	1 3/16-12	3/4	19	12	36	54	55	95	280
S55-1916	1 3/16-12	1	25.4	16	35	69	64		
S55-2112	1 5/16-12	3/4	19	12	41	56	55	95	280
S55-2116	1 5/16-12	1	25	16	41	67	71	128	280
S55-2616	1 5/8-12	1	25	16	50	69	71	128	210
S55-2620	1 5/8-12	1 1/4	31.5	20	50	81	87	154	210
S55-3024	1 7/8-12	1 1/2	38	24	60	82	87	154	185
S55-4032	2 1/2-12	2	51	32	75	132	140	237	175

S58

JIC FEMALE 90° ELBOW

JIC 37° FLARE FEMALE SWIVEL NUT 90° ELBOW
EXTENDED



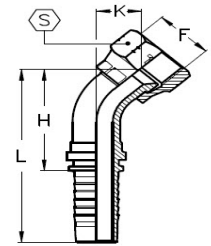
Part Number	JIC Female Thread (F)	Hose I.D (Inches)	Hose I.D (mm)	Dash size	Hex A/F (S)	Drop mm (K)	Cutoff (H)	Length mm (L)	Working Pressure (bar)
S58-0704	7/16-20	1/4	6.3	04	14	46	25.5	53.5	400
S58-0904	9/16-18	1/4	6.3	04	17	46	25.5	53.5	350
S58-0906	9/16-18	3/8	10	06	19	54	31	61.5	350
S58-1206	3/4-16	3/8	10	06	22	64	31	61.5	350
S58-1208	3/4-16	1/2	12.5	08	22	64	38	71	350
S58-1408	7/8-14	1/2	12.5	08	27	70	38	71	350
S58-1712	1 1/16-12	3/4	19	12	32	96	55	95	350
S58-2116	1 5/16-12	1	25	16	41	116	71	128	280

S64

JIC FEMALE 45° ELBOW

JIC 37° FLARE FEMALE SWIVEL NUT 45° ELBOW

- ISO 12151-5/SAE J516



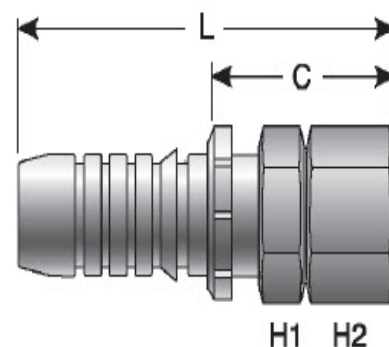
Part Number	JIC Female Thread (F)	Hose I.D (Inches)	Hose I.D (mm)	Dash size	Hex A/F (S)	Drop mm (K)	Cutoff (H)	Length mm (L)	Working Pressure (bar)
S64-0704	7/16-20	1/4	6.3	04	14	10	31	59	400
S64-0706	7/16-20	3/8	9.5	06	14				
S64-0804	1/2-20	1/4	6.3	04	17	11	32	60	400
S64-0904	9/16-18	1/4	6.3	04	19	12	33	61	350
S64-0906	9/16-18	3/8	10	06	19	12	35.5	66	350
S64-1206	3/4-16	3/8	10	06	22	14	37.5	68	350
S64-1208	3/4-16	1/2	12.5	08	22	14.5	41	76	350
S64-1408	7/8-14	1/2	12.5	08	27	16	43	76	350
S64-1410	7/8-14	5/8	16	10	27	16	47	83	350
S64-1412	7/8-14	3/4	19	12	27	27	64	105	350
S64-1708	1 1/16-12	1/2	12.5	08	32	19	50	86	350
S64-1710	1 1/16-12	5/8	16	10	32	19	45.5	78.5	350
S64-1712	1 1/16-12	3/4	19	12	32	22	59	99	350
S64-1912	1 3/16-12	3/4	19	12	36	22	59	100	280
S64-2112	1 5/16-12	3/4	19	12	41	24	61	101	280
S64-2116	1 5/16-12	1	25	16	41	32	82	138	280
S64-2620	1 5/8-12	1 1/4	31.5	20	50	38	98	164	210
S64-3024	1 7/8-12	1 1/2	38	24	60	46	118	201	185
S64-4032	2 1/2-12	2	51	32	75	62	157	253	175

GS-FJX (GS05)

JIC FEMALE STRAIGHT

GATES GS JIC 37° FLARE FEMALE SWIVEL NUT STRAIGHT

- FOR GATES 20EFG4K, 20EFG5K, OR 20EFG6K HOSE ONLY.
- USE WITH GATES GSF4N OR GSF6N FERRULES ONLY.



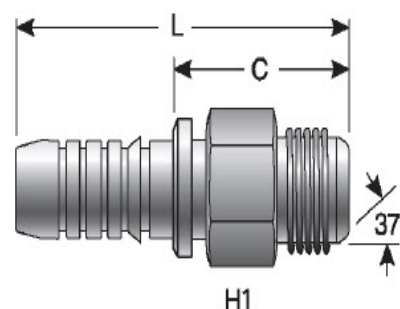
Part Number	JIC Female Thread	Hose I.D (Inches)	Hose I.D (mm)	Dash size	Length mm (L)	Cutoff mm (C)	H1 (mm)	H2 (mm)
20GS-20FJX	1 5/8-12	1 1/4	31.8	20	134.4	65	47.6	50.8
20GS-24FJX	1 7/8-12	1 1/4	31.8	20	136.9	65.8	47.6	60.3

GS-MJ (GS18)

JIC MALE STRAIGHT

GATES GS JIC 37° FLARE MALE STRAIGHT

- FOR GATES 20EFG4K, 20EFG5K, OR 20EFG6K HOSE ONLY.
- USE WITH GATES GSF4N OR GSF6N FERRULES ONLY.



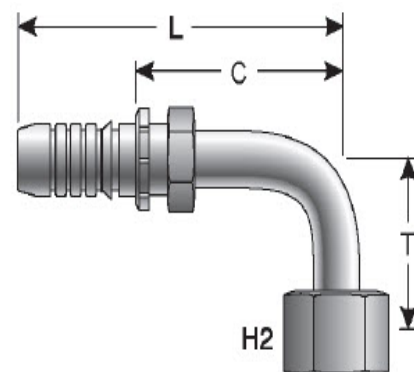
Part Number	JIC Female Thread	Hose I.D (Inches)	Hose I.D (mm)	Dash size	Length mm (L)	Cutoff mm (C)	H1 (mm)
20GS-20MJ	1 5/8-12	1 1/4	31.8	20	125	53.9	44.5

GS-FJX90M (GS55)

JIC FEMALE 90° ELBOW

GATES GS JIC 37° FLARE FEMALE SWIVEL NUT 90° ELBOW

- FOR GATES 20EFG4K, 20EFG5K, OR 20EFG6K HOSE ONLY.
- USE WITH GATES GSF4N OR GSF6N FERRULES ONLY.



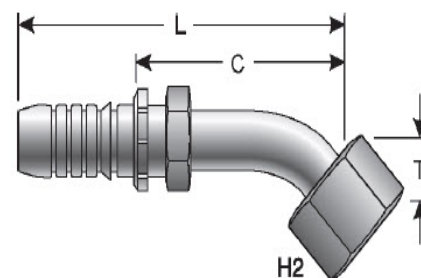
Part Number	JIC Female Thread	Hose I.D (Inches)	Hose I.D (mm)	Dash size	Length mm (L)	Cutoff mm (C)	Drop mm (T)	H2 mm
20GS-20FJX 90M	1 5/8-12	1 1/4	31.8	20	174	102.9	64	50.8

GS-FJX45-038 (GS64)

JIC FEMALE 45° ELBOW

GATES GS JIC 37° FLARE FEMALE SWIVEL NUT 45° ELBOW

- FOR GATES 20EFG4K, 20EFG5K, OR 20EFG6K HOSE ONLY.
- USE WITH GATES GSF4N OR GSF6N FERRULES ONLY.



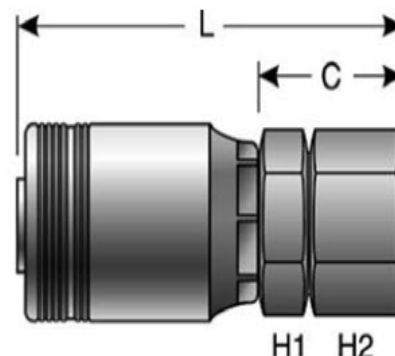
Part Number	JIC Female Thread	Hose I.D (Inches)	Hose I.D (mm)	Dash size	Length mm (L)	Cutoff mm (C)	Drop mm (T)	H2 mm
20GS-20FJX 45-038	1 5/8-12	1 1/4	31.8	20	180.1	109	38.1	50.8

GSM-FJX (GSM05)

JIC FEMALE STRAIGHT

GATES GSM JIC 37° FLARE FEMALE SWIVEL NUT STRAIGHT

- FOR GATES 24 AND 32 EFG5K OR EFG6K HOSE ONLY.



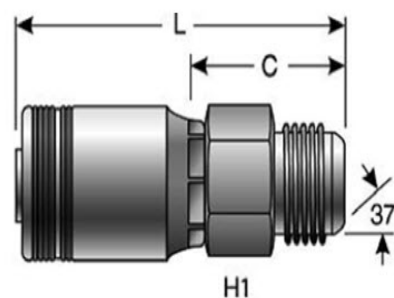
Part Number	JIC Female Thread	Hose I.D (Inches)	Dash Size	Hose I.D. (mm)	Length mm (L)	H2 (mm)	H1 (mm)	Cutoff mm (C)
24GSM-24FJ X	1 7/8 - 12	1 1/2	24	38.1	172.2	59.9	55	77.2

GSM-24MJ (GSM18)

JIC MALE STRAIGHT

GATES GSM JIC 37° FLARE MALE STRAIGHT

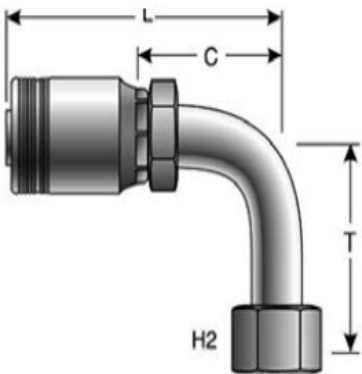
- FOR GATES 24 AND 32 EFG5K OR EFG6K HOSE ONLY.



Part Number	JIC Male Thread	Hose I.D (Inches)	Dash Size	Hose I.D. (mm)	Length mm (L)	Cutoff mm (C)	H1 (mm)
24GSH-24MJ	1 7/8 - 12	1 1/2	24	38.1	162.3	67.3	50

GSM-FJX90M (GSM55)
JIC FEMALE 90° ELBOW
GATES GSM JIC 37° FLARE FEMALE SWIVEL NUT
90° ELBOW

- FOR GATES 24 AND 32 EFG5K OR EFG6K HOSE ONLY.



Part Number	JIC Female Thread	Hose I.D (Inches)	Dash Size	Hose I.D. (mm)	Length mm (L)	H2 (mm)	Cutoff mm (C)	Drop mm (T)
24GSM-24FJX90M	1 7/8 - 12	1 1/2	24	38.1	227.6	60	132.3	86.1

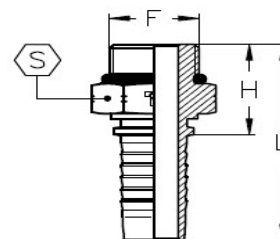
UNO

S20

UNO MALE STRAIGHT

UNO FIXED STUD STRAIGHT

- SAE J516

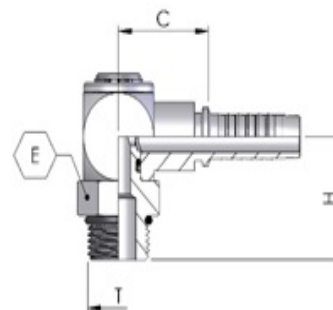


Part Number	Uno Male Thread (F)	Hose I.D (Inches)	Hose I.D (mm)	Dash size	Hex A/F (S)	Cutoff (H)	Length mm (L)	O-Ring	Working Pressure (bar)
S20-0704	7/16-20	1/4	6.3	04	14	21.5	49.5	8.92x1.83	400
S20-0906	9/16-18	3/8	10	06	17	23.5	54	11.89x1.98	350
S20-1206	3/4-16	3/8	10	06	22	26	56.5	16.36x2.021	350
S20-1208	3/4-16	1/2	12.5	08	22	27	60	16.36x2.21	350
S20-1408	7/8-14	1/2	12.5	08	25	29.5	62.5	19.18x2.46	350

S32

UNO MALE 90° ELBOW

UNO FIXED STUD 90° ELBOW SWIVEL



Part Number	Uno Male Thread (T)	Hose I.D (Inches)	Hose I.D (mm)	Dash size	Hex A/F (E)	Drop mm (H)	Cutoff (C)	O-Ring	Working Pressure (psi)
S32-1408K	7/8-14	1/2	12.5	08	25.4	36	32	19.18x2.46	3000

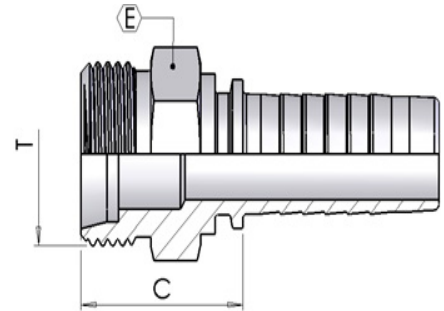
FLARELESS TUBE STRAIGHT

S94

FLARELESS TUBE STRAIGHT

IMPERIAL TUBE FLARELESS 24° CONE MALE

- SAE J516



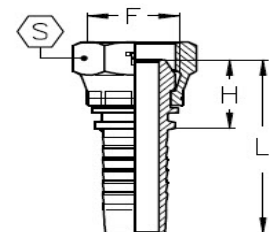
Part Number	SAE Male Thread (T)	Hose I.D inches	Hose I.D (mm)	Dash size	Tube Size	Hex A/F (E)	Cutoff - C
S94-0606	9/16-18	3/8	9.5	06	3/8	19	28
S94-0808	3/4-16	1/2	12.7	08	1/2	22	31

NPT

S07

NPSM FEMALE STRAIGHT

NPSM 60° CONE FEMALE SWIVEL NUT STRAIGHT

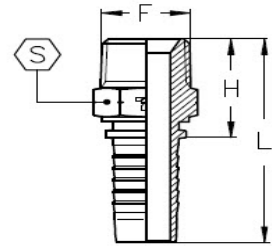


Part Number	NPSM Female Thread (F)	Hose I.D (Inches)	Hose I.D (mm)	Dash size	Hex A/F (S)	Cutoff mm (H)	Length mm (L)	Working Pressure (bar)	Working Pressure (psi)
S07C-0404	1/4-18	1/4	6.3	04	17	19	47	350	5000
S07C-0405	1/4-18	5/16	7.9	05	19	18			
S07C-0606	3/8-18	3/8	10	06	22	21	51	280	4000
S07C-0808	1/2-14	1/2	12.5	08	25	23	56	280	4000

S16

NPTF MALE STRAIGHT
NPTF MALE 30° CONE

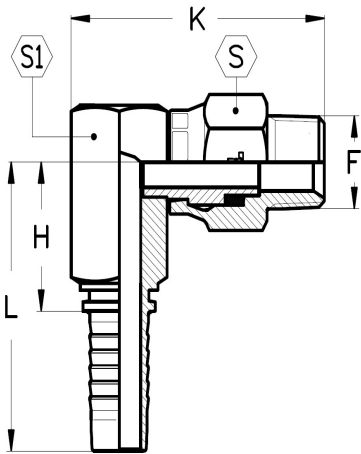
- SAE J516



Part Number	NPTF Male Thread (F)	Hose I.D (Inches)	Hose I.D (mm)	Dash size	Hex A/F (S)	Cutoff (H)	Length mm (L)	Working Pressure (bar)	Working Pressure (psi)
S16-0203	1/8-27	3/16	5	03	12	20.5	45.5	350	5000
S16-0204	1/8-27	1/4	6.3	04	12	21	49	350	5000
S16-0403	1/4-18	3/16	5	03	14	26.5	51.5	350	5000
S16-0404	1/4-18	1/4	6.3	04	14	27	55	350	5000
S16-0405	1/4-18	5/16	8	05	14	27	55	350	5000
S16-0406	1/4-18	3/8	10	06	16	27.5	58	350	5000
S16-0604	3/8-18	1/4	6.3	04	19	28.5	56.5	280	4000
S16-0606	3/8-18	3/8	10	06	19	28.5	59	280	4000
S16-0608	3/8-18	1/2	12.5	08	22	30.5	63.5	280	4000
S16-0806	1/2-14	3/8	10	06	22	34	64.5	280	4000
S16-0808	1/2-14	1/2	12.5	08	22	35	68	280	4000
S16-0812	1/2-14	3/4	19	12	27	37.5	78	280	4000
S16-1212	3/4-14	3/4	19	12	27	38	78.5	280	4000
S16-1616	1-11.5	1	25	16	36	48.5	105	280	4000
S16-2020	1 1/4-11.5	1 1/4	31.5	20	46	55	121.5	210	3000
S16-2424	1 1/2-11.5	1 1/2	38	24	50	61	143.5	185	2700
S16-3232	2-11.5	2	51	32	65	70.5	167	175	2500

S116
NPTF MALE COMPACT SWIVEL
NPTF MALE 30° CONE

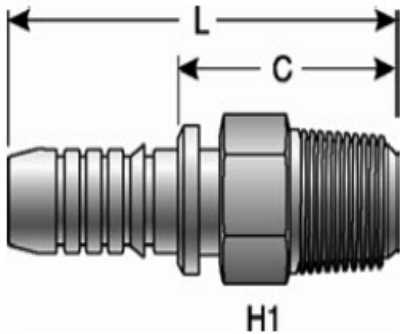
- SAE J516



Part Number	NPTF Male Thread (F)	Hose I.D (Inches)	Hose I.D (mm)	Dash size	Hex A/F (S)	Hex A/F (S1)	Cutoff (H)	Length mm (L)	Working Pressure (bar)
S116-0404	1/4-18	1/4	6.3	04	17	17	29	57	210

GS-MP (GS16)
NPTF MALE STRAIGHT
GATES GS NPTF MALE 30° CONE

- FOR GATES 20EFG4K, 20EFG5K, OR 20EFG6K HOSE ONLY.
- USE WITH GATES GSF4N OR GSF6N FERRULES ONLY.



Part Number	NPTF Male Thread	Hose I.D (Inches)	Hose I.D (mm)	Dash size	Length mm (L)	Cutoff mm (C)	H1 (mm)
20GS-20MP	1 1/4-11 5	1 1/4	31.8	20	127	55.9	44.5

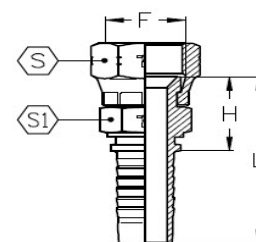
SAE

S03H

SAE FEMALE STRAIGHT

SAE 45° FLARE FEMALE SWIVEL NUT STRAIGHT

BACK HEX

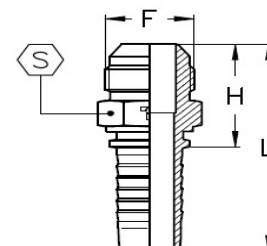


Part Number	SAE Female Thread (F)	Hose I.D (Inches)	Hose I.D (mm)	Dash size	Hex A/F (S)	Hex A/F (S1)	Cutoff (H)	Length mm (L)	Working Pressure (bar)
S03H-0704	7/16 - 20	1/4	6.4	04	15	14	21		
S03H-1004	5/8 - 18	1/4	6.4	04	19	16	24		
S03H-1006	5/8 - 18	3/8	10	06	22	16	23.5	54	350
S03H-1208	3/4 - 16	1/2	12.7	08	24	22	27		
S03H-1712	1 1/16 - 14	3/4	19	12	32	27	31.8	72.3	350

S09

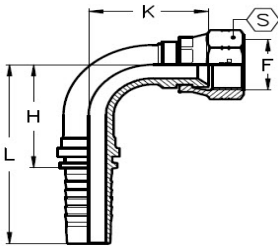
SAE MALE STRAIGHT

SAE 45° FLARE MALE STRAIGHT



Part Number	SAE Male Thread (F)	Hose I.D (Inches)	Hose I.D (mm)	Dash size	Hex A/F (S)	Cutoff (H)	Length mm (L)	Working Pressure (bar)	Working Pressure (psi)
S09-1006	5/8-18	3/8	10	06	16	28.2	58.7	350	5000
S09-1208	3/4-16	1/2	12.7	08	22	33			

S41
SAE FEMALE 90° ELBOW
SAE 45° FLARE FEMALE SWIVEL NUT 90° ELBOW



Part Number	SAE Female Thread (F)	Hose I.D (Inches)	Hose I.D (mm)	Dash size	Hex A/F (S)	Drop mm (K)	Cutoff (H)	Length mm (L)	Working Pressure (bar)
S41-1006	5/8 - 18	3/8	10	06	22	31	31	61	350

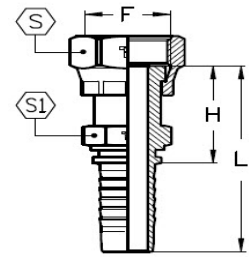
ORFS

S13H

ORFS FEMALE STRAIGHT

ORFS FEMALE SWIVEL NUT STRAIGHT BACK HEX

- ISO 12151-1/SAE J516

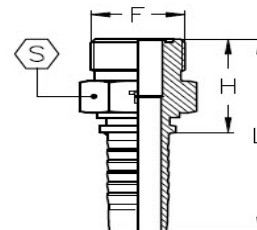


Part Number	ORFS Female Thread (F)	Hose I.D (Inches)	Hose I.D (mm)	Dash size	Hex A/F (S)	Hex A/F (S1)	Cutoff (H)	Length mm (L)	Working Pressure (bar)
S13H-0904	9/16-18	1/4	6.3	04	17	14	26.5	54.5	450
S13H-1104	11/16-16	1/4	6.3	04	22	16	28.5	56.5	450
S13H-1105	11/16-16	5/16	8	05	22	16	28.5	56.5	450
S13H-1106	11/16-16	3/8	10	06	22	16	28.5	59	450
S13H-1306	13/16-16	3/8	10	06	24	19	32.5	63	450
S13H-1308	13/16-16	1/2	12.5	08	24	19	33.5	66.5	415
S13H-1310	13/16 - 16	5/8	15.9	10	24	25.4	38.5		
S13H-1608	1-14	1/2	12.5	08	30	24	39.5	72.5	415
S13H-1610	1-14	5/8	16	10	30	24	39.5	75.5	350
S13H-1612	1-14	3/4	19	12	30	27	41.5	82	350
S13H-1908	1 3/16-12	1/2	12.5	08	36	27	43.5	76.5	415
S13H-1910	1 3/16-12	5/8	16	10	36	27	43.5	79.5	350
S13H-1912	1 3/16-12	3/4	19	12	36	27	44.5	85	350
S13H-1916	1 3/16-12	1	25.4	16	36	27			
S13H-2312	1 7/16-12	3/4	19	12	41	36	47.5	88	350
S13H-2316	1 7/16-12	1	25	16	41	36	51	107	415
S13H-2716	1 11/16-12	1	25	16	50	41	52	109	345
S13H-2720	1 11/16-12	1 1/4	31.5	20	50	41	55	121	345
S13H-3224	2-12	1 1/2	38	24	60	50	60	142	290

S40

ORFS MALE STRAIGHT

- ISO 12151-1/SAE J516



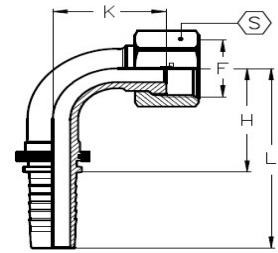
Part Number	ORFS Female Thread (F)	Hose I.D (Inches)	Hose I.D (mm)	Dash size	Hex A/F (S)	Cutoff (H)	Length mm (L)	O-Ring	Working Pressure (bar)
S40-0904	9/16-18	1/4	6.3	04	17	23.5	51.5	7.65X1.78	450
S40-1104	11/16-16	1/4	6.3	04	19	25.5	53.5	9.25X1.78	450
S40-1105	11/16-16	5/16	8	05	19	25.5	53.5	9.25X1.78	350
S40-1106	11/16-16	3/8	10	06	19	25.5	56	9.25X1.78	450
S40-1306	13/16-16	3/8	10	06	22	28.5	59	12.42X1.78	450
S40-1308	13/16-16	1/2	12.5	08	22	29.5	62.5	12.42X1.78	415
S40-1608	1-14	1/2	12.5	08	27	34	67	15.6X1.78	415
S40-1610	1-14	5/8	16	10	27	34	70	15.6X1.78	350
S40-1910	1 3/16-12	5/8	16	10	32	37	73	18.77X1.78	350
S40-1912	1 3/16-12	3/4	19	12	32	38	78.5	18.77X1.78	350
S40-1916	1 3/16-12	1	25	16	35	42			
S40-2312	1 7/16-12	3/4	19	12	41	42.5	83	23.52x1.78	350
S40-2316	1 7/16-12	1	25	16	41	41	97	23.52x1.78	415
S40-2716	1 11/16-12	1	25	16	46	38			
S40-2720	1 11/16-12	1 1/4	31.5	20	46	44	111	29.87x1.78	345

S52

ORFS FEMALE 90° ELBOW

ORFS FEMALE SWIVEL NUT 90° ELBOW

- ISO 12151-1/SAE J516



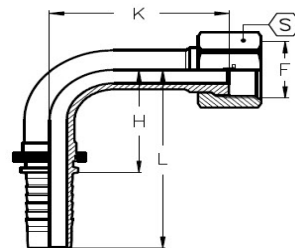
Part Number	ORFS Female Thread (F)	Hose I.D (Inches)	Hose I.D (mm)	Dash size	Hex A/F (S)	Drop mm (K)	Cutoff (H)	Length mm (L)	Working Pressure (bar)
S52-0904	9/16-18	1/4	6.3	04	17	21	27	55	450
S52-1104	11/16-16	1/4	6.3	04	22	24	27	55	450
S52-1105	11/16-16	5/16	8	05	22	25	29	57	350
S52-1106	11/16-16	3/8	10	06	22	24.5	31.5	62	450
S52-1306	13/16-16	3/8	10	06	24	30	31	61	450
S52-1308	13/16-16	1/2	12.5	08	24	31	39	72	415
S52-1608	1-14	1/2	12.5	08	30	34	39	72	415
S52-1610	1-14	5/8	16	10	30	35	45	81	350
S52-1910	1 3/16-12	5/8	16	10	36	42	45	81	350
S52-1912	1 3/16-12	3/4	19	12	36	45	55	95	350
S52-1916	1 3/16-12	1	25.4	16					
S52-2312	1 7/16-12	3/4	19	12	41	49	55	95	350
S52-2316	1 7/16-12	1	25	16	41	62	71	127	415
S52-2720	1 11/16-12	1 1/4	31.5	20	50	75	87	153	345
S52-3224	2-12	1 1/2	38	24	60	90	105	187	290

S56

ORFS FEMALE 90° ELBOW

ORFS FEMALE SWIVEL NUT 90° ELBOW EXTENDED

- ISO 12151-1/SAE J516



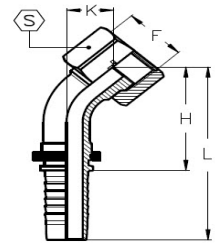
Part Number	ORFS Female Thread (F)	Hose I.D (Inches)	Hose I.D (mm)	Dash size	Hex A/F (S)	Drop mm (K)	Cutoff (H)	Length mm (L)	Working Pressure (bar)
S56-0904	9/16-18	1/4	6.3	04	17	46	29	57	450
S56-1104	11/16-16	1/4	6.3	04	22	54	27	55	450
S56-1106	11/16-16	3/8	10	06	22	54	34	64.5	450
S56-1306	13/16-16	3/8	10	06	24	64	34	64.5	450
S56-1308	13/16-16	1/2	12.5	08	24	64	39	72	415
S56-1608	1-14	1/2	12.5	08	30	70	39	72	415
S56-1610	1-14	5/8	16	10	30	70	45	81	350
S56-1610-C ROWN	1-14	5/8	15.9	10	30	119	36		
S56-1912	1 3/16-12	3/4	19	12	36	96	55	95	350
S56-2316	1 7/16-12	1	25	16	41	114	71	127	415

S63

ORFS FEMALE 45° ELBOW

ORFS FEMALE SWIVEL NUT 45° ELBOW

- ISO 12151-1/SAE J516



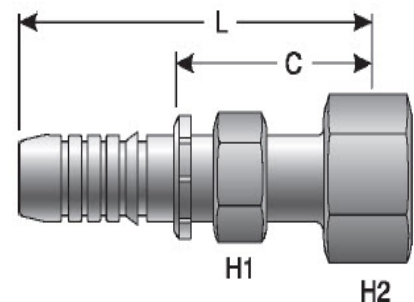
Part Number	ORFS Female Thread (F)	Hose I.D (Inches)	Hose I.D (mm)	Dash size	Hex A/F (S)	Drop mm (K)	Cutoff (H)	Length mm (L)	Working Pressure (bar)
S63-0904	9/16-18	1/4	6.3	04	17	10.5	32.5	60.5	450
S63-1104	11/16-16	1/4	6.3	04	22	12.5	34.5	62.5	450
S63-1106	11/16-16	3/8	10	06	22	12.5	36	66.5	450
S63-1306	13/16-16	3/8	10	06	24	15	38.5	69	450
S63-1308	13/16-16	1/2	12.5	08	24	15.5	42.5	75.5	415
S63-1608	1-14	1/2	12.5	08	30	17.5	45	78	415
S63-1610	1-14	5/8	16	10	30	18	49	85	350
S63-1910	1 3/16-12	5/8	16	10	36	20.5	51.5	87.5	350
S63-1912	1 3/16-12	3/4	19	12	36	21	58	99	350
S63-2312	1 7/16-12	3/4	19	12	41	23.5	60.5	101	350
S63-2316	1 7/16-12	1	25	16	41	29	78	134	415
S63-2720	1 11/16-12	1 1/4	31.5	20	50	34	93	159	345
S63-3224	2-12	1 1/2	38	24	60	41	113	195	290

GS-FFORX (GS13)

ORFS FEMALE STRAIGHT

GATES GS ORFS FEMALE SWIVEL NUT STRAIGHT
BACK HEX

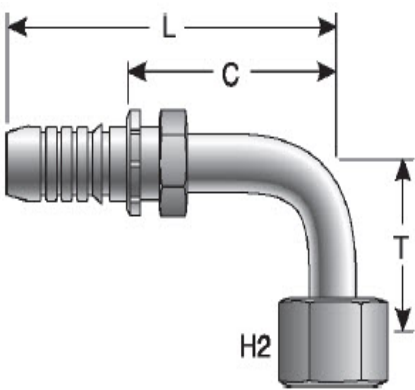
- FOR GATES 20EFG4K, 20EFG5K, OR 20EFG6K HOSE ONLY.
- USE WITH GATES GSF4N OR GSF6N FERRULES ONLY.



Part Number	ORFS Female Thread	Hose I.D (Inches)	Hose I.D (mm)	Dash size	Length mm (L)	Cutoff mm (C)	H1 (mm)	H2 (mm)
20GS-20FFORX	1 11/16-12	1 1/4	31.8	20	128	56.9	50	50

GS-FFORX90M (GS52)
ORFS FEMALE 90° ELBOW
GATES GS ORFS FEMALE SWIVEL NUT 90° ELBOW

- FOR GATES 20EFG4K, 20EFG5K, OR 20EFG6K HOSE ONLY.
- USE WITH GATES GSF4N OR GSF6N FERRULES ONLY.



Part Number	ORFS Female Thread	Hose I.D (Inches)	Hose I.D (mm)	Dash size	Length mm (L)	Cutoff mm (C)	Drop mm (T)	H2 mm
20GS-20FFO RX90M	1 11/16-12	1 1/4	31.8	20	172	100.8	78	50

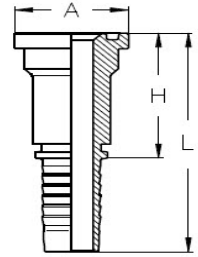
SAE FLANGES

S23

SAE C61 STRAIGHT

SAE FLANGE CODE 61 STRAIGHT

- ISO 12151-3/SAE J516



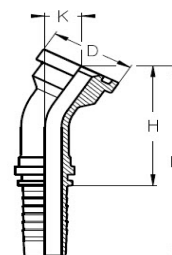
Part Number	Nominal SAE Flange size (A)	Hose I.D (Inches)	Hose I.D (mm)	Dash size	Flange O.D mm (A)	Cutoff mm (H)	Length mm (L)	Working Pressure (bar)	Working Pressure (psi)
S23-0808	1/2	1/2	12.5	08	30.2	47	80	350	5000
S23-1208	3/4	1/2	12.5	08	38.1	51	80	350	5000
S23-1210	3/4	5/8	16	10	38.1	55	84	350	5000
S23-1212	3/4	3/4	19	12	38.1	62	94.5	350	5000
S23-1216	3/4	1	25	16	38.1	58	114.5	350	5000
S23-1610	1	5/8	15.9	16	44.5				
S23-1612	1	3/4	19	12	44.5	64	94.5	350	5000
S23-1616	1	1	25	16	44.5	58	114.5	350	5000
S23-1620	1	1 1/4	31.5	20	44.5	94	120	210	3000
S23-2012	1 1/4	3/4	19	12	50.8	61			
S23-2016	1 1/4	1	25	16	50.8	63	119.5	280	4000
S23-2020	1 1/4	1 1/4	31.5	20	50.8	65	130.5	280	4000
S23-2024	1 1/4	1 1/2	38.1	24	50.8	69			
S23-2416	1 1/2	1	25	16	60.4	55	115.5	210	3000
S23-2420	1 1/2	1 1/4	31.5	20	60.4	68	134.5	210	3000
S23-2424	1 1/2	1 1/2	38	24	60.4	73	155.5	210	3000
S23-3224	2	1 1/2	38	24	71.4	76	158.5	210	3000
S23-3232	2	2	51	32	71.4	77	176.5	210	3000
S23-4032	2 1/2	2	51	32	84.1	90	186.5	175	2500

S45

SAE C61 30° ELBOW

SAE FLANGE CODE 61 30° ELBOW

- ISO 12151-3/SAE J516



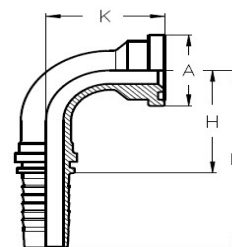
Part Number	Nominal SAE Flange size (D)	Hose I.D (Inches)	Hose I.D (mm)	Dash size	Flange O.D mm (D)	Drop mm (K)	Cutoff mm (H)	Length mm (L)	Working Pressure (bar)
S45-1212	3/4	3/4	19	12	38.1	16	65	106	350
S45-1612	1	3/4	19	12	44.5	17	68	108	350
S45-1616	1	1	25	16	44.5	17	84	140	350
S45-2016	1 1/4	1	25	16	50.8	17	84	140	280
S45-2020	1 1/4	1 1/4	31.5	20	50.8	19	98	164	280
S45-2420	1 1/2	1 1/4	31.5	20	60.4	19	98	164	210
S45-2424	1 1/2	1 1/2	38	24	60.4	22	116	199	210
S45-3232	2	2	51	32	71.4	31	162	258	210

S59

SAE C61 90° ELBOW

SAE FLANGE CODE 61 90° ELBOW

- ISO 12151-3/SAE J516



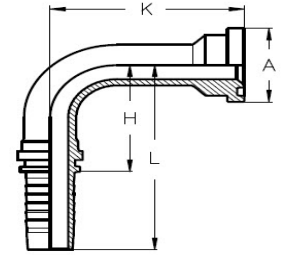
Part Number	Nominal SAE Flange size (A)	Hose I.D (Inches)	Hose I.D (mm)	Dash size	Flange O.D mm (A)	Drop mm (K)	Cutoff mm (H)	Length mm (L)	Working Pressure (bar)
S59-0808	1/2	1/2	12.5	08	30.2	40	38	71	350
S59-0812	1/2	3/4	19	12	30.2	54	55	95	350
S59-1208	3/4	1/2	12.5	08	38.1	45	38	71	350
S59-1210	3/4	5/8	16	10	38.1	47	45	81	350
S59-1212	3/4	3/4	19	12	38.1	51	55	95	350
S59-1612	1	3/4	19	12	44.5	54	55	95	280
S59-1616	1	1	25	16	44.5	61	71	128	350
S59-1620	1	1 1/4	31.5	20	44.5	79	87	154	350
S59-2016	1 1/4	1	25	16	50.8	61	71	128	280
S59-2020	1 1/4	1 1/4	31.5	20	50.8	71	87	154	280
S59-2024	1 1/4	1 1/2	25.4	16	50.8	76	90		
S59-2416	1 1/2	1	25	16	60.4	61	71	128	210
S59-2420	1 1/2	1 1/4	31.5	20	60.4	71	87	154	210
S59-2424	1 1/2	1 1/2	38	24	60.4	83	105	188	210
S59-3224	2	1 1/2	38	24	71.4	81	105	188	210
S59-3232	2	2	51	32	71.4	122	140	237	210

S59L

SAE C61 90° ELBOW

SAE FLANGE CODE 61 90° ELBOW EXTENDED

- ISO 12151-3/SAE J516



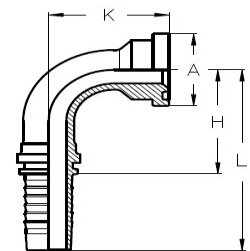
Part Number	Nominal SAE Flange size (A)	Hose I.D (Inches)	Hose I.D (mm)	Dash size	Flange O.D mm (A)	Drop mm (K)	Cutoff mm (H)	Length mm (L)	Working Pressure (bar)
S59L-1212	3/4	3/4	19	12	38.1	127	55	95	350
S59L-1616	1	1	25	16	44.5	118	71	128	350
S59L-2020	1 1/4	1 1/4	31.5	20	50.8	168	87	154	280

S61

SAE C62 90° ELBOW

SAE FLANGE CODE 62 90° ELBOW

- ISO 12151-3/SAE J516



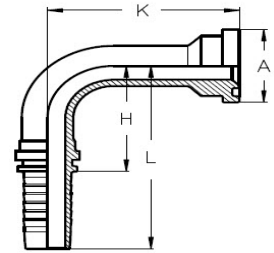
Part Number	Nominal SAE Flange size (A)	Hose I.D (Inches)	Hose I.D (mm)	Dash size	Flange O.D mm (A)	Drop mm (K)	Cutoff mm (H)	Length mm (L)	Working Pressure (bar)
S61-0808	1/2	1/2	12.5	08	31.8	40	38	71	415
S61-1208	3/4	1/2	12.5	08	41.3	47	38	71	415
S61-1210	3/4	5/8	16	10	41.3	50	45	81	350
S61-1212	3/4	3/4	19	12	41.3	54	55	95	350
S61-1216	3/4	1	25	16	41.3	65	71	128	415
S61-1612	1	3/4	19	12	47.6	63	56		415
S61-1616	1	1	25	16	47.6	64	71	128	415
S61-1620	1	1 1/4	31.5	20	47.6	79	87	154	415
S61-2016	1 1/4	1	25	16	54	64	71	128	415
S61-2020	1 1/4	1 1/4	31.5	20	54	74	87	154	415
S61-2020-X 160	1 1/4	1 1/4	31.8	20	54	160	87	154	415
S61-2420	1 1/2	1 1/4	31.5	20	63.5	76	87	154	415
S61-2424	1 1/2	1 1/2	38.1	24	63.5	88	105	188	415
S61-3232	2	2	50.8	32	79.4	123	140	237	415

S61L

SAE C62 90° ELBOW

SAE FLANGE CODE 62 90° ELBOW EXTENDED

- ISO 12151-3/SAE J516



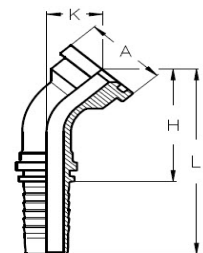
Part Number	Nominal SAE Flange size (A)	Hose I.D (Inches)	Hose I.D (mm)	Dash size	Flange O.D mm (A)	Drop mm (K)	Cutoff mm (H)	Length mm (L)	Working Pressure (bar)
S61L-1212	3/4	3/4	19	12	41.3	100	55	95	350
S61L-1616	1	1	25	16	47.6	120	71	128	415
S61L-2020	1 1/4	1 1/4	31.5	20	54	120	87	154	415

S62

SAE C62 45° ELBOW

SAE FLANGE CODE 62 45° ELBOW EXTENDED

- ISO 12151-3/SAE J516



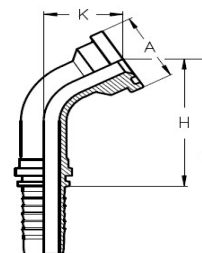
Part Number	Nominal SAE Flange size (A)	Hose I.D (Inches)	Hose I.D (mm)	Dash size	Flange O.D mm (A)	Drop mm (K)	Cutoff mm (H)	Length mm (L)	Working Pressure (bar)
S62-0808	1/2	1/2	12.5	08	31.8	20	47	80	415
S62-1210	3/4	5/8	16	10	41.3	26	57	93	350
S62-1212	3/4	3/4	19	12	41.3	26	64	104	350
S62-1610	1	5/8	15.9	10	47.6	32	77		350
S62-1612	1	3/4	19	12	47.6	31	68	108	350
S62-1616	1	1	25	16	47.6	30	80	136	415
S62-1620	1	1 1/4	31.5	20	47.6	37	96	136	415
S62-2016	1 1/4	1	25	16	54	30	80	136	415
S62-2020	1 1/4	1 1/4	31.5	20	54	34	93	160	415
S62-2420	1 1/2	1 1/4	31.5	20	63.5	35	94	161	415
S62-2424	1 1/2	1 1/2	38.1	24	63.5	40	112	195	415
S62-3232	2	2	50.8	32	79.4	56	150	247	415

S66

SAE C61 60° ELBOW

SAE FLANGE CODE 61 60° ELBOW EXTENDED

- ISO 12151-3/SAE J516



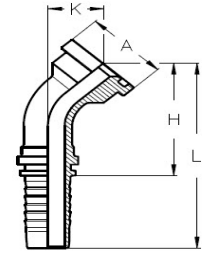
Part Number	Nominal SAE Flange size (A)	Hose I.D (Inches)	Hose I.D (mm)	Dash size	Flange O.D mm (A)	Drop mm (K)	Cutoff mm (H)	Length mm (L)	Working Pressure (bar)
S66-1212	3/4	3/4	19	12	38.1	34	73	113	350
S66-1612	1	3/4	19	12	44.5	36	74	114	350
S66-1616	1	1	25	16	44.5	40	98	154	350
S66-2016	1 1/4	1	25	16	50.8	40	98	154	280
S66-2020	1 1/4	1 1/4	31.5	20	50.8	45	118	184	280
S66-2420	1 1/2	1 1/4	31.5	20	60.4	45	118	184	210
S66-2424	1 1/2	1 1/2	38	24	60.4	52	140	223	210
S66-3232	2	2	51	32	71.4	73	192	289	210

S68

SAE C61 45° ELBOW

SAE FLANGE CODE 61 45° ELBOW EXTENDED

- ISO 12151-3/SAE J516

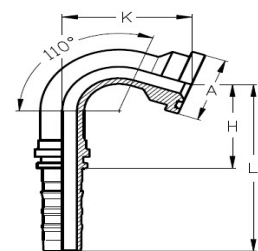


Part Number	Nominal SAE Flange size (A)	Hose I.D (Inches)	Hose I.D (mm)	Dash size	Flange O.D mm (A)	Drop mm (K)	Cutoff mm (H)	Length mm (L)	Working Pressure (bar)
S68-0808	1/2	1/2	12.5	08	30.2	20	47	80	350
S68-1208	3/4	1/2	12.5	08	38.1	24	51	84	350
S68-1212	3/4	3/4	19	12	38.1	25	62	102	350
S68-1612	1	3/4	19	12	44.5	27	64	104	350
S68-1616	1	1	25	16	44.5	28	78	134	350
S68-2016	1 1/4	1	25	16	50.8	28	78	134	280
S68-2020	1 1/4	1 1/4	31.5	20	50.8	32	91	157	280
S68-2416	1 1/2	1	25.4	16	60.3	26	78		
S68-2420	1 1/2	1 1/4	31.5	20	60.4	32	91	157	210
S68-2424	1 1/2	1 1/2	38	24	60.4	36	108	191	210
S68-3224	2	1 1/2	38	24	71.4	35	107	189	210
S68-3232	2	2	51	32	71.4	57	151	245	210

S110

SAE C61 110° ELBOW

SAE FLANGE CODE 61 110° ELBOW



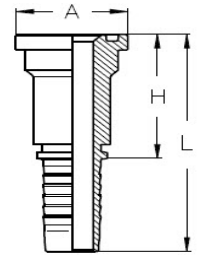
Part Number	Nominal SAE Flange size (A)	Hose I.D (Inches)	Hose I.D (mm)	Dash size	Flange O.D mm (A)	Drop mm (K)	Cutoff mm (C)	Length mm (L)	Working Pressure (bar)
S110-1616	1	1	25	16	44.5	73	65	121	350
S110-2016	1 1/4	1	25	16	50.8	73	65	121	280
S110-2020	1 1/4	1 1/4	31.5	20	50.8	83	82	148	280
S110-2420	1 1/2	1 1/4	31.5	20	60.4	83	82	148	210

S22

SAE C62 STRAIGHT

SAE FLANGE CODE 62 STRAIGHT

- ISO 12151-3/SAE J516



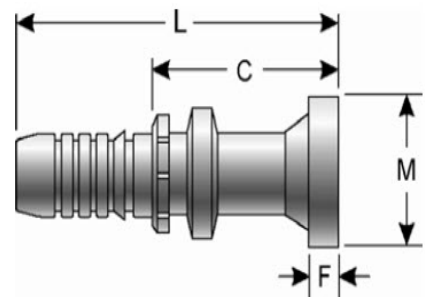
Part Number	Nominal SAE Flange size (A)	Hose I.D (Inches)	Hose I.D (mm)	Dash size	Flange O.D mm (A)	Cutoff mm (H)	Length mm (L)	Working Pressure (bar)	Working Pressure (psi)
S22-0808	1/2	1/2	12.5	08	31.8	47	80	415	6000
S22-1208	3/4	1/2	12.5	08	41.3	47	80	415	6000
S22-1212	3/4	3/4	19	12	41.3	58	98.5	350	5000
S22-1216	3/4	1	25	12	41.3	58	98.5	415	6000
S22-1612	1	3/4	19	12	47.6	58	98.5	350	5000
S22-1616	1	1	25	16	47.6	65	121.5	415	6000
S22-1620	1	1 1/4	31.5	20	47.6	70	136.5	415	6000
S22-2016	1 1/4	1	25	16	54	69	125.5	415	6000
S22-2020	1 1/4	1 1/4	31.5	20	54	70	136.5	415	6000
S22-2420	1 1/2	1 1/4	31.5	20	63.5	80	146.5	415	6000
S22-2424	1 1/2	1 1/2	38.0	24	63.5			415	6000
S22-3224	2	1 1/2	38.0	24	71.4			415	6000
S22-3232	2	2	51.0	32	71.4			415	6000

GS-FLH (GS22)

SAE C62 STRAIGHT

GATES GS SAE FLANGE CODE 62 STRAIGHT

- FOR GATES 20EFG4K, 20EFG5K, OR 20EFG6K HOSE ONLY.
- USE WITH GATES GSF4N OR GSF6N FERRULES ONLY.



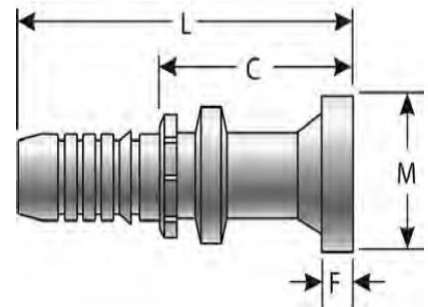
Part Number	Nominal SAE Flange size (M)	Hose I.D (Inches)	Hose I.D (mm)	Dash size	Length mm (L)	Cutoff mm (C)	Flange O.D mm (M)	Thickness mm (F)
20GS-16FLH	1	1 1/4	31.8	20	163.1	92	47.8	9.7
20GS-20FLH	1 1/4	1 1/4	31.8	20	146.1	74.9	54.1	10.4
20GS-24FLH	1 1/4	1 1/4	31.8	20	160	88.9	63.5	12.7

GS-FL (GS23)

SAE C61 STRAIGHT

GATES GS SAE FLANGE CODE 61 STRAIGHT

- FOR GATES 20EFG4K, 20EFG5K, OR 20EFG6K HOSE ONLY.
- USE WITH GATES GSF4N OR GSF6N FERRULES ONLY.



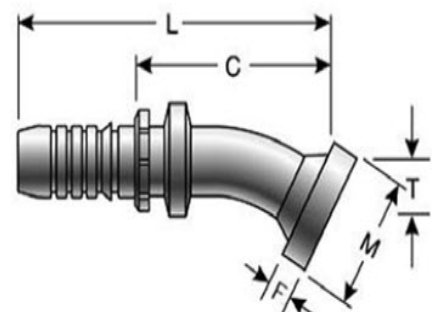
Part Number	Nominal SAE Flange size (M)	Hose I.D (Inches)	Hose I.D (mm)	Dash size	Length mm (L)	Cutoff mm (C)	Flange O.D mm (M)	Thickness mm (F)
20GS-16FL	1	1 1/4	31.8	20	135.9	64.8	44.5	8.1
20GS-20FL	1 1/4	1 1/4	31.8	20	146.1	74.9	50.8	8.1
20GS-24FL	1 1/2	1 1/4	31.8	20	160	88.9	60.5	8.1

GS-FL30M (GS45)

SAE C61 30° ELBOW

GATES GS SAE FLANGE CODE 61 30° ELBOW

- FOR GATES 20EFG4K, 20EFG5K, OR 20EFG6K HOSE ONLY.
- USE WITH GATES GSF4N OR GSF6N FERRULES ONLY.



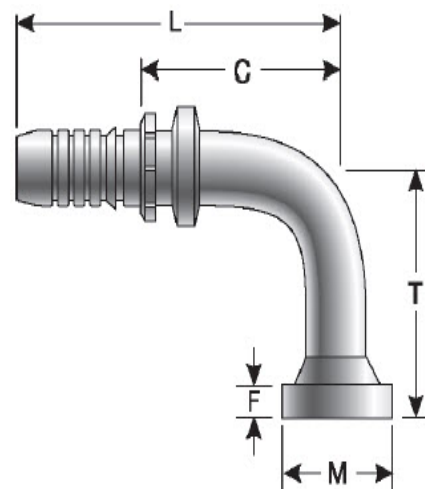
Part Number	Nominal SAE Flange size (M)	Hose I.D (Inches)	Hose I.D (mm)	Dash size	Length mm (L)	Cutoff mm (C)	Flange O.D mm (M)	Drop mm (T)	Thickness mm (F)
20GS-24FL 30M	1 1/2	1 1/4	31.8	20	182.1	111	60.5	30	8.1

GS-FL90M (GS59)

SAE C61 90° ELBOW

GATES GS SAE FLANGE CODE 61 90° ELBOW

- FOR GATES 20EFG4K, 20EFG5K, OR 20EFG6K HOSE ONLY.
- USE WITH GATES GSF4N OR GSF6N FERRULES ONLY.



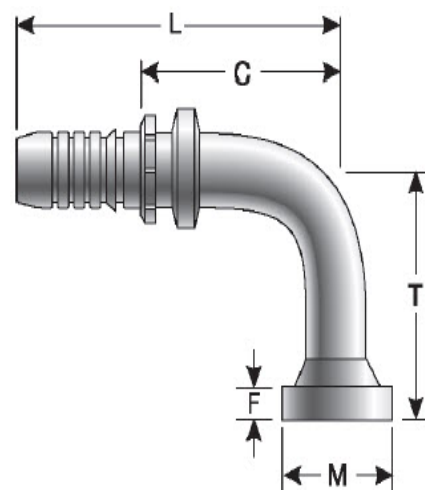
Part Number	Nominal SAE Flange size (M)	Hose I.D (Inches)	Hose I.D (mm)	Dash size	Length mm (L)	Cutoff mm (C)	Flange O.D mm (M)	Drop mm (T)	Thickness mm (F)
20GS-16FL 90M	1	1 1/4	31.8	20	160	88.9	44.5	70.1	8.1
20GS-20FL 90M	1 1/4	1 1/4	31.8	20	165.1	94	50.8	89.9	8.1

GS-FL90-215 (GS59)

SAE C61 90° ELBOW

GATES GS SAE FLANGE CODE 61 90° ELBOW

- FOR GATES 20EFG4K, 20EFG5K, OR 20EFG6K HOSE ONLY.
- USE WITH GATES GSF4N OR GSF6N FERRULES ONLY.



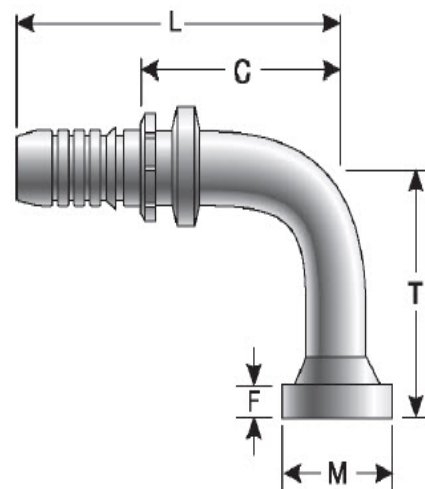
Part Number	Nominal SAE Flange size (M)	Hose I.D (Inches)	Hose I.D (mm)	Dash size	Length mm (L)	Cutoff mm (C)	Flange O.D mm (M)	Drop mm (T)	Thickness mm (F)
20GS-16FL 90-215	1	1 1/4	31.8	20	160	88.9	44.5	214.9	8.1

GS-FL90-168 (GS59)

SAE C61 90° ELBOW

GATES GS SAE FLANGE CODE 61 90° ELBOW

- FOR GATES 20EFG4K, 20EFG5K, OR 20EFG6K HOSE ONLY.
- USE WITH GATES GSF4N OR GSF6N FERRULES ONLY.



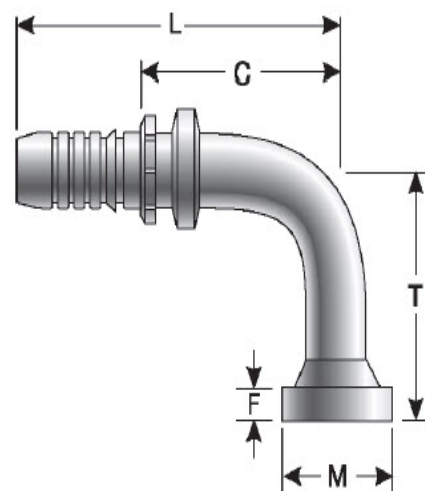
Part Number	Nominal SAE Flange size (M)	Hose I.D (Inches)	Hose I.D (mm)	Dash size	Length mm (L)	Cutoff mm (C)	Flange O.D mm (M)	Drop mm (T)	Thickness mm (F)
20GS-20FL 90-168	1 1/4	1 1/4	31.8	20	166.1	95	50.8	167.9	8.1

GS-FL90S (GS59)

SAE C61 90° ELBOW

GATES GS SAE FLANGE CODE 61 90° ELBOW

- FOR GATES 20EFG4K, 20EFG5K, OR 20EFG6K HOSE ONLY.
- USE WITH GATES GSF4N OR GSF6N FERRULES ONLY.



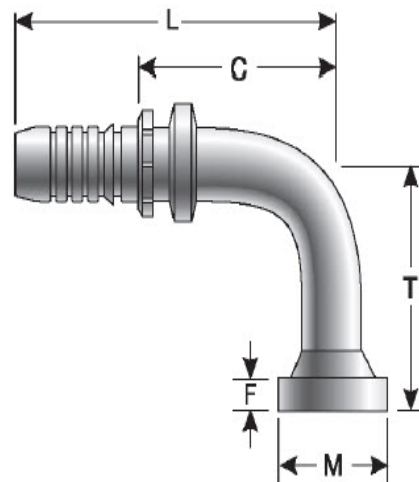
Part Number	Nominal SAE Flange size (M)	Hose I.D (Inches)	Hose I.D (mm)	Dash size	Length mm (L)	Cutoff mm (C)	Flange O.D mm (M)	Drop mm (T)	Thickness mm (F)
20GS-24FL 90S	1 1/2	1 1/4	31.8	20	165.1	94	60.5	81	8.1

GS-FLH90M (GS61)

SAE C62 90° ELBOW

GATES GS SAE FLANGE CODE 62 90° ELBOW

- FOR GATES 20EFG4K, 20EFG5K, OR 20EFG6K HOSE ONLY.
- USE WITH GATES GSF4N OR GSF6N FERRULES ONLY.



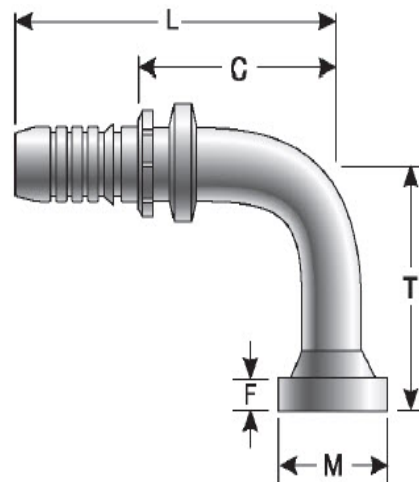
Part Number	Nominal SAE Flange size (M)	Hose I.D (Inches)	Hose I.D (mm)	Dash size	Length mm (L)	Cutoff mm (C)	Flange O.D mm (M)	Drop mm (T)	Thickness mm (F)
20GS-16FL H90M	1	1 1/4	31.8	20	160	88.9	47.8	70.1	9.7
20GS-20FL H90M	1 1/4	1 1/4	31.8	20	165.1	94	54.1	89.9	10.4

GS-FLH90-120 (GS61)

SAE C62 90° ELBOW

GATES GS SAE FLANGE CODE 62 90° ELBOW

- FOR GATES 20EFG4K, 20EFG5K, OR 20EFG6K HOSE ONLY.
- USE WITH GATES GSF4N OR GSF6N FERRULES ONLY.



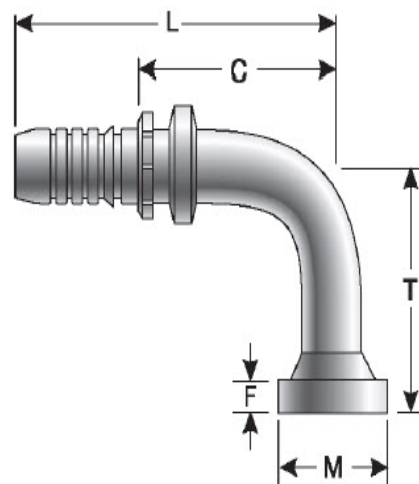
Part Number	Nominal SAE Flange size (M)	Hose I.D (Inches)	Hose I.D (mm)	Dash size	Length mm (L)	Cutoff mm (C)	Flange O.D mm (M)	Drop mm (T)	Thickness mm (F)
20GS-20FL H90-120	1 1/4	1 1/4	31.8	20	165.1	94	54.1	119.9	10.4

GS-FLH90-152 (GS61)

SAE C62 90° ELBOW

GATES GS SAE FLANGE CODE 62 90° ELBOW

- FOR GATES 20EFG4K, 20EFG5K, OR 20EFG6K HOSE ONLY.
- USE WITH GATES GSF4N OR GSF6N FERRULES ONLY.



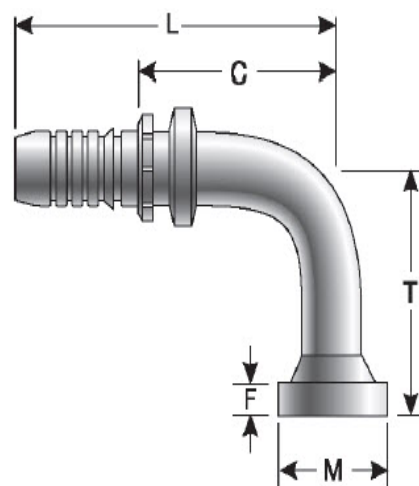
Part Number	Nominal SAE Flange size (M)	Hose I.D (Inches)	Hose I.D (mm)	Dash size	Length mm (L)	Cutoff mm (C)	Flange O.D mm (M)	Drop mm (T)	Thickness mm (F)
20GS-20FL H90-152	1 1/4	1 1/4	31.8	20	165.1	94	54.1	151.9	10.4

GS-FLH90S (GS61)

SAE C62 90° ELBOW

GATES GS SAE FLANGE CODE 62 90° ELBOW

- FOR GATES 20EFG4K, 20EFG5K, OR 20EFG6K HOSE ONLY.
- USE WITH GATES GSF4N OR GSF6N FERRULES ONLY.



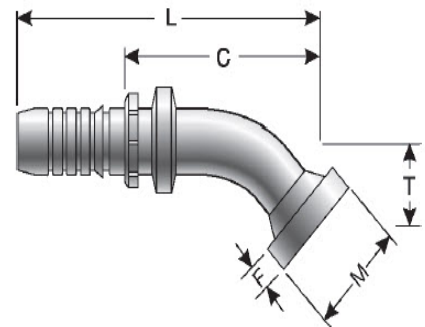
Part Number	Nominal SAE Flange size (M)	Hose I.D (Inches)	Hose I.D (mm)	Dash size	Length mm (L)	Cutoff mm (C)	Flange O.D mm (M)	Drop mm (T)	Thickness mm (F)
20GS-24FL H90S	1 1/2	1 1/4	31.8	20	165.1	94	63.5	81	12.7

GS-FLH45M (GS62)

SAE C62 45° ELBOW

GATES GS SAE FLANGE CODE 62 45° ELBOW

- FOR GATES 20EFG4K, 20EFG5K, OR 20EFG6K HOSE ONLY.
- USE WITH GATES GSF4N OR GSF6N FERRULES ONLY.



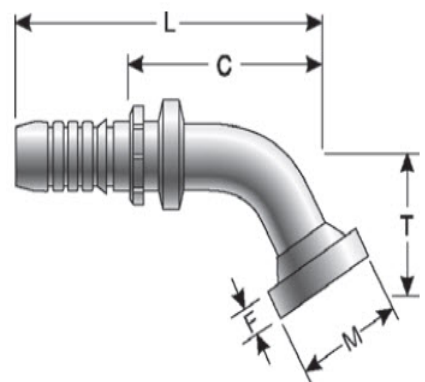
Part Number	Nominal SAE Flange size (M)	Hose I.D (Inches)	Hose I.D (mm)	Dash size	Length mm (L)	Cutoff mm (C)	Flange O.D mm (M)	Drop mm (T)	Thickness mm (F)
20GS-16FL H45M	1	1 1/4	31.8	20	170.9	99.8	47.8	32	9.7
20GS-20FL H45M	1 1/4	1 1/4	31.8	20	176	104.9	54.1	38.1	10.4
20GS-24FL H45M	1 1/2	1 1/4	31.8	20	176	104.9	63.5	43.9	12.7

GS-FL60M (GS66)

SAE C61 60° ELBOW

GATES GS SAE FLANGE CODE 61 60° ELBOW

- FOR GATES 20EFG4K, 20EFG5K, OR 20EFG6K HOSE ONLY.
- USE WITH GATES GSF4N OR GSF6N FERRULES ONLY.



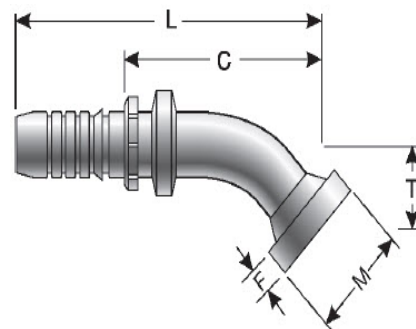
Part Number	Nominal SAE Flange size (M)	Hose I.D (Inches)	Hose I.D (mm)	Dash size	Length mm (L)	Cutoff mm (C)	Flange O.D mm (M)	Drop mm (T)	Thickness mm (F)
20GS-20FL 60M	1 1/4	1 1/4	31.8	20	186.9	115.8	50.8	55.1	8.1

GS-FL45S (GS68)

SAE C61 45° ELBOW

GATES GS SAE FLANGE CODE 61 45° ELBOW

- FOR GATES 20EFG4K, 20EFG5K, OR 20EFG6K HOSE ONLY.
- USE WITH GATES GSF4N OR GSF6N FERRULES ONLY.



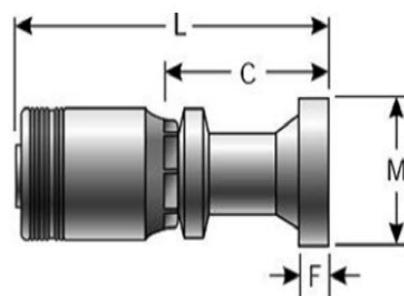
Part Number	Nominal SAE Flange size (M)	Hose I.D (Inches)	Hose I.D (mm)	Dash size	Length mm (L)	Cutoff mm (C)	Flange O.D mm (M)	Length (mm)	Thickness mm (F)
20GS-20FL 45S	1 1/4	1 1/4	31.8	20	169.9	98.8	50.8	30	8.1
20GS-24FL 45S	1 1/2	1 1/4	31.8	20	176	104.9	60.5	38.1	8.1

GSM-FLH (GSM22)

SAE C62 STRAIGHT

GATES GSM SAE FLANGE CODE 62 STRAIGHT

- FOR GATES 24 AND 32 EFG5K OR EFG6K HOSE ONLY.



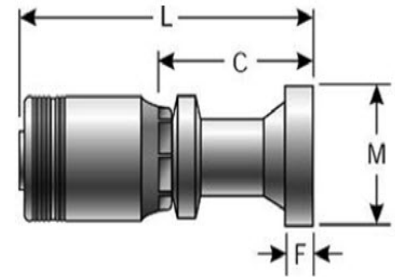
Part Number	Nominal SAE Flange size (M)	Hose I.D (Inches)	Dash Size	Hose I.D. (mm)	Length mm (L)	Cutoff mm (C)	Flange O.D mm (M)	Thickness mm (F)
24GSM-32FL H	2	1 1/2	24	38.1	199.9	104.9	79.5	12.7
32GSM-32FL H	2	2	32	50.8	251.4	137.4	79.5	12.7

GSM-FL (GSM23)

SAE C61 STRAIGHT

GATES GSM SAE FLANGE CODE 61 STRAIGHT

- FOR GATES 24 AND 32 EFG5K OR EFG6K HOSE ONLY.



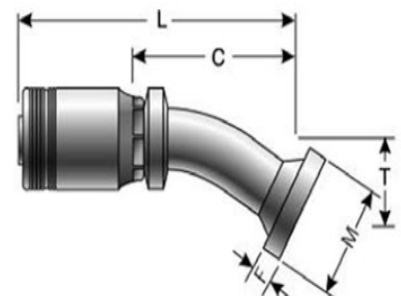
Part Number	Nominal SAE Flange size (M)	Hose I.D (Inches)	Dash Size	Hose I.D. (mm)	Length mm (L)	Cutoff mm (C)	Flange O.D mm (M)	Thickness mm (F)
24GSM-24FL	1 1/2	1 1/2	24	38.1	180.0	85.1	60.5	7.9
24GSM-32FL	2	1 1/2	24	38.1	188.0	93.0	71.4	9.7
32GSM-32FL	2	2	32	50.8	251.4	137.4	71.4	9.7

GSM-FL30M (GSM45)

SAE C61 30° ELBOW

GATES GSM SAE FLANGE CODE 61 30° ELBOW

- FOR GATES 24 AND 32 EFG5K OR EFG6K HOSE ONLY.



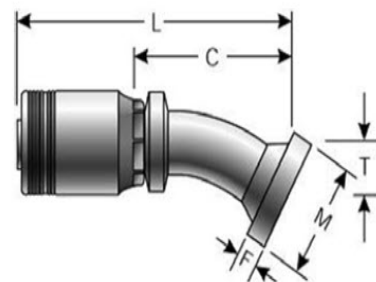
Part Number	Nominal SAE Flange size (M)	Hose I.D (Inches)	Dash Size	Hose I.D. (mm)	Length mm (L)	Cutoff mm (C)	Drop mm (T)	Thickness mm (F)
24GSM-24FL 30M	1 1/2	1 1/2	24	38.1	216.4	127	45	8.1

GSM-FLH30M (GSM46)

SAE C62 30° ELBOW

GATES GSM SAE FLANGE CODE 62 30° ELBOW

- FOR GATES 24 AND 32 EFG5K OR EFG6K HOSE ONLY.



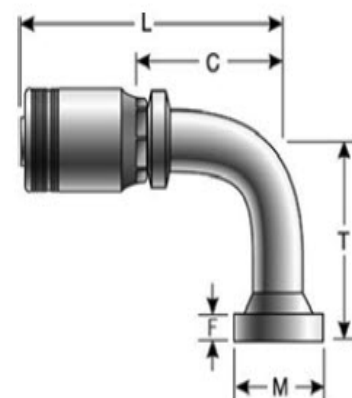
Part Number	Nominal SAE Flange size (M)	Hose I.D (Inches)	Dash Size	Hose I.D. (mm)	Length mm (L)	Cutoff mm (C)	Flange O.D mm (M)	Drop mm (T)	Thickness mm (F)
24GSH-24F LH30M	1 1/2	1 1/2	24	38.1	240	144.8	63.5	89.9	12.7

GSM-FL90S (GSM59)

SAE C61 90° ELBOW

GATES GSM SAE FLANGE CODE 61 90° ELBOW

- FOR GATES 24 AND 32 EFG5K OR EFG6K HOSE ONLY.



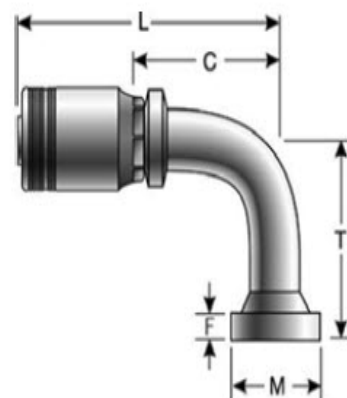
Part Number	Nominal SAE Flange size (M)	Hose I.D (Inches)	Dash Size	Hose I.D. (mm)	Length mm (L)	Cutoff mm (C)	T (mm)	Flange O.D mm (M)	Thickness mm (F)
24GSM-24F L90S	1 1/2	1 1/2	24	38.1	214.9	119.9	81.0	60.5	7.9

GSM-FL90-130 (GSM59)

SAE C61 90° ELBOW

GATES GSM SAE FLANGE CODE 61 90° ELBOW

- FOR GATES 24 AND 32 EFG5K OR EFG6K HOSE ONLY.



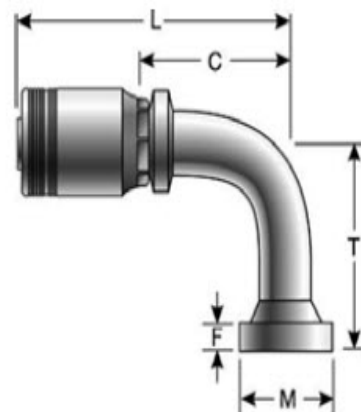
Part Number	Nominal SAE Flange size (M)	Hose I.D (Inches)	Dash Size	Hose I.D. (mm)	Length mm (L)	Cutoff mm (C)	T (mm)	Flange O.D mm (M)	Thickness mm (F)
32GSM-32F L90-130	2	2	32	50.8	264.0	150.5	130.0	71.4	9.7

GSM-FLH90S (GSM61)

SAE C62 90° ELBOW

GATES GSM SAE FLANGE CODE 62 90° ELBOW

- FOR GATES 24 AND 32 EFG5K OR EFG6K HOSE ONLY.



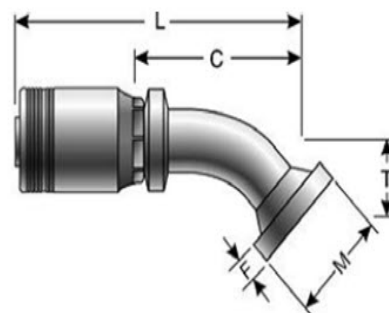
Part Number	Nominal SAE Flange size (M)	Hose I.D (Inches)	Dash Size	Hose I.D. (mm)	Length mm (L)	Cutoff mm (C)	Flange O.D mm (M)	Drop mm (T)	Thickness mm (F)
24GSM-32F LH90S	2	1 1/2	24	38.1	213.9	118.9	79.5	119.9	12.7
32GSM-32F LH90S	2	2	32	50.8	264	150	79.5	120	12.7

GSM-FLH45M (GSM62)

SAE C62 45° ELBOW

GATES GSM SAE FLANGE CODE 62 45° ELBOW

- FOR GATES 24 AND 32 EFG5K OR EFG6K HOSE ONLY.



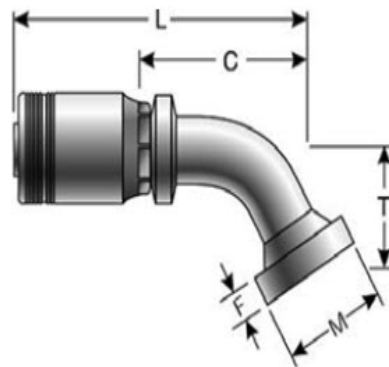
Part Number	Nominal SAE Flange size (M)	Hose I.D (Inches)	Dash Size	Hose I.D. (mm)	Length mm (L)	Cutoff mm (C)	Drop mm (T)	Flange O.D mm (M)	Thickness mm (F)
24GSM-24F LH45M	1 1/2	1 1/2	24	38.1	232	137	43.9	63.5	12.7
24GSM-32F LH45M	2	1 1/2	24	38.1	240.8	146	55.9	79.5	12.7

GSM-FL60M (GSM66)

SAE C61 60° ELBOW

GATES GSM SAE FLANGE CODE 61 60° ELBOW

- FOR GATES 24 AND 32 EFG5K OR EFG6K HOSE ONLY.



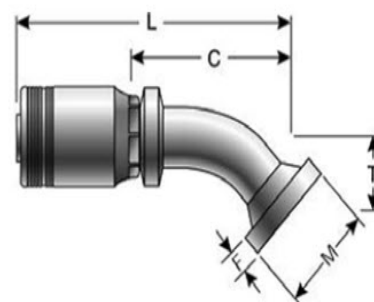
Part Number	Nominal SAE Flange size (M)	Hose I.D (Inches)	Dash Size	Hose I.D. (mm)	Length mm (L)	Cutoff mm (C)	Flange O.D mm (M)	Drop mm (T)	Thickness mm (F)
24GSH-24F L60	1 1/2	1 1/2	24	38.1	241.3	146.1	60.5	64	7.9

GSM-FL45M (GSM68)

SAE C61 45° ELBOW

GATES GSM SAE FLANGE CODE 61 45° ELBOW

- FOR GATES 24 AND 32 EFG5K OR EFG6K HOSE ONLY.



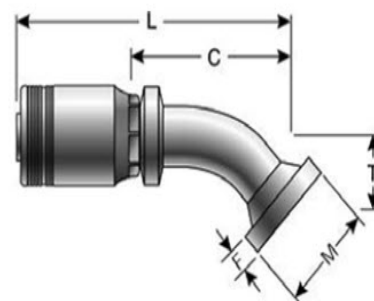
Part Number	Nominal SAE Flange size (M)	Hose I.D (Inches)	Dash Size	Hose I.D. (mm)	Length mm (L)	Cutoff mm (C)	Drop mm (T)	Flange O.D mm (M)	Thickness mm (F)
24GSM-24F L45M	1 1/2	1 1/2	24	38.1	230.0	135.0	44.0	60.5	7.9
32GSM-32F L45M	2	2	32	50.8	287.0	173.5	56.0	79.5	12.7

GSM-32FL45S (GSM68)

SAE C61 45° ELBOW

GATES GSM SAE FLANGE CODE 61 45° ELBOW

- FOR GATES 24 AND 32 EFG5K OR EFG6K HOSE ONLY.

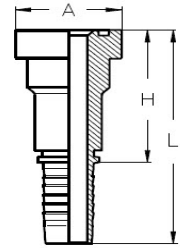


Part Number	Nominal SAE Flange size (M)	Hose I.D (Inches)	Dash Size	Hose I.D. (mm)	Length mm (L)	Cutoff mm (C)	Drop mm (T)	Flange O.D mm (M)	Thickness mm (F)
24GSH-32F L45S	2	1 1/2	24	38.1	231.9	136.6	52.1	71.4	9.7

SUPERCAT FLANGE

S225

SUPERCAT STRAIGHT

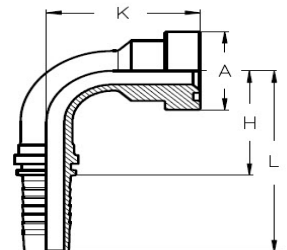


Part Number	Nominal SAE Flange size - A	Hose I.D (in)	Hose I.D (mm)	Dash size	Flange O.D - A (mm)	Cutoff - H (mm)	Length - L (mm)	Working Pressure (bar)	Working Pressure (psi)
S225-1212	3/4	3/4	19	12	41.3	66	106.5	350	5000
S225-1616	1	1	25.4	16	47.6	90	146.5	420	6000
S225-2016	1 1/4	1	25.4	16	54	90	146.5	420	6000
S225-2020	1 1/4	1 1/4	31.8	20	54	88	154.4	420	6000
S225-2424	1 1/2	1 1/2	38.1	24	63.5	84	166.5	420	6000

S615

SUPERCAT 90° ELBOW

CATERPILLAR XT5 STYLE FLANGE 90° ELBOW

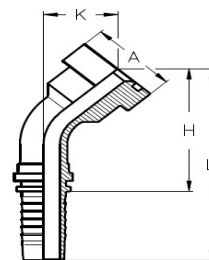


Part Number	Nominal SAE Flange size (A)	Hose I.D (Inches)	Hose I.D (mm)	Dash size	Flange OD mm (A)	Drop mm (K)	Cutoff (H)	Length mm (L)	Working Pressure (bar)
S615-1212	3/4	3/4	19	12	41.3	64	55	95	350
S615-1612	1	3/4	19	12	47.6	67	55	95	350
S615-1616	1	1	25	16	47.6	73	71	128	415
S615-2020	1 1/4	1 1/4	31.5	20	54	77	87	154	415

S625

SUPERCAT 45° ELBOW

CATERPILLAR XT5 STYLE FLANGE 45° ELBOW



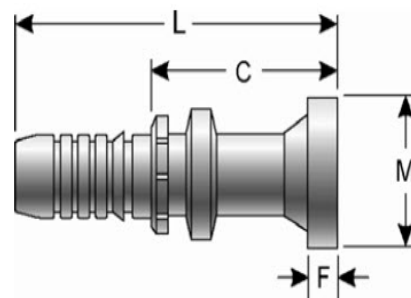
Part Number	Nominal SAE Flange size (A)	Hose I.D (Inches)	Hose I.D (mm)	Dash size	Flange OD mm (A)	Drop mm (K)	Cutoff (H)	Length mm (L)	Working Pressure (bar)
S625-1212	3/4	3/4	19	12	41.3	34	71	112	350
S625-1616	1	1	25	16	47.6	36	86	143	415

GS-FLC (GS225)

SUPERCAT STRAIGHT

GATES GS CATERPILLAR XT5 STYLE FLANGE STRAIGHT

- FOR GATES 20EFG4K, 20EFG5K, OR 20EFG6K HOSE ONLY.
- USE WITH GATES GSF4N OR GSF6N FERRULES ONLY.



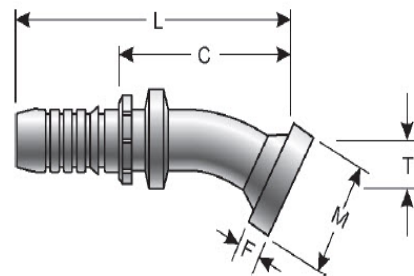
Part Number	CAT Flange Size (M)	Hose I.D (Inches)	Hose I.D (mm)	Dash size	Length mm (L)	Cutoff mm (C)	Flange O.D mm (M)	Thickness mm (F)
20GS-20FLC	1 1/4	1 1/4	31.8	20	186.9	115.8	54.1	14.2
20GS-24FLC	1 1/2	1 1/4	31.8	20	186.9	115.8	63.5	14.2

GS-FLC30 (GS465)

SUPERCAT 30° ELBOW

GATES GS CATERPILLAR XT5 STYLE FLANGE 30° ELBOW

- FOR GATES 20EFG4K, 20EFG5K, OR 20EFG6K HOSE ONLY.
- USE WITH GATES GSF4N OR GSF6N FERRULES ONLY.



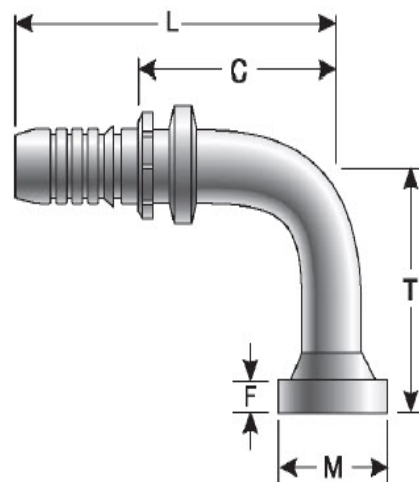
Part Number	CAT Flange Size (M)	Hose I.D (Inches)	Hose I.D (mm)	Dash size	Length mm (L)	Cutoff mm (C)	Drop mm (T)	Flange O.D mm (M)	Thickness mm (F)
20GS-20FL C30	1 1/4	1 1/4	31.8	20	182.9	112	23.9	54.1	14.2

GS-FLC90 (GS615)

SUPERCAT 90° ELBOW

GATES GS CATERPILLAR XT5 STYLE FLANGE 90° ELBOW

- FOR GATES 20EFG4K, 20EFG5K, OR 20EFG6K HOSE ONLY.
- USE WITH GATES GSF4N OR GSF6N FERRULES ONLY.



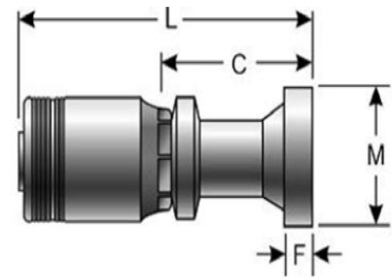
Part Number	CAT Flange Size (M)	Hose I.D (Inches)	Hose I.D (mm)	Dash size	Length mm (L)	Cutoff mm (C)	Drop mm (T)	Flange O.D mm (M)	Thickness mm (F)
20GS-20FL C90	1 1/4	1 1/4	31.8	20	166.1	95	77	54.1	14.2
20GS-24FL C90	1 1/2	1 1/4	31.8	20	166.1	95	77	63.5	14.2

GSM-FLC (GSM225)

SUPERCAT STRAIGHT

GATES GSM CATERPILLAR XT5 STYLE FLANGE
STRAIGHT

- FOR GATES 24 AND 32 EFG5K OR EFG6K HOSE ONLY.



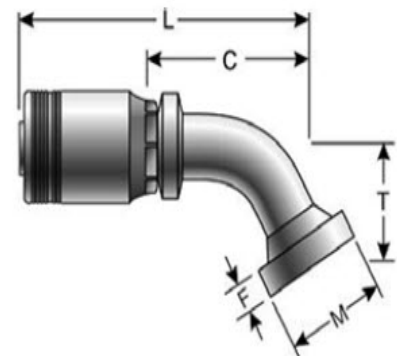
Part Number	CAT Flange Size (M)	Hose I.D (Inches)	Dash Size	Hose I.D. (mm)	Length mm (L)	Cutoff mm (C)	Flange O.D mm (M)	Thickness mm (F)
24GSM-24FLC	1 1/2	1 1/2	24	38.1	189.0	94.2	63.5	14.2
24GSM-32FLC	2	1 1/2	24	38.1	199.9	104.9	79.5	14.2

GSM-FLC60 (GSM545)

SUPERCAT 60° ELBOW

GATES GSM CATERPILLAR XT5 STYLE FLANGE 60°
ELBOW

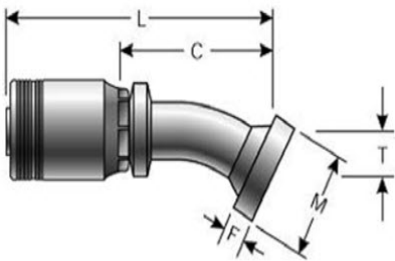
- FOR GATES 24 AND 32 EFG5K OR EFG6K HOSE ONLY.



Part Number	CAT Flange Size (M)	Hose I.D (Inches)	Dash Size	Hose I.D. (mm)	Length mm (L)	Cutoff mm (C)	Drop mm (T)	Flange O.D mm (M)	Thickness mm (F)
24GSM-24FLC60	1 1/2	1 1/2	24	38.1	251.7	156.7	55.1	63.5	14.2

GSM-FLC22 (GSM675)
SUPERCAT 22° ELBOW
GATES GSM CATERPILLAR XT5 STYLE FLANGE 22°
ELBOW

- FOR GATES 24 AND 32 EFG5K OR EFG6K HOSE ONLY.



Part Number	CAT Flange Size (M)	Hose I.D (Inches)	Dash Size	Hose I.D. (mm)	Length mm (L)	Cutoff mm (C)	Drop mm (T)	Flange O.D mm (M)	Thickness mm (F)
24GSM-24F LC22	1 1/2	1 1/2	24	38.1	236	141.5	16.8	63.5	14.2

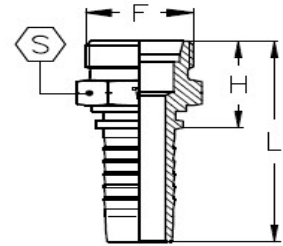
METRIC 24°

S78

MET HEAVY MALE STRAIGHT

METRIC 24° CONE HEAVY MALE STRAIGHT

- ISO 12151-5

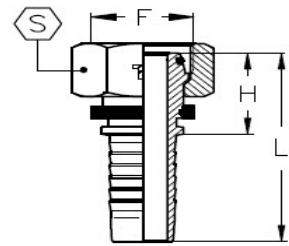


Part Number	Metric Male Thread (F)	Hose I.D (Inches)	Hose I.D (mm)	Dash size	Tube Size	Hex A/F (S)	Cutoff (H)	Length mm (L)	Working Pressure (bar)
S78-M1404	M14x1.5	1/4	6.3	04	6	14	23	51	450
S78-M1604	M16x1.5	1/4	6.3	04	8	17	23	51	450
S78-M1606	M16x1.5	3/8	9.5	06	8	17	28		450
S78-M1804	M18x1.5	1/4	6.3	04	10	19	24	52	450
S78-M1806	M18x1.5	3/8	10	06	10	19	24	55	445
S78-M1808	M18x1.5	1/2	12.7	08	10	22	28		415
S78-M2005	M20x1.5	5/16	8	05	12	22	25	53	350
S78-M2006	M20x1.5	3/8	10	06	12	22	25	56	445
S78-M2008	M20x1.5	1/2	12.5	08	12	22	27	60	415
S78-M2206	M22x1.5	3/8	10	06	14	22	27	58	445
S78-M2208	M22x1.5	1/2	12.5	08	14	22	28	61	415
S78-M2408	M24x1.5	1/2	12.5	08	16	24	29	62	415
S78-M3010	M30x2	5/8	16	10	20	30	32	68	350
S78-M3012	M30x2	3/4	19	12	20	30	33	74	350
S78-M3612	M36x2	3/4	19	12	25	36	37	78	350
S78-M3616	M36x2	1	25	16	25	36	40	97	380
S78-M4216	M42x2	1	25	16	30	46	44	101	380
S78-M5220	M52x2	1 1/4	31.5	20	38	55	51	117	325

S79C

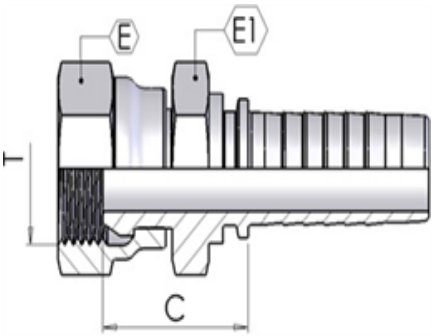
MET HEAVY FEMALE STRAIGHT
METRIC 24° CONE HEAVY FEMALE SWIVEL NUT
STRAIGHT

- ISO 12151-5



Part Number	Metric Female Thread (F)	Hose I.D (Inches)	Hose I.D (mm)	Dash size	Tube Size	Hex A/F (S)	Cutoff (H)	Length mm (L)	Working Pressure (bar)
S79C-M1404	M14x1.5	1/4	6.3	04	6	17	23	51	450
S79C-M1604	M16x1.5	1/4	6.3	04	8	19	22	50	450
S79C-M1606	M16x1.5	3/8	9.5	06	8	19	26		450
S79C-M1804	M18x1.5	1/4	6.3	04	10	22	24	52	450
S79C-M1806	M18x1.5	3/8	10	06	10	22	25	55	450
S79C-M2005	M20x1.5	5/16	8	05	12	24	24	52	350
S79C-M2006	M20x1.5	3/8	10	06	12	24	24	54	450
S79C-M2008	M20x1.5	1/2	12.5	08	12	22	28	61	415
S79C-M2206	M22x1.5	3/8	10	06	14	27	28	58	445
S79C-M2208	M22x1.5	1/2	12.5	08	14	27	28	61	415
S79C-M2408	M24x1.5	1/2	12.5	08	16	30	29	62	415
S79C-M3010	M30x2	5/8	16	10	20	36	33	69	350
S79C-M3012	M30x2	3/4	19	12	20	36	36	76	350
S79C-M3612	M36x2	3/4	19	12	25	46	38	78	350
S79C-M3616	M36x2	1	25	16	25	46	41	97	380
S79C-M4216	M42x2	1	25	16	30	50	42	98	380
S79C-M4220	M42x2	1 1/4	31.5	20	30	50	43	109	325
S79C-M5220	M52x2	1 1/4	31.5	20	38	60	48	115	325

S79H
MET HEAVY FEMALE STRAIGHT
METRIC 24° CONE HEAVY FEMALE SWIVEL NUT
STRAIGHT BACK HEX



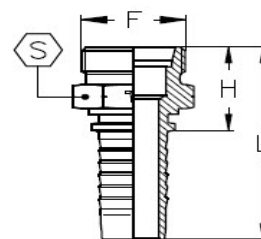
Part Number	Metric Female Thread (T)	Hose I.D (Inches)	Hose I.D (mm)	Dash size	Tube Size	Hex A/F (E)	Hex A/F (E1)	Cutoff - C
S79H-M5224	M52x2	1 1/2	38.1	24	38	60	60	54

S80

MET LIGHT MALE STRAIGHT

METRIC 24° CONE LIGHT MALE STRAIGHT

- ISO 12151-5

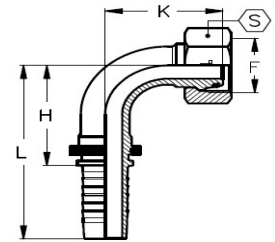


Part Number	Metric Male Thread (F)	Hose I.D (Inches)	Hose I.D (mm)	Dash size	Tube Size	Hex A/F (S)	Cutoff (H)	Length mm (L)	Working Pressure (bar)
S80-M1204	M12x1.5	1/4	6.3	04	6	12	21	49	280
S80-M1404	M14x1.5	1/4	6.3	04	8	14	21	49	280
S80-M1604	M16x1.5	1/4	6.3	04	10	17	23	51	280
S80-M1605	M16x1.5	5/16	8	05	10	17	23	51	280
S80-M1606	M16x1.5	3/8	10	06	10	17	23	53	280
S80-M1804	M18x1.5	1/4	6.3	04	12	19	23	51	280
S80-M1806	M18x1.5	3/8	10	06	12	19	23	53	280
S80-M1808	M18x1.5	1/2	12.7	08	12	22	27		
S80-M2206	M22x1.5	3/8	10	06	15	22	25	56	280
S80-M2208	M22x1.5	1/2	12.5	08	15	22	26	59	280
S80-M2608	M26x1.5	1/2	12.5	08	18	27	28	61	210
S80-M2610	M26x1.5	5/8	16	10	18	27	28	64	210
S80-M2612	M26x1.5	3/4	19	12	18	27	29	70	210
S80-M3012	M30x2	3/4	19	12	22	30	31	72	210
S80-M3616	M36x2	1	25.4	16	28	36	32		
S80-M4520	M45x2	1 1/4	31.8	20	35	47	42		
S80-M5224	M52x2	1 1/2	38.1	24	42	55	46		

S83

MET HEAVY FEMALE 90° ELBOW
METRIC 24° CONE HEAVY FEMALE SWIVEL NUT
90° ELBOW

- ISO 12151-5



Part Number	Metric Female Thread (F)	Hose I.D (Inches)	Hose I.D (mm)	Dash size	Tube Size	Hex A/F (S)	Drop mm (K)	Cutoff (H)	Length mm (L)
S83-M1404	M14x1.5	1/4	6.3	04	6	17	26	25	53
S83-M1604	M16x1.5	1/4	6.3	04	8	19	29	29	57
S83-M1804	M18x1.5	1/4	6.3	04	10	22	30	29	57
S83-M1806	M18x1.5	3/8	10	06	10	22	33	30	61
S83-M1808	M18x1.5	1/2	12.7	08	12	24	52	37	
S83-M2005	M20x1.5	5/16	8	05	12	24	32	28	56
S83-M2006	M20x1.5	3/8	10	06	12	24	33	31	61
S83-M2008	M20x1.5	1/2	12.7	08	12	25	52	37	
S83-M2206	M22x1.5	3/8	10	06	14	27	37	34	64
S83-M2208	M22x1.5	1/2	12.5	08	14	27	41	39	71
S83-M2408	M24x1.5	1/2	12.5	08	16	30	42	39	71
S83-M3010	M30x2	5/8	16	10	20	36	50	44	80
S83-M3012	M30x2	3/4	19	12	20	36	55	54	94
S83-M3612	M36x2	3/4	19	12	25	46	57	54	94
S83-M3616	M36x2	1	25	16	25	46	69	71	128
S83-M4216	M42x2	1	25	16	30	50	67	71	128
S83-M5220	M52x2	1 1/4	31.5	20	38	60	80	87	154

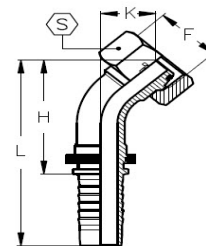
S84

MET HEAVY FEMALE 45° ELBOW

METRIC 24° CONE HEAVY FEMALE SWIVEL NUT

45° ELBOW

- ISO 12151-5



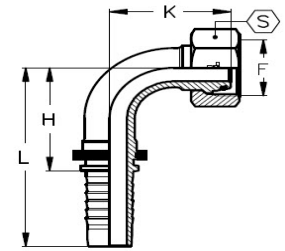
Part Number	Metric Female Thread (F)	Hose I.D (Inches)	Hose I.D (mm)	Dash size	Tube Size	Hex A/F (S)	Drop mm (K)	Cutoff (H)	Length mm (L)
S84-M1404	M14x1.5	1/4	6.3	04	6	17	14	35	63
S84-M1604	M16x1.5	1/4	6.3	04	8	19	14	36	64
S84-M1804	M18x1.5	1/4	6.3	04	10	22	16	38	66
S84-M1806	M18x1.5	3/8	10	06	10	22	17	40	70
S84-M2006	M20x1.5	3/8	10	06	12	24	18	40	71
S84-M2206	M22x1.5	3/8	10	06	14	27	19	42	72
S84-M2208	M22x1.5	1/2	12.5	08	14	27	20	46	79
S84-M2408	M24x1.5	1/2	12.5	08	16	30	21	47	80
S84-M3010	M30x2	5/8	16	10	20	36	25	56	92
S84-M3012	M30x2	3/4	19	12	20	36	27	64	105
S84-M3612	M36x2	3/4	19	12	25	46	28	64	105
S84-M3616	M36x2	1	25	16	25	46	34	83	140
S84-M4216	M42x2	1	25	16	30	50	32	82	138
S84-M5220	M52x2	1 1/4	31.5	20	38	60	38	97	164

S86

MET LIGHT FEMALE 90° ELBOW

METRIC 24° CONE LIGHT FEMALE SWIVEL NUT 90° ELBOW

- ISO 12151-5

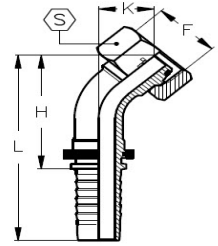


Part Number	Metric Female Thread (F)	Hose I.D (Inches)	Hose I.D (mm)	Dash size	Tube Size	Hex A/F (S)	Drop mm (K)	Cutoff (H)	Length mm (L)
S86-M1204	M12x1.5	1/4	6.3	04	6	17	26	26	53
S86-M1404	M14x1.5	1/4	6.3	04	8	17	29	29	57
S86-M1406	M14x1.5	3/8	9.5	06	8	19	45	29	
S86-M1604	M16x1.5	1/4	6.3	04	10	19	30	29	57
S86-M1605	M16x1.5	5/16	8	05	10	19	33	31	59
S86-M1606	M16x1.5	3/8	10	06	10	19	31	31	61
S86-M1806	M18x1.5	3/8	10	06	12	22	33	31	61
S86-M1808	M18x1.5	1/2	12.7	08	12	22			
S86-M2206	M22x1.5	3/8	10	06	15	27	35	31	61
S86-M2208	M22x1.5	1/2	12.5	08	15	27	38	37	70
S86-M2608	M26x1.5	1/2	12.5	08	18	32	40	37	70
S86-M2610	M26x1.5	5/8	16	10	18	32	45	44	80
S86-M2612	M26x1.5	3/4	19	12	18	32	57	54	94
S86-M3012	M30x2	3/4	19	12	22	36	52	54	94
S86-M3612	M36x2	3/4	19	12	28	41	51	49	
S86-M3616	M36x2	1	25.4	16	28	41	63	72	
S86-M4520	M45x2	1 1/4	31.8	20	38	50	73	63	

S87

MET LIGHT FEMALE 45° ELBOW
METRIC 24° CONE LIGHT FEMALE SWIVEL NUT 45°
ELBOW

- ISO 12151-5

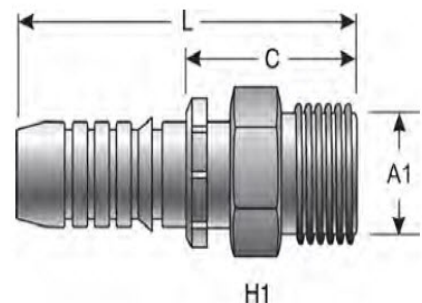


Part Number	Metric Female Thread (F)	Hose I.D (Inches)	Hose I.D (mm)	Dash size	Tube Size	Hex A/F (S)	Drop mm (K)	Cutoff (H)	Length mm (L)
S87-M1204	M12x1.5	1/4	6.3	04	6	17	14	35	63
S87-M1404	M14x1.5	1/4	6.3	04	8	17	14	36	64
S87-M1604	M16x1.5	1/4	6.3	04	10	19	16	38	66
S87-M1605	M16x1.5	5/16	8	05	10	19	17	39	67
S87-M1606	M16x1.5	3/8	10	06	10	19	16	39	69
S87-M1806	M18x1.5	3/8	10	06	12	22	18	40	71
S87-M2206	M22x1.5	3/8	10	06	15	27	19	42	72
S87-M2208	M22x1.5	1/2	12.5	08	15	27	19	46	79
S87-M2608	M26x1.5	1/2	12.5	08	18	32	21	47	80
S87-M2610	M26x1.5	5/8	16	10	18	32	22	53	89
S87-M2612	M26x1.5	3/4	19	12	18	32	29	66	107
S87-M3012	M30x2	3/4	19	12	22	36	25	62	103
S87-M3616	M36x2	1	25.4	16	28	41	32	102	
S87-M4520	M45x2	1 1/4	31.8	20	28	50	34	72	

GS-MDH (GS78)

MET HEAVY MALE STRAIGHT
GATES GS METRIC 24° CONE HEAVY MALE
STRAIGHT

- FOR GATES 20EFG4K, 20EFG5K, OR 20EFG6K HOSE ONLY.
- USE WITH GATES GSF4N OR GSF6N FERRULES ONLY.

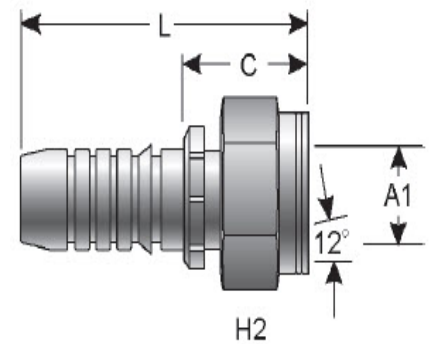


Part Number	Metric Female Thread	Hose I.D (Inches)	Hose I.D (mm)	Dash size	Tube Size	Length mm (L)	Cutoff - C	H1 mm
20GS-38MD H	M52x2	1 1/4	31.8	20	28	122.9	51.8	55

GS-FDHORX (GS79)

MET HEAVY FEMALE STRAIGHT
GATES GS METRIC 24° CONE HEAVY FEMALE
SWIVEL NUT STRAIGHT

- FOR GATES 20EFG4K, 20EFG5K, OR 20EFG6K HOSE ONLY.
- USE WITH GATES GSF4N OR GSF6N FERRULES ONLY.

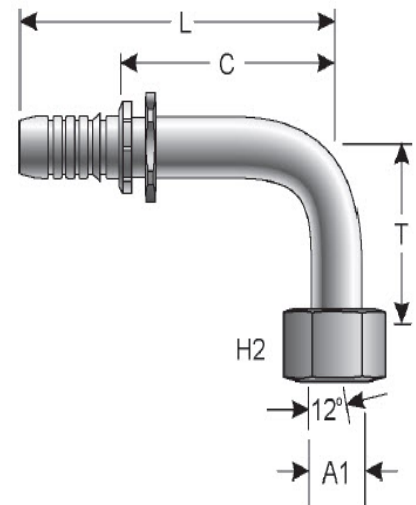


Part Number	Metric Female Thread	Hose I.D (Inches)	Hose I.D (mm)	Dash size	Tube Size	Length mm (L)	Cutoff mm - C	H2 mm
20GS-38FDH ORX	M52x2	1 1/4	31.8	20	28	145	73.9	60

GS-FDHORX90 (GS83)

MET HEAVY FEMALE 90° ELBOW
GATES GS METRIC 24° CONE HEAVY FEMALE
SWIVEL NUT 90° ELBOW

- FOR GATES 20EFG4K, 20EFG5K, OR 20EFG6K HOSE ONLY.
- USE WITH GATES GSF4N OR GSF6N FERRULES ONLY.

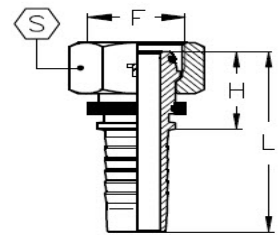


Part Number	Metric Female Thread	Hose I.D (Inches)	Hose I.D (mm)	Dash size	Tube Size	Length mm (L)	Cutoff - C	Drop mm (T)	H2 mm
20GS-38FDH ORX90	M52x2	1 1/4	31.8	20	28	180.6	109.5	87.1	60

S81C

MET LIGHT FEMALE STRAIGHT
METRIC 24° CONE LIGHT FEMALE SWIVEL NUT
STRAIGHT

- ISO 12151-5

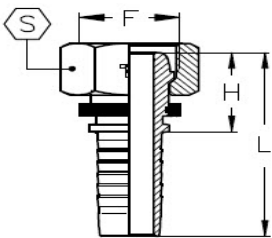


Part Number	Metric Female Thread (F)	Hose I.D (Inches)	Hose I.D (mm)	Dash size	Tube Size	Hex A/F (S)	Cutoff (H)	Length mm (L)	Working Pressure (bar)
S81C-M1004	M10x1	1/4	6.4	04	8				
S81C-M1203	M12x1.5	3/16	5	03	6	14	21	46	280
S81C-M1204	M12x1.5	1/4	6.3	04	6	17	23	51	280
S81C-M1404	M14x1.5	1/4	6.3	04	8	17	22	50	280
S81C-M1405	M15x1.5	5/16	7.9	05	8	17	24	50	280
S81C-M1406	M14x1.5	3/8	9.5	06	10				
S81C-M1604	M16x1.5	1/4	6.3	04	10	19	24	52	280
S81C-M1605	M16x1.5	5/16	8	05	10	19	24	52	280
S81C-M1606	M16x1.5	3/8	10	06	10	19	23	54	280
S81C-M1804	M18x1.5	1/4	6.3	04	12	22	24	52	280
S81C-M1806	M18x1.5	3/8	10	06	12	22	24	54	280
S81C-M1808	M18x1.5	1/2	12.7	08	12	22	28		
S81C-M2206	M22x1.5	3/8	10	06	15	27	24	54	280
S81C-M2208	M22x1.5	1/2	12.5	08	15	27	24	57	280
S81C-M2608	M26x1.5	1/2	12.5	08	18	32	26	59	210
S81C-M2610	M26x1.5	5/8	16	10	18	32	27	62	210
S81C-M2612	M26x1.5	3/4	19	12	18	32	34	75	210
S81C-M3010	M30x2	5/8	16	10	22	36	28	64	210
S81C-M3012	M30x2	3/4	19	12	22	36	31	71	210
S81C-M3612	M36x2	3/4	6.3	12	28	41	28		

S81C-M3616	M36x2	1	25.4	16	28	41	30
S81C-M4520	M45x2	1 1/4	31.8	20	35	50	40
S81C-M5224	M52x2	1 1/2	38.1	24	42		

METRIC MULTI SEAL

S77C
MET FEMALE STRAIGHT
METRIC MULTI-SEAL CONE FEMALE SWIVEL NUT
STRAIGHT

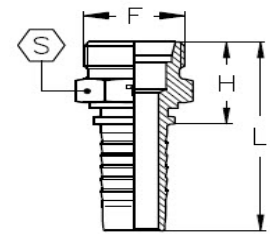


Part Number	Metric Female Thread (F)	Hose I.D (Inches)	Hose I.D (mm)	Dash size	Hex A/F (S)	Cutoff (H)
S77C-M1404	M14-1.5	1/4	6.4	04	17	19
S77C-M2006	M20x1.5	3/8	9.5	06		
S77C-M2008	M20x1.5	1/2	12.7	08		
S77C-M2208	M22x1.5	1/2	12.7	08	27	22

METRIC FRENCH GAZ

S47

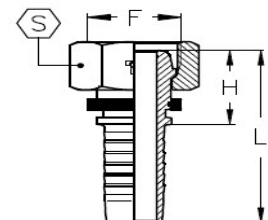
FRENCH GAZ MALE STRAIGHT
METRIC 24° CONE FRENCH GAZ TYPE MALE
STRAIGHT



Part Number	Metric Male Thread (F)	Hose I.D (Inches)	Hose I.D (mm)	Dash size	Hex A/F (S)	Cutoff (H)	Length mm (L)	Working Pressure (bar)	Working Pressure (psi)
S47-M2006	M20x1.5	3/8	10	06	22	25	55.5	330	4800
S47-M2408	M24x1.5	1/2	12.5	08	24	27	60	280	4000
S47-M3010	M30x1.5	5/8	16	10	30	30	66	280	4000
S47-M3012	M30x1.5	3/4	19	12	30	31	71.5	280	4000
S47-M3612	M36x1.5	3/4	19	12	36	33	73.5	210	3000
S47-M4516	M45x1.5	1	25	16	46	38.5	89.5	210	3000

S74C

FRENCH GAZ FEMALE STRAIGHT
METRIC 24° CONE FRENCH GAZ TYPE FEMALE
STRAIGHT



Part Number	Metric Female Thread (F)	Hose I.D (Inches)	Hose I.D (mm)	Dash size	Hex A/F (S)	Cutoff (H)	Length mm (L)	Working Pressure (bar)	Working Pressure (psi)
S74C-M1404	M14x1.5	1/4	6.4	04	17	19			
S74C-M3312	M33x1.5	3/4	19	12					
S74C-M3612	M36x1.5	3/4	19	12	41	29	68.5	210	3000
S74C-M4516	M45x1.5	1	25.4	16	55	30			

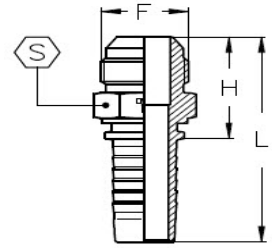
JIS

S35

JIS BSP MALE STRAIGHT

JIS BSP 30° FLARE MALE

- JIS B 8363



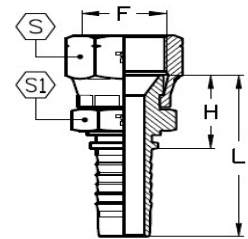
Part Number	JIS Male Thread (F)	Hose I.D (Inches)	Hose I.D (mm)	Dash size	Hex A/F - S (mm)	Cutoff - H (mm)	Length - L (mm)	Working Pressure (bar)	Working Pressure (psi)
S35-0404	1/4-19	1/4	6.3	04	16	28	56	350	5000
S35-0606	3/8-19	3/8	10	06	19	31.5	62	350	5000

S70H

JIS MET FEMALE STRAIGHT

JIS MET KOMATSU STYLE 30° FLARE FEMALE

SWIVEL NUT STRAIGHT



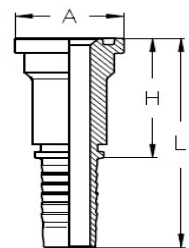
Part Number	JIS Female Thread (F)	Hose I.D (Inches)	Hose I.D (mm)	Dash size	Hex A/F (S)	Hex A/F (S1)	Cutoff (H)	Length mm (L)	Working Pressure (bar)
S70H-M1204	M12x1.5	1/4	6.4	04	16	16	22		
S70H-M1404	M14x1.5	1/4	6.3	04	19	17	21.5	49.5	350
S70H-M1406	M14x1.5	3/8	10	06	19	17	21.5	52	350
S70H-M1605	M16x1.5	5/16	8	05	22	17	22	50	350
S70H-M1606	M16x1.5	3/8	10	06	22	17	22	52.5	350
S70H-M1804	M18x1.5	1/4	6.4	04	24	19	26		
S70H-M1806	M18x1.5	3/8	10	06	24	19	22.5	53	350
S70H-M1808	M18x1.5	1/2	12.7	08	24	22	27		
S70H-M2006	M20x1.5	3/8	9.5	06	25	19	27		
S70H-M2008	M20x1.5	1/2	12.7	08	25	22	27		

S70H-M2206	M22x1.5	3/8	9.5	06	27	22	28		
S70H-M2208	M22x1.5	1/2	12.5	08	27	22	26	59	350
S70H-M2212	M22x1.5	3/4	19	12	27	29	29		
S70H-M2408	M24x1.5	1/2	12.5	08	32	27	30	63	350
S70H-M2410	M24x1.5	5/8	16	10	32	27	60	66	280
S70H-M2412	M24x1.5	3/4	19	12	32	29	28		
S70H-M3012	M30x1.5	3/4	19	12	36	32	33.5	74	280
S70H-M3312	M33x1.5	3/4	19	12	38	32	36		
S70H-M3316	M33x1.5	1	25.4	16	41	36	33		
S70H-M3612	M36x1.5	3/4	19.0	12	42	35	36		
S70H-M3616	M36x1.5	1	25.4	16	42	35	37		
S70H-M3620	M36x1.5	1 1/4	31.8	20	42	41	41		
S70H-M4220	M42x1.5	1 1/4	31.8	20	51	44	44		
S70H-M4224	M42x1.5	1 1/2	38.1	24	51	47	47		

S71

JIS FLANGE STRAIGHT

JIS KOMATSU STYLE FLANGE STRAIGHT

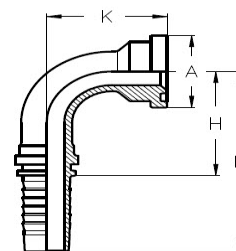


Part Number	Nominal SAE Flange size (A)	Hose I.D (Inches)	Hose I.D (mm)	Dash size	Flange OD mm (A)	Cutoff (H)	Length mm (L)	Working Pressure (bar)	Working Pressure (psi)
S71-1010	5/8	5/8	16	10	34 x 6.7	48	84	350	5000
S71-1012	5/8	3/4	19	12	34 x 6.7	54			

S72

JIS FLANGE 90° ELBOW

JIS KOMATSU STYLE FLANGE 90° ELBOW

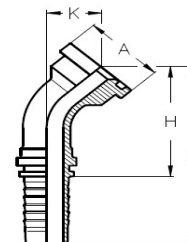


Part Number	Nominal SAE Flange size (A)	Hose I.D (Inches)	Hose I.D (mm)	Dash size	Flange OD mm (A)	Drop mm (K)	Cutoff (H)	Length mm (L)	Working Pressure (bar)
S72-1010	5/8	5/8	16	10	34	44	45	81	350
S72-1010X80	5/8	5/8	16	10	34	80	50	86	350
S72-1012	5/8	3/4	19	12	34	45	51	92	350
S72-1012X80	5/8	3/4	19	12	34	80	51	92	350

S73

JIS FLANGE 45° ELBOW

JIS KOMATSU STYLE FLANGE 45° ELBOW



Part Number	Nominal SAE Flange size (A)	Hose I.D (Inches)	Hose I.D (mm)	Dash size	Flange OD mm (A)	Drop mm (K)	Cutoff (H)	Length mm (L)	Working Pressure (bar)
S73-1010	5/8	5/8	16	10	34	22	53	89	350
S73-1012	5/8	3/4	19	12	34	20	55		

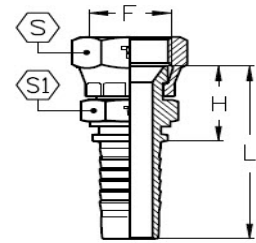
S75H

JIS BSP FEMALE STRAIGHT

JIS BSP 30° FLARE FEMALE SWIVEL NUT STRAIGHT

BACK HEX

- JIS B 8363



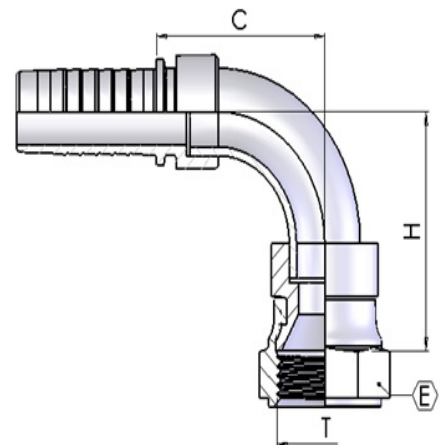
Part Number	JIS (BSP) Female Thread (A)	Hose I.D (Inches)	Hose I.D (mm)	Dash size	Hex A/F (S)	Hex A/F (S1)	Cutoff (H)	Length mm (L)	Working Pressure (bar)
S75H-0404	1/4-19	1/4	6.3	04	19	17	21.5	49.5	350
S75H-0606	3/8-19	3/8	10	06	22	19	22.5	53	350
S75H-0808	1/2-14	1/2	12.5	08	27	22	26	59	350
S75H-1212	3/4-14	3/4	19	12	32	27	31	71.5	280
S75H-1616	1-11	1	25.4	16	38	36	31		
S75H-2020	1 1/4-11	1 1/4	31.8	20	51	44	44		
S75H-2424	1 1/2-11	1 1/2	38.1	24	55	51	46		

S89

JIS MET FEMALE 90° ELBOW

JIS MET KOMATSU STYLE 30° FLARE FEMALE

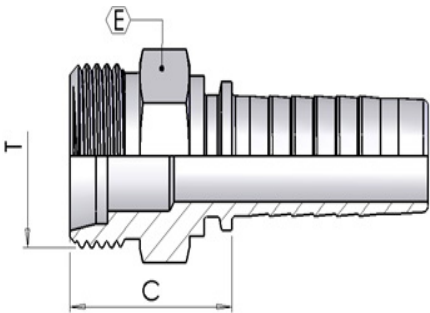
SWIVEL NUT 90° ELBOW



Part Number	JIS Female Thread (T)	Hose I.D (Inches)	Hose I.D (mm)	Dash size	Hex A/F (E)	Drop - H	Cutoff - C
S89-M1404	M14-1.5	1/4	6.4	04	19	35	38
S89-M1406	M14-1.5	3/8	9.5	06	19	33	31
S89-M1606	M16x1.5	3/8	9.5	06	22	34	30
S89-M1806	M18x1.5	3/8	9.5	06	24	33	31
S89-M2208	M22x1.5	1/2	12.7	08	27	39	33
S89-M2410	M24x1.5	5/8	15.9	10	30	48	42
S89-M3012	M30x1.5	3/4	19	12	36	43	48

METRIC KOBELCO

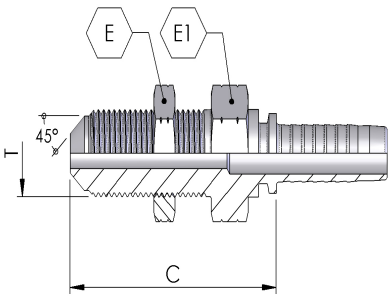
S44
KOBELCO MALE STRAIGHT
METRIC KOBELCO STYLE 24° CONE MALE



Part Number	Metric Male Thread (T)	Hose I.D (Inches)	Hose I.D (mm)	Dash size	Tube Size	Hex A/F (E)	Cutoff - C
S44-M2812	M28x1.5	3/4	19	12	20	32	39
S44-M3010	M30x1.5	5/8	16	10			
S44-M3612	M36x1.5	3/4	19	12			

METRIC 45° FLARE

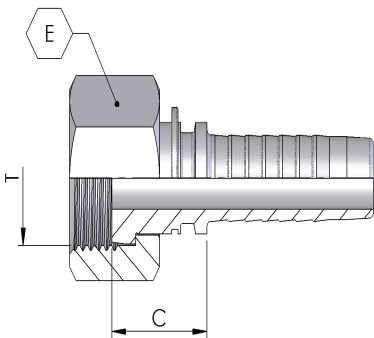
S109
MET 45° MALE
METRIC 45° FLARE BULKHEAD GB/T 5626



Part Number	Metric Male Thread (T)	Hose I.D (Inches)	Hose I.D (mm)	Dash size	Hex E (mm)	Hex E1 (mm)	Cutoff C (mm)
S109-M1606	M16x1.5	1/4	6.3	04	22	19	48.5
S109-M2006	M20x1.5	3/8	9.5	06	27	27	56.5
S109-M2008	M20x1.5	1/2	12.7	08	27	27	58.5
S109-M2208	M22x1.5	1/2	12.7	08	30	27	62.5

METRIC FLAT FACE

S131
MET FEMALE STRAIGHT
METRIC FLAT FACE FEMALE SWIVEL NUT
STRAIGHT GB/T 9065.3



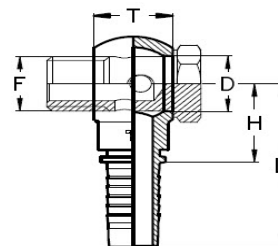
Part Number	Metric Female Thread (T)	Hose I.D (Inches)	Hose I.D (mm)	Dash size	Hex A/F (E)	Cutoff - C
S131-M1604	M16x1.5	1/4	6.4	04	19	16.5
S131-M1606	M16x1.5	3/8	9.5	06	19	17
S131-M1806	M18x1.5	3/8	9.5	06	22	17.5
S131-M2006	M20x1.5	3/8	9.5	06	24	17.5
S131-M2206	M22x1.5	3/8	9.5	06	27	17.5
S131-M2208	M22x1.5	1/2	12.7	08	27	18
S131-M2408	M24x1.5	1/2	12.7	08	30	18
S131-M2710	M27x1.5	5/8	15.9	10	32	19.5
S131-M3012	M30x2	3/4	19	12	36	21.5
S131-M3312	M33x2	3/4	19	12	41	21.5

BANJO TAIL

S38

BSP BANJO

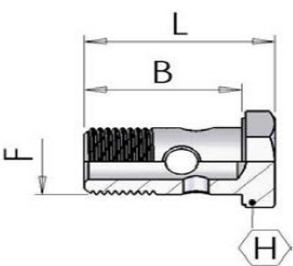
BSP BANJO TAIL TO SUIT BSP BOLT



Part Number	Banjo ID mm (D)	Hose I.D (Inches)	Hose I.D (mm)	Dash size	Suits BSP Bolt	Radius (T)	Cutoff (H)	Length mm (L)	Working Pressure (bar)
S38-0204	10.2	1/4	6.3	04	1/8-28	10	23	51	280
S38-0404	13.3	1/4	6.3	04	1/4-19	14	23	51	280
S38-0604	16.8	1/4	6.3	04	3/8-19	17.5	26.5	54.5	280
S38-0606	16.8	3/8	10	06	3/8-19	17.5	24	54.5	280
S38-0806	21	3/8	10	06	1/2-14	23	32	62.5	250
S38-0808	21	1/2	21.5	08	1/2-14	23	28.5	61.5	250
S38-1212	26.5	3/4	19	12	3/4-14	29.5	37.5	78	210

BANJO BOLT

BJ-B
BSP BANJO BOLT



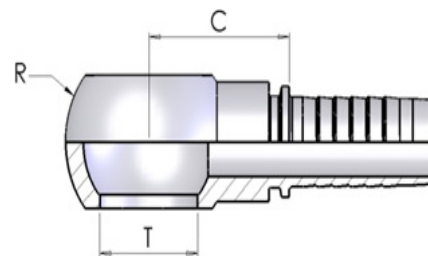
Part Number	BSPP Thread (F)	Bolt Length mm (B)	Overall Length mm (L)	Hex A/F (H)
BJ-B02	1/8-27			
BJ-B04	1/4-19	29	34	19
BJ-B06	3/8-19	33	41	22
BJ-B08	1/2-14	38	46	27
BJ-B10	5/8-14	44	54	30
BJ-B12	3/4-14	47	56	32
BJ-B16	1-11	58	69	38

METRIC BANJO TAIL

S38-M

MET BANJO

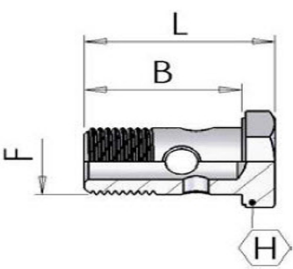
METRIC BANJO TAIL TO SUIT METRIC BOLT



Part Number	Banjo ID mm (T)	Hose I.D (mm)	Dash size	Suits Bolt	Radius R	Cutoff - C	Length (mm)	Working Pressure (bar)	Working Pressure (psi)
S38-M1003	10.2	5	03	M10x1	10	20	45	200	2900
S38-M1004	10.2	6.3	04	M10x1	10	23	51	200	2900
S38-M1204	12.1	6.3	04	M12x1.5	12	23	51	200	2900
S38-M1206	12	9.5	06	M12x1.5					
S38-M1404	14.2	6.3	04	M14x1.5	14	23	51	200	2900
S38-M1406	14.2	10	06	M14x1.5	14	24	54.5	200	2900
S38-M1604	16.2	6.3	04	M16x1.5	17.5	26.5	54.5	200	2900
S38-M1606	16.2	10	06	M16X1.5	17.5	24	54.5	200	2900
S38-M1806	18.2	10	06	M18X1.5	20.5	27	57.5	200	2900
S38-M1808	18.2	12.5	08	M18X1.5	20.5	28.1	61.1	200	2900
S38-M2208	22.2	12.5	08	M22X1.5	22.55	28.5	61.5	200	2900

METRIC BANJO BOLT

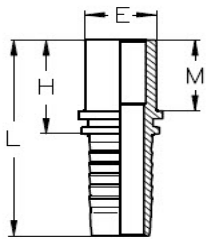
BJ-M
MET BANJO BOLT



Part Number	BSPP Thread (F)	Bolt Length mm (B)	Overall Length mm (L)	Hex A/F (H)
BJ-M10	M10x1.0	19	24	14
BJ-M12	M12x1.5	26	31	17
BJ-M14	M14-1.5	29	34	19
BJ-M16	M16x1.5	33	41	22
BJ-M18	M18x1.5	37	44	24
BJ-M22	M22x1.5	38	46	27

METRIC STANDPIPE

S82
MET STANDPIPE STRAIGHT
METRIC TUBE STANDPIPE STRAIGHT



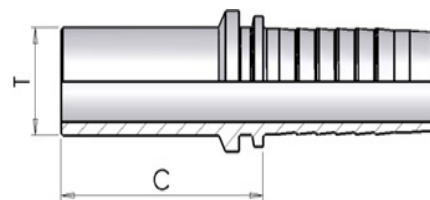
Part Number	Standpipe O.D mm (E)	Hose I.D (Inches)	Hose I.D (mm)	Dash size	Din Std	Cutoff (H)	Stand Length mm (M)	Length mm (L)	Working Pressure (bar)
S82-M1204	12	1/4	6.3	04	L/S	32	25	60	450
S82-M1206	12	3/8	10	06	L/S	31.5	25	62	445
S82-M1406	14	3/8	10	06	S	34.5	28	65	445
S82-M604	6	1/4	6.3	04	L	27.5	21	55.5	280

IMPERIAL STRAIGHT STANDPIPE

S92

IMPERIAL STANDPIPE STRAIGHT

IMPERIAL TUBE STANDPIPE STRAIGHT



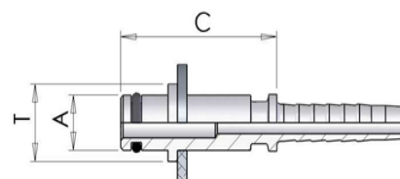
Part Number	Standpipe O.D mm (T)	Hose I.D inches	Hose I.D (mm)	Dash size	Cutoff - C
S92-0404	1/4	1/4	6.4	04	34
S92-0606	3/8	3/8	9.5	06	38
S92-0808	1/2	1/2	12.7	08	41
S92-1008	5/8	1/2	12.7	08	43
S92-1010	5/8	5/8	15.9	10	42
S92-1212	3/4	3/4	19	12	
S92-1612	1	3/4	19	12	55
S92-2020	1 1/4	1 1/4	31.8	20	51

KARCHER

KARCHER

KARCHER GUN TAIL

10MM SPIGOT

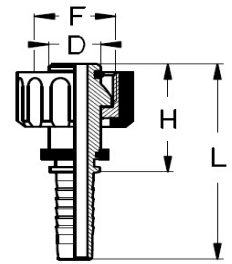


Part Number	Metric Male Thread (T)	Hose I.D (Inches)	Hose I.D (mm)	Dash size	Spigot Diameter (A)	Cutoff - C
KARCHER-04	M22x1.5	1/4	6.4	04	10	33

S113

KARCHER GUN TAIL
11MM SPIGOT

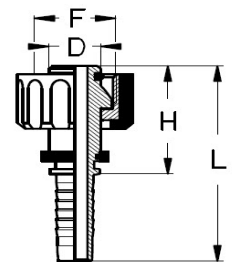
- Designed to be installed directly onto the spray-gun as per the original OEM fitting



Part Number	Metric Female Thread (F)	Hose I.D (Inches)	Hose I.D (mm)	Dash size	Spigot Diameter (A)	Cutoff - C
S113-M1104	M22x1.5	1/4	6.3	04	11	40.5

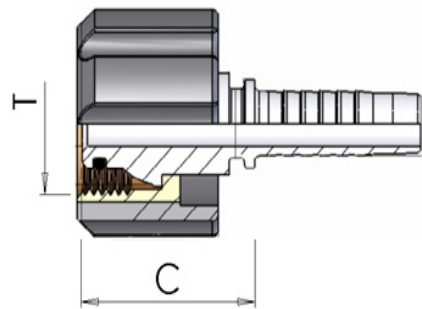
S30

KARCHER FEMALE STRAIGHT
KARCHER STYLE JET WASH FEMALE



Part Number	Metric Female Thread (F)	Hose I.D (Inches)	Hose I.D (mm)	Dash size	Cutoff (H)	Length mm (L)	O-Ring
S30-M2204	M22x1.5	1/4	6.3	04	34.8	62.8	10x2
S30-M2205	M22x1.5	5/16	8	05	37.8	65.8	10x2
S30-M2206	M22x1.5	3/8	10	06	37.8	68.9	10x2

S30L
KARCHER FEMALE STRAIGHT
KARCHER STYLE JET WASH FEMALE EXTENDED
NUT

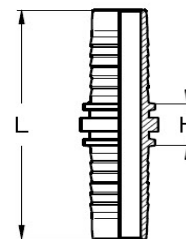


Part Number	Metric Female Thread (T)	Hose I.D (Inches)	Hose I.D (mm)	Dash size	Cutoff - C
S30L-M2204	M22x1.5	1/4	6.4	04	31
S30L-M2205	M22x1.5	5/16	7.9	05	31
S30L-M2206	M22x1.5	3/8	9.5	06	31

HOSE JOINER

S90

HOSE JOINER STRAIGHT



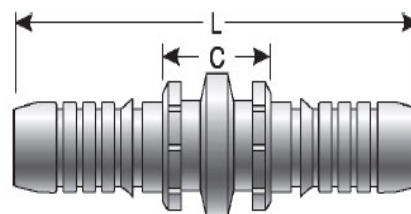
Part Number	Hose ID inches	Hose I.D mm	Dash size	Cutoff (H)	Length mm (L)	Working Pressure (bar)	Working Pressure (psi)
S90-0404	1/4	6.3	04	13	69	450	6500
S90-0505	5/16	8	05	13	69	350	5000
S90-0606	3/8	10	06	13	74	445	6500
S90-0808	1/2	12.5	08	15	81	415	6000
S90-1010	5/8	16	10	16	88	350	5000
S90-1212	3/4	19	12	18	99	350	5000
S90-1616	1	25.4	16	21			
S90-2020	1 1/4	31.8	20	24			

GS-HLE (GS90)

HOSE JOINER STRAIGHT

GATES GS HOSE JOINER STRAIGHT

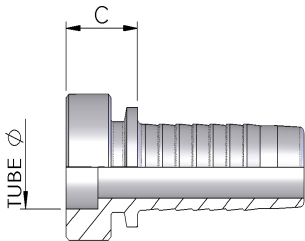
- FOR GATES 20EFG4K, 20EFG5K, OR 20EFG6K HOSE ONLY.
- USE WITH GATES GSF4N OR GSF6N FERRULES ONLY.



Part Number	Hose I.D inches	Hose I.D mm	Dash size	Length mm (L)	Cutoff - C
20GS-20HLE	1 1/4	31.8	20	172	29.7

BRAZE SOCKET

S96
IMPERIAL BRAZE SOCKET
IMPERIAL TUBE (LIFESAVER) BRAZE SOCKET
STRAIGHT

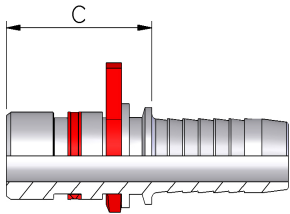


Part Number	Socket I.D mm	Hose I.D inches	Hose I.D (mm)	Dash size	O.D mm	Cutoff - C
S96-0404	1/4	1/4	6.4	04	13	12
S96-0505	5/16	5/16	7.9	05	16	12
S96-0606	3/8	3/8	9.5	06	19	13
S96-0808	1/2	1/2	12.7	08	22	14
S96-1010	5/8	5/8	15.9	10	25	15
S96-1212	3/4	3/4	19	12	26	22
S96-1616	1	1	25.4	16	32	25
S96-2020	1 1/4	1 1/4	31.8	20	44	29
S96-2424	1 1/2	1 1/2	38.1	24	50	33
S96-3232	2	2	50.8	32	60	34

CEJN CONNECTOR STRAIGHT

S97

WEO PUSH CONNECT STRAIGHT
TO SUIT WEO PUSH CONNECT ADAPTORS



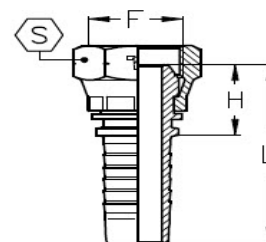
Part Number	Hose I.D inches	Hose I.D (mm)	Dash size	O.D mm	Cutoff - C
S97-0404	1/4	6.4	04	10	30
S97-0606	3/8	9.5	06	13	33
S97-0806	1/2	12.7	06	16	33
S97-0808	1/2	12.7	08	16	33

METRIC 60°

S76C

MET FEMALE STRAIGHT

METRIC 60° CONE FEMALE SWIVEL NUT STRAIGHT

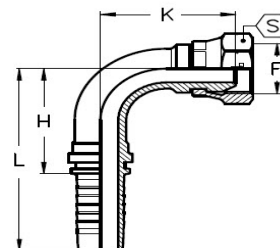


Part Number	Metric Female Thread (F)	Hose I.D (Inches)	Hose I.D (mm)	Dash size	Hex A/F (S)	Cutoff (H)	Length mm (L)	Working Pressure (bar)	Working Pressure (psi)
S76C-M1204	M12x1.5	1/4	6.3	04	15	16.5	44.5	280	4000
S76C-M1404	M14-1.5	1/4	6.3	04	17	18.5	46.5	280	4000
S76C-M1604	M16x1.5	1/4	6.3	04	19	18.5	46.5	280	4000
S76C-M1605	M16x1.5	5/16	7.9	05	19	18	46	280	4000
S76C-M1606	M16x1.5	3/8	10	06	19	18.5	49	280	4000
S76C-M1806	M18x1.5	3/8	10	06	22	20.5	51	280	4000
S76C-M2006	M20x1.5	3/8	10	06	24	20.5	51	280	4000
S76C-M2208	M22x1.5	1/2	12.5	08	27	23	56	280	4000
S76C-M2610	M26x1.5	5/8	16	10	32	23.5	63	280	4000
S76C-M2612	M26x1.5	3/4	19	12	32	26.5	67	280	4000
S76C-M2710	M27x1.5	5/8	16	10	32	22	63	280	4000
S76C-M3816	M38x1.5	1	25	16	46	31	82	165	2400

S95

MET FEMALE 90° ELBOW

METRIC 60° CONE FEMALE SWIVEL NUT 90° ELBOW

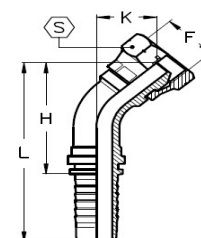


Part Number	Metric Female Thread (F)	Hose I.D (Inches)	Hose I.D (mm)	Dash size	Hex A/F (S)	Cutoff (H)	Drop mm (K)
S95-M1204	M12x1.5	1/4	6.4	04	17	28	35
S95-M1404	M14-1.5	1/4	6.4	04	19	25	28
S95-M1606	M16x1.5	3/8	9.5	06	22	33	34
S95-M1806	M18x1.5	3/8	9.5	06	24	33	34
S95-M2208	M22x1.5	1/2	12.7	08	27	39	41
S95-M2610	M26x1.5	5/8	15.9	10	32	45	48
S95-M2612	M26x1.5	3/4	19	12	32	56	58
S95-M2710	M27x1.5	5/8	15.9	10	32	45	50
S95-M3816	M38x1.5	1	25.4	16	46	68	81

S98

MET FEMALE 45° ELBOW

METRIC 60° CONE FEMALE SWIVEL NUT 45° ELBOW



Part Number	Metric Female Thread (F)	Hose I.D (Inches)	Hose I.D (mm)	Dash size	Hex A/F (S)	Cutoff (H)	Drop mm (K)
S98-M1204	M12x1.5	1/4	6.4	04	17	41	20
S98-M1404	M14-1.5	1/4	6.4	04	19	37	16
S98-M1606	M16x1.5	3/8	9.5	06	22	44	19
S98-M1806	M18x1.5	3/8	9.5	06	24	44	19
S98-M2208	M22x1.5	1/2	12.7	08	27	53	24
S98-M2610	M26x1.5	5/8	15.9	10	32	60	25
S98-M2710	M27x1.5	5/8	15.9	10	32	57	26
S98-M2612	M26x1.5	3/4	19	12	32	70	28

MULTISPIRAL FERRULES

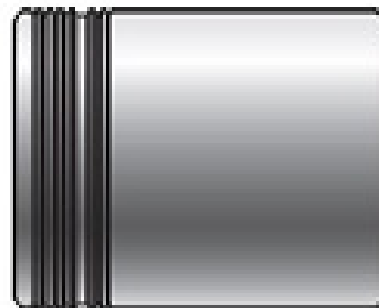
GSF6N

SPIRAL HOSE SWAGE FERRULE

GATES GS NON SKIVE SWAGE FERRULE FOR

GATES SPIRAL 6 WIRE HOSE

- FOR GATES 20EFG5K & 20EFG6K HOSE ONLY.
- USE WITH GATES GS SERIES HOSETAILS ONLY.



Part Number	Hose I.D inches	Hose I.D (mm)	Dash size	Length - L (mm)	O.D - D (mm)
20GS1F-6	1 1/4	31.8	20	72.9	67.8
GSF6N-20	1 1/4	31.8	20	72.9	67.8

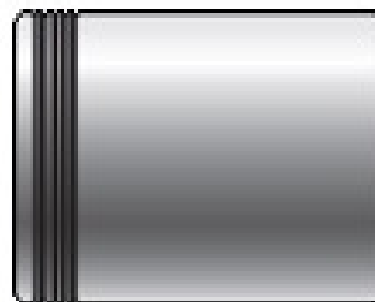
GSF4N

SPIRAL HOSE SWAGE FERRULE

GATES GS NON SKIVE SWAGE FERRULE FOR

GATES SPIRAL 4 WIRE HOSE

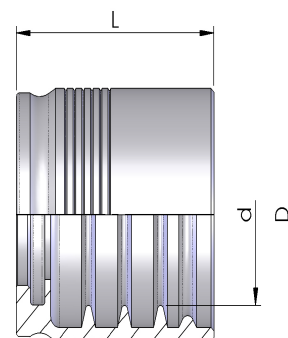
- FOR GATES EFG4K HOSE ONLY.
- USE WITH GATES GS SERIES HOSETAILS ONLY.



Part Number	Hose I.D inches	Hose I.D (mm)	Dash size	Length - L (mm)	O.D - D (mm)
20GS1F-4	1 1/4	31.8	20	67.8	61.5
GSF4N-20	1 1/4	31.8	20	67.8	61.5

S6KXN

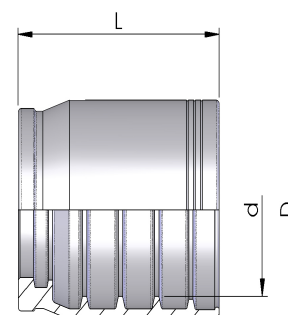
SPIRAL HOSE SWAGE FERRULE
NON-SKIVE SWAGE FERRULE FOR MULTI SPIRAL 4
WIRE HOSE



Part Number	Hose I.D inches	Hose I.D (mm)	Dash size	Length - L (mm)	I.D - d (mm)	O.D - D (mm)
S6KXN-06	3/8	9.5	06	30.8	21.4	30.0
S6KXN-08	1/2	12.7	08	34.0	25.1	34.9
S6KXN-10	5/8	15.9	10	36.9	29.0	40.0
S6KXN-12	3/4	19	12	42.0	32.7	44.5

SFM4N

SPIRAL HOSE SWAGE FERRULE
NON-SKIVE SWAGE FERRULE FOR MULTI SPIRAL 4
WIRE HOSE

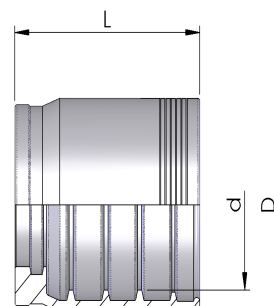


Part Number	Hose I.D inches	Hose I.D (mm)	Dash size	Length - L (mm)	I.D - d (mm)	O.D - D (mm)
SFM4N-16	1	25	16	57	39.5	50
SFM4N-20	1 1/4	31.5	20	68	47.2	60
SFM4N-24	1 1/2	38.0	24	86.0	55.5	70.0
SFM4N-32	2	51.0	32	100.0	70.0	86.0

SFM6N

SPIRAL HOSE SWAGE FERRULE
NON-SKIVE SWAGE FERRULE FOR MULTI SPIRAL 6
WIRE HOSE

- FOR HYDRAULINK HX6K-20 HOSE ONLY.

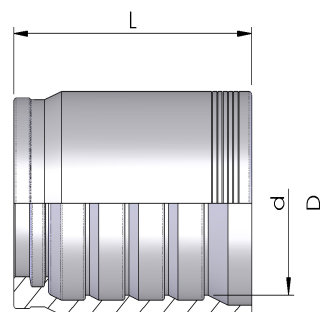


Part Number	Hose I.D inches	Hose I.D (mm)	Dash size	Length - L (mm)	I.D - d (mm)	O.D - D (mm)
SFM6N-20	1 1/4	31.5	20	70.0	51.4	65.0

SFM6S

SPIRAL HOSE SWAGE FERRULE
SKIVE SWAGE FERRULE FOR MULTI SPIRAL 6 WIRE
HOSE

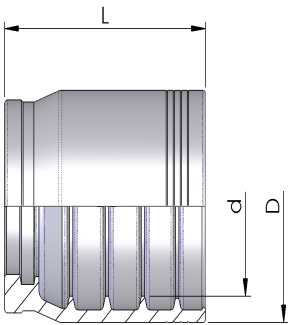
- FOR HYDRAULINK HX6K-24 AND HX6K-32 HOSE ONLY.



Part Number	Hose I.D inches	Hose I.D (mm)	Dash size	Length - L (mm)	I.D - d (mm)	O.D - D (mm)
SFM6S-24	1 1/2	38.0	24	90.0	57.5	68.0
SFM6S-32	2	51.0	32	102.0	70	84.0

SFM5N
SPIRAL HOSE SWAGE FERRULE
NON-SKIVE SWAGE FERRULE FOR MULTI SPIRAL 4
WIRE HOSE

- FOR ENDURO5000 HOSE ONLY

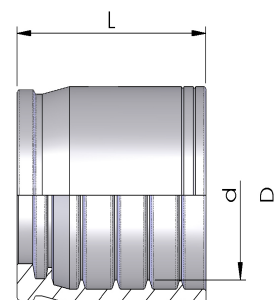


Part Number	Hose I.D inches	Hose I.D (mm)	Dash size	Length - L (mm)	I.D - d (mm)	O.D - D (mm)
SFM5N-20	1 1/4	31.5	20	68	49.4	62.0

BRAIDED FERRULES

SFBN

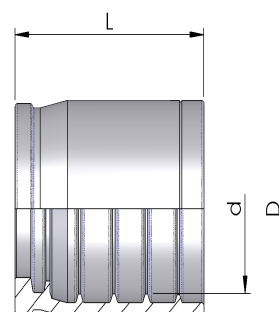
BRAIDED HOSE SWAGE FERRULE
NON-SKIVE SWAGE FERRULE FOR ONE & TWO-
WIRE HOSE



Part Number	Hose I.D inches	Hose I.D (mm)	Dash size	Length - L (mm)	I.D - d (mm)	O.D - D (mm)
SFBN-04	1/4	6.3	04	26.0	15.7	22.0
SFBN-05	5/16	8.0	05	27.5	17.5	24.0
SFBN-06	3/8	10.0	06	30.0	19.8	25.0
SFBN-08	1/2	12.5	08	32.5	23.1	30.0
SFBN-10	5/8	16.0	10	35.0	26.5	34.0
SFBN-12	3/4	19.0	12	40.0	30.2	38.0
SFBN-16	1	25.4	16	55.0	39.0	46.0
SFBN-20	1 1/4	31.8	20	65.0	49.5	60.0
SFBN-24	1 1/2	38.0	24	75.0	56.0	67.0
SFBN-32	2	51.0	32	86.0	69.0	80.0

SFKN

BRAIDED HOSE SWAGE FERRULE
NON-SKIVE SWAGE FERRULE FOR ONE-WIRE &
COMPACT HOSE

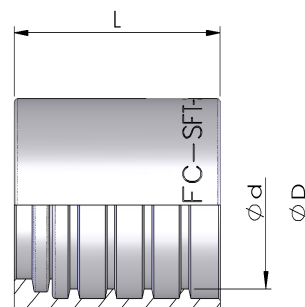


Part Number	Hose I.D inches	Hose I.D (mm)	Dash size	Length - L (mm)	I.D - d (mm)	O.D - D (mm)
SFKN-03	3/16	4.8	03	24.0	13.5	18.5
SFKN-04	1/4	6.3	04	26.0	14.3	20.5
SFKN-06	3/8	10.0	06	26.5	18.3	24.5

THERMOPLASTIC FERRULES

SFT

THERMOPLASTIC HOSE FERRULE
NON-SKIVE SWAGE FERRULE FOR
THERMOPLASTIC HOSE

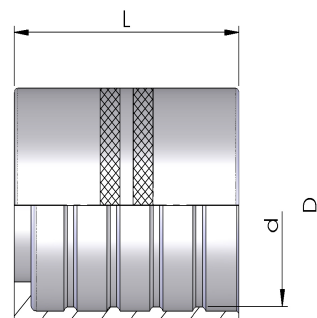


Part Number	Hose I.D inches	Hose I.D (mm)	Dash size	Length - L (mm)	I.D - d (mm)	O.D - D (mm)
SCNT-10	5/8	15.9	10	36	27.3	34
SFT-03	3/16	4.8	03	26	11.5	15
SFT-04	1/4	6.3	04	29	12.9	17
SFT-05	5/16	7.9	05	30.5	15.8	20
SFT-06	3/8	9.5	06	32	17.5	22
SFT-08	1/2	12.7	08	32.5	21.3	27
SFT-12	3/4	19.0	12	41	28.2	34.5

R5 FERRULES

SNV

R5 SWAGE FERRULE
FOR GATES C5 HOSE



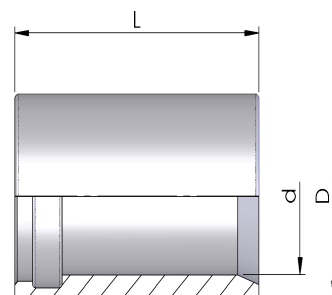
Part Number	Hose I.D inches (Nominal Bore)	Suits Hose Dash Size	Length - L (mm)	I.D - d (mm)	O.D - D (mm)
SNV-04	1/4	05	29.0	15.2	19.0
SNV-05	5/16	06	30.0	18.4	22.0
SNV-06	13/32	08	31.0	19.9	24.0
SNV-08	1/2	10	34.0	24.7	28.5
SNV-10	5/8	12	36.0	28.0	32.0
SNV-12	3/4	19	42	32.6	38

PTFE FERRULES

SP1

PTFE SWAGE FERRULE

SWAGE FERRULE FOR PTFE SMOOTH TRUE BORE
HOSE

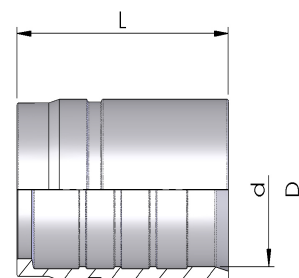


Part Number	Hose I.D inches	Hose I.D (mm)	Dash size	Length - L (mm)	I.D - d (mm)	O.D - D (mm)
SP1-03	3/16	4.8	03	26.0	10.1	14
SP1-04	1/4	6.4	04	29.0	11.3	17.5
SP1-05	5/16	8.0	05	29.0	12.0	17.5
SP1-06	3/8	9.5	06	30.0	14.5	19.1
SP1-08	1/2	12.7	08	33.0	17.1	22.2
SP1-10	5/8	15.9	10	36.0	22.0	28.6
SP1-12	3/4	19	12	42.0	24.0	31.8

SFP1B

PTFE SWAGE FERRULE

SWAGE FERRULE FOR PTFE SMOOTH TRUE BORE
HOSE

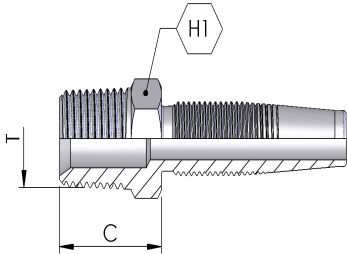


Part Number	Hose I.D inches	Hose I.D (mm)	Dash size	Length - L (mm)	I.D - d (mm)	O.D - D (mm)
SFP1B-16	1	25.4	16	60.0	35.2	41.3

BSP TAPER

F15

BSPT MALE STRAIGHT
BSP TAPERED MALE STRAIGHT



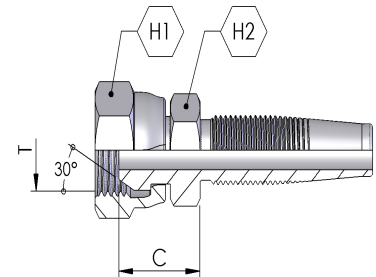
Part Number	T	Hose I.D (in)	Hose I.D (mm)	Dash size	H1 (mm)	C (mm)
F15-0404	1/4-19	1/4	6.4	04	16	20
F15-0604	3/8-19	1/4	6.4	04	19	23
F15-0606	3/8-19	3/8	9.5	06	19	23
F15-0806	1/2-14	3/8	9.5	06	22	27
F15-0808	1/2-14	1/2	12.7	08	22	27
F15-1010	5/8-14	5/8	15.9	10	25	27
F15-1212	3/4-14	3/4	19	12	29	32
F15-1616	1-11	1	25.4	16	35	36

BSP PARALLEL

F01

BSP FEMALE STRAIGHT

BSP 60° CONE FEMALE SWIVEL NUT STRAIGHT



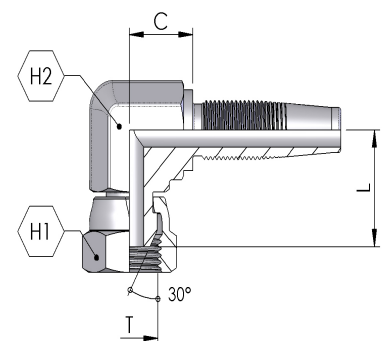
Part Number	T	Hose I.D (in)	Hose I.D (mm)	Dash size	H1 (mm)	H2 (mm)	C (mm)
F01-0404	1/4-19	1/4	6.4	04	19	16	17
F01-0604	3/8-19	1/4	6.4	04	22	19	19
F01-0606	3/8-19	3/8	9.5	06	22	19	19
F01-0608	3/8-19	1/2	12.7	08	22	22	21
F01-0806	1/2-14	3/8	9.5	06	27	22	23
F01-0808	1/2-14	1/2	12.7	08	27	22	23
F01-1010	5/8-14	5/8	15.9	10	30	25	24
F01-1212	3/4-14	3/4	19	12	32	32	29
F01-1616	1-11	1	25.4	16	38	38	30

F25

BSP FEMALE 90° ELBOW

BSP 60° CONE FEMALE SWIVEL NUT 90° ELBOW

COMPACT

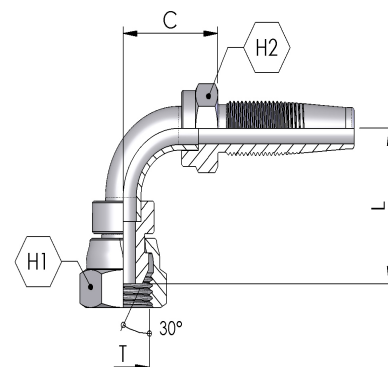


Part Number	T	Hose I.D (in)	Hose I.D (mm)	Dash size	H1 (mm)	L (mm)	C (mm)
F25-0404	1/4-19	1/4	6.4	04	19	20	11
F25-0606	3/8-19	3/8	9.5	06	22	27	15
F25-0808	1/2-14	1/2	12.7	08	27	30	19
F25-1212	3/4-14	3/4	19	12	32	34	21
F25-1616	1-11	1	25.4	16	38	42	28

F51

BSP FEMALE 90° ELBOW

BSP 60° CONE FEMALE SWIVEL NUT 90° ELBOW

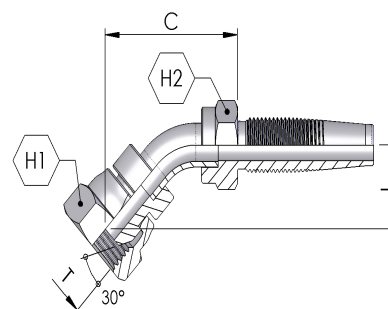


Part Number	T	Hose I.D (in)	Hose I.D (mm)	Dash size	H1 (mm)	L (mm)	C (mm)
F51-0404	1/4-19	1/4	6.4	04	19	32	23
F51-0606	3/8-19	3/8	9.5	06	22	40	30
F51-0806	1/2-14	3/8	9.5	06	27	40	30
F51-0808	1/2-14	1/2	12.7	08	27	46	36
F51-1212	3/4-14	3/4	19	12	32	55	47
F51-1616	1-11	1	25.4	16	38	71	58

F60

BSP FEMALE 45° ELBOW

BSP 60° CONE FEMALE SWIVEL NUT 45° ELBOW

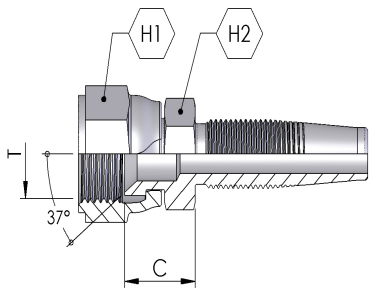


Part Number	T	Hose I.D (in)	Hose I.D (mm)	Dash size	H1 (mm)	L (mm)	C (mm)
F60-0404	1/4-19	1/4	6.4	04	19	22	39
F60-0606	3/8-19	3/8	9.5	06	22	24	41
F60-0808	1/2-14	1/2	12.7	08	27	28	50
F60-1212	3/4-14	3/4	19	12	32	30	61
F60-1616	1-11	1	25.4	16	38	37	74

JIC

F05

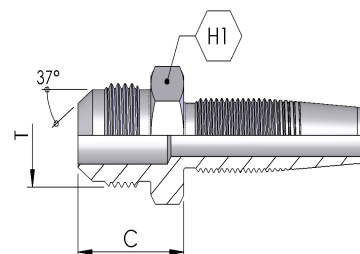
JIC FEMALE STRAIGHT
JIC 37° FLARE FEMALE SWIVEL NUT STRAIGHT
BACK HEX



Part Number	T	Hose I.D (in)	Hose I.D (mm)	Dash size	H1 (mm)	H2 (mm)	C (mm)
F05-0704	7/16-20	1/4	6.4	04	15	14	13
F05-0904	9/16-18	1/4	6.4	04	19	17	17
F05-0906	9/16-18	3/8	9.5	06	19	17	17
F05-1206	3/4-16	3/8	9.5	06	24	19	18
F05-1208	3/4-16	1/2	12.7	08	24	22	18
F05-1408	7/8-14	1/2	12.7	08	27	22	19
F05-1410	7/8-14	5/8	15.9	10	27	25	19
F05-1712	1.1/16-12	3/4	19	12	32	30	24
F05-2116	1.5/16-12	1	25.4	16	38	38	27

F18

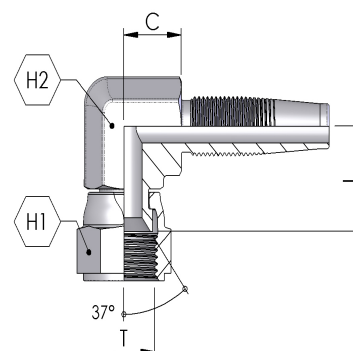
JIC MALE STRAIGHT
JIC MALE 37° CONE



Part Number	T	Hose I.D (in)	Hose I.D (mm)	Dash size	H1 (mm)	C (mm)
F18-0704	7/16-20	1/4	6.4	04	16	20.5
F18-0904	9/16-18	1/4	6.4	04	16	20.5
F18-0906	9/16-18	3/8	9.5	06	19	22.5
F18-1206	3/4-16	3/8	9.5	06	22	24.8
F18-1208	3/4-16	1/2	12.7	08	22	24.8
F18-1408	7/8-14	1/2	12.7	08	25	27.5
F18-1712	1.1/16-12	3/4	19	12	28	31.9

F29

JIC FEMALE 90° ELBOW
JIC 37° FLARE FEMALE SWIVEL NUT 90° ELBOW
COMPACT

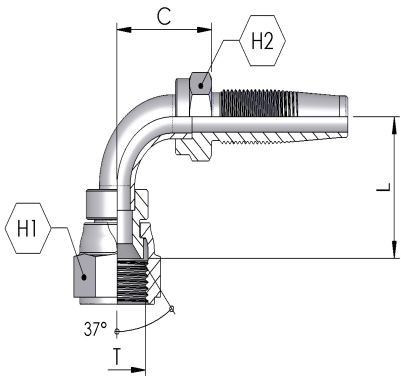


Part Number	T	Hose I.D (in)	Hose I.D (mm)	Dash size	H1 (mm)	L (mm)	C (mm)
F29-0704	7/16-20	1/4	6.4	04	15	19	12
F29-0904	9/16-18	1/4	6.4	04	19	21	12
F29-0906	9/16-18	3/8	9.5	06	19	26	16
F29-1206	3/4-16	3/8	9.5	06	24	27	17
F29-1208	3/4-16	1/2	12.7	08	24	29	19
F29-1408	7/8-14	1/2	12.7	08	27	30	19

F55

JIC FEMALE 90° ELBOW

JIC 37° FLARE FEMALE SWIVEL NUT 90° ELBOW

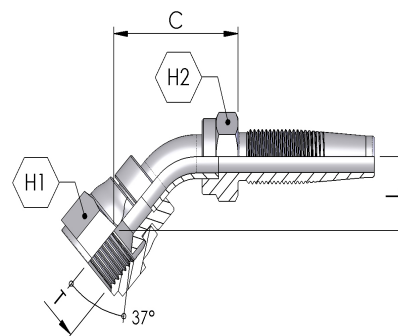


Part Number	T	Hose I.D (in)	Hose I.D (mm)	Dash size	H1 (mm)	L (mm)	C (mm)
F55-0704	7/16-20	1/4	6.4	04	15	27	23
F55-0904	9/16-18	1/4	6.4	04	19	29	23
F55-0906	9/16-18	3/8	9.5	06	19	34	30
F55-1206	3/4-16	3/8	9.5	06	24	35	30
F55-1208	3/4-16	1/2	12.7	08	24	39	36
F55-1408	7/8-14	1/2	12.7	08	27	45	36
F55-1410	7/8-14	5/8	15.9	10	27	50	42
F55-1712	1.1/16-12	3/4	19	12	32	55	47
F55-2116	1.5/16-12	1	25.4	16	41	68	58

F64

JIC FEMALE 45° ELBOW

JIC 37° FLARE FEMALE SWIVEL NUT 45° ELBOW

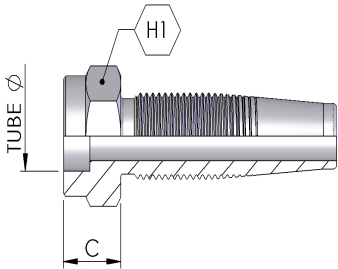


Part Number	T	Hose I.D (in)	Hose I.D (mm)	Dash size	H1 (mm)	L (mm)	C (mm)
F64-0704	7/16-20	1/4	6.4	04	15	17	33
F64-0904	9/16-18	1/4	6.4	04	19	19	34
F64-0906	9/16-18	3/8	9.5	06	19	21	41
F64-1206	3/4-16	3/8	9.5	06	24	21	41
F64-1208	3/4-16	1/2	12.7	08	24	23	47
F64-1408	7/8-14	1/2	12.7	08	27	23	47
F64-1410	7/8-14	5/8	15.9	10	27	25	49
F64-1712	1.1/16-12	3/4	19	12	32	29	58
F64-2116	1 5/16-12	1	19	12	27		

BRAZE SOCKET

F96

IMPERIAL BRAZE SOCKET
IMPERIAL TUBE (LIFESAVER) BRAZE SOCKET
STRAIGHT

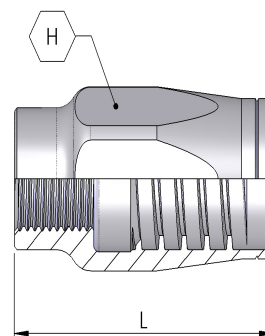


Part Number	Socket I.D (in)	Hose I.D (in)	Hose I.D (mm)	Dash size	H1 (mm)	C (mm)
F96-0404	1/4	1/4	6.4	04	16	9
F96-0606	3/8	3/8	9.5	06	19	12
F96-0808	1/2	1/2	12.7	08	22	13
F96-1212	3/4	3/4	19	12	29	15
F96-1616	1	1	25.4	16	35	19

FIELD ATTACHABLE FERRULE

FN1

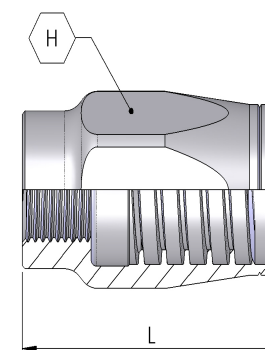
FIELD ATTACHABLE FERRULE
NON-SKIVE FIELD ATTACHABLE FERRULE FOR G1
HOSE



Part Number	Hose I.D (in)	Hose I.D (mm)	Dash size	L (mm)	H (mm)
FN1-04	1/4	6.5	04	38	19
FN1-06	3/8	9.5	05	45	22
FN1-08	1/2	12.7	08	49	25
FN1-10	5/8	15.9	10	50	29
FN1-12	3/4	19.0	12	59	32
FN1-16	1	25.4	16	70	42

FN2

FIELD ATTACHABLE FERRULE
NON-SKIVE FIELD ATTACHABLE FERRULE FOR G2
HOSE



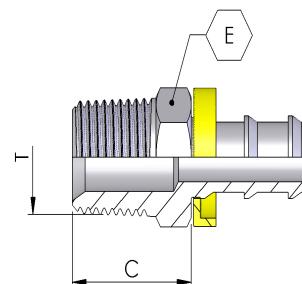
Part Number	Hose I.D (in)	Hose I.D (mm)	Dash size	L (mm)	H (mm)
FN2-04	1/4	6.5	04	38	19
FN2-06	3/8	9.5	05	45	22
FN2-08	1/2	12.7	08	49	25
FN2-10	5/8	15.9	10	50	29
FN2-12	3/4	19.0	12	59	32
FN2-16	1	25.4	16	70	42

BSP TAPER

P15

BSPT MALE STRAIGHT

BSP TAPERED MALE STRAIGHT



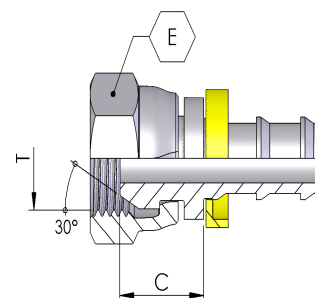
Part Number	BSPT Male Thread (T)	Hose I.D inches	Hose I.D (mm)	Dash size	Hex A/F (E)	Cutoff - C
P15-0204	1/8-28	1/4	6.4	04	16	18
P15-0404	1/4-19	1/4	6.4	04	16	20
P15-0406	1/4-19	3/8	9.5	06	16	23
P15-0604	3/8-19	1/4	6.4	04	19	18
P15-0606	3/8-19	3/8	9.5	06	19	21
P15-0608	3/8-19	1/2	12.7	08	19	21
P15-0806	1/2-14	3/8	9.5	06	22	27
P15-0808	1/2-14	1/2	12.7	08	22	27
P15-0810	1/2-14	5/8	15.9	10	22	27
P15-0812	1/2-14	3/4	19	12	25	27
P15-1208	3/4-14	1/2	12.7	08	29	32
P15-1212	3/4-14	3/4	19	12	32	32

BSP PARALLEL

P01

BSP FEMALE STRAIGHT

BSP 60° CONE FEMALE SWIVEL NUT STRAIGHT



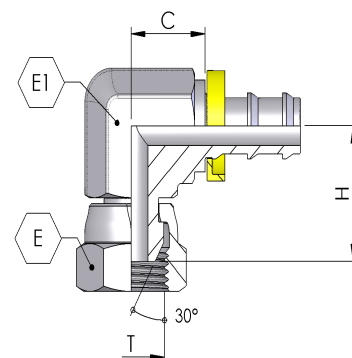
Part Number	BSPP Female Thread (T)	Hose I.D inches	Hose I.D (mm)	Dash size	Hex A/F (E)	Cutoff - C
P01-0204	1/8-28	1/4	6.4	04	14	14
P01-0404	1/4-19	1/4	6.4	04	19	14
P01-0406	1/4-19	3/8	9.5	06	19	14
P01-0604	3/8-19	1/4	6.4	04	22	16
P01-0606	3/8-19	3/8	9.5	06	22	16
P01-0608	3/8-19	1/2	12.7	08	22	17
P01-0806	1/2-14	3/8	9.5	06	27	18
P01-0808	1/2-14	1/2	12.7	08	27	19
P01-0810	1/2-14	5/8	15.9	10	27	19
P01-0812	1/2-14	3/4	19	12	27	19
P01-1010	5/8-14	5/8	15.9	10	28	18
P01-1208	3/4-14	1/2	12.7	08	32	21
P01-1212	3/4-14	3/4	19	12	32	21

P25

BSP FEMALE 90° ELBOW

BSP 60° CONE FEMALE SWIVEL NUT 90° ELBOW

COMPACT

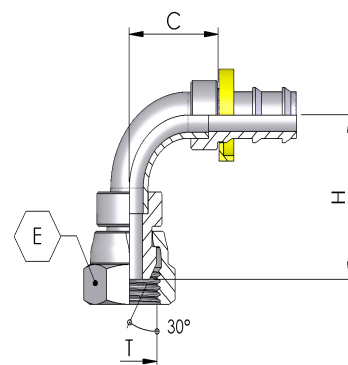


Part Number	BSPP Female Thread (T)	Hose I.D inches	Hose I.D (mm)	Dash size	Hex A/F (E)	Hex A/F (E1)	Drop (H)	Cutoff - C
P25-0404	1/4-19	1/4	6.4	04	19	14	23	11
P25-0604	3/8-19	1/4	6.4	04	22	19	27	16
P25-0606	3/8-19	3/8	9.5	06	22	19	27	15
P25-0808	1/2-14	1/2	12.7	08	27	22	30	18
P25-1212	3/4-14	3/4	19	12	32	27	34	21

P51

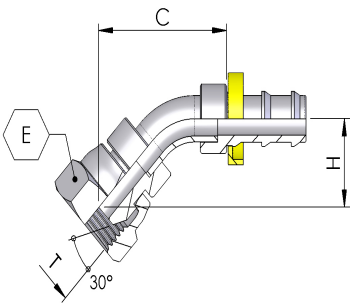
BSP FEMALE 90° ELBOW

BSP 60° CONE FEMALE SWIVEL NUT 90° ELBOW



Part Number	BSPP Female Thread (T)	Hose I.D inches	Hose I.D (mm)	Dash size	Hex A/F (E)	Drop (H)	Cutoff - C
P51-0404	1/4-19	1/4	6.4	04	19	31	21
P51-0606	3/8-19	3/8	9.5	06	22	37	26
P51-0808	1/2-14	1/2	12.7	08	27	45	31
P51-0810	1/2-14	5/8	15.9	10	27	54	38
P51-1010	5/8-14	5/8	15.9	10	30	51	38
P51-1208	3/4-14	1/2	12.7	08	32	55	38
P51-1212	3/4-14	3/4	19	12	32	58	45

P60
BSP FEMALE 45° ELBOW
BSP 60° CONE FEMALE SWIVEL NUT 45° ELBOW

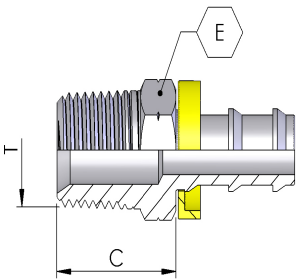


Part Number	BSPF Female Thread (T)	Hose I.D inches	Hose I.D (mm)	Dash size	Hex A/F (E)	Drop - H	Cutoff - C
P60-0808	1/2-14	1/2	12.7	08	27	24	44
P60-1212	3/4-14	3/4	19	12	32	30	55

NPT

P16

NPTF MALE STRAIGHT
NPTF MALE 30° CONE



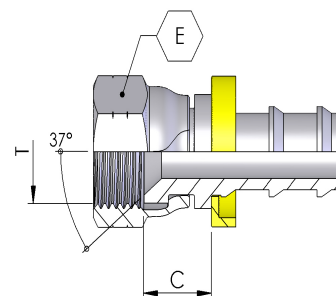
Part Number	NPTF Male Thread (T)	Hose I.D inches	Hose I.D (mm)	Dash size	Hex A/F (E)	Cutoff - C
P16-0204	1/8-27	1/4	6.4	04	16	18
P16-0404	1/4-18	1/4	6.4	04	16	20
P16-0406	1/4-18	3/8	9.5	06	16	20
P16-0606	3/8-18	3/8	9.5	06	19	23
P16-0608	3/8-18	1/2	12.7	08	19	23
P16-0808	1/2-14	1/2	12.7	08	22	27

JIC

P05

JIC FEMALE STRAIGHT

JIC 37° FLARE FEMALE SWIVEL NUT STRAIGHT

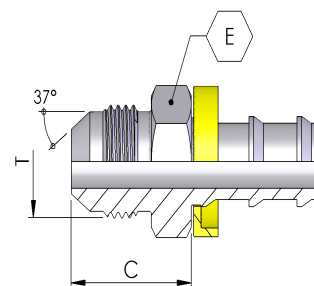


Part Number	JIC Female Thread (T)	Hose I.D inches	Hose I.D (mm)	Dash size	Hex A/F (E)	Cutoff - C
P05-0704	7/16 - 20	1/4	6.4	04	15	10
P05-0804	1/2 - 20	1/4	6.4	04	17	12
P05-0904	9/16-18	1/4	6.4	04	19	12
P05-0906	9/16-18	3/8	9.5	06	19	12
P05-0908	9/16-18	1/2	12.7	08	19	13
P05-1206	3/4-16	3/8	9.5	06	24	14
P05-1208	3/4-16	1/2	12.7	08	24	14
P05-1408	7/8-14	1/2	12.7	08	27	15
P05-1410	7/8-14	5/8	15.9	10	27	15
P05-1412	7/8-14	3/4	19	12	27	15
P05-1712	1.1/16-12	3/4	19	12	32	17

P18

JIC MALE STRAIGHT

JIC 37° FLARE MALE STRAIGHT



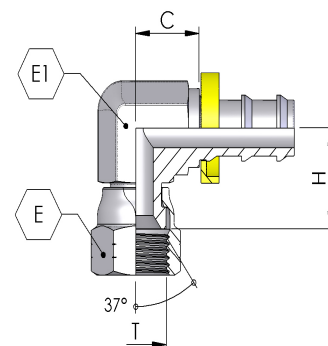
Part Number	JIC Male Thread (T)	Hose I.D inches	Hose I.D (mm)	Dash size	Hex A/F (H)	Cutoff - C
P18-0704	7/16-20	1/4	6.4	04	16	21
P18-0804	1/2-20	1/4	6.4	04	16	21
P18-0904	9/16-18	1/4	6.4	04	16	21
P18-0906	9/16-18	3/8	9.5	06	16	21
P18-1206	3/4-16	3/8	9.5	06	22	25
P18-1208	3/4-16	1/2	12.7	08	22	25
P18-1408	7/8-14	1/2	12.7	08	25	30
P18-1712	1.1/16-12	3/4	19	12	29	34

P29

JIC FEMALE 90° ELBOW

JIC 37° FLARE FEMALE SWIVEL NUT 90° ELBOW

COMPACT

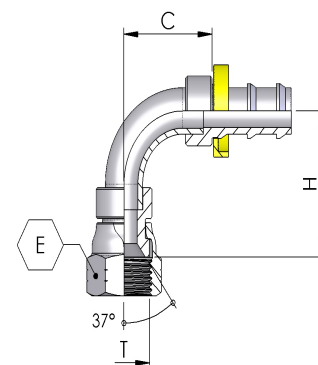


Part Number	JIC Female Thread (T)	Hose I.D inches	Hose I.D (mm)	Dash size	Hex A/F (E)	Hex A/F (E1)	Drop (H)	Cutoff - C
P29-0704	7/16-20	1/4	6.4	04	15	14	19	14
P29-0804	1/2-20	1/4	6.4	04	16	14	21	14
P29-0904	9/16-18	1/4	6.4	04	19	14	21	14
P29-0906	9/16-18	3/8	9.5	06	19	14	21	15
P29-1206	3/4-16	3/8	9.5	06	24	19	27	20
P29-1208	3/4-16	1/2	12.7	08	24	19	27	19
P29-1408	7/8-14	1/2	12.7	08	27	22	28	19
P29-1712	1.1/16-12	3/4	19	12	32	27	36	27

P55

JIC FEMALE 90° ELBOW

JIC 37° FLARE FEMALE SWIVEL NUT 90° ELBOW



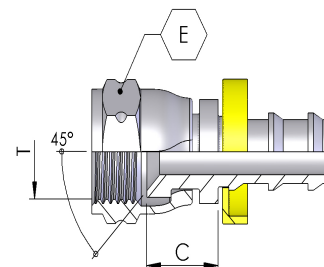
Part Number	JIC Female Thread (T)	Hose I.D inches	Hose I.D (mm)	Dash size	Hex A/F (E)	Drop - H	Cutoff - C
P55-0704	7/16-20	1/4	6.4	04	15	28	21
P55-0804	1/2-20	1/4	6.4	04	17	28	21
P55-0906	9/16-18	3/8	9.5	06	19	36	26
P55-1208	3/4-16	1/2	12.7	08	24	42	31
P55-1408	7/8-14	1/2	12.7	08	27	43	31
P55-1712	1.1/16-12	3/4	19	12	32	54	43

SAE

P03

SAE FEMALE STRAIGHT

SAE 45° FLARE FEMALE SWIVEL NUT STRAIGHT

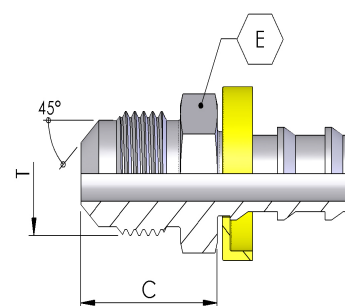


Part Number	SAE Female Thread (T)	Hose I.D inches	Hose I.D (mm)	Dash size	Hex A/F (E)	Cutoff - C
P03-0704	7/16 - 20	1/4	6.4	04	14	11
P03-0804	1/2 - 20	1/4	6.4	04	16	12
P03-1004	5/8 - 18	1/4	6.4	04	19	13
P03-1006	5/8 - 18	3/8	9.5	06	19	13
P03-1206	3/4 - 16	1/2	12.7	08	24	16
P03-1208	3/4 - 16	1/2	12.7	08	24	17
P03-1408	7/8 - 14	1/2	12.7	08	27	17
P03-1710	1.1/16 - 14	5/8	15.9	10	32	17
P03-1712	1.1/16 - 14	3/4	19	12	32	17

P09

SAE MALE STRAIGHT

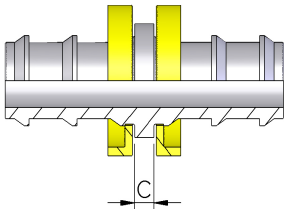
SAE 45° FLARE MALE STRAIGHT



Part Number	SAE Male Thread (T)	Hose I.D inches	Hose I.D (mm)	Dash size	Hex A/F (E)	Cutoff - C
P09-0804	1/2 - 20	1/4	6.4	04	14	21
P09-1006	5/8 - 18	3/8	9.5	06	17	22
P09-1208	3/4 - 16	1/2	12.7	08	22	27

HOSE JOINER

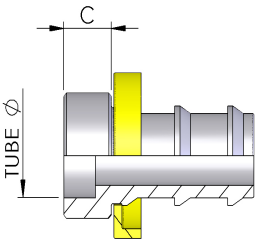
P90
HOSE JOINER STRAIGHT



Part Number	Hose I.D inches	Hose I.D (mm)	Dash size	Cutoff - C
P90-0404	1/4	6.4	04	5
P90-0606	3/8	9.5	06	5
P90-0808	1/2	12.7	08	6
P90-1010	5/8	15.9	10	5
P90-1212	3/4	19	12	5

BRAZE SOCKET

P96
IMPERIAL BRAZE SOCKET
IMPERIAL TUBE (LIFESAVER) BRAZE SOCKET
STRAIGHT



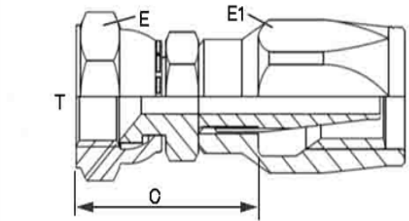
Part Number	Socket I.D inches	Hose I.D (Inches)	Hose I.D (mm)	Dash size	O.D mm	Cutoff - C
P96-0404	1/4	1/4	6.4	04	13	7
P96-0606	3/8	3/8	9.5	06	16	7
P96-0808	1/2	1/2	12.7	08	19	9
P96-1010	5/8	5/8	15.9	10	25	10
P96-1212	3/4	3/4	19	12	25	10

JIC

R505

JIC FEMALE STRAIGHT

JIC 37° FLARE FEMALE SWIVEL NUT STRAIGHT

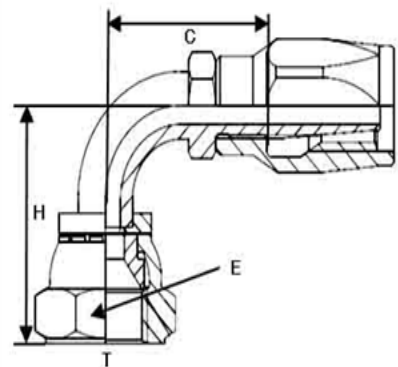


Part Number	JIC Female Thread (T)	Nominal Hose I.D - inches	Nominal Hose I.D - mm	True Hose I.D - inches	True Hose I.D - mm	Dash size	Hex A/F (E)	Hex A/F (E1)	Cutoff - C
R505-0704	7/16-20	1/4	6.5	3/16	4.8	04	14	14	31
R505-0905	9/16-18	5/16	8	1/4	6.5	05	18	18	31
R505-0906	9/16-18	3/8	9.5	5/16	8.0	06	19	19	37
R505-1206	3/4-16	3/8	9.5	5/16	8.0	06	22	22	39
R505-1208	3/4-16	1/2	12.7	13/32	10.3	08	22	22	41
R505-1210	3/4-16	5/8	15.9	1/2	12.7	10	22	22	42
R505-1410	7/8-14	5/8	15.9	1/2	12.7	10	27	27	46
R505-1712	1.1/16-12	3/4	19	5/8	15.9	12	32	32	49
R505-2116	1.5/16-12	1	25.4	7/8	22.2	16	38	38	49
R505-2620	1.5/8-12	1.1/4	31.8	1.1/8	28.6	20	51	51	56

R555

JIC FEMALE 90° ELBOW

JIC 37° FLARE FEMALE SWIVEL NUT 90° ELBOW

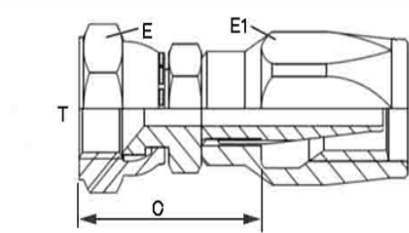


Part Number	JIC Female Thread (T)	Nominal Hose I.D - inches	Nominal Hose I.D - mm	True Hose I.D - inches	True Hose I.D - mm	Dash size	Hex A/F (E)	Drop (H)	Cutoff - C
R555-0704	7/16-20	1/4	6.5	3/16	4.8	04	14	18	27
R555-0906	9/16-18	3/8	9.5	5/16	8.0	06	18	21	34
R555-1208	3/4-16	1/2	12.7	13/32	10.3	08	22	28	42
R555-1410	7/8-14	5/8	15.9	1/2	12.7	10	25	32	54
R555-1712	1.1/16-12	3/4	19	5/8	15.9	12	32	46	68

SAE

R503

SAE FEMALE STRAIGHT
 SAE 45° FLARE FEMALE SWIVEL NUT STRAIGHT



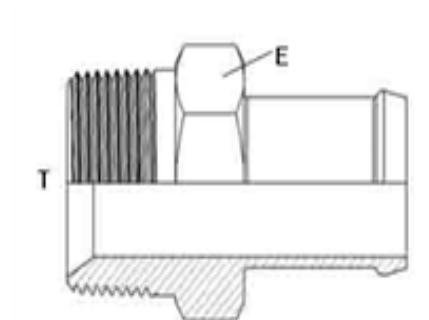
Part Number	SAE Female Thread (T)	Nominal Hose I.D - inches	Nominal Hose I.D - mm	True Hose I.D - inches	True Hose I.D - mm	Dash size	Hex A/F (E)	Hex A/F (E1)	Cutoff - C
R503-1006	5/8-18	3/8	9.5	5/16	8.0	06	19	19	37

BSP TAPER

SU15

BSPT MALE STRAIGHT

BSP TAPERED MALE STRAIGHT

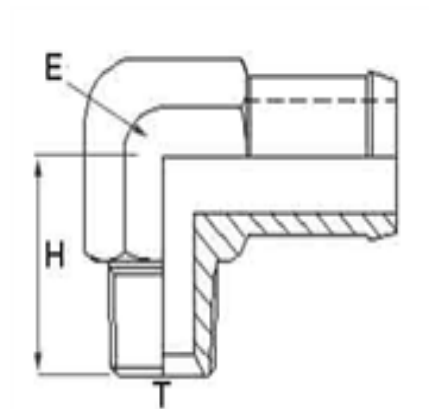


Part Number	BSPT Male Thread (T)	Hose I.D - inches	Hose I.D (mm)	Dash size	Hex A/F (E)	Cutoff - C
SU15-1212	3/4-14	3/4	19	12	29	29
SU15-1612	1-11	3/4	19	12	35	36
SU15-1616	1-11	1	25.4	16	35	34
SU15-1620	1-11	1.1/4	31.8	20	36	33
SU15-1624	1-11	1.1/2	38.1	24	46	35
SU15-2016	1.1/4-11	1	25.4	16	44	41
SU15-2020	1.1/4-11	1.1/4	31.8	20	46	39
SU15-2024	1.1/4-11	1.1/2	38.1	24	46	39
SU15-2420	1.1/2-11	1.1/4	31.8	20	51	41
SU15-2424	1.1/2-11	1.1/2	38.1	24	51	41

SU26

BSPT MALE 90° ELBOW

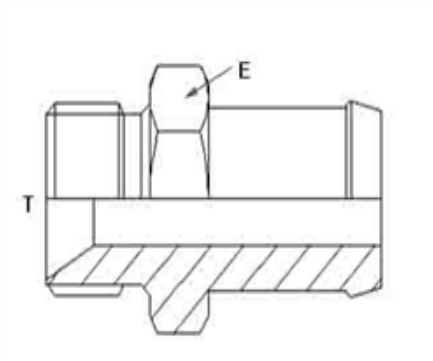
BSP TAPERED MALE 90° ELBOW COMPACT



Part Number	BSPT Male Thread (T)	Hose I.D - inches	Hose I.D (mm)	Dash size	Hex A/F (E)	Drop - H	Cutoff - C
SU26-1212	3/4-14	3/4	19	12	27	44	23
SU26-1220	3/4-11	1.1/4	31.8	20			
SU26-1616	1-11	1	25.4	16	36	50	21
SU26-1620	1-11	1.1/4	31.8	20	36	50	29
SU26-2020	1.1/4-11	1.1/4	31.8	20	41	49	23
SU26-2024	1.1/4-11	1.1/2	38.1	24	41	50	28
SU26-2424	1.1/2-11	1.1/2	38.1	24	50	60	35
SU26-3232	2-11	2	50.8	32			

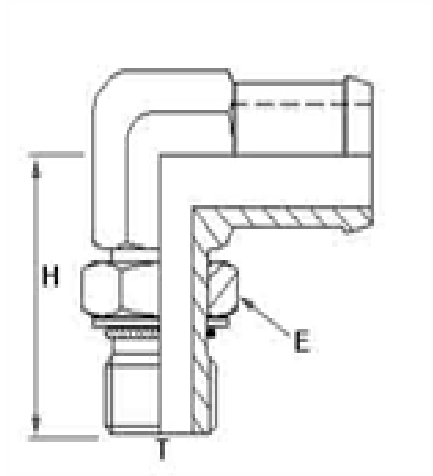
BSP PARALLEL

SU12
BSP MALE STRAIGHT
BSP 60° CONE MALE STRAIGHT



Part Number	BSPP Male Thread (T)	Hose I.D - inches	Hose I.D (mm)	Dash size	Hex A/F (E)	Cutoff - C
SU12-1620	1-11	1.1/4	31.8	20		
SU12-2020	1.1/4-11	1.1/4	31.8	20		

SU12-90
BSP MALE 90° ELBOW
BSP STUD ADJUSTABLE 90° ELBOW COMPACT



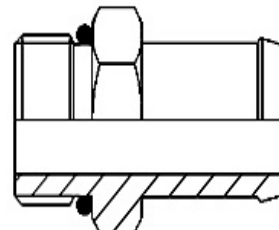
Part Number	BSPP Male Thread (T)	Hose I.D - inches	Hose I.D (mm)	Dash size
SU12-1620-90	1-11	1.1/4	31.8	20
SU12-1624-90	1-11	1.1/2	38.1	24
SU12-2020-90	1.1/4-11	1.1/4	31.8	20

UNO

SU20

UNO MALE STRAIGHT

UN O-RING STUD STRAIGHT

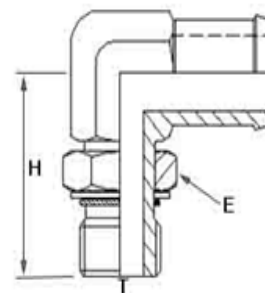


Part Number	UNF Male Thread (T)	Hose I.D. - inches	Hose I.D. (mm)	Dash size	Hex A/F (E)	Cutoff - C
SU20-1716	1.1/16-12	1	25.4	16		
SU20-2116	1.5/16-12	1	25.4	16	38	29
SU20-2120	1.5/16-12	1.1/4	31.8	20	38	28
SU20-2620	1.5/8-12	1.1/4	31.8	20	48	30
SU20-2624	1.5/8-12	1.1/2	38.1	24		

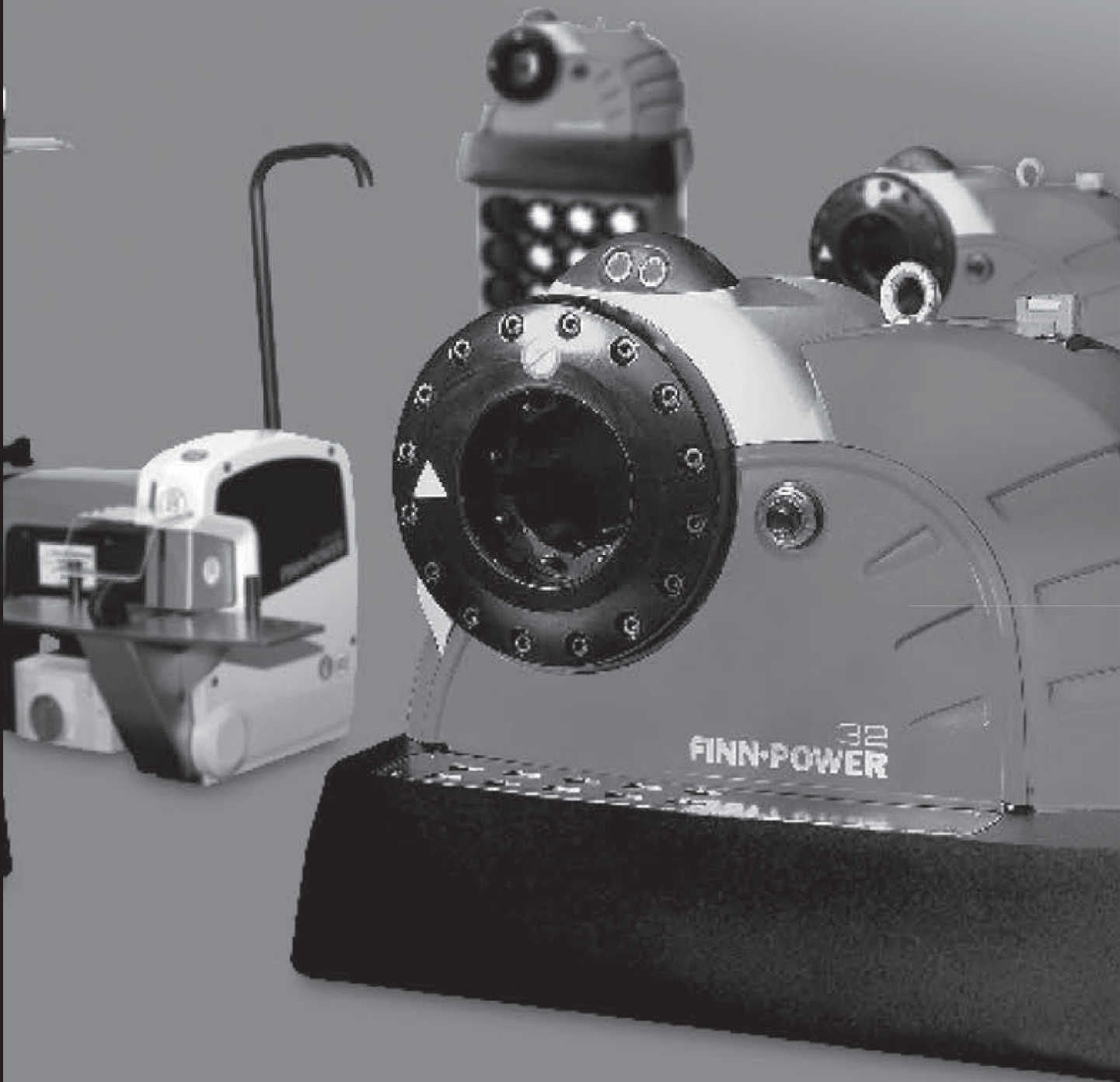
SU20-90

UNO MALE 90° ELBOW

UN O-RING STUD ADJUSTABLE 90° ELBOW
COMPACT



Part Number	UNF Male Thread (T)	Hose I.D. - inches	Hose I.D. (mm)	Dash size	Hex A/F (E)	Hex A/F (E1)	Drop (H)	Cutoff - C
SU20-1716-90	1.1/16-12	1	25.4	16	32	29	50	15
SU20-2116-90	1.5/16-12	1	25.4	16	38	35	50	15
SU20-2120-90	1.5/16-12	1.1/4	31.8	20				
SU20-2620-90	1.5/8-12	1.1/4	31.8	20				
SU20-2624-90	1.5/8-12	1.1/2	38.1	24				



GENERAL INFORMATION

Hydraulink Fluid Connectors Ltd. are authorised distributors for Finn-Power swagers and cut-off saws. Finn-Power produce high-quality, extremely durable machines that are compact and ergonomically designed.

The swagers available through Hydraulink range from hand-operated portable machines for hoses up to 1" I.D. to large-scale production models with capacity up to 190mm. For more information regarding Finn-Power swagers not detailed in this section, visit <http://www.lillbacka.com/powerco/> or contact Hydraulink.

The most common machines are listed in this section, and the larger models are typically available in one of three control solutions, dependent upon the main type of application. Also listed are tool bases and die-change racks that further improve the ergonomics of the machines and can make them more productive.

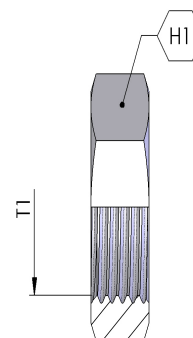
Also included in this section are Finn-Power hose cut-off saws, which are manufactured to the same high standards as their swagers.

Our product range is constantly evolving and Hydraulink reserve the right to change technical specifications without notice

NUTS AND CUTTING RINGS

AKB

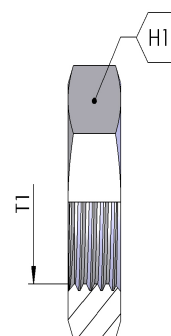
BSP BULKHEAD LOCKNUT



Part Number	T1
AKB-04	1/4-19
AKB-06	3/8-19
AKB-08	1/2-14
AKB-12	3/4-14
AKB-16	1-11
AKB-20	1 1/4-11
AKB-24	1 1/2-11

ALB

UNO BULKHEAD LOCKNUT



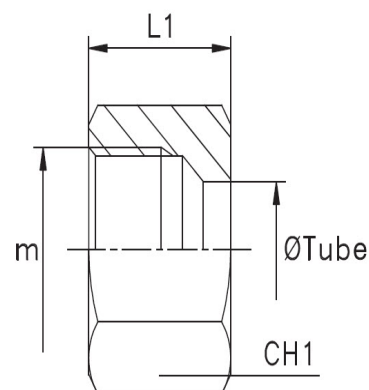
Part Number	T1
ALB-07	7/16-20
ALB-14	7/8-14
ALB-16	1-12
ALB-17	1.1/16-12
ALB-19	1.3/16-12
ALB-21	1.5/16-12

MLLN

MET EXTRA LIGHT TUBE NUT

METRIC 24° CONE EXTRA LIGHT TUBE NUT

- ISO 8434-1



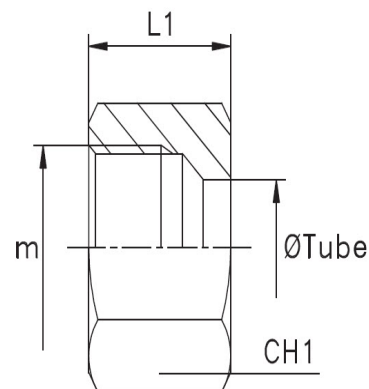
Part Number	Metric Female Thread (m)	Suits Tube Diameter	L1 - mm	Hex A/F (CH1)
MLLN-10	M10-1	6	11.5	12
MLLN-12	M12-1	8	12	14

MLN

MET LIGHT TUBE NUT

METRIC 24° CONE LIGHT TUBE NUT

- ISO 8434-1



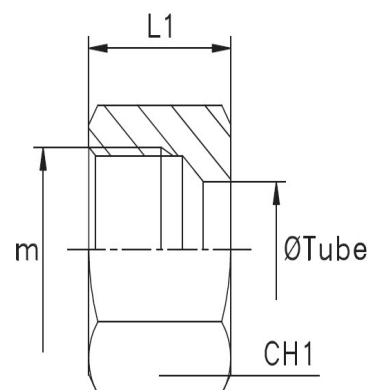
Part Number	Metric Female Thread (m)	Suits Tube Diameter	L1 - mm	Hex A/F (CH1)
MLN-12	M12-1.5	6	15	14
MLN-14	M14-1.5	8	15	17
MLN-16	M16-1.5	10	16	19
MLN-18	M18-1.5	12	16	22
MLN-22	M22-1.5	15	17	27
MLN-26	M26-1.5	18	18	32
MLN-30	M30-2	22	20	36
MLN-36	M36-2	28	21	41
MLN-45	M45-2	35	24	50
MLN-52	M52-2	42	24	60

MSN

MET HEAVY TUBE NUT

METRIC 24° CONE HEAVY TUBE NUT

- ISO 8434-1



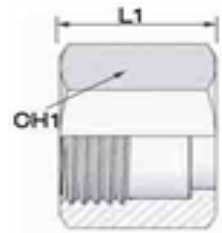
Part Number	Metric Female Thread (m)	Suits Tube Diameter	L1 - mm	Hex A/F (CH1)
MSN-14	M14-1.5	6	17	17
MSN-16	M16-1.5	8	17	19
MSN-18	M18-1.5	10	18	22
MSN-20	M20-1.5	12	18	24
MSN-22	M22-1.5	14	21	27
MSN-24	M24-1.5	16	21	30
MSN-30	M30-2	20	24	36
MSN-36	M36-2	25	27	46
MSN-42	M42-2	30	29	50
MSN-52	M52-2	38	33	60

TJN

JIC TUBE NUT

JIC 37° FLARE TUBE NUT

- USE WITH TJS TUBE SLEEVE



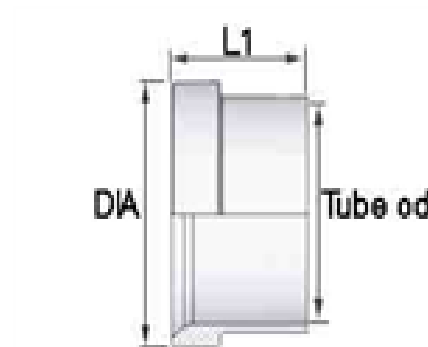
Part Number	suits tube	JIC Female Thread	L1 - mm	Hex A/F (CH1)
TJN-07	1/4	7/16-20	15	14
TJN-08	5/16	1/2-20	17	16
TJN-09	3/8	9/16-18	18	18
TJN-12	1/2	3/4-16	21	22
TJN-14	5/8	7/8-14	25	25
TJN-17	3/4	1.1/16-12	26	32
TJN-19	7/8	1.3/16-12	27	35
TJN-21	1	1.5/16-12	28	38
TJN-26	1.1/4	1.5/8-12	31	51
TJN-30	1.1/2	1.7/8-12	36	32

TJS

JIC FEMALE TUBE SLEEVE

JIC 37° FLARE IMPERIAL TUBE SUPPORT SLEEVE

- USE WITH TJN TUBE NUT



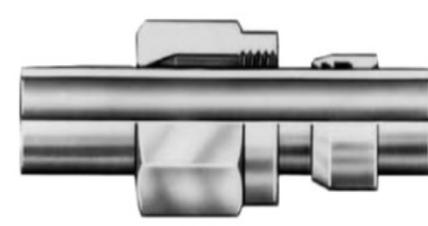
Part Number	suits tube	L1 - mm	Diameter - mm
TJS-04	1/4	10	10
TJS-05	5/16	11	11
TJS-06	3/8	13	13
TJS-08	1/2	14	17
TJS-10	5/8	17	20
TJS-12	3/4	17	25
TJS-14	7/8	19	28
TJS-16	1	20	31
TJS-20	1.1/4	23	39
TJS-24	1.1/2	28	45

TJNV

JIC TUBE NUT

JIC 37° FEMALE FLARELESS TUBE NUT

- USE WITH TJSV TUBE SLEEVE

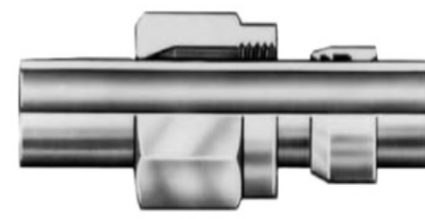


Part Number	suits tube	JIC Female Thread	L1 - mm	Hex A/F (CH1)
TJNV-07	1/4	7/16-20	21	14
TJNV-09	3/8	9/16-18	22	17
TJNV-12	1/2	3/4-16	27	22
TJNV-14	5/8	7/8-14	29	25
TJNV-17	3/4	1.1/16-12	35	32
TJNV-21	1	1.5/16-12	36	38
TJNV-26	1.1/4	1.5/8-12	46	51

TJSV

JIC FEMALE COMPRESSION SLEEVE
JIC 37° FEMALE FLARELESS TUBE COMPRESSION
(BITE TYPE) SLEEVE

- USE WITH TJNV TUBE NUT

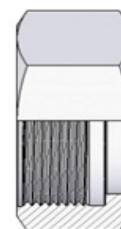


Part Number	suits tube	Overall Length	Diameter - mm
TJSV-04	1/4	11	9
TJSV-06	3/8	12	12
TJSV-08	1/2	14	17
TJSV-10	5/8	15	20
TJSV-12	3/4	17	25
TJSV-16	1	20	31
TJSV-20	1.1/4	23	39

OTN

ORFS TUBE NUT
ORFS TUBE NUT

- USE WITH OTS TUBE WELD



Part Number	suits tube	SAE Female Thread (A)	L1 - mm	Hex A/F (CH1)
OTN-09	1/4	9/16-18	15	18
OTN-11	3/8	11/16-16	17	21
OTN-13	1/2	13/16-16	21	24
OTN-16	5/8	1-14	24	29
OTN-19	3/4	1.3/16-12	26	35
OTN-23	1	1.7/16-12	28	41
OTN-27	1.1/4	1 11/16-12	28	48

OTS

TUBEWELD X ORFS FEMALE

IMPERIAL TUBE WELD SOCKET X ORFS FEMALE

- USE WITH OTN TUBE NUT



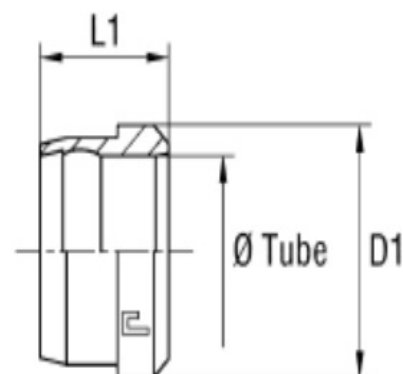
Part Number	suits tube	L1 - mm	Diameter - mm
OTS-04	1/4	9	13
OTS-06	3/8	9	16
OTS-08	1/2	9	19
OTS-10	5/8	10	23
OTS-12	3/4	14	28
OTS-16	1	15	34
OTS-20	1.1/4	15	41

TCM

MET TUBE CUTTING RING

METRIC TUBE 24° CONE CUTTING RING

- ISO 8434-1



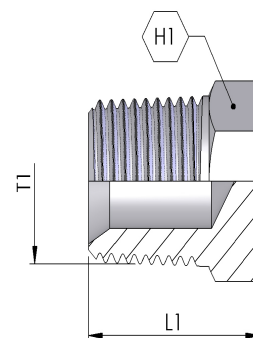
Part Number	Suits Light DIN Metric Male	Suits Heavy DIN Metric Male	Suits Tube Diameter (mm)	L1 (mm)	D1 (mm)
TCM-6LL	M10-1		6	6	8
TCM-6L/S	M12-1.5	M14-1.5	6	10	10
TCM-8L/S	M14-1.5	M16-1.5	8	9.5	12
TCM-10L/S	M16-1.5	M18-1.5	10	10	14
TCM-12L/S	M18-1.5	M20-1.5	12	10	16
TCM-15L	M22-1.5		15	10	19
TCM-18L	M26-1.5		18	10	23
TCM-22L	M30-2		22	11	27
TCM-28L	M36-2		28	11	33
TCM-35L	M45-2		35	13	41
TCM-42L	M52-2		42	13	48
TCM-14S		M22-1.5	14	10	19
TCM-16S		M24-1.5	16	11	21
TCM-20S		M30-2.0	20	12	26
TCM-25S		M36-2.0	25	12	32
TCM-30S		M42-2.0	30	13	36
TCM-38S		M52-2.0	38	13	44

PLUGS/CAPS/FLANGE PLATES

A

BSPT MALE

BSPT MALE PLUG

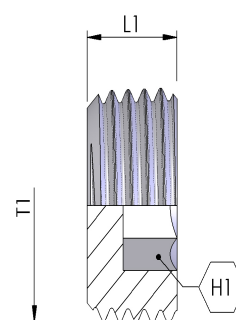


Part Number	Short Code	T1	H1	L1	PN (bar)
A-02	AAA	1/8-28	12	15	345
A-04	AAC	1/4-19	14	21	275
A-06	AAF	3/8-19	19	22	210
A-08	AAH	1/2-14	22	27	210
A-12	AAK	3/4-14	27	30	170
A-16	AAM	1-11	36	35	140
A-20	AAO	1.1/4-11	46	38	80
A-24	AAP	1.1/2-11	50	40	70
A-32	AAQ	2-11	65	45	70

A-INT

BSPT MALE

BSPT MALE PLUG INTERNAL HEX

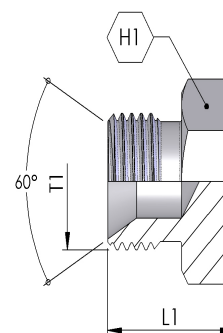


Part Number	T1	L1 (mm)	H1 (mm)
A-02INT	1/8-29	8	5
A-04INT	1/4-19	10	7
A-06INT	3/8-19	10	8
A-08INT	1/2-14	10	10
A-12INT	3/4-14	12	12

B

BSP MALE

BSP 60° CONE MALE PLUG

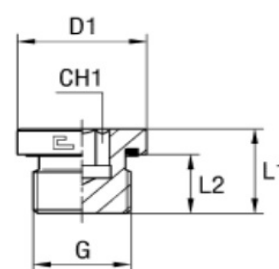


Part Number	Short Code	T1	H1	L1	PN (bar)
B-02	AYA	1/8-28	14	14	400
B-04	AYC	1/4-19	19	19	400
B-06	AYE	3/8-19	22	20	400
B-08	AYG	1/2-14	27	24	350
B-12	AYI	3/4-14	32	28	315
B-16	AYL	1-11	41	32	250
B-20	AYN	1.1/4-11	50	35	200
B-24	AYO	1.1/2-11	55	40	160
B-32	AYQ	2-11	70	45	125

B-INT

BSP MALE

BSP STUD CAPTIVE SEAL PLUG INTERNAL HEX

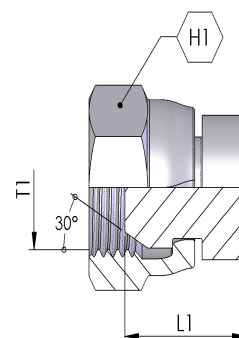


Part Number	G	D1	L1	L2	CH1
B-02INT	1/8-28	14	8	12	5
B-04INT	1/4-19	19	12	17	6
B-06INT	3/8-19	22	12	17	8
B-08INT	1/2-14	27	14	19	10
B-12INT	3/4-14	32	16	21	12
B-16INT	1-11	40	16	23	17

C

BSP FEMALE

BSP 60° CONE FEMALE SWIVEL NUT CAP



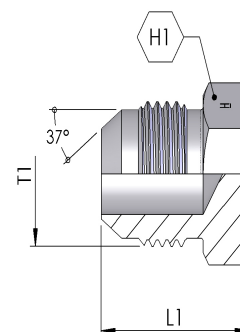
Part Number	Short Code	T1	H1	L1	PN (bar)
C-02	BQM	1/8-28	14	17	400
C-04	BQN	1/4-19	19	18	400
C-06	BQO	3/8-19	22	20	400
C-08	BQP	1/2-14	27	23	350
C-10		5/8-14		23	
C-12	BQR	3/4-14	32	25	315
C-16	BQS	1-11	41	27	250
C-20	BQT	1.1/4-11	50	30	200
C-24	BQU	1.1/2-11	55	32	160
C-32	BQY	2-11	70	33	125

G

JIC MALE

JIC 37° FLARE MALE PLUG

- ISO 8434-2



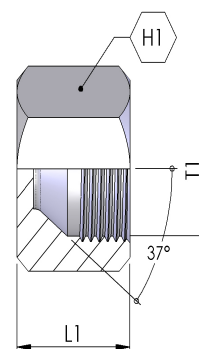
Part Number	Short Code	T1	H1	L1	PN (bar)
G-07	BXT	7/16-20	12	21	350
G-08		1/2-20	14	14	
G-09	BXV	9/16-18	17	22	350
G-12	BXW	3/4-16	22	24	310
G-14	BXX	7/8-14	24	28	240
G-17	BXY	1.1/16-12	30	33	240
G-19		1.3/16-12	32	23	
G-21	BYA	1.5/16-12	36	34	210
G-26	BYB	1.5/8-12	46	37	170
G-30	BYC	1.7/8-12	50	42	140

AG

JIC FEMALE

JIC 37° FLARE FIXED FEMALE CAP

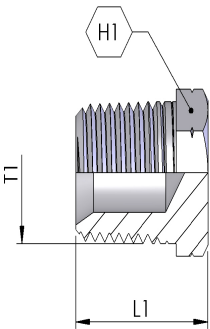
- ISO 8434-2



Part Number	Short Code	T1	H1	L1	PN (bar)
AG-07	AMT	7/16-20	14	15	350
AG-08		1/2-20	16	15	
AG-09	ANB	9/16-18	19	16	350
AG-12	ANC	3/4-16	22	19	310
AG-14	ANJ	7/8-14	27	21	240
AG-17	ANQ	1.1/16-12	32	23	240
AG-19		1.3/16-12	35	25	
AG-21	ANW	1.5/16-12	41	26	210
AG-26	AOB	1.5/8-12	50	27	170
AG-30	AOC	1.7/8-12	60	30	140
AG-40		2.1/2-12	73	37	

L
NPTF MALE
NPTF MALE PLUG

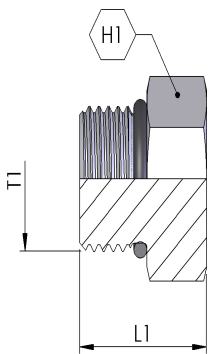
- SAE J531



Part Number	Short Code	T1	H1	L1	PN (bar)
L-02	DBU	1/8-27	12	15	345
L-04	DBV	1/4-18	14	19	275
L-06	DBX	3/8-18	19	20	210
L-08	DBY	1/2-14	22	25	210
L-12	DBZ	3/4-14	27	27	170
L-16	DCA	1-11.1/2	36	32	140
L-20	DCC	1.1/4-11.1/2	46	37	80
L-24	DCD	1.1/2-11.1/2	50	40	70
L-32	DCE	2-11.1/2	65	45	70

N
UNO MALE
UNO FIXED STUD PLUG

- SAE J514

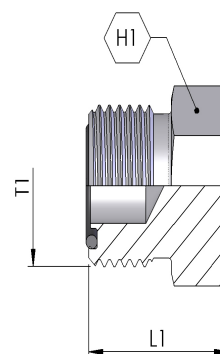


Part Number	Short Code	T1	H1	L1	PN (bar)
N-07	DIW	7/16-20	14	17	315
N-08	DIX	1/2-20	17	17	315
N-09	DIZ	9/16-18	17	19	315
N-12	DJB	3/4-16	22	20	315
N-14	DJD	7/8-14	27	24	250
N-17	DJF	1.1/16-12	32	28	250
N-19	DJH	1.3/16-12	36	28	200
N-21	DJI	1.5/16-12	41	29	200
N-26	DJK	1.5/8-12	50	31	160
N-30	DJL	1.7/8-12	55	32	160

R

ORFS MALE
ORFS MALE PLUG

- ISO 8434-3

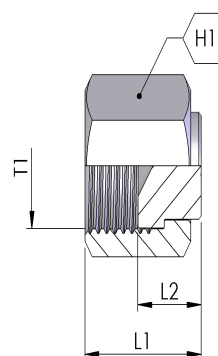


Part Number	Short Code	T1	H1	L1	PN (bar)
R-09	DRV	9/16-18	17	16.5	630
R-11	DRW	11/16-16	19	19	630
R-13	DRX	13/16-16	22	22	630
R-16	DSZ	1-14	27	26	400
R-19	DTY	1.3/16-12	32	28	400
R-23	DUA	1.7/16-12	41	28	400
R-27	DUL	1.11/16-12	46	28	250

T

ORFS FEMALE
ORFS FEMALE SWIVEL NUT CAP

- ISO 8434-3

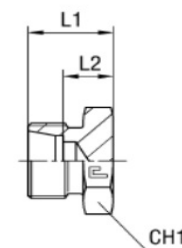


Part Number	Short Code	T1	H1	L1	L2	PN (bar)
T-09	GUD	9/16-18	17	17	9	630
T-11	GUE	11/16-16	22	19	11	630
T-13	GUF	13/16-16	24	22	12	630
T-16	GUG	1-14	30	26	14	400
T-19	GUH	1.3/16-12	36	29	15	400
T-23	GUI	1.7/16-12	41	30	16	400
T-27	GUJ	1.11/16-12	50	30	16	250

MLL

MET LIGHT MALE TUBE PLUG
METRIC 24° CONE EXTRA LIGHT MALE TUBE END
PLUG

- ISO 8434-1

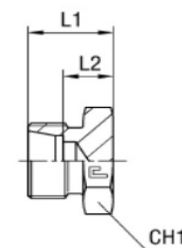


Part Number	A	Suits tube	PN (bar)
MLL-10	M10-1	6	315

ML

MET LIGHT MALE TUBE PLUG
METRIC 24° CONE LIGHT MALE TUBE END PLUG

- ISO 8434-1



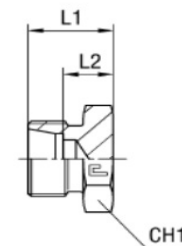
Part Number	A	Suits tube	L1	L2	CH1	PN (bar)
ML-12	M12-1.5	6	14	7	12	315
ML-14	M14-1.5	8	15	8	14	315
ML-16	M16-1.5	10	16	9	17	315
ML-18	M18-1.5	12	17	10	19	315
ML-22	M22-1.5	15	18	11	24	315
ML-26	M26-1.5	18	19	12	27	315
ML-30	M30-2	22	21	14	32	160
ML-36	M36-2	28	22	15	41	160
ML-45	M45-2	35	25	15	46	160
ML-52	M52-2	42	27	16	55	160

MS

MET HEAVY MALE TUBE PLUG

METRIC 24° CONE HEAVY MALE TUBE END PLUG

- ISO 8434-1



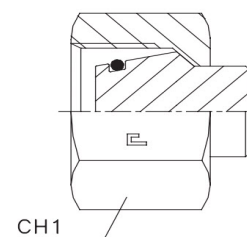
Part Number	A	Suits tube	L1	L2	CH1	PN (bar)
MS-14	M14-1.5	6	18	11	14	630
MS-16	M16-1.5	8	20	13	17	630
MS-18	M18-1.5	10	20	13	19	630
MS-20	M20-1.5	12	22	15	22	630
MS-22	M22-1.5	14	24	16	24	630
MS-24	M24-1.5	16	24	16	27	400
MS-30	M30-2	20	28	18	32	400
MS-36	M36-2	25	32	20	41	400
MS-42	M42-2	30	34	21	46	400
MS-52	M52-2	38	39	23	55	315

UL

MET LIGHT FEMALE PLUG

METRIC 24° CONE LIGHT BLANKING PLUG WITH O RING AND NUT

- ISO 8434-1

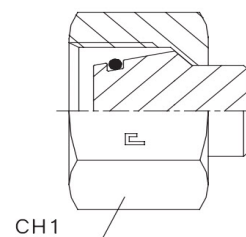


Part Number	Metric Female Thread	Suits Tube - D1	Overall L1	PN (bar)
UL-12	M12-1.5	6	17	315
UL-14	M14-1.5	8	17	315
UL-16	M16-1.5	10	20	315
UL-18	M18-1.5	12	21	315
UL-22	M22-1.5	15	21	315
UL-26	M26-1.5	18	23	315
UL-30	M30-2	22	23	160
UL-36	M36-2	28	25	160
UL-45	M45-2	35	29	160
UL-52	M52-2	42	30	160

US

MET HEAVY FEMALE PLUG
METRIC 24° CONE HEAVY BLANKING PLUG WITH O
RING AND NUT

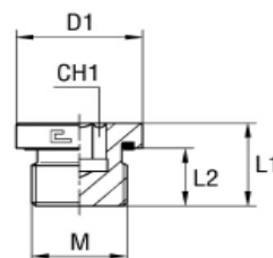
- ISO 8434-1



Part Number	Metric Female Thread	Suits Tube - D1	Overall L1	PN (bar)
US-14	M14-1.5	6	17	630
US-16	M16-1.5	8	17	630
US-18	M18-1.5	10	20	630
US-20	M20-1.5	12	21	630
US-22	M22-1.5	14	23	630
US-30	M30-2	20	28	400
US-36	M36-2	25	31	400
US-42	M42-2	30	34	400
US-52	M52-2	38	38	315

MX

MET MALE
METRIC STUD CAPTIVE SEAL PLUG INTERNAL HEX

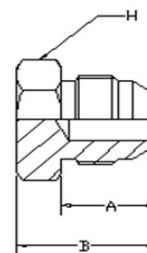


Part Number	M	D1	L1	L2	CH1
MX-10	M10-1	14	12	8	5
MX-12	M12-1.5	17	17	12	6
MX-14	M14-1.5	19	17	12	6
MX-16	M16-1.5	22	17	12	8
MX-18	M18-1.5	24	17	12	8
MX-20	M20-1.5	26	19	14	10
MX-22	M22-1.5	27	19	14	10
MX-26	M26-1.5	32	21	16	12

MY

JIS MET MALE

JIS MET KOMATSU STYLE 30° FLARE MALE PLUG



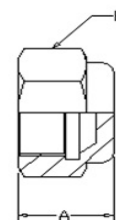
Part Number	Metric Male Thread	A	B	H
MY-14	M14-1.5	15	22	16
MY-16	M16-1.5	16	24	19
MY-18	M18-1.5	18	26	22
MY-20	M20-1.5			
MY-22	M22-1.5	20	29	25
MY-24	M24-1.5	22	32	27
MY-30	M30-1.5			
MY-33	M33-1.5			
MY-36	M36-2			

UY

JIS MET FEMALE

JIS MET KOMATSU STYLE 30° FLARE FEMALE CAP

- JIS B 8363

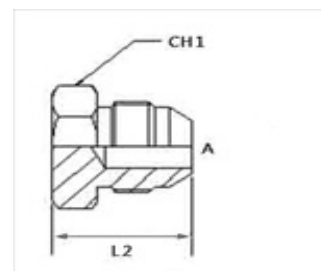


Part Number	Metric Female Thread	A	H
UY-14	M14-1.5	24	19
UY-16	M16-1.5	23	22
UY-18	M18-1.5	24	22
UY-20	M20-1.5	23	26
UY-22	M22-1.5	30	27
UY-24	M24-1.5		
UY-30	M30-1.5		
UY-33	M33-1.5		

AX

JIS BSP MALE

JIS BSP 30° FLARE MALE PLUG

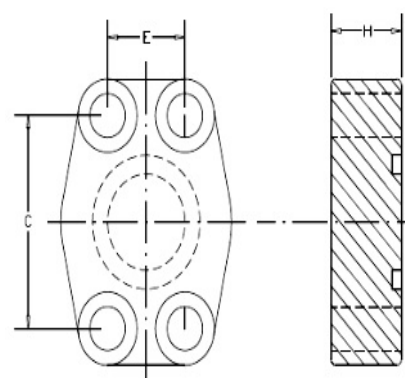


Part Number	A
AX-04	1/4-19
AX-06	3/8-19

VBO

SAE C61

SAE CODE 61 FLANGE PORT BLANKING PLATE

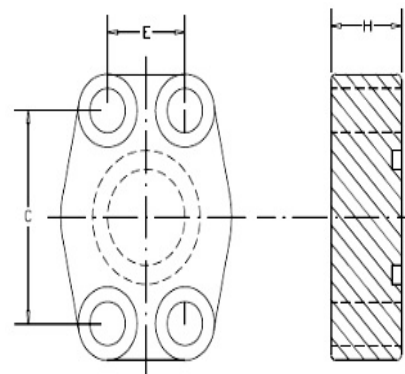


Part Number	Nominal SAE Size Flange	C	E	H	Suits metric bolts	Suits imperial bolts
VBO-08	1/2	38	17	16	M8x30	5/16x1.1/4
VBO-12	3/4	48	22	18	M10x35	3/8x1.1/2
VBO-16	1	52	26	19	M10x35	3/8x1.1/2
VBO-20	1.1/4	59	30	18	M10x40	7/16x1.3/4
VBO-24	1.1/2	70	36	20	M12x45	1/2x1.3/4
VBO-32	2	78	43	20	M12x45	1/2x1.3/4

VHBO

SAE C62

SAE CODE 62 FLANGE PORT BLANKING PLATE

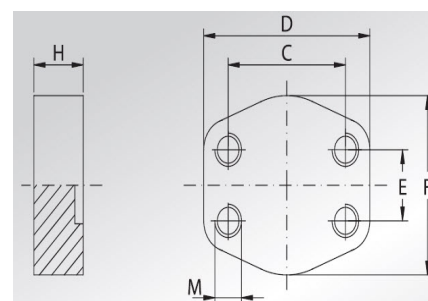


Part Number	Nominal SAE Size Flange	C	E	H	Suits metric bolts	Suits imperial bolts
VHBO-12	3/4	51	24	19	M10x35	3/8x1.1/2
VHBO-16	1	57	28	24	M12x45	7/16x1.3/4
VHBO-20	1.1/4	67	32	27	M14x45	1/2x1.3/4
VHBO-24	1.1/2	79	37	30	M16x50	5/8x2
VHBO-32	2	97	44	30	M20x60	3/4x2.1/2

VBC

SAE C61

SAE CODE 61 COMPANION BLANKING PLATE

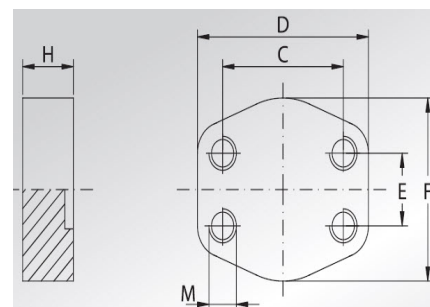


Part Number	NOMINAL SAE FLANGE SIZE	C	E	H	SUITS METRIC BOLTS
VBC-12	3/4	47.6	22.2	18	M10-1.5 x 35
VBC-16	1	52.4	26.2	19	M10-1.5 x 35
VBC-20	1.1/4	58.7	30.2	18	M10-1.5 x 40

VHBC

SAE C62

SAE CODE 62 COMPANION BLANKING PLATE



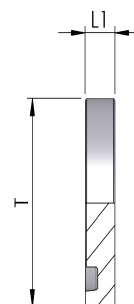
Part Number	NOMINAL SAE FLANGE SIZE	C	E	H	SUITS METRIC BOLTS
VHBC-12	3/4	50.8	23.8	19	M10-1.5 x 35
VHBC-16	1	57.2	27.8	24	M12-1.5 x 45
VHBC-20	1.1/4	66.7	31.8	27	M14-1.5 x 45

VP

SAE C61

SAE CODE 61 BLANKING DISC

- Recommended for temporary blanking of flange ports and connectors during servicing and repairs.
- Use VBO or VBC series for permanent installations.



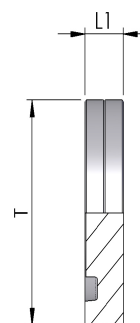
Part Number	NOMINAL SAE FLANGE SIZE	T	L1
VP-08	1/2	30.2	6.73
VP-12	3/4	38.1	6.73
VP-16	1	44.4	8.00
VP-20	1.1/4	50.8	8.00
VP-24	1.1/2	60.3	8.00
VP-32	2	71.4	9.53

VHP

SAE C62

SAE CODE 62 BLANKING DISC

- Recommended for temporary blanking of flange ports and connectors during servicing and repairs.
- Use VHBO or VHBC series for permanent installations.



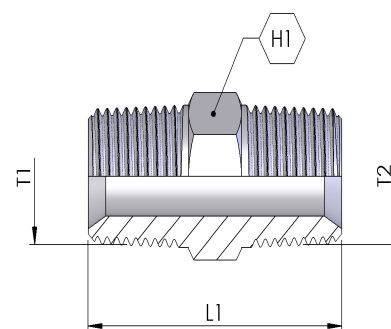
Part Number	NOMINAL SAE FLANGE SIZE	T	L1
VHP-12	3/4	41.3	8.76
VHP-16	1	47.6	9.53
VHP-20	1.1/4	54.0	10.29
VHP-24	1.1/2	63.5	12.57
VHP-32	2	79.4	12.57

STRAIGHT ADAPTORS

A-A

BSPT MALE X BSPT MALE

BSPT MALE X BSPT MALE STRAIGHT

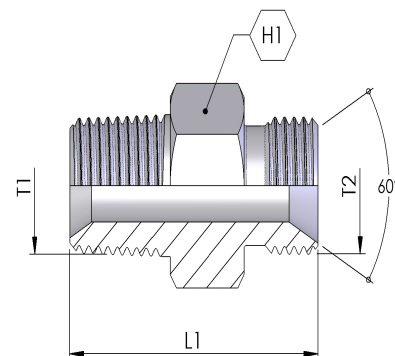


Part Number	Short Code	T1	T2	H1	L1	PN (bar)
A-A-0202	AAR	1/8-28	1/8-28	12	27	345
A-A-0204	AAS	1/8-28	1/4-19	14	32	275
A-A-0206	AAT	1/8-28	3/8-19	19	32	210
A-A-0404	AAW	1/4-19	1/4-19	14	37	275
A-A-0406	AAX	1/4-19	3/4-14	19	37	210
A-A-0408	AAZ	1/4-19	1/2-14	22	43	210
A-A-0412	AAZ	1/4-19	3/4-14	27	45	170
A-A-0606	ABB	3/8-19	3/8-19	19	37	210
A-A-0608	ABC	3/8-19	1/2-14	22	43	210
A-A-0612	ABD	3/8-19	3/4-14	27	45	170
A-A-0616		3/8-19	1-11			
A-A-0808	ABF	1/2-14	1/2-14	22	48	210
A-A-0810		1/2-14	5/8-14	25	45	
A-A-0812	ABI	1/2-14	3/4-14	27	50	170
A-A-0816	ABJ	1/2-14	1-11	36	55	140
A-A-1010		5/8-14	5/8-14	29	50	
A-A-1012		5/8-14	3/4-14			
A-A-1212	ABM	3/4-14	3/4-14	27	50	170
A-A-1216	ABO	3/4-14	1-11	36	55	140
A-A-1220	ABP	3/4-14	1.1/4-11	46	57	80
A-A-1224	ABQ	3/4-14	1.1/2-11	50	60	70
A-A-1616	ABR	1-11	1-11	36	59	140
A-A-1620	ABS	1-11	1.1/4-11	46	62	80
A-A-1624	ABT	1-11	1.1/2-11	50	65	70
A-A-2020	ABU	1.1/4-11	1.1/4-11	46	63	80
A-A-2024	ABV	1.1/4-11	1.1/2-11	50	65	70
A-A-2032	ABW	1.1/4-11	2-11	65	70	70
A-A-2424	ABX	1.1/2-11	1.1/2-11	50	66	70
A-A-2432	ABY	1.1/2-11	2-11	65	71	70
A-A-3232	ACA	2-11	2-11	65	72	70

A-B

BSPT MALE X BSP MALE

BSPT MALE X BSP 60° CONE MALE STRAIGHT



Part Number	Short Code	T1	T2	H1	L1	PN (bar)
A-B-0202	AEO	1/8-28	1/8-28	14	23	345
A-B-0204	AEP	1/8-28	1/4-19	19	29	345
A-B-0402	AEQ	1/4-19	1/8-28	14	28	275
A-B-0404	AER	1/4-19	1/4-19	19	33	275
A-B-0406	AET	1/4-19	1/8-28	22	37	275
A-B-0408	AEU	1/4-19	1/2-14	27	42	275
A-B-0604	AEV	3/8-19	1/4-19	19	33	210
A-B-0606	AEW	3/8-19	3/8-19	22	37	210
A-B-0608	AEX	3/8-19	1/2-14	27	42	210
A-B-0612	AEY	3/8-19	3/4-14	32	45	210
A-B-0804	AEZ	1/2-14	1/4-19	22	41	210
A-B-0806	AFA	1/2-14	3/8-19	22	42	210
A-B-0808	AFB	1/2-14	1/2-14	27	47	210
A-B-0810	AFC	1/2-14	5/8-14	30	46	210
A-B-0812	AFD	1/2-14	3/4-14	32	50	210
A-B-0816	AFE	1/2-14	1-11	41	53	210
A-B-1010		5/8-14	5/8-14			
A-B-1206	AFG	3/4-14	3/8-19	27	45	170
A-B-1208	AFH	3/4-14	1/2-14	27	47	170
A-B-1212	AFI	3/4-14	3/4-14	32	50	170
A-B-1216	AFJ	3/4-14	1-11	41	53	170
A-B-1220	AFK	3/4-14	1.1/4-11	50	57	170
A-B-1608	AFL	1-11	1/2-14	36	53	140
A-B-1612	AFM	1-11	3/4-14	36	55	140
A-B-1616	AFN	1-11	1-11	41	58	140
A-B-1620	AFO	1-11	1.1/4-11	50	62	140
A-B-1624		1-11	1.1/2-11	55	62	
A-B-2012	AFQ	1.1/4-11	3/4-14	46	59	80
A-B-2016	AFR	1.1/4-11	1-11	46	62	80
A-B-2020	AFS	1.1/4-11	1.1/4-11	50	63	80

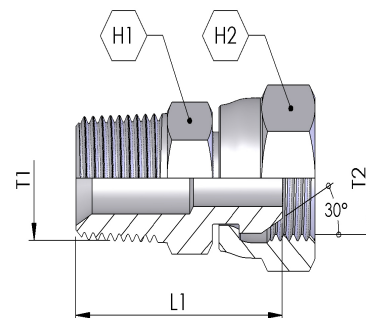
A-B-2024	AFT	1.1/4-11	1.1/2-11	55	65	80
A-B-2416	AFU	1.1/2-11	1-11	50	62	70
A-B-2420	AFV	1.1/2-11	1.1/4-11	50	63	70
A-B-2424	AFW	1.1/2-11	1.1/2-11	55	65	70
A-B-2432		1.5	2			
A-B-3220		2-11	1.1/4-11			
A-B-3232	AGA	2-11	2-11	70	71	70

A-C

BSPT MALE X BSP FEMALE

BSPT MALE X BSP 60° CONE FEMALE SWIVEL NUT

STRAIGHT

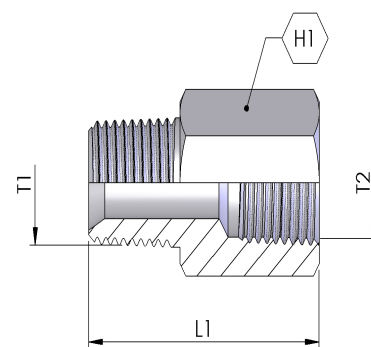


Part Number	Short Code	T1	T2	H1	H2	L1	PN (bar)
A-C-0202	AGU	1/8-28	1/8-28	12	14	26	345
A-C-0204	AGV	1/8-28	1/4-19	17	19	28	345
A-C-0404	AGX	1/4-19	1/4-19	17	19	32	275
A-C-0406	AGY	1/4-19	3/8-19	19	22	34	275
A-C-0408	AGZ	1/4-19	1/2-14	22	27	38	275
A-C-0604	AHA	3/8-19	1/4-19	19	19	33	210
A-C-0606	AHB	3/8-19	3/8-19	19	22	34	210
A-C-0608	AHC	3/8-19	1/2-14	22	27	38	210
A-C-0806	AHE	1/2-14	3/8-19	22	22	41	210
A-C-0808	AHF	1/2-14	1/2-14	22	27	43	210
A-C-0812	AHG	1/2-14	3/4-14	30	32	46	210
A-C-1208	AHH	3/4-14	1/2-14	27	27	43	170
A-C-1212	AHI	3/4-14	3/4-14	30	32	46	170
A-C-1216	AHJ	3/4-14	1-11	36	41	48	170
A-C-1612	AHK	1-11	3/4-14	36	32	52	140
A-C-1616	AHL	1-11	1-11	36	41	53	140
A-C-1620	AHM	1-11	1.1/4-11	46	50	56	140
A-C-2012		1.1/4-11	3/4-14				
A-C-2016	AHO	1.1/4-11	1-11	41	46	55	80
A-C-2020	AHP	1.1/4-11	1.1/4-11	46	50	57	80
A-C-2024	AHQ	1.1/4-11	1.1/2-11	50	55	58	80
A-C-2420	AHR	1.1/2-11	1.1/4-11	50	50	58	70
A-C-2424	AHS	1.1/2-11	1.1/2-11	50	55	59	70
A-C-3232	AHT	2-11	2-11	65	70	63	70

A-E

BSPT MALE X BSPT FEMALE

BSPT MALE X BSPT FIXED FEMALE STRAIGHT

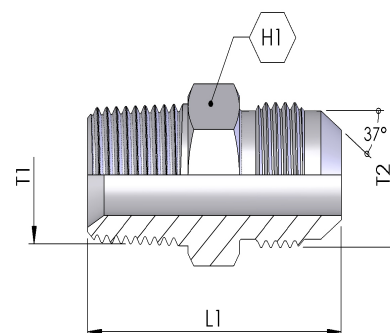


Part Number	Short Code	T1	T2	H1	L1	PN (bar)
A-E-0202	AKB	1/8-28	1/8-28	14	26	345
A-E-0204		1/8-28	1/4-19	19	10	
A-E-0402	AKD	1/4-19	1/8-28	14	22	275
A-E-0404	AKE	1/4-19	1/4-19	19	35	275
A-E-0406	AKF	1/4-19	3/8-19	22	37	210
A-E-0602	AKH	3/8-19	1/8-28	19	22	210
A-E-0604	AKI	3/8-19	1/4-19	19	22	210
A-E-0606	AKL	3/8-19	3/8-19	22	37	210
A-E-0608	AKM	3/8-19	1/2-14	27	43	210
A-E-0802	AKN	1/2-14	1/8-28	22	28	210
A-E-0804	AKO	1/2-14	1/4-19	22	28	210
A-E-0806	AKP	1/2-14	3/8-19	22	28	210
A-E-0808	AKQ	1/2-14	1/2-14	27	48	210
A-E-0812		1/2-14	3/4-14			
A-E-1204	AKS	3/4-14	1/4-19	27	30	170
A-E-1206	AKT	3/4-14	3/8-19	27	30	170
A-E-1208	AKU	3/4-14	1/2-14	27	30	170
A-E-1212	AKV	3/4-14	3/4-14	36	49	170
A-E-1606	AKW	1-11	3/8-19	36	35	140
A-E-1608	AKX	1-11	1/2-14	36	35	140
A-E-1612	AKY	1-11	3/4-14	36	35	140
A-E-2008	ALA	1.1/4-11	1/2-14	46	38	80
A-E-2012	ALB	1.1/4-11	3/4-14	46	38	80
A-E-2016	ALC	1.1/4-11	1-11	46	38	80
A-E-2020		1 1/4-11	1 1/4-11			
A-E-2412	ALE	1.1/2-11	3/4-14	50	40	70
A-E-2416	ALF	1.1/2-11	1-11	50	40	70
A-E-2420	ALG	1.1/2-11	1.1/4-11	50	40	70
A-E-3216	ALH	2-11	1-11	65	45	70
A-E-3220	ALI	2-11	1.1/4-11	65	45	70
A-E-3224	ALJ	2-11	1.1/2-11	65	45	70

A-G

BSPT MALE X JIC MALE

BSPT MALE X JIC 37° FLARE MALE STRAIGHT



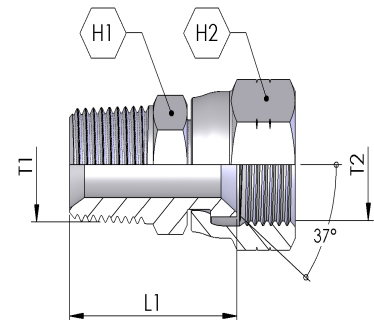
Part Number	Short Code	T1	T2	H1	L1	PN (bar)
A-G-0207	AMG	1/8-28	7/16-20	12	31	345
A-G-0208	AMH	1/8-28	1/2-20	14	31	345
A-G-0209	AMI	1/8-28	9/16-18	17	32	345
A-G-0407	AMJ	1/4-19	7/16-20	14	36	275
A-G-0408	AMK	1/4-19	1/2-20	14	36	275
A-G-0409	AML	1/4-19	9/16-18	17	36	275
A-G-0412	AMM	1/4-19	3/4-16	22	39	275
A-G-0607	AMN	3/8-19	7/16-20	19	36	210
A-G-0608	AMO	3/8-19	1/2-20	19	36	210
A-G-0609	AMP	3/8-19	9/16-18	19	36	210
A-G-0612	AMQ	3/8-19	3/4-16	22	39	210
A-G-0614	AMR	3/8-19	7/8-14	24	43	210
A-G-0617	AMS	3/8-19	1.1/16-12	30	48	210
A-G-0807	AMV	1/2-14	7/16-20	22	43	210
A-G-0809	AMW	1/2-14	9/16-18	22	43	210
A-G-0812	AMX	1/2-14	3/4-16	22	45	210
A-G-0814	AMY	1/2-14	7/8-14	24	48	210
A-G-0817	AMZ	1/2-14	1.1/16-12	30	52	210
A-G-1209	AND	3/4-14	9/16-18	27	45	170
A-G-1212	ANE	3/4-14	3/4-16	27	47	170
A-G-1214	ANF	3/4-14	7/8-14	27	50	170
A-G-1217	ANG	3/4-14	1.1/16-12	30	52	170
A-G-1219		3/4-14	1.3/16-12	32	55	
A-G-1221	ANI	3/4-14	1.5/16-12	36	54	170
A-G-1612	ANK	1-11	3/4-16	36	52	140
A-G-1614	ANL	1-11	7/8-14	36	55	140
A-G-1617	ANM	1-11	1.1/16-12	36	57	140
A-G-1619	ANN	1-11	1.3/16-12	36	58	140
A-G-1621	ANO	1-11	1.5/16-12	36	58	140
A-G-1626	ANP	1-11	1.5/8-12	46	61	140

A-G-2017	ANS	1.1/4-11	1.1/16-12	46	60	80
A-G-2021	ANT	1.1/4-11	1.5/16-12	46	61	80
A-G-2026	ANU	1.1/4-11	1.5/8-12	46	62	80
A-G-2030	ANV	1.1/4-11	1.7/8-12	50	67	80
A-G-2421	ANX	1.1/2-11	1.5/16-12	50	64	70
A-G-2426	ANY	1.1/2-11	1.5/8-12	50	65	70
A-G-2430		1.1/2-11	1.7/8-12	50	71	
A-G-2440	AOA	1.1/2-11	2.1/2-12	65	78	70
A-G-3230	AOD	2-11	1.7/8-12	65	73	70
A-G-3240	AOE	2-11	2.1/2-12	65	79	70

A-J

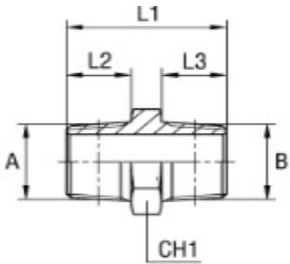
BSPT MALE X JIC FEMALE

BSPT MALE X JIC 37° FLARE FEMALE SWIVEL NUT
STRAIGHT



Part Number	Short Code	T1	T2	H1	H2	L1	PN (bar)
A-J-0207	AQT	1/8-28	7/16-20	12	14	23	345
A-J-0208		1/8-28	1/2-20				
A-J-0407	AQV	1/4-19	7/16-20	14	14	28	275
A-J-0408		1/4-19	1/2-20	14	17	29	
A-J-0409	AQX	1/4-19	9/16-18	14	19	29	275
A-J-0609	AQZ	3/8-19	9/16-18	19	19	30	210
A-J-0612	ARA	3/8-19	3/4-16	19	22	32	210
A-J-0614	ARB	3/8-19	7/8-14	22	27	34	210
A-J-0812	ARC	1/2-14	3/4-16	22	22	38	210
A-J-0814	ARD	1/2-14	7/8-14	22	27	38	210
A-J-0817		1/2	1 1/16	27	32	43	170
A-J-1217	ARF	3/4-14	1.1/16-12	27	32	43	170
A-J-1221		3/4-14	1.5/16-12				
A-J-1621	ARH	1-11	1.5/16-12	36	41	51	140
A-J-2026	ARI	1.1/4-11	1.5/8-12	46	50	57	80

A-L
BSPT MALE X NPTF MALE
BSPT MALE X NPTF MALE STRAIGHT

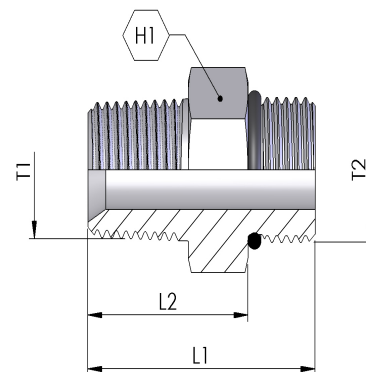


Part Number	A	B	L1	L2	L3	CH1
A-L-0404	1/4-19	1/4-18				
A-L-0606	3/8-19	3/8-18				
A-L-1212	3/4-16	3/4-16				
A-L-1616	1-11	1-11.5	60	23	24	35
A-L-2424	1.1/2-11	1.1/2-11				

A-N

BSPT MALE X UNO MALE

BSPT MALE X UNO FIXED STUD STRAIGHT

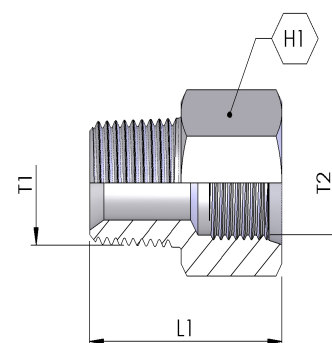


Part Number	Short Code	T1	T2	H1	L1	L2	PN (bar)
A-N-0207		1/8-28	7/16-20	16	27	12	
A-N-0407	AVW	1/4-19	7/16-20	14	31	22	275
A-N-0408	AVX	1/4-19	1/2-20	17	31	22	275
A-N-0409	AVY	1/4-19	9/16-18	17	33	23	275
A-N-0412	AVZ	1/4-19	3/4-16	22	35	24	275
A-N-0414	AWA	1/4-19	7/8-14	27	38	25	250
A-N-0609	AWB	3/8-19	9/16-18	19	33	23	210
A-N-0612	AWC	3/8-19	3/4-16	22	35	24	210
A-N-0614	AWD	3/8-19	7/8-14	27	38	25	210
A-N-0809		1/2-14	9/16-18	22	39	19	
A-N-0812	AWF	1/2-14	3/4-16	22	40	29	210
A-N-0814	AWG	1/2-14	7/8-14	27	43	30	210
A-N-0817	AWH	1/2-14	1.1/16-12	32	47	32	210
A-N-1212		3/4-14	3/4-16				
A-N-1214	AWJ	3/4-14	7/8-14	27	43	30	170
A-N-1217	AWK	3/4-14	1.1/16-12	32	47	32	170
A-N-1221	AWL	3/4-14	1.5/16-12	41	48	33	170
A-N-1617	AWM	1-11	1.1/16-12	36	54	39	140
A-N-1621	AWN	1-11	1.5/16-12	41	53	38	140
A-N-1626	AWO	1-11	1.5/8-12	50	55	40	140
A-N-2021		1.1/4-11	1.5/16-12	44	56	25	
A-N-2026		1.1/4-11	1.5/8-12				
A-N-2030		1.1/4-11	1.7/8-12	55	57	25	
A-N-2426		1.1/2-11	1.5/8-12	35	53	24	
A-N-2430		1.1/2-11	1.7/8-12	55	57	28	

A-Q

BSPT MALE X UNO FEMALE

BSPT MALE X UNO PORT STRAIGHT

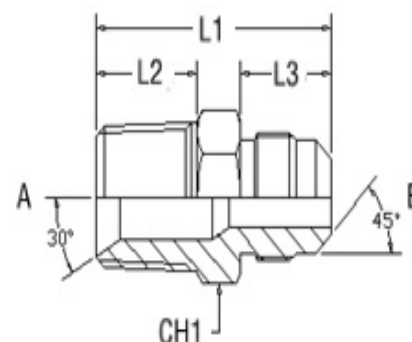


Part Number	BSPT Male Thread	UNF Female Thread	A	B	H
A-Q-0612	3/8-19	3/4-16			
A-Q-0812	1/2-14	3/4-16	19	29	27

A-AA

BSPT MALE X SAE MALE

BSPT MALE X SAE 45° FLARE MALE STRAIGHT

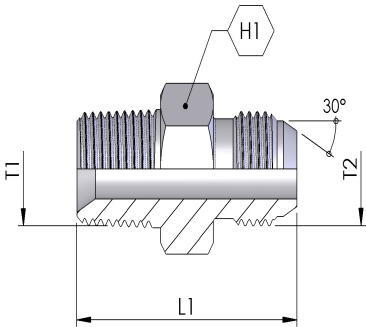


Part Number	A	B	L1	L2	L3	CH1
A-AA-0410	1/4-19	5/8-18	36	14	16	19
A-AA-0610	3/8-19	5/8-18	38	15	16	19
A-AA-0810	1/2-14	5/8-18	42	19	16	22

A-AX

BSPT MALE X JIS BSP MALE
BSPT MALE X JIS BSP 30° FLARE MALE STRAIGHT

- JIS B 8363



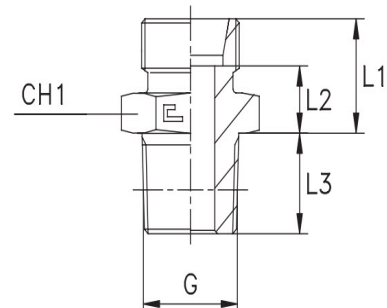
Part Number	A	B	L1	L2	L3	CH1
A-AX-0404	1/4-19	1/4-19				
A-AX-0606	3/8-19	3/8-19				
A-AX-0808	1/2-14	1/2-14				
A-AX-1212	3/4-14	3/4-14	53	20	21	29

A-ML

BSPT MALE X MET LIGHT MALE

BSPT MALE X METRIC 24° CONE LIGHT MALE

STRAIGHT



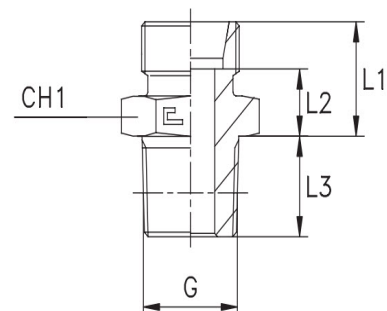
Part Number	A	B	L1	L2	L3	Suits tube	CH1
A-ML-0412	1/4-19	M12-1.5	15	8	12	6	14
A-ML-0414	1/4-19	M14-1.5	15	8	12	8	17
A-ML-0416	1/4-19	M16-1.5	16	9	12	10	17
A-ML-0418	1/4-19	M18-1.5	17	10	12	12	19
A-ML-0612	3/8-19	M12-1.5				6	
A-ML-0614	3/8-19	M14-1.5	16	9	12	8	19
A-ML-0616	3/8-19	M16-1.5	17	10	12	10	19
A-ML-0618	3/8-19	M18-1.5	17	10	12	12	19
A-ML-0622	3/8-19	M22-1.5	18	11	12	15	24
A-ML-0816	1/2-14	M16-1.5	17	10	14	10	22
A-ML-0818	1/2-14	M18-1.5	17	10	14	12	22
A-ML-0822	1/2-14	M22-1.5	18	11	14	15	24
A-ML-0826	1/2-14	M26-1.5	19	12	14	18	27
A-ML-0830	1/2-14	M30-2				22	
A-ML-1222	3/4-14	M22-1.5				15	
A-ML-1226	3/4-14	M26-1.5	19	12	16	18	32
A-ML-1230	3/4-14	M30-2	21	14	16	22	32
A-ML-1236	3/4-14	M36-2				28	
A-ML-1636	1-11	M36-2	22	15	18	28	41
A-ML-1645	1-11	M45-2				35	

A-MS

BSPT MALE X MET HEAVY MALE

BSPT MALE X METRIC 24° CONE HEAVY MALE

STRAIGHT



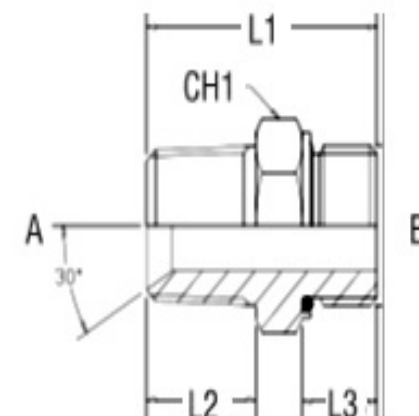
Part Number	A	B	L1	L2	L3	Suits tube	CH1
A-MS-0414	1/4-19	M14-1.5	18	11	12	6	17
A-MS-0416	1/4-19	M16-1.5	20	13	12	8	17
A-MS-0418	1/4-19	M18-1.5				10	
A-MS-0614	3/8-19	M14-1.5				6	
A-MS-0616	3/8-19	M16-1.5	20	13	14	8	19
A-MS-0618	3/8-19	M18-1.5	20	13	12	10	19
A-MS-0620	3/8-19	M20-1.5	22	15	12	12	22
A-MS-0622	3/8-19	M22-1.5	24	16	12	14	24
A-MS-0624	3/8-19	M24-1.5	24	16	12	16	27
A-MS-0816	1/2-14	M16-1.5	20	13	17	8	22
A-MS-0818	1/2-14	M18-1.5	20	13	18	10	22
A-MS-0820	1/2-14	M20-1.5	22	15	14	12	22
A-MS-0822	1/2-14	M22-1.5	24	16	14	14	24
A-MS-0824	1/2-14	M24-1.5	24	16	14	16	27
A-MS-0830	1/2-14	M30-2	28	18	14	20	32
A-MS-1224	3/4-14	M24-1.5				16	
A-MS-1230	3/4-14	M30-2	28	18	16	20	32
A-MS-1236	3/4-14	M36-2	32	20	16	25	41
A-MS-1636	1-11	M36-2	32	20	18	25	41
A-MS-1642	1-11	M42-2	34	20.5	18	30	46
A-MS-2042	1.1/4-11	M42-2	34	20.5	20	30	46
A-MS-2052	1.1/4-11	M52-2				38	

A-MX

BSPT MALE X MET MALE

BSPT MALE X METRIC STUD CAPTIVE SEAL

STRAIGHT



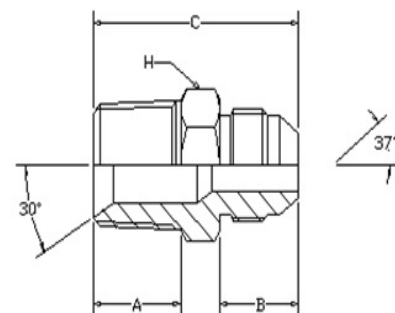
Part Number	A	B	L1	L2	L3	CH1
A-MX-0410	1/4-19	M10-1	29	12	8	16
A-MX-0412	1/4-19	M12-1.5	35	12	11	17
A-MX-0414	1/4-19	M14-1.5				
A-MX-0416	1/4-19	M16-1.5				
A-MX-0418	1/4-19	M18-1.5				
A-MX-0612	3/8-19	M12-1.5	35	14	11	19
A-MX-0614	3/8-19	M14-1.5				
A-MX-0616	3/8-19	M16-1.5	35	14	11	22
A-MX-0618	3/8-19	M18-1.5	36	14	12	25
A-MX-0620	3/8-19	M20-1.5				
A-MX-0622	3/8-19	M22-1.5				
A-MX-0816	1/2-14	M16-1.5				
A-MX-0818	1/2-14	M18-1.5				
A-MX-0820	1/2-14	M20-1.5				
A-MX-0822	1/2-14	M22-1.5	42	17	14	27
A-MX-0824	1/2-14	M24-1.5				
A-MX-0826	1/2-14	M26-1.5				
A-MX-0827	1/2-14	M27-2				
A-MX-0830	1/2-14	M30-2				
A-MX-1216	3/4-11	M16-1.5				
A-MX-1222	3/4-11	M22-1.5				
A-MX-1226	3/4-11	M26-1.5				
A-MX-1227	3/4-11	M27-2				
A-MX-1233	3/4-11	M33-2				
A-MX-1633	1-11	M33-2				

A-MY

BSPT MALE X JIS MET MALE

BSPT MALE X JIS MET KOMATSU STYLE 30° FLARE

MALE STRAIGHT



Part Number	BSPT Male Thread	Metric Male Thread	C	A	B	H
A-MY-0414	1/4-19	M14-1.5	35	14	16	16
A-MY-0616	3/8-19	M16-1.5	40	15	17	19
A-MY-0618	3/8-19	M18-1.5	40	15	17	22
A-MY-0818	1/2-14	M18-1.5				
A-MY-0820	1/2-14	M20-1.5				
A-MY-0822	1/2-14	M22-1.5	48	19	21.5	25
A-MY-0824	1/2-14	M24-1.5	49	19	23	25
A-MY-1224	3/4-14	M24-1.5				
A-MY-1230	3/4-14	M30-1.5	60	20	28	32

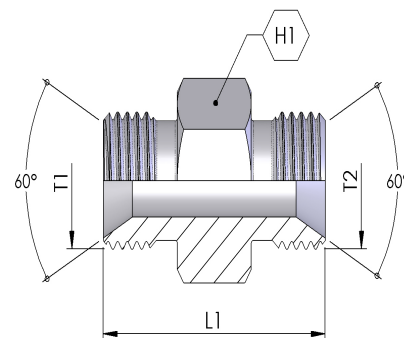
B-B

BSP MALE X BSP MALE

BSP 60° CONE MALE X BSP 60° CONE MALE

STRAIGHT

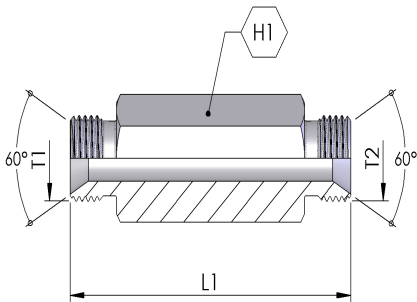
- ISO 8434-6



Part Number	Short Code	T1	T2	H1	L1	PN (bar)
B-B-0202	AYY	1/8-28	1/8-28	14	21	400
B-B-0204	AYZ	1/8-28	1/4-19	19	27	400
B-B-0404	AZA	1/4-19	1/4-19	19	30	400
B-B-0406	AZD	1/4-19	3/8-19	22	34	400
B-B-0408	AZF	1/4-19	1/2-14	27	39	350
B-B-0412		1/4-19	3/4-14			
B-B-0416		1/4-19	1-11			
B-B-0606	AZI	3/8-19	3/8-19	22	35	400
B-B-0608	AZL	3/8-19	1/2-14	27	40	350
B-B-0612	AZN	3/8-19	3/4-14	32	43	315
B-B-0616		3/8-19	1-11			
B-B-0808	AZO	1/2-14	1/2-14	27	42	350
B-B-0810		1/2-14	5/8-14			
B-B-0812	AZR	1/2-14	3/4-14	32	45	315
B-B-0816	AZS	1/2-14	1-11	41	48	250
B-B-0820		1/2-14	1.1/4-11	50	52	200
B-B-1212	AZT	3/4-14	3/4-14	32	47	315
B-B-1216	AZV	3/4-14	1-11	41	50	250
B-B-1220	AZW	3/4-14	1.1/4-11	50	54	200
B-B-1224		3/4-14	1.1/2-11			
B-B-1616	AZX	1-11	1-11	41	53	250
B-B-1620	AZY	1-11	1.1/4-11	50	57	200
B-B-1624	AZZ	1-11	1.1/2-11	55	59	160
B-B-2020	BAA	1.1/4-11	1.1/4-11	50	58	200
B-B-2024	BAB	1.1/4-11	1.1/2-11	55	60	160
B-B-2032		1.1/4-11	2-11			
B-B-2424	BAD	1.1/2-11	1.1/2-11	55	62	160
B-B-2432	BAE	1.1/2-11	2-11	70	67	125
B-B-3232	BAF	2-11	2-11	70	70	125

B-B EXT

BSP MALE X BSP MALE
BSP 60° CONE MALE X BSP 60° CONE MALE
STRAIGHT EXTENDED



Part Number	Short Code	T1	T2	H1	L1	PN (bar)
B-B-0404EXT		1/4-19	1/4-19			
B-B-0606EXT	AZJ	3/8-19	3/8-19	22	75	400
B-B-0608EXT	AZM	3/8-19	1/2-14	27	90	350
B-B-0808EXT	AZP	1/2-14	1/2-14	27	85	350
B-B-1212EXT		3/4-14	3/4-14			

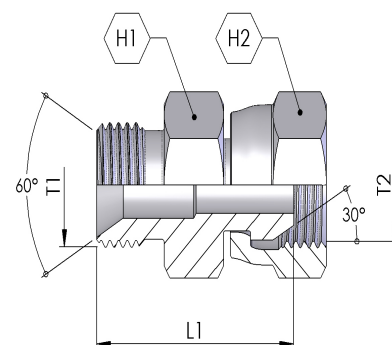
B-C

BSP MALE X BSP FEMALE

BSP 60° CONE MALE X BSP 60° CONE FEMALE

SWIVEL NUT STRAIGHT

- ISO 8434-6



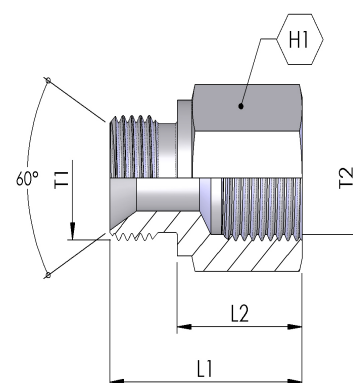
Part Number	Short Code	T1	T2	H1	H2	L1	PN (bar)
B-C-0404	BBY	1/4-19	1/4-19	19	19	31	400
B-C-0406		1/4-19	3/8-19	22		37	
B-C-0604		3/8-19	1/4-19	19		38	
B-C-0606	BCB	3/8-19	3/8-19	22	22	35	400
B-C-0608		3/8-19	1/2-14	27		42	
B-C-0806		1/2-14	3/8-19	22		42	
B-C-0808	BCE	1/2-14	1/2-14	27	27	41	350
B-C-0812		1/2-14	3/4-14	32		49	
B-C-0816		1/2-14	1-11				
B-C-0820		1/2-14	1.1/4-11				
B-C-1208		3/4-14	1/2-14				
B-C-1212	BCK	3/4-14	3/4-14	32	32	45	315
B-C-1216		3/4-14	1-11				
B-C-1612		1-11	3/4-14				
B-C-1616	BCN	1-11	1-11	41	41	51	250
B-C-1620		1-11	1.1/4-11				
B-C-2020	BCQ	1.1/4-11	1.1/4-11	50	50	55	200
B-C-2424	BCR	1.1/2-11	1.1/2-11	55	55	64	160

B-F

BSP MALE X BSP FEMALE

BSP 60° CONE MALE X BSP FIXED FEMALE

STRAIGHT



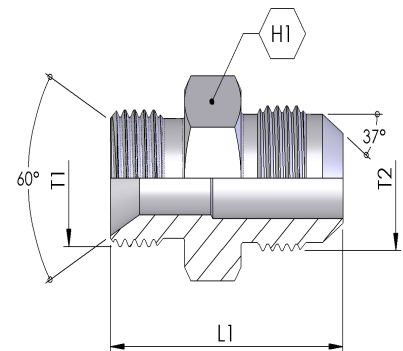
Part Number	Short Code	T1	T2	H1	L1	L2	PN (bar)
B-F-0204		1/8-28	1/4-19				
B-F-0402	BDF	1/4-19	1/8-28	19	27	16	400
B-F-0404	BDG	1/4-19	1/4-19	19	32	21	400
B-F-0406		1/4-19	3/8-19				
B-F-0408		1/4-19	1/2-14				
B-F-0604	BDI	3/8-19	1/4-19	22	33	21	400
B-F-0606	BDJ	3/8-19	3/8-19	22	33	21	400
B-F-0608		3/8-19	1/2-14				
B-F-0612		3/8-19	3/4-14				
B-F-0804	BDN	1/2-14	1/4-19	27	36	22	350
B-F-0806	BDO	1/2-14	3/8-19	27	36	22	350
B-F-0808	BDP	1/2-14	1/2-14	27	40	26	350
B-F-0812		1/2-14	3/4-14	38	32		
B-F-1206	BDU	3/4-14	3/8-19	32	31	15	315
B-F-1208	BDV	3/4-14	1/2-14	32	42	26	315
B-F-1212	BDX	3/4-14	3/4-14	36	48	32	315
B-F-1216	BDY	3/4-14	1-11	41	51	35	250
B-F-1606	1-11	1-11	3/8-19	40	41		
B-F-1608	BEA	1-11	1/2-14	41	34	15	250
B-F-1612	BEB	1-11	3/4-14	41	47	28	250
B-F-1616	BEC	1-11	1-11	41	54	35	250
B-F-1620	BED	1-11	1.1/4-11	50	58	39	200
B-F-2008		1.1/4-11	1/2-14				
B-F-2012	BEF	1.1/4-11	3/4-14	50	38	18	200
B-F-2016	BEG	1.1/4-11	1-11	50	50	30	200
B-F-2020		1.1/4-11	1.1/4-11				
B-F-2416	BEH	1.1/2-11	1-11	55	40	18	160
B-F-2420	BEI	1.1/2-11	1.1/4-11	55	58	36	160
B-F-3220	BEJ	2-11	1.1/4-11	70	45	20	125
B-F-3224	BEK	2-11	1.1/2-11	70	54	29	125

B-G

BSP MALE X JIC MALE

BSP 60° CONE MALE X JIC 37° FLARE MALE

STRAIGHT



Part Number	Short Code	T1	T2	H1	L1	PN (bar)
B-G-0207	BEL	1/8-28	7/16-20	14	29	350
B-G-0208	BEM	1/8-28	1/2-20	14	29	350
B-G-0209	BEN	1/8-28	9/16-18	17	29	350
B-G-0407	BEO	1/4-19	7/16-20	19	32	350
B-G-0408	BEQ	1/4-19	1/2-20	19	32	350
B-G-0409	BER	1/4-19	9/16-18	19	32	350
B-G-0412	BEU	1/4-19	3/4-16	22	35	310
B-G-0607	BEV	3/8-19	7/16-20	22	34	350
B-G-0609	BEW	3/8-19	9/16-18	22	34	350
B-G-0612	BFA	3/8-19	3/4-16	22	36	310
B-G-0614	BFD	3/8-19	7/8-14	24	42	240
B-G-0617		3/8-19	1 1/16-12			
B-G-0807		1/2-14	7/16-20	27	38	
B-G-0809	BFG	1/2-14	9/16-18	27	39	350
B-G-0812	BFI	1/2-14	3/4-16	27	42	310
B-G-0814	BFJ	1/2-14	7/8-14	27	44	240
B-G-0817	BFK	1/2-14	1.1/16-12	30	46	240
B-G-0821		1/2-14	1.5/16-12			
B-G-1209	BFM	3/4-14	9/16-18	32	40	315
B-G-1212	BFO	3/4-14	3/4-16	32	44	310
B-G-1214	BFP	3/4-14	7/8-14	32	46	240
B-G-1217	BFQ	3/4-14	1.1/16-12	32	49	240
B-G-1219		3/4-14	1.3/16-12			
B-G-1221	BFT	3/4-14	1.5/16-12	36	50	210
B-G-1612		1-11	3/4-16	41	53	
B-G-1614		1-11	7/8-14	41	53	
B-G-1617	BFW	1-11	1.1/16-12	41	52	240
B-G-1621	BFY	1-11	1.5/16-12	41	54	210
B-G-1626	BFZ	1-11	1.5/8-12	46	56	170
B-G-2017	BGA	1.1/4-11	1.1/16-12	50	56	200

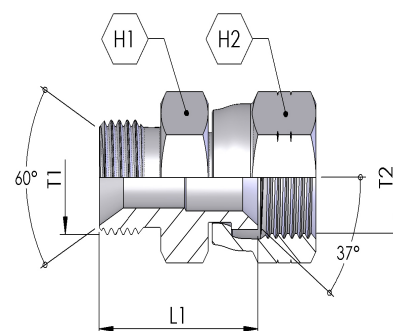
B-G-2021	BGB	1.1/4-11	1.5/16-12	50	57	200
B-G-2026	BGD	1.1/4-11	1.5/8-12	50	58	170
B-G-2030	BGE	1.1/4-11	1.7/8-12	50	61	140
B-G-2417		1.1/2-11	1.1/16-12			
B-G-2421	BGG	1.1/2-11	1.5/16-12	55	60	160
B-G-2426	BGH	1.1/2-11	1.5/8-12	55	61	160
B-G-2430	BGI	1.1/2-11	1.7/8-12	55	65	140
B-G-3230		2-11	1.7/8-12			
B-G-3240	BGK	2-11	2.1/2-12	70	78	105

B-J

BSP MALE X JIC FEMALE

BSP 60° CONE MALE X JIC 37° FLARE FEMALE

SWIVEL NUT STRAIGHT

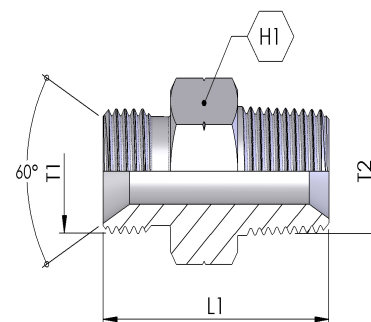


Part Number	Short Code	T1	T2	H1	H2	L1	PN (bar)
B-J-0207		1/8-28	7/16-20				
B-J-0407	BGS	1/4-19	7/16-20	19	14	26	350
B-J-0409	BGU	1/4-19	9/16-18	19	19	27	350
B-J-0609	BGV	3/8-19	9/16-18	22	19	29	350
B-J-0612	BGW	3/8-19	3/4-16	22	22	31	310
B-J-0614		3/8-19	7/8-14				
B-J-0809		1/2-14	9/16-18				
B-J-0812	BGZ	1/2-14	3/4-16	27	22	36	310
B-J-0814	BHA	1/2-14	7/8-14	27	27	36	240
B-J-0817	BHB	1/2-14	1.1/16-12	27	32	38	240
B-J-1214		3/4-14	7/8-14				
B-J-1217	BHD	3/4-14	1.1/16-12	32	32	41	240
B-J-1621	BHF	1-11	1.5/16-12	41	41	48	210
B-J-2026		1.1/4-11	1.5/8-12				

B-L

BSP MALE X NPTF MALE

BSP 60° CONE MALE X NPTF MALE STRAIGHT

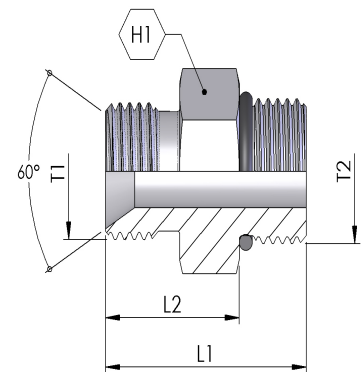


Part Number	Short Code	T1	T2	H1	L1	PN (bar)
B-L-0404		1/4-19	1/4-19			
B-L-0406		1/4-19	3/8-18			
B-L-0606	BJC	3/8-19	3/8-18	22	37	210
B-L-0608		3/8-19	1/2-14	12	19	
B-L-0806		1/2-14	3/8-18			
B-L-0808		1/2-14	1/2-14	14	19	
B-L-0812	BJG	1/2-14	3/4-14	27	47	170
B-L-1208		3/4-14	1/2-14			
B-L-1212		3/4-14	3/4-14	16	19	
B-L-1616		1-11	1-11.5			
B-L-2020	BJL	1.1/4-11	1.1/4-11.1/2	50	62	80

B-N

BSP MALE X UNO MALE

BSP 60° CONE MALE X UNO FIXED STUD STRAIGHT

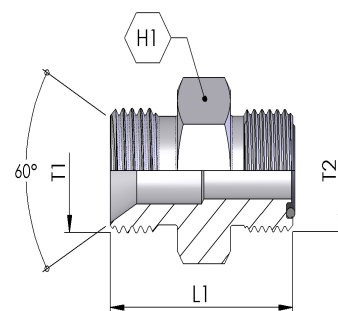


Part Number	Short Code	T1	T2	H1	L1	L2	PN (bar)
B-N-0407	BML	1/4-19	7/16-20	19	29	20	315
B-N-0408		1/4-19	1/2-20	9	28	11	
B-N-0409	BMN	1/4-19	9/16-18	19	30	20	315
B-N-0412		1/4-19	3/4-16	11	30	11	
B-N-0607		3/8-19	7/16-20	9	29	12	
B-N-0608		3/8-19	1/2-20	9	29	12	
B-N-0609	BMR	3/8-19	9/16-18	22	32	22	315
B-N-0612	BMS	3/8-19	3/4-16	22	33	22	315
B-N-0614		3/8-19	7/8-14	13	35	12	
B-N-0617		3/8-19	1 1/16-12				
B-N-0809		1/2-14	9/16-18	10	37	14	
B-N-0812	BMW	1/2-14	3/4-16	27	37	25	315
B-N-0814	BMX	1/2-14	7/8-14	27	38	25	250
B-N-0817		1/2-14	1.1/16-12	15	41	14	
B-N-1212		3/4-14	3/4-16	11	39	16	
B-N-1214	BNA	3/4-14	7/8-14	32	42	29	250
B-N-1217	BNB	3/4-14	1.1/16-12	32	44	29	250
B-N-1219	BNC	3/4-14	1.3/16-12	36	44	29	200
B-N-1221		3/4-14	1.5/16-12	15	45	16	
B-N-1226		3/4-14	1 5/8-12				
B-N-1614		1-11	7/8-14				
B-N-1617	BNF	1-11	1.1/16-12	41	48	33	250
B-N-1619		1-11	1.3/16-12				
B-N-1621	BNH	1-11	1.5/16-12	41	48	33	200
B-N-1626	BNI	1-11	1.5/8-12	50	50	35	160
B-N-2021		1.1/4-11	1.5/16-12				
B-N-2026		1.1/4-11	1.5/8-12				
B-N-2430		1.1/2-11	1.7/8-12				

B-R

BSP MALE X ORFS MALE

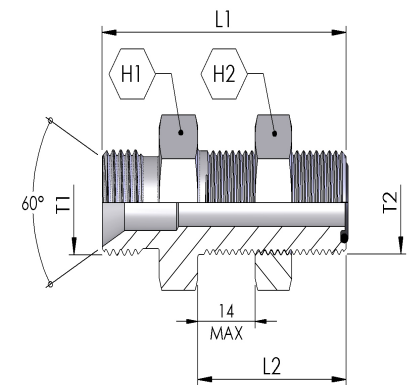
BSP 60° CONE MALE X ORFS MALE STRAIGHT



Part Number	Short Code	T1	T2	H1	L1	PN (bar)
B-R-0209		1/8-28	9/16-18			
B-R-0409	BNQ	1/4-19	9/16-18	19	28	400
B-R-0411	BNR	1/4-19	11/16-16	19	29	400
B-R-0413	BNS	1/4-19	13/16-16	22	32	400
B-R-0609	BNT	3/8-19	9/16-18	22	30	400
B-R-0611	BNU	3/8-19	11/16-16	22	31	400
B-R-0613	BNV	3/8-19	13/16-16	22	33	400
B-R-0809		1/2-14	9/16-18			
B-R-0811		1/2-14	11/16-16	12	24	
B-R-0813	BNZ	1/2-14	13/16-16	27	38	350
B-R-0816	BOC	1/2-14	1-14	27	41	350
B-R-0819	BOD	1/2-14	1.3/16-12	32	43	350
B-R-1213	BOF	3/4-14	13/16-16	32	41	315
B-R-1216	BOG	3/4-14	1-14	32	44	315
B-R-1219	BOH	3/4-14	1.3/16-12	32	45	315
B-R-1223	BOI	3/4-14	1.7/16-12	41	47	315
B-R-1619	BOJ	1-11	1.3/16-12	41	50	250
B-R-1623	BOK	1-11	1.7/16-12	41	50	250
B-R-1627	BOM	1-11	1.11/16-12	46	52	250
B-R-2023	BON	1.1/4-11	1.7/16-12	50	53	200
B-R-2027	BOO	1.1/4-11	1.11/16-12	50	53	200
B-R-2423		1.1/2-11	1.7/16-12	22	34	
B-R-2427		1 1/2-11	1 11/16-12			
B-R-2432	BOR	1.1/2-11	2-12	55	55	160

B-RK

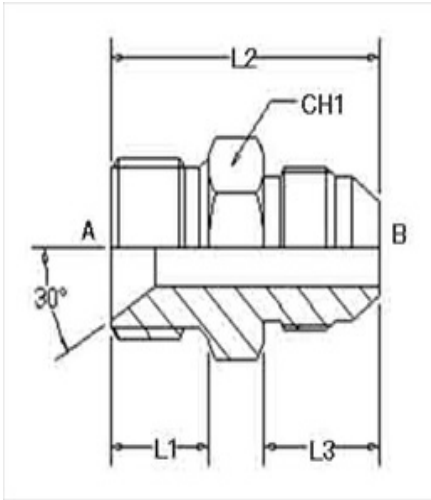
BSP MALE X ORFS BULKHEAD
BSP 60° CONE MALE X ORFS BULKHEAD STRAIGHT



Part Number	T1	T2
B-RK-0813	1/2-14	13/16-16
B-RK-0816	1/2-14	1-14

B-AX

BSP MALE X JIS BSP MALE
BSP 60° CONE MALE X JIS BSP 30° FLARE MALE
STRAIGHT



Part Number	A	B
B-AX-0808	1/2-14	1/2-14

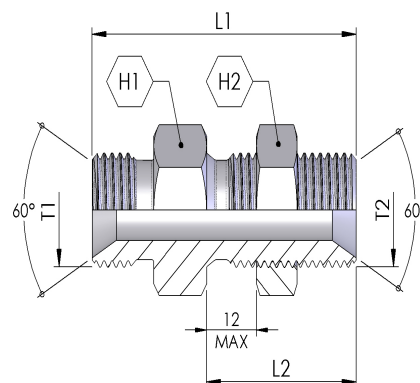
B-BK

BSP MALE X BSP BULKHEAD

BSP 60° CONE MALE X BSP 60° CONE BULKHEAD

STRAIGHT

- ISO 8434-6



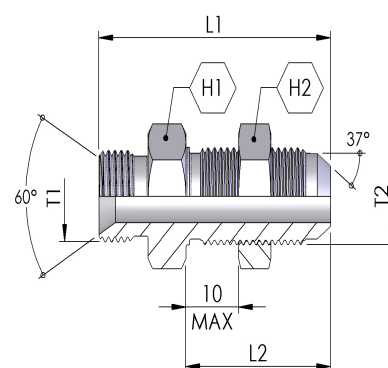
Part Number	Short Code	T1	T2	H1	H2	L1	L2	PN (bar)
B-BK-0202		1/8-28	1/8-28					
B-BK-0404	BAU	1/4-19	1/4-19	19	19	47	29	400
B-BK-0606	BAV	3/8-19	3/8-19	22	22	52	31	400
B-BK-0806		1/2-14	3/8-19					
B-BK-0808	BAX	1/2-14	1/2-14	27	27	60	34	350
B-BK-1212	BAZ	3/4-14	3/4-14	32	32	66	37	315
B-BK-1616	BBB	1-11	1-11	41	41	74	41	250
B-BK-2020	BBC	1.1/4-11	1.1/4-11	50	50	81	45	200
B-BK-2424	BBD	1.1/2-11	1.1/2-11	55	55	88	49	160

B-GK

BSP MALE X JIC BULKHEAD

BSP 60° CONE MALE X JIC 37° FLARE BULKHEAD

STRAIGHT



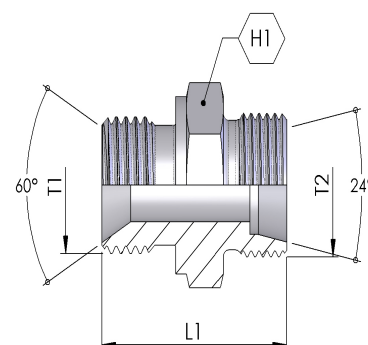
Part Number	T1	T2	L1 (mm)	L2 (mm)	H1 (mm)	H2 (mm)
B-GK-0407	1/4-19	7/16-20				
B-GK-0609	3/8-19	9/16-18	53	33	22	19
B-GK-0812	1/2-14	3/4-16	59	37	27	22
B-GK-0814	1/2-14	7/8-14	64	40	27	27
B-GK-1217	3/4-14	1.1/16-12	73	44	36	36

B-ML

BSP MALE X MET LIGHT MALE

BSP 60° CONE MALE X METRIC 24° CONE LIGHT
MALE STRAIGHT

- For BSP Stud Ends Refer BX-ML series



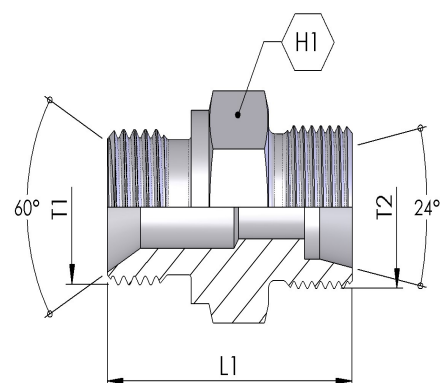
Part Number	Suits Tube	T1	T2	L1 (mm)	H1 (mm)	Working Pressure - bar
B-ML-0412	6	1/4-19	M12-1.5	29	19	315
B-ML-0414	8	1/4-19	M14-1.5	29	19	315
B-ML-0416	10	1/4-19	M16-1.5	30	19	315
B-ML-0614	8	3/8-19	M14-1.5	30.5	22	315
B-ML-0616	10	3/8-19	M16-1.5	31.5	22	315
B-ML-0618	12	3/8-19	M18-1.5	31.5	22	315
B-ML-0622	15	3/8-19	M22-1.5	31.5	22	315
B-ML-0814	8	1/2-14	M14-1.5	33	27	315
B-ML-0816	10	1/2-14	M16-1.5	34	27	315
B-ML-0818	12	1/2-14	M18-1.5	34	27	315
B-ML-0822	15	1/2-14	M22-1.5	35	27	315
B-ML-0826	18	1/2-14	M26-1.5	36	27	315
B-ML-1218	12	3/4-14	M18-1.5	39	32	315
B-ML-1222	15	3/4-14	M22-1.5	38	32	160
B-ML-1226	18	3/4-14	M26-1.5	38	32	160
B-ML-1230	22	3/4-14	M30-2	40	32	160
B-ML-1636	28	1-11	M36-2	43	41	160

B-MS

BSP MALE X MET HEAVY MALE

BSP 60° CONE MALE X METRIC 24° CONE HEAVY
MALE STRAIGHT

- For BSP Stud Ends Refer BX-MS series



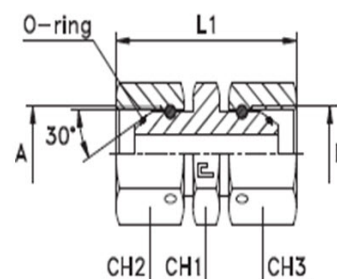
Part Number	Suits Tube	T1	T2	L1 (mm)	H1 (mm)	Working Pressure - bar
B-MS-0414	6	1/4-19	M14-1.5	32	19	630
B-MS-0416	8	1/4-19	M16-1.5	34	19	630
B-MS-0614	6	3/8-19	M14-1.5	35	22	630
B-MS-0616	8	3/8-19	M18-1.5	34.5	22	630
B-MS-0618	10	3/8-19	M18-1.5	34.5	22	630
B-MS-0620	12	3/8-19	M20-1.5	36.5	22	630
B-MS-0622	14	3/8-19	M22-1.5	38.5	24	630
B-MS-0818	10	1/2-14	M18-1.5	39	27	630
B-MS-0820	12	1/2-14	M20-1.5	39	27	630
B-MS-0822	14	1/2-14	M22-1.5	41	27	630
B-MS-0824	16	1/2-14	M24-1.5	41	27	400
B-MS-1230	20	3/4-14	M30-2	47	32	400
B-MS-1236	25	3/4-14	M36-2	51	41	400
B-MS-1636	25	1-11	M36-2	53	41	400
B-MS-1642	30	1-11	M36-2	55	41	400

C-C

BSP FEMALE X BSP FEMALE

BSP 60° CONE FEMALE SWIVEL NUT X BSP 60°

CONE FEMALE SWIVEL NUT STRAIGHT

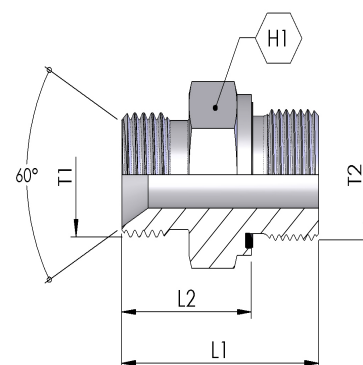


Part Number	A	L1	CH1	CH2	CH3
C-C-0404	1/4 - 19	40.5	19	19	19
C-C-0606	3/8 - 19	42.5	22	22	22
C-C-0808	1/2 - 14	49.5	27	27	27
C-C-1212	3/4 - 14	59	32	32	32

B-MX

BSP MALE X MET MALE

BSP 60° CONE MALE X METRIC STUD CAPTIVE
SEAL



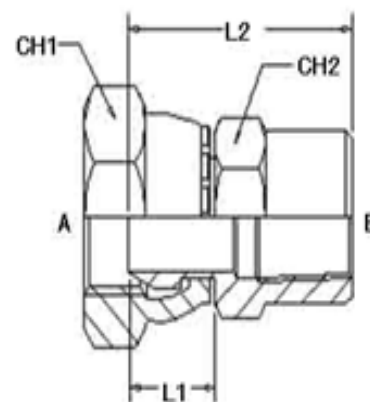
Part Number	T1	T2
B-MX-0412	1/4-19	M12-1.5
B-MX-0414	1/4-19	M14-1.5
B-MX-0612	3/8-19	M12-1.5
B-MX-0614	3/8-19	M14-1.5
B-MX-0616	3/8-19	M16-1.5
B-MX-0618	3/8-19	M18-1.5
B-MX-0622	3/8-19	M22-1.5
B-MX-0814	1/2-14	M14-1.5
B-MX-0816	1/2-14	M16-1.5
B-MX-0818	1/2-14	M18-1.5
B-MX-0820	1/2-14	M20-1.5
B-MX-0822	1/2-14	M22-1.5
B-MX-0824	1/2-14	M24-1.5
B-MX-1222	3/4-14	M22-1.5
B-MX-1226	3/4-14	M26-1.5
B-MX-1227	3/4-14	M27-2
B-MX-1230	3/4-14	M30-2

C-E

BSP FEMALE X BSPT FEMALE

BSP 60° CONE FEMALE SWIVEL NUT X BSPT FIXED

FEMALE STRAIGHT



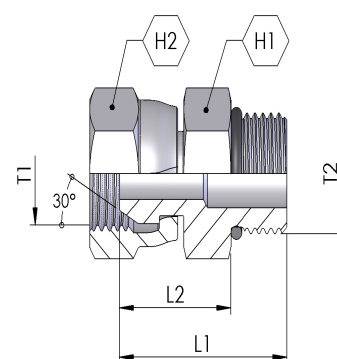
Part Number	A	B	L1	L2	L3	CH1	CH2
C-E-0404	1/4-19	1/4-19	11	29	10	19	19
C-E-0606	3/8-19	3/8-19	13	32	11	25	22
C-E-0808	1/2-14	1/2-14	15	41	16	27	27
C-E-1212	3/4-14	3/4-14	17	45	16	35	32
C-E-1616	1-11	1-11	18	51	19	41	41

C-N

BSP FEMALE X UNO MALE

BSP 60° CONE FEMALE SWIVEL NUT X UNO FIXED

STUD STRAIGHT



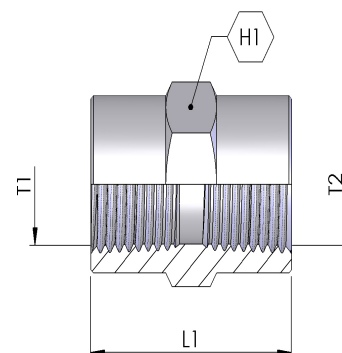
Part Number	Short Code	T1	T2	H1	L1	L2	PN (bar)
C-N-0612		3/8-19	3/4-16	13	11	55	22
C-N-0614	BSB	3/8-19	7/8-14	27	36	23	250
C-N-0812		1/2-14	3/4-16	15	11	22	27
C-N-0814		1/2-14	7/8-14	15	13	25	27
C-N-1217		3/4-14	1.1/16-12	17	15	32	32
C-N-1621		1-11	1.5/16-12				

E-E

BSPT FEMALE X BSPT FEMALE

BSPT FIXED FEMALE X BSPT FIXED FEMALE

STRAIGHT



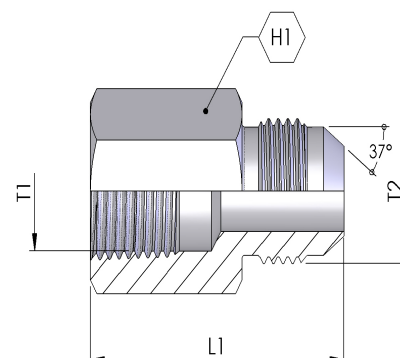
Part Number	Short Code	T1	T2	H1	L1	PN (bar)
E-E-0202	BST	1/8-28	1/8-28	14	20	345
E-E-0204	BSU	1/8-28	1/4-19	19	24	275
E-E-0404	BSV	1/4-19	1/4-19	19	30	275
E-E-0406	BSW	1/4-19	3/8-19	22	30	210
E-E-0408		1/4-19	1/2-14	27	34	
E-E-0606	BSY	3/8-19	3/8-19	22	30	210
E-E-0608	BSZ	3/8-19	1/2-14	27	35	210
E-E-0808	BTA	1/2-14	1/2-14	27	38	210
E-E-0812	BTB	1/2-14	3/4-14	36	40	170
E-E-1212	BTC	3/4-14	3/4-14	36	40	170
E-E-1216	BTD	3/4-14	1-11	41	45	140
E-E-1616	BTE	1-11	1-11	41	48	140
E-E-1620	BTF	1-11	1.1/4-11	50	50	80
E-E-2020	BTG	1.1/4-11	1.1/4-11	50	50	80
E-E-2024		1.1/4-11	1.1/2-11			
E-E-2424	BTI	1.1/2-11	1.1/2-11	60	50	70
E-E-3232	BTJ	2-11	2-11	74	60	70

E-G

BSPT FEMALE X JIC MALE

BSPT FIXED FEMALE X JIC 37° FLARE MALE

STRAIGHT

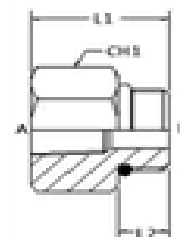


Part Number	Short Code	T1	T2	H1	L1	PN (bar)
E-G-0207	BUI	1/8-28	7/16-20	14	30	345
E-G-0407	BUJ	1/4-19	7/16-20	19	35	275
E-G-0408		1/4-19	1/2-20			
E-G-0409	BUL	1/4-19	9/16-18	19	35	275
E-G-0609	BUM	3/8-19	9/16-18	22	37	210
E-G-0612	BUN	3/8-19	3/4-16	22	39	210
E-G-0809	BUO	1/2-14	9/16-18	27	43	210
E-G-0812	BUP	1/2-14	3/4-16	27	46	210
E-G-0814	BUQ	1/2-14	7/8-14	27	48	210
E-G-1217	BUR	3/4-14	1.1/16-12	36	52	170
E-G-1621	BUS	1-11	1.5/16-12	41	60	140
E-G-2026		1.1/4-11	1.5/8-12			

E-N

BSPT FEMALE X UNO MALE

BSPT FIXED FEMALE X UNO FIXED STUD STRAIGHT

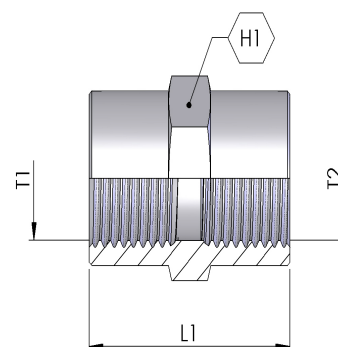


Part Number	A	B	L1	L2	CH1
E-N-0212	1/8-28	3/4-16	19	11	22
E-N-0409	1/4-19	9/16-18	28	10	19
E-N-0412	1/4-19	3/4-16	27	11	22
E-N-0414	1/4-19	7/8-14	25	13	25
E-N-0417	1/4-19	1.1/16-12	29	15	32
E-N-0617	3/8-19	1.1/16-12	33	15	32
E-N-0812	1/2-14	3/4-16	39	11	27
E-N-0814	1/2-14	7/8-14	33	13	27

F-F

BSP FEMALE X BSP FEMALE

BSP FIXED FEMALE X BSP FIXED FEMALE
STRAIGHT

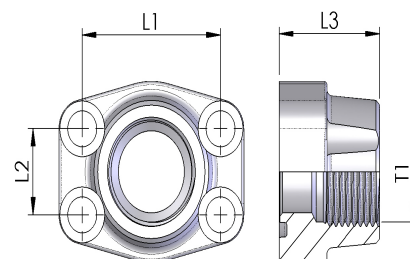


Part Number	Short Code	T1	T2	H1	L1	PN (bar)
F-F-0404	BVV	1/4-19	1/4-19	19	30	400
F-F-0606	BVX	3/8-19	3/8-19	24	30	400
F-F-0808	BVY	1/2-14	1/2-14	27	38	350
F-F-1212	BWA	3/4-14	3/4-14	36	40	315
F-F-1616	BWB	1-11	1-11	41	48	250
F-F-2020	BWC	1.1/4-11	1.1/4-11	55	50	200
F-F-2424	BWE	1.1/2-11	1.1/2-11	60	50	160

F-V

BSP FEMALE X SAE C61

BSP FIXED FEMALE X SAE CODE 61 FLANGE BLOCK

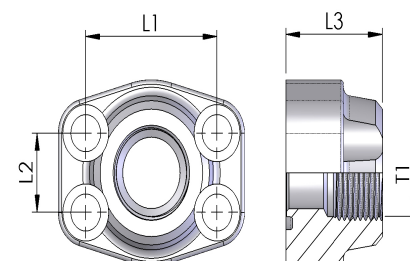


Part Number	T1	Nominal SAE Flange Size	L1 (mm)	L2 (mm)	L3 - mm	Suits metric bolts	Suits imperial bolts
F-V-0808	1/2-14	1/2	38.1	17.48	36	M8x30	5/16x1.1/4
F-V-1212	3/4-14	3/4	47.6	22.23	36	M10x35	3/8x1.1/2
F-V-1616	1-11	1	52.37	26.19	38	M10x35	3/8x1.1/2
F-V-2020	1.1/4-11	1.1/4	58.72	30.18	40	M10x40	7/16x1.3/4
F-V-2424	1.1/2-11	1.1/2	69.85	35.71	45	M12x45	1/2x1.3/4
F-V-3232	2-11	2	77.77	42.88	45	M12x45	1/2x1.3/4

F-VH

BSP FEMALE X SAE C62

BSP FIXED FEMALE X SAE CODE 62 FLANGE BLOCK

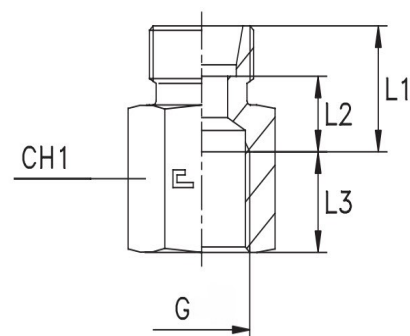


Part Number	T1	Nominal SAE Flange Size	L1 (mm)	L2 (mm)	L3 - mm	Suits metric bolts	Suits imperial bolts
F-VH-0808	1/2-14	1/2	40.49	18.24	36	M8x30	5/16x1.1/4
F-VH-1212	3/4-14	3/4	50.8	23.8	36	M10x35	3/8x1.1/2
F-VH-1616	1-11	1	57.15	27.76	42	M10x35	3/8x1.1/2
F-VH-2020	1.1/4-11	1.1/4	66.68	31.75	45	M10x40	7/16x1.3/4
F-VH-2424	1.1/2-11	1.1/2	79.38	36.5	50	M12x45	1/2x1.3/4
F-VH-3232	2-11	2	96.82	44.45	65	M12x45	1/2x1.3/4

F-ML

BSP FEMALE X MET LIGHT MALE

BSP SOLID FEMALE X METRIC 24° CONE LIGHT
MALE STRAIGHT



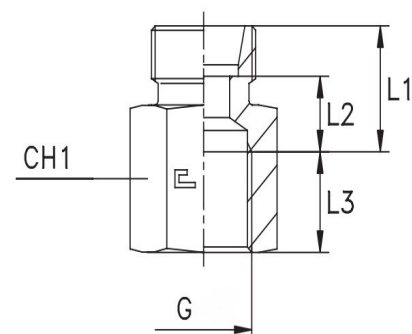
Part Number	BSPP Male Thread	Metric Male Thread	Suits Tube	L1 - mm	L2 - mm	L3 - mm	Hex A/F (CH1)	NP (bar)
F-ML-0414	1/4-19	M14-1.5	8	17	10	14	19	315
F-ML-0416	1/4-19	M16-1.5	10	18	11	14	19	315
F-ML-0418	1/4-19	M18-1.5	12	18	12	14	19	315
F-ML-0618	3/8-19	M18-1.5	12	19	12	14	24	315
F-ML-0822	1/2-14	M22-1.5	15	21	14	17	27	315
F-ML-1230	3/4-14	M30-2	22	24	16	19	36	160
F-ML-1636	1-11	M36-2	28	23.5	16	21.5	41	160

F-MS

BSP FEMALE X MET HEAVY MALE

BSP SOLID FEMALE X METRIC 24° CONE HEAVY

MALE STRAIGHT



Part Number	BSPP Male Thread	Metric Male Thread	Suits Tube	L1 - mm	L2 - mm	L3 - mm	Hex A/F (CH1)	NP (bar)
F-MS-0620	3/8-19	M20-1.5	12	20	13	14	24	630
F-MS-0822	1/2-14	M22-1.5	14	23	15	17	30	630
F-MS-0824	1/2-14	M24-1.5	16	23	15	17	30	400
F-MS-1230	3/4-12	M30-2	20	26	16	19	36	400
F-MS-1636	1-11	M36-2	25	27.5	16	21.5	41	400
F-MS-2042	1.1/4-11	M42-2	30	32.5	19	23.5	55	400
F-MS-2452	1.1/2-11	M52-2	38	34.5	19	25.5	60	315

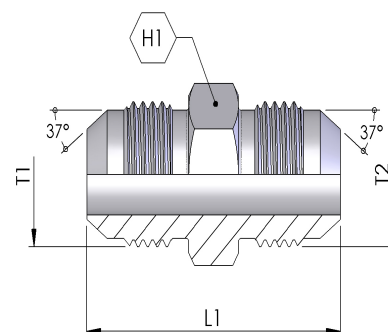
G-G

JIC MALE X JIC MALE

JIC 37° FLARE MALE X JIC 37° FLARE MALE

STRAIGHT

- ISO 8434-2



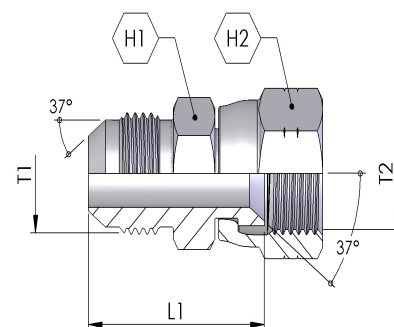
Part Number	Short Code	T1	T2	H1	L1	PN (bar)
G-G-0707	CBR	7/16-20	7/16-20	12	35	350
G-G-0709		7/16-20	9/16-18	17	36	
G-G-0808		1/2-20	1/2-20	14	35	
G-G-0809		1/2-20	9/16-18	16	36	
G-G-0909	CBZ	9/16-18	9/16-18	17	36	350
G-G-0912		9/16-18	3/4-16	22	39	
G-G-0917		9/16-18	1.1/16-12			
G-G-1212	CCE	3/4-16	3/4-16	22	41	310
G-G-1214		3/4-16	7/8-14	24	46	
G-G-1217		3/4-16	1.1/16-12	30	50	
G-G-1414	CCH	7/8-14	7/8-14	24	48	240
G-G-1417		7/8-14	1.1/16-12	30	53	
G-G-1421		7/8-14	1.5/16-12	35	53	
G-G-1717	CCK	1.1/16-12	1.1/16-12	30	55	240
G-G-1721		1.1/16-12	1.5/16-12	36	56	
G-G-1919		1.3/16-12	1.3/16-12			
G-G-2121	CCP	1.5/16-12	1.5/16-12	36	57	210
G-G-2126		1.5/16-12	1.5/8-12			
G-G-2626	CCR	1.5/8-12	1.5/8-12	46	62	170
G-G-3030		1.7/8-12	1.7/8-12	50	70	
G-G-4040	CCT	2.1/2-12	2.1/2-12	65	87	105

G-J

JIC MALE X JIC FEMALE

JIC 37° FLARE MALE X JIC 37° FLARE FEMALE

SWIVEL NUT STRAIGHT



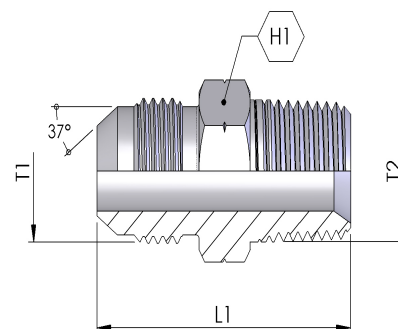
Part Number	Short Code	T1	T2	H1	H2	L1	PN (bar)
G-J-0707	CHG	7/16-20	7/16-20	12	14	29	350
G-J-0909	CHM	9/16-18	9/16-18	17	19	31	350
G-J-1212	CHN	3/4-16	3/4-16	22	22	35	310
G-J-1414	CHR	7/8-14	7/8-14	24	27	40	240
G-J-1417		7/8-14	1.1/16-12	27	32	44	
G-J-1717	CHT	1.1/16-12	1.1/16-12	30	32	46	240
G-J-2121		1.5/16-12	1.5/16-12	35	38	48	

G-L

JIC MALE X NPTF MALE

JIC 37° FLARE MALE X NPTF MALE STRAIGHT

- SAE J514

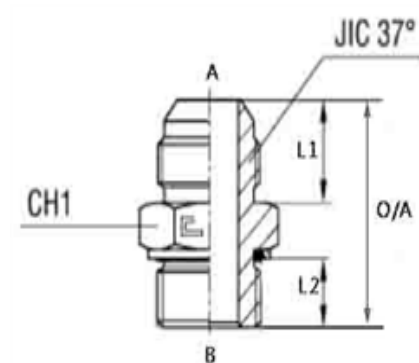


Part Number	Short Code	T1	T2	H1	L1	PN (bar)
G-L-0702	CLJ	7/16-20	1/8-27	12	31	345
G-L-0704	CLK	7/16-20	1/4-18	14	36	275
G-L-0802	CLM	1/2-20	1/8-27	14	31	345
G-L-0804	CLN	1/2-20	1/4-18	14	36	275
G-L-0806	CLO	1/2-20	3/8-18	19	36	210
G-L-0902	CLP	9/16-18	1/8-27	17	32	345
G-L-0904	CLQ	9/16-18	1/4-18	17	36	275
G-L-0906	CLR	9/16-18	3/8-18	19	37	210
G-L-0908	CLS	9/16-18	1/2-14	22	43	210
G-L-1204	CLU	3/4-16	1/4-18	22	39	275
G-L-1206	CLV	3/4-16	3/8-18	22	39	210
G-L-1208	CLW	3/4-16	1/2-14	22	46	210
G-L-1212	CLX	3/4-16	3/4-14	27	47	170
G-L-1408	CLZ	7/8-14	1/2-14	24	48	210
G-L-1412	CMA	7/8-14	3/4-14	27	50	170
G-L-1416	CMB	7/8-14	1-11.1/2	36	55	140
G-L-1708	CMD	1.1/16-12	1/2-14	30	52	210
G-L-1712	CME	1.1/16-12	3/4-14	30	52	170
G-L-1720	CMG	1.1/16-12	1.1/4-11.1/2	46	60	80
G-L-2112	CMJ	1.5/16-12	3/4-14	36	54	170
G-L-2116	CMK	1.5/16-12	1-11.1/2	36	58	140
G-L-2120	CML	1.5/16-12	1.1/4-11.1/2	46	61	80
G-L-2616	CMM	1.5/8-12	1-11.1/2	46	61	140
G-L-2620	CMN	1.5/8-12	1.1/4-11.1/2	46	62	80
G-L-2624	CMO	1.5/8-12	1.1/2-11.1/2	50	65	70
G-L-3020	CMP	1.7/8-12	1.1/4-11.1/2	50	67	80
G-L-3024	CMQ	1.7/8-12	1.1/2-11.1/2	50	68	70

G-M

JIC MALE X MET MALE

JIC 37° FLARE MALE X METRIC MALE STRAIGHT



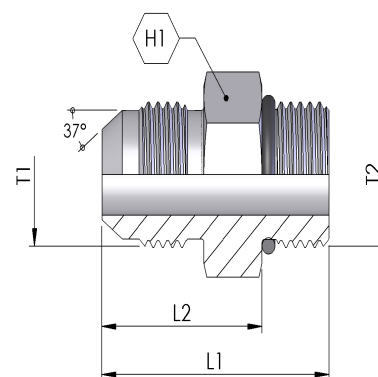
Part Number	A	B	O/A	L1	L2	CH1
G-M-0710	7/16-20	M10-1	23	8	14	14
G-M-0912	9/16-18	M12-1.5	21	12	14	17
G-M-0914	9/16-18	M14-1.5	22	10	14	19
G-M-0916	9/16-18	M16-1.5	24	11	14	22
G-M-0918	9/16-18	M18-1.5	23	12	15	22
G-M-0922	9/16-18	M22-1.5				
G-M-1218	3/4-16	M18-1.5	27	13	17	24
G-M-1220	3/4-16	M20-1.5				
G-M-1222	3/4-16	M22-1.5	24	14	17	27
G-M-1422	7/8-14	M22-1.5	31	14	19	27

G-N

JIC MALE X UNO MALE

JIC 37° FLARE MALE X UNO FIXED STUD STRAIGHT

- ISO 8434-2



Part Number	Short Code	T1	T2	H1	L1	L2	PN (bar)
G-N-0707	CPZ	7/16-20	7/16-20	14	31	22	315
G-N-0709	CQA	7/16-20	9/16-18	17	33	23	315
G-N-0712		7/16-20	3/4-16	22	35	14	
G-N-0807		1/2-20	7/16-20	14	33	14	

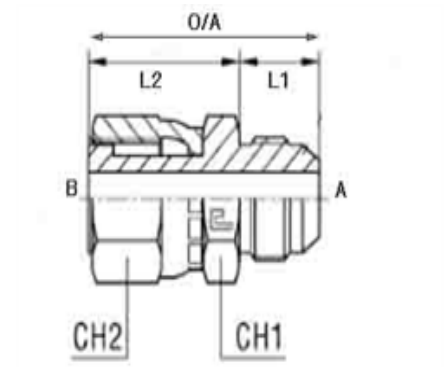
G-N-0808		1/2-20	1/2-20				
G-N-0809		1/2-20	9/16-18	18	33	14	
G-N-0812		1/2-20	3/4-16				
G-N-0814		1/2-20	7/8-14				
G-N-0907		9/16-18	7/16-20	16	32	14	
G-N-0908		9/16-18	1/2-20	16	32	14	
G-N-0909	CQK	9/16-18	9/16-18	17	33	23	315
G-N-0912	CQM	9/16-18	3/4-16	22	35	24	315
G-N-0914		9/16-18	7/8-14	25	38	14	
G-N-0917		9/16-18	1.1/16-12	32	42	14	
G-N-1209		3/4-14	9/16-18	21	37	17	
G-N-1212	CQS	3/4-16	3/4-16	22	38	27	310
G-N-1214	CQT	3/4-16	7/8-14	27	41	28	250
G-N-1217		3/4-14	1.1/16-12	32	45	17	
G-N-1219		3/4-14	1.3/16-12				
G-N-1221		3/4-14	1.5/16-12	38	45	17	
G-N-1409		7/8-14	9/16-18				
G-N-1412		7/8-14	3/4-16	24	42	19	
G-N-1414	CQZ	7/8-14	7/8-14	27	43	30	240
G-N-1417		7/8-14	1.1/16-12	32	47	19	
G-N-1421		7/8-14	1.5/16-12	38	48	19	
G-N-1712		1.1/16-12	3/4-16	29	49	22	
G-N-1714		1.1/16-12	7/8-14	29	48	22	
G-N-1717	CRF	1.1/16-12	1.1/16-12	32	50	35	240
G-N-1719		1.1/16-12	1.3/16-12				
G-N-1721		1.1/16-12	1.5/16-12	38	51	22	
G-N-1726		1.1/16-12	1.5/8-12	48	53	22	
G-N-1917		1.3/16-12	1.1/16-12				
G-N-1919		1.3/16-12	1.3/16-12				
G-N-2117		1.5/16-12	1.1/16-12	35	52	23	
G-N-2119		1.5/16-12	1.3/16-12				
G-N-2121		1.5/16-12	1.5/16-12	38	52	23	
G-N-2126		1.5/16-12	1.5/8-12	48	54	23	
G-N-2621		1.5/8-12	1.5/16-12	43	59	24	
G-N-2626		1.5/8-12	1.5/8-12	48	55	24	
G-N-2630		1.5/8-12	1.7/8-12	54	57	24	
G-N-3026		1.7/8-12	1.5/8-12	51	64	28	
G-N-3030		1.7/8-12	1.7/8-12				

G-T

JIC MALE X ORFS FEMALE

JIC 37° FLARE MALE X ORFS FEMALE SWIVEL NUT

STRAIGHT



Part Number	A	B	O/A	L1	L2	CH1
G-T-0709	7/16-20	9/16-18	32	10	14	17
G-T-0911	9/16-18	11/16-16	27	14	22	22
G-T-1213	3/4-16	13/16-16	30	17	24	24
G-T-1719	1.1/16-12	1.3/16-12	41	22	36	36
G-T-2623	1.5/8-12	1.7/16-12				

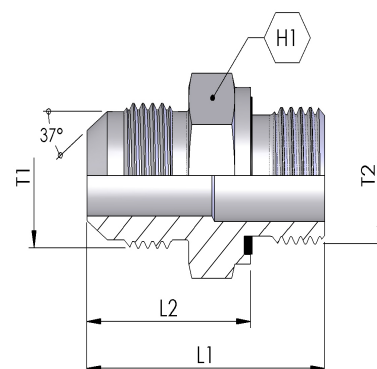
G-BX

JIC MALE X BSP MALE

JIC 37° FLARE MALE STRAIGHT X BSP STUD

CAPTIVE SEAL STRAIGHT

- ISO 8434-2



Part Number	Short Code	T1	T2	H1	L1	L2	PN (bar)
G-BX-0704	CAT	7/16-20	1/4-19	19	35	23	350
G-BX-0706	CAU	7/16-20	3/8-19	22	36	24	350
G-BX-0904	CAV	9/16-18	1/4-19	19	35	23	350
G-BX-0906	CAW	9/16-18	3/8-19	22	36	24	350
G-BX-0908	CAX	9/16-18	1/2-14	27	40	26	350
G-BX-1206	CAY	3/4-16	3/8-19	22	39	27	310
G-BX-1208	CAZ	3/4-16	1/2-14	27	42	28	310
G-BX-1212	CBA	3/4-16	3/4-14	32	46	30	310
G-BX-1408	CBB	7/8-14	1/2-14	27	45	31	240
G-BX-1412	CBC	7/8-14	3/4-14	32	48	32	240
G-BX-1708	CBD	1.1/16-12	1/2-14	30	49	35	240
G-BX-1712	CBE	1.1/16-12	3/4-14	32	51	35	240
G-BX-1716	CBF	1.1/16-12	1-11	41	54	36	240
G-BX-1720	CBG	1.1/16-12	1.1/4-11	50	58	38	240
G-BX-2112	CBH	1.5/16-12	3/4-14	36	53	37	210
G-BX-2116	CBI	1.5/16-12	1-11	41	55	37	210
G-BX-2120	CBJ	1.5/16-12	1.1/4-11	50	60	40	210
G-BX-2616	CBK	1.5/8-12	1-11	46	58	40	170
G-BX-2620	CBL	1.5/8-12	1.1/4-11	50	60	40	170
G-BX-2624	CBM	1.5/8-12	1.1/2-11	55	64	42	170

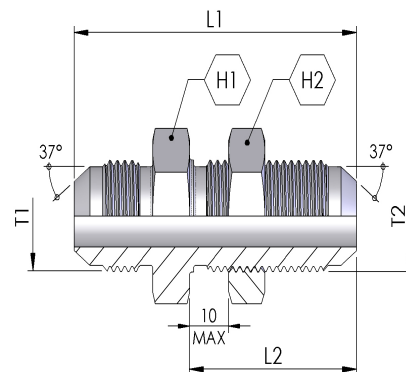
G-GK

JIC MALE X JIC BULKHEAD

JIC 37° FLARE MALE X JIC 37° FLARE BULKHEAD

STRAIGHT

- ISO 8434-2



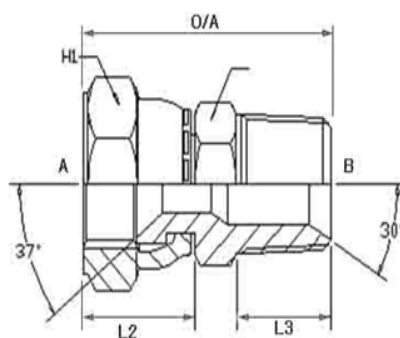
Part Number	Short Code	T1	T2	H1	H2	L1	L2	PN (bar)
G-GK-0707	CFR	7/16-20	7/16-20	17	17	53	32	350
G-GK-0909	CFT	9/16-18	9/16-18	22	22	56	34	350
G-GK-1212	CFU	3/4-16	3/4-16	24	24	62	38	310
G-GK-1414	CFV	7/8-14	7/8-14	30	30	70	41	240
G-GK-1717	CFW	1.1/16-12	1.1/16-12	36	36	79	45	240
G-GK-2121	CFY	1.5/16-12	1.5/16-12	41	41	80	45	210
G-GK-2626	CFZ	1.5/8-12	1.5/8-12	50	50	84	47	170

J-L

JIC FEMALE X NPTF MALE

JIC 37° FLARE FEMALE SWIVEL NUT X NPTF MALE

STRAIGHT



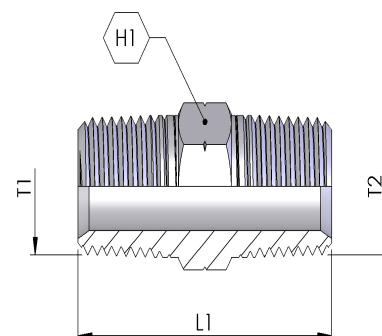
Part Number	A	B	O/A	L1	L2	H1	H2
J-L-1406	7/8-14	3/8-18	36	13	14	22	25
J-L-1408	7/8-14	1/2-14	45	13	19	24	25
J-L-1708	1.1/16-12	1/2-14	43	13	19	29	32
J-L-2112	1.5/16-12	3/4-14	44	15	19	32	40

L-L

NPTF MALE X NPTF MALE

NPTF MALE X NPTF MALE STRAIGHT

- SAE J514

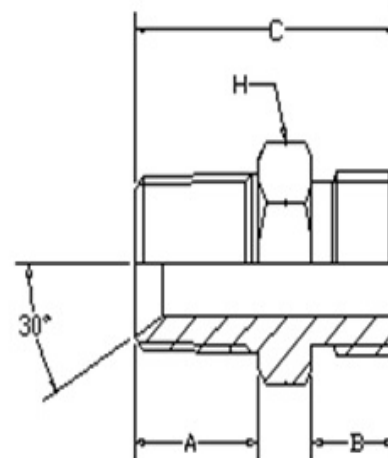


Part Number	Short Code	T1	T2	H1	L1	PN (bar)
L-L-0202	DEB	1/8-27	1/8-27	12	27	345
L-L-0204	DEC	1/8-27	1/4-18	14	32	275
L-L-0404	DED	1/4-18	1/4-18	14	37	275
L-L-0406	DEE	1/4-18	3/8-18	19	37	210
L-L-0408	DEF	1/4-18	1/2-14	22	43	210
L-L-0606	DEG	3/8-18	3/8-18	19	37	210
L-L-0608	DEH	3/8-18	1/2-14	22	43	210
L-L-0808	DEI	1/2-14	1/2-14	22	48	210
L-L-0812	DEK	1/2-14	3/4-14	27	50	170
L-L-1212	DEM	3/4-14	3/4-14	27	50	170
L-L-1216	DEN	3/4-14	1-11.1/2	36	54	140
L-L-1616	DEO	1-11.1/2	1-11.1/2	36	59	140
L-L-1620	DEP	1-11.1/2	1.1/4-11.1/2	46	62	80
L-L-2020	DEQ	1.1/4-11.1/2	1.1/4-11.1/2	46	63	80
L-L-3232	DET	2-11.1/2	2-11.1/2	65	72	70

L-N

NPTF MALE X UNO MALE

NPTF MALE X UNO FIXED STUD STRAIGHT



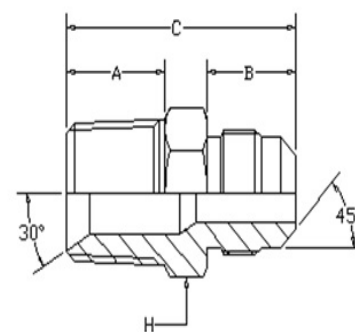
Part Number	NPTF Male Thread	UNF Male Thread	A	B	C	H
L-N-0612	3/8-18	3/4-14	35	14	11	22
L-N-0812	1/2-14	3/4-16	39	19	11	22

L-AA

NPTF MALE X SAE MALE

NPTF MALE X SAE 45° FLARE MALE STRAIGHT

- SAE J513



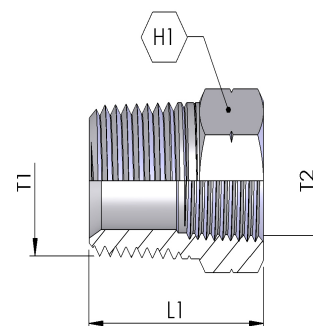
Part Number	NPTF Male Thread	SAE Male Thread	A	B	C	H
L-AA-0810	1/2-14	5/8-16	43	18	16	22
L-AA-0812	1/2-14	3/4-16	45	18	17	22
L-AA-1217	3/4-14	1.1/16-14	57	19	25	29

L-AC

NPTF MALE X NPTF FEMALE

NPTF MALE X NPTF FIXED FEMALE STRAIGHT

- SAE J514



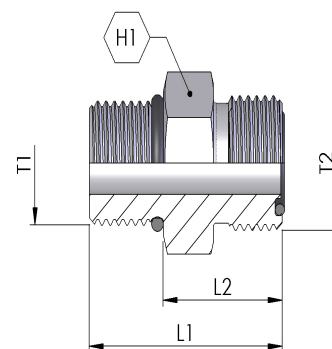
Part Number	Short Code	T1	T2	H1	L1	PN (bar)
L-AC-0202		1/8-27	1/8-27		16	
L-AC-0402	DCL	1/4-18	1/8-27	14	22	275
L-AC-0602	DCM	3/8-18	1/8-27	19	22	210
L-AC-0604	DCN	3/8-18	1/4-18	19	22	210
L-AC-0606		3/8-18	3/8-18			
L-AC-0802	DCQ	1/2-14	1/8-27	22	30	210
L-AC-0804	DCR	1/2-14	1/4-18	22	30	210
L-AC-0806	DCS	1/2-14	3/8-18	22	30	210
L-AC-0808		1/2-14	1/2-14			
L-AC-1206	DCW	3/4-14	3/8-18	27	30	170
L-AC-1208	DCX	3/4-14	1/2-14	27	30	170
L-AC-1608	DDA	1-11.1/2	1/2-14	36	35	140
L-AC-1612	DDB	1-11.1/2	3/4-14	36	35	140
L-AC-2012	DDC	1.1/4-11.1/2	3/4-14	46	37	80
L-AC-2016	DDD	1.1/4-11.1/2	1-11.1/2	46	37	80
L-AC-2416	DDF	1.1/2-11.1/2	1-11.1/2	50	40	70
L-AC-3224	DDI	2-11.1/2	1.1/2-11.1/2	65	45	70

N-R

UNO MALE X ORFS MALE

UNO FIXED STUD X ORFS MALE STRAIGHT

- SAE J1453



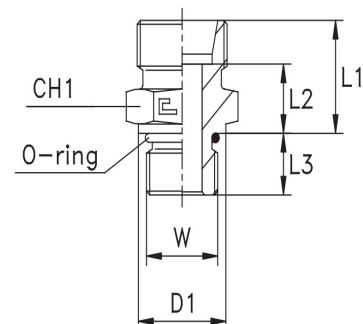
Part Number	Short Code	T1	T2	H1	L1	L2	PN (bar)
N-R-0709	DKD	7/16-20	9/16-18	17	29	18	630
N-R-0711		7/16-20	11/16-16	19	34	9	
N-R-0909	DKF	9/16-18	9/16-18	19	31	19	630
N-R-0911	DKG	9/16-18	11/16-16	19	32	20	630
N-R-0913	DKH	9/16-18	13/16-16	22	38	26	630
N-R-1209		3/4-16	9/16-18	22	29	11	
N-R-1211	DKJ	3/4-16	11/16-16	24	35	21	630
N-R-1213	DKK	3/4-16	13/16-16	24	37	23	630
N-R-1216	DKL	3/4-16	1-14	27	45	31	400
N-R-1413	DKM	7/8-14	13/16-16	27	41	25	630
N-R-1416	DKN	7/8-14	1-14	27	43	27	400
N-R-1713		1.1/16-12	13/16-16				
N-R-1716	DKQ	1.1/16-12	1-14	32	47	29	400
N-R-1719	DKR	1.1/16-12	1.3/16-12	32	49	30	400
N-R-1723		1.1/16-12	1.7/16-12				
N-R-2119		1.5/16-12	1.3/16-12				
N-R-2123	DKU	1.5/16-12	1.7/16-12	41	50	32	400
N-R-2623		1.5/8-12	1.7/16-12				
N-R-2627	DKW	1.5/8-12	1.11/16-12	50	53	34	250
N-R-3027		1.7/8-12	1.11/16-12				

N-ML

UNO MALE X METRIC LIGHT MALE

UNO FIXED STUD X METRIC 24° CONE LIGHT MALE

STRAIGHT



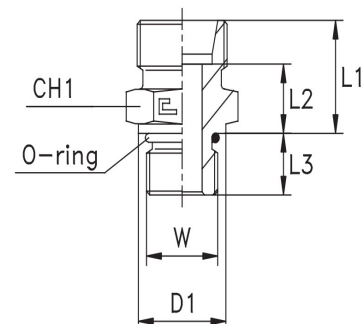
Part Number	W	Metric Male Thread	Suits Tube	D1 - mm	L1 - mm	L2 - mm	L3 - mm	CH1 (mm)
N-ML-0714	7/16-20	M14-1.5	8					
N-ML-0716	7/16-20	M16-1.5	10	13.8	17.9	10.9	9.1	17
N-ML-0814	1/2-20	M14-1.5	8					
N-ML-0914	9/16-18	M14-1.5	8					
N-ML-0916	9/16-18	M16-1.5	10					
N-ML-0918	9/16-18	M18-1.5	12	18.8	18	11	10	19
N-ML-1218	3/4-16	M18-1.5	12	21.8	19.9	12.9	11.1	22
N-ML-1222	3/4-16	M22-1.5	15	21.8	20.9	13.9	11.1	24
N-ML-1226	3/4-16	M26-1.5	18	21.8	21.9	14.4	11.1	27
N-ML-1418	7/8-14	M18-1.5	12	26.8	21.3	14.3	12.7	27
N-ML-1422	7/8-14	M22-1.5	15					
N-ML-1426	7/8-14	M26-1.5	18					
N-ML-1726	1.1/16-12	M26-1.5	18					
N-ML-1730	1.1/16-12	M30-2	22					
N-ML-2136	1.5/16-12	M36-2	28	40.8	24.9	17.4	15.1	41

N-MS

UNO MALE X METRIC HEAVY MALE

UNO FIXED STUD X METRIC 24° CONE HEAVY

MALE STRAIGHT

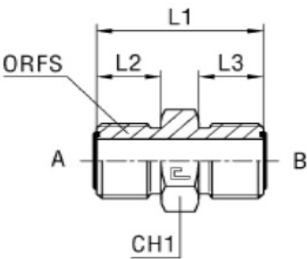


Part Number	W	Metric Male Thread	Suits Tube	D1 - mm	L1 - mm	L2 - mm	L3 - mm	CH1 (mm)
N-MS-0714	7/16-20	M14-1.5	6					
N-MS-0916	9/16-18	M16-1.5	8					
N-MS-0918	9/16-18	M18-1.5	10	18.8	22	14.5	10	19
N-MS-0920	9/16-18	M20-1.5	12					
N-MS-1220	3/4-16	M20-1.5	12	21.8	24.9	17.4	11.1	22
N-MS-1222	3/4-16	M22-1.5	14	21.8	23.9	15.9	11.1	24
N-MS-1224	3/4-16	M24-1.5	16	21.8	23.9	15.4	11.1	27
N-MS-1424	7/8-14	M24-1.5	16	26.8	27.3	18.8	12.7	27
N-MS-1430	7/8-14	M30-2	20	26.8	31.3	20.8	12.7	32
N-MS-1730	1.1/16-12	M30-2	20	31.8	30.9	20.4	15.1	32
N-MS-1736	1.1/16-12	M36-2	25	31.8	34.9	22.9	15.1	36
N-MS-2136	1.5/16-12	M36-2	25	40.8	34.9	22.9	15.1	41
N-MS-2642	1.5/8-12	M42-2	30	49.8	36.9	23.4	15.1	50

R-R

ORFS MALE X ORFS MALE
ORFS MALE X ORFS MALE STRAIGHT

- ISO 8434-3



Part Number	A	B	L1	L2	L3	CH1
R-R-0909	9/16-18	9/16-18	28	10	10	17
R-R-1111	11/16-16	11/16-16	31	11	11	19
R-R-1313	13/16-16	13/16-16	36	13	13	22
R-R-1616	1-14	1-14	43	16	16	27
R-R-1619	1-14	1.3/16-12	46	17	16	32
R-R-1919	1.3/16-12	1.3/16-12	47	17	17	32
R-R-2323	1.7/16-12	1.7/16-12	50	18	18	41

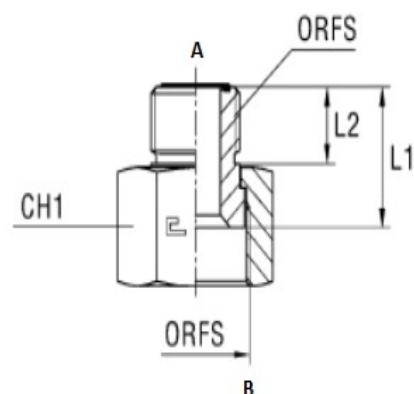
R-T

ORFS MALE X ORFS FEMALE

ORFS MALE X ORFS FEMALE SWIVEL NUT

STRAIGHT

- ISO 8434-3



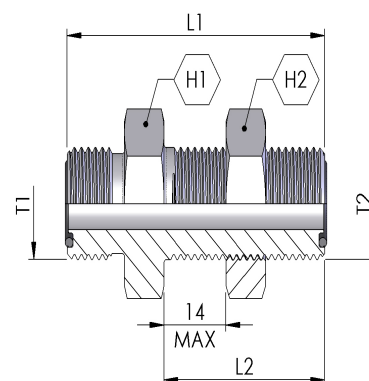
Part Number	A	B	L1	L2	CH1
R-T-0911	9/16-18	11/16-16			
R-T-0913	9/16-18	13/16-16			
R-T-1111	11/16-16	11/16-16	47	11	18
R-T-1311	13/16-16	11/16-16			
R-T-1313	13/16-16	13/16-16	44	14	24
R-T-1319	13/16-16	1 3/16-12	28	13	36
R-T-1323	13/16-16	1.7/16-12	29	13	41
R-T-1619	1-14	1.3/16-12			
R-T-1919	1.3/16-12	1.3/16-12			
R-T-1923	1.3/16-12	1.7/16-12	33	17	41
R-T-2319	1.7/16-12	1.3/16-12	69	18	32
R-T-2323	1.7/16-12	1.7/16-12			
R-T-2327	1.7/16-12	1.11/16-12	34	18	50

R-RK

ORFS MALE X ORFS BULKHEAD

ORFS MALE X ORFS BULKHEAD STRAIGHT

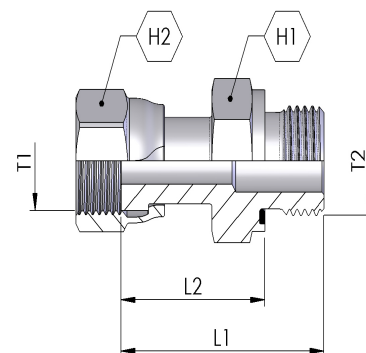
- ISO 8434-3



Part Number	T1	L1 (mm)	L2 (mm)	H1 (mm)	H2 (mm)
R-RK-0909	9/16-18	32	10	22	22
R-RK-1111	11/16-16	34	11	27	27
R-RK-1313	13/16-16	37	13	30	30
R-RK-1616	1-14	41	16	36	36
R-RK-1919	1.3/16-12	42	17	41	41
R-RK-2323	1.7/16-12	42	18	46	46
R-RK-2727	1.11/16-12	42	18	50	50
R-RK-3232	2-12	42	18	60	60

T-BX

ORFS FEMALE X BSPP MALE
WITH ENCAPSULATED SEAL



Part Number	T1	T2	H1	H2	L1	L2	PN (bar)
T-BX-0904	9/16-18	1/4-19	19	19	26.5	12	630
T-BX-1104	11/16-16	1/4-19	19	22	28.5	12	630
T-BX-1106	11/16-16	3/8-19	22	22	32.5	12	630
T-BX-1306	13/16-16	3/8-19	22	24	35.5	12	630
T-BX-1308	13/16-16	1/2-14	27	24	34	14	630
T-BX-1608	1-14	1/2-14	27	30	38	14	420
T-BX-1912	1.3/16-12	3/4-14	32	36	41.5	16	420
T-BX-2316	1.7/16-12	1-11	41	46	49	18	420

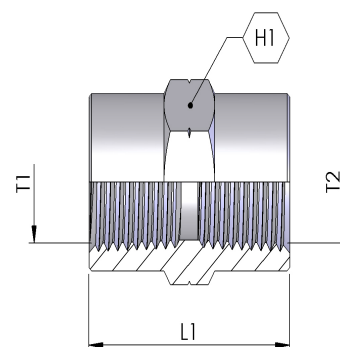
AC-AC

NPTF FEMALE X NPTF FEMALE

NPTF FIXED FEMALE X NPTF FIXED FEMALE

STRAIGHT

- SAE J514



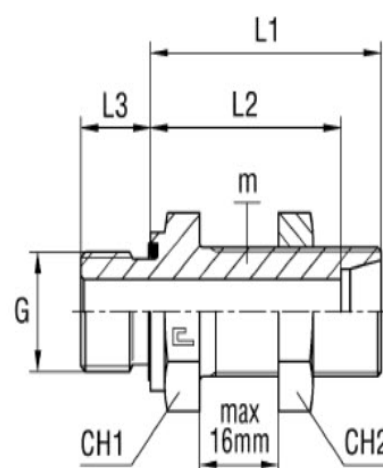
Part Number	Short Code	T1	T2	H1	L1	PN (bar)
AC-AC-0202	AIY	1/8-27	1/8-27	14	19	345
AC-AC-0404	AIZ	1/4-18	1/4-18	19	29	275
AC-AC-0606	AJA	3/8-18	3/8-18	22	29	210
AC-AC-0808	AJB	1/2-14	1/2-14	27	38	210
AC-AC-1212	AJC	3/4-14	3/4-14	36	39	170
AC-AC-1616	AJD	1-11.1/2	1-11.1/2	41	48	140
AC-AC-2020	AJE	1.1/4-11.1/2	1.1/4-11.1/2	50	49	80
AC-AC-2424	AJF	1.1/2-11.1/2	1.1/2-11.1/2	60	49	70
AC-AC-3232		2-11	2-11			

BX-MLK

BSP MALE X MET LIGHT BULKHEAD

BSP STUD CAPTIVE SEAL X METRIC 24° CONE

LIGHT BULKHEAD STRAIGHT



Part Number	G	M	L1	L2	L3	CH1	CH2
BX-MLK-0818	1/2	M18 - 1.5	43	36	14	27	23.8
BX-MLK-0822	1/2	M22 - 1.5	48	41	14	27	30

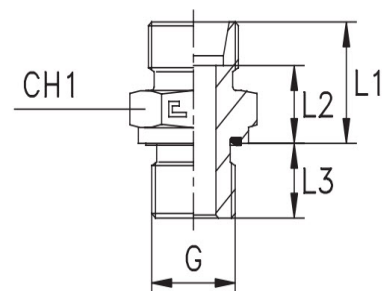
BX-ML

BSP STUD X MET LIGHT MALE

BSP STUD CAPTIVE SEAL X METRIC 24° CONE

LIGHT MALE STRAIGHT

- ISO 8434-1



Part Number	BSP Male Thread	Metric Male Thread	Suits Tube	L1 - mm	L2 - mm	L3 - mm	Hex A/F (CH1)	PN (bar)
BX-ML-0212	1/8-28	M12-1.5	6	15.5	8.5	8	14	315
BX-ML-0214	1/8-28	M14-1.5	8	16.5	9.5	8	14	315
BX-ML-0414	1/4-19	M14-1.5	8	17	10	12	19	315
BX-ML-0416	1/4-19	M16-1.5	10	18	11	12	19	315
BX-ML-0418	1/4-19	M18-1.5	12	19	12	12	19	315
BX-ML-0614	3/8-19	M14-1.5	8	18.5	11.5	12	22	315
BX-ML-0616	3/8-19	M16-1.5	10	22.5	15	12	22	315
BX-ML-0618	3/8-19	M18-1.5	12	24.5	17	12	22	315
BX-ML-0622	3/8-19	M22-1.5	15	20.5	13.5	12	24	315
BX-ML-0818	1/2-14	M18-1.5	12	20	13	14	27	315
BX-ML-0822	1/2-14	M22-1.5	15	21	14	14	27	315
BX-ML-0830	1/2-14	M30-2	22	24	16.5	14	32	160
BX-ML-1222	3/4-14	M22-1.5	15	22	15	16	32	315
BX-ML-1230	3/4-14	M30-2	22	24	16.5	16	32	160
BX-ML-1236	3/4-14	M36-2	28	25	17.5	16	41	160
BX-ML-1636	1-11	M36-2	28	25	17.5	18	41	160
BX-ML-2452	1.1/2-11	M52-2	42	30	19	22	55	160

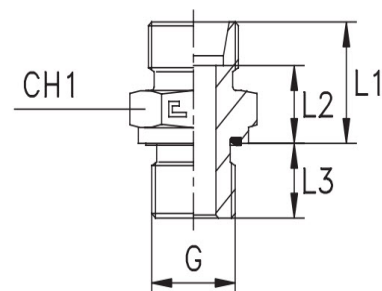
BX-MS

BSP STUD X MET HEAVY MALE

BSP STUD CAPTIVE SEAL X METRIC 24° CONE

HEAVY MALE STRAIGHT

- ISO 8434-1



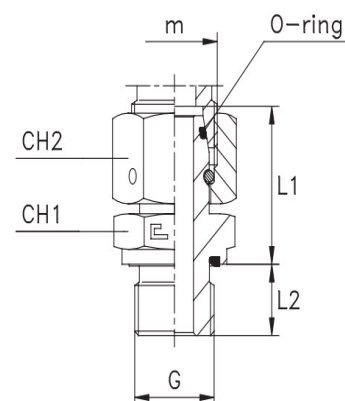
Part Number	BSP Male Thread	Metric Male Thread	Suits Tube	L1 - mm	L2 - mm	L3 - mm	Hex A/F (CH1)	NP (bar)
BX-MS-0414	1/4-19	M14-1.5	6	20	13	12	19	630
BX-MS-0416	1/4-19	M16-1.5	8	17	10	12	19	630
BX-MS-0418	1/4-19	M18-1.5	10	18	11	12	19	630
BX-MS-0420	1/4-19	M20-1.5	12	19	12	12	22	630
BX-MS-0618	3/8-19	M18-1.5	10	22.5	15	12	22	630
BX-MS-0620	3/8-19	M20-1.5	12	24.5	17	12	22	630
BX-MS-0624	3/8-19	M24-1.5	16	26.5	18	12	27	400
BX-MS-0818	1/2-14	M18-1.5	10	20	13	14	27	630
BX-MS-0820	1/2-14	M20-1.5	12	20	13	14	27	630
BX-MS-0822	1/2-14	M22-1.5	14	27	19	14	27	630
BX-MS-0824	1/2-14	M24-1.5	16	27	18.5	14	27	400
BX-MS-0830	1/2-14	M30-2	20	31	20.5	14	32	400
BX-MS-1224	3/4-14	M24-1.5	16	29	20.5	16	32	400
BX-MS-1230	3/4-14	M30-2	20	31	20.5	16	32	400
BX-MS-1236	3/4-14	M36-2	25	35	23	16	41	400
BX-MS-1636	1-11	M36-2	25	35	23	18	41	400
BX-MS-1642	1-11	M42-2	30	37	23.5	18	46	400
BX-MS-2042	1.1/4-11	M42-2	30	37	23.5	20	50	400
BX-MS-2052	1.1/4-11	M52-2	38	42	26	20	55	315
BX-MS-2452	1.1/2-11	M52-2	38	42	26	22	55	315

BX-UL

BSP STUD X MET LIGHT FEMALE

BSP STUD CAPTIVE SEAL X METRIC 24° CONE

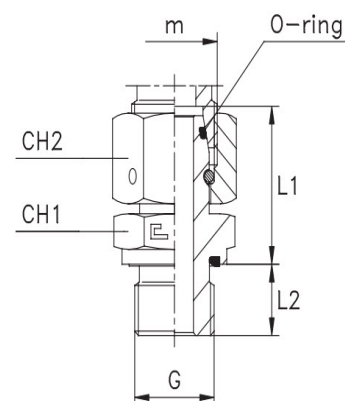
LIGHT FEMALE SWIVEL NUT STRAIGHT



Part Number	G	m	Suits Tube	L1	L2	CH1	CH2	NP (bar)
BX-UL-0212	1/8-28	M12-1.5	6	25	8	14	14	315
BX-UL-0414	1/4-19	M14-1.5	8	30	12	19	17	315
BX-UL-0416	1/4-19	M16-1.5	10	28	12	19	19	315
BX-UL-0618	3/8-19	M18-1.5	12	34	12	22	22	315
BX-UL-0822	1/2-14	M22-1.5	15	32	14	27	27	315
BX-UL-0826	1/2-14	M26-1.5	18	32	14	27	32	315
BX-UL-1230	3/4-14	M30-2	22	33	16	32	36	160
BX-UL-1636	1-11	M36-2	28	35	18	41	41	160

BX-US

BSP STUD X MET HEAVY FEMALE
BSP STUD CAPTIVE SEAL X METRIC 24° CONE
HEAVY FEMALE SWIVEL NUT STRAIGHT

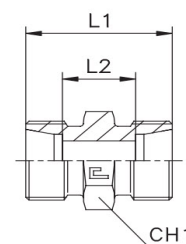


Part Number	G	m	Suits Tube	L1	L2	CH1	CH2	NP (bar)
BX-US-0414	1/4-19	M14-1.5	6	27	12	19	17	630
BX-US-0416	1/4-19	M16-1.5	8	30	12	19	19	630
BX-US-0618	3/8-19	M18-1.5	10	32	12	22	22	630
BX-US-0620	3/8-19	M20-1.5	12	34	12	22	24	630
BX-US-0820	1/2-14	M20-1.5	12					630
BX-US-0822	1/2-14	M22-1.5	14	37	14	27	27	630
BX-US-0824	1/2-14	M24-1.5	16	37	14	27	30	400
BX-US-1230	3/4-14	M30-2	20	43	16	32	36	400
BX-US-1636	1-11	M36-2	25	48	18	41	46	400
BX-US-2042	1.1/4-11	M42-1.5	30	51	20	50	50	400

ML-ML

MET LIGHT MALE X MET LIGHT MALE
METRIC 24° CONE LIGHT MALE X METRIC 24°
CONE LIGHT MALE STRAIGHT

- ISO 8434-1

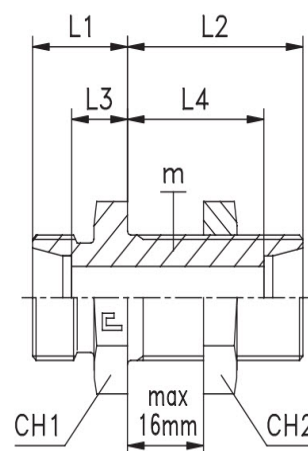


Part Number	Metric Male Thread	suits tube	L1 - mm	L2 - mm	Hex A/F (CH1)	Hex A/F (CH2)	PN (bar)
ML-ML-1212	M12-1.5	6	24	10	12	14	315
ML-ML-1414	M14-1.5	8	25	11	14	17	315
ML-ML-1616	M16-1.5	10	27	13	17	19	315
ML-ML-1818	M18-1.5	12	28	14	19	22	315
ML-ML-2222	M22-1.5	15	30	16	24	27	315
ML-ML-2626	M26-1.5	18	31	16	27	32	315
ML-ML-3030	M30-2	22	35	20	32	36	160
ML-ML-3636	M36-2	28	36	21	41	41	160
ML-ML-4545	M45-2	35	41	20	46	50	160
ML-ML-5252	M52-2	42	43	21	55	60	160

ML-MLK

MET LIGHT MALE X MET LIGHT B/HEAD
METRIC 24° CONE LIGHT MALE X METRIC 24°
CONE LIGHT BULKHEAD STRAIGHT

- ISO 8434-1



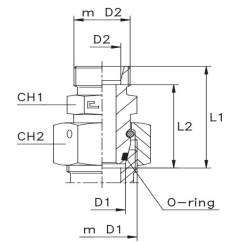
Part Number	Metric Male Thread	suits tube	L1 - mm	L2 - mm	L3 - mm	L4 - mm	Hex A/F (CH1)	Hex A/F (CH2)	NP (bar)
ML-MLK-1212	M12-1.5	6	14	34	7	27	17	17	315
ML-MLK-1414	M14-1.5	8	15	34	8	27	19	19	315
ML-MLK-1616	M16-1.5	10	17	35	10	28	22	22	315
ML-MLK-1818	M18-1.5	12	17	36	10	29	24	24	315
ML-MLK-2222	M22-1.5	15	19	38	12	31	27	30	315
ML-MLK-2626	M26-1.5	18	21	40	14	33	32	36	315
ML-MLK-3030	M30-2	22	24	42	17	35	36	41	160
ML-MLK-3636	M36-2	28	26	43	19	36	41	46	160

ML-UL

MET LIGHT MALE X MET LIGHT F/M

METRIC 24° CONE LIGHT MALE X METRIC 24°

CONE LIGHT FEMALE SWIVEL NUT STRAIGHT

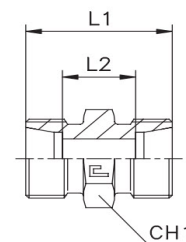


Part Number	Metric Male Thread - m D2	Metric Female Thread - m D1	D1 - mm	D2 - mm	L1-mm	L2 - mm	Hex A/F (CH1)	Hex A/F (CH2)	NP (bar)
ML-UL-1214	M12-1.5	M14-1.5	8	6	31	24	12	17	315
ML-UL-1216	M12-1.5	M16-1.5	10	6	32.5	25.5	14	19	315
ML-UL-1414	M14-1.5	M14-1.5	8	8					
ML-UL-1416	M14-1.5	M16-1.5	10	8	32.5	25.5	14	19	315
ML-UL-1418	M14-1.5	M18-1.5	12	8	32.5	25.5	17	22	315
ML-UL-1616	M16-1.5	M16-1.5	10	10					
ML-UL-1618	M16-1.5	M18-1.5	12	10	33.5	26.5	17	22	315
ML-UL-1622	M16-1.5	M22-1.5	15	10	36.5	29.5	19	27	315
ML-UL-1626	M16-1.5	M26-1.5	18	10					
ML-UL-1818	M18-1.5	M18-1.5	12	12					
ML-UL-1822	M18-1.5	M22-1.5	15	12	36.5	29.5	19	27	315
ML-UL-1826	M18-1.5	M26-1.5	18	12	37.5	30.5	24	32	315
ML-UL-2222	M22-1.5	M22-1.5	15	15					
ML-UL-2226	M22-1.5	M26-1.5	18	15	38.5	31.5	24	32	315
ML-UL-2230	M22-1.5	M30-2	22	15	39.5	32.5	27	36	160
ML-UL-2236	M22-1.5	M36-2	28	15					
ML-UL-2626	M26-1.5	M26-1.5	18	18					
ML-UL-2630	M26-1.5	M30-2	22	18	40.5	33	27	36	160
ML-UL-2636	M26-1.5	M36-2	28	18					
ML-UL-3030	M30-2	M30-2	22	22					
ML-UL-3036	M30-2	M36-2	28	22	43.5	36	32	41	160
ML-UL-3045	M30-2	M45-2	35	22					
ML-UL-3052	M30-2	M52-2	42	22					
ML-UL-3622	M36-2	M22-1.5	15	28					
ML-UL-3636	M36-2	M36-2	28	28					
ML-UL-3645	M36-2	M45-2	35	28					
ML-UL-3652	M36-2	M52-2	42	28					
ML-UL-4545	M45-2	M45-2	35	35					
ML-UL-4552	M45-2	M52-2	42	35					
ML-UL-5252	M52-2	M52-2	42	42					

MS-MS

MET HEAVY MALE X MET HEAVY MALE
METRIC 24° CONE HEAVY MALE X METRIC 24°
CONE HEAVY MALE STRAIGHT

- ISO 8434-1

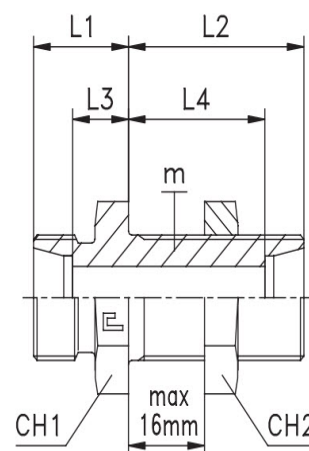


Part Number	Metric Male Thread	Metric Male Thread	suits tube (D1)	Suits Tube-D2	L1 - mm	L2 - mm	L3 - mm	Hex A/F (CH1)	PN (bar)
MS-MS-1414	M14-1.5	M14-1.5	6	6	30	16	45	14	800
MS-MS-1416	M16-1.5	M14-1.5	8	6	32	18	48	17	800
MS-MS-1616	M16-1.5	M16-1.5	8	8	32	18	47	17	800
MS-MS-1618	M18-1.5	M16-1.5	10	8	32	18	49	19	800
MS-MS-1818	M18-1.5	M18-1.5	10	10	32	17	49	19	800
MS-MS-1820	M20-1.5	M18-1.5	12	10	34	19	51	22	630
MS-MS-2020	M20-1.5	M20-1.5	12	12	34	19	51	22	630
MS-MS-2022	M22-1.5	M20-1.5	14	12	36	21	55	24	630
MS-MS-2222	M22-1.5	M22-1.5	14	14	38	22	57	24	630
MS-MS-2224	M24-1.5	M22-1.5	16	14	38	22	58	27	630
MS-MS-2424	M24-1.5	M24-1.5	16	16	38	21	57	27	630
MS-MS-2430	M30-2	M24-1.5	20	16	42	23	63	32	420
MS-MS-3030	M30-2	M30-2	20	20	44	23	66	32	420
MS-MS-3036	M36-2	M30-2	25	20	48	26	71	41	420
MS-MS-3636	M36-2	M36-2	25	25	50	26	74	41	420
MS-MS-3642	M42-2	M36-2	30	25	52	27	77	46	420
MS-MS-4242	M42-2	M42-2	30	30	54	27	80	46	420
MS-MS-4252	M52-2	M42-2	38	30	59	30	87	55	420
MS-MS-5252	M52-2	M52-2	38	38	61	29	90	55	420

MS-MSK

MET HEAVY MALE X MET HEAVY B/HEAD
METRIC 24° CONE HEAVY MALE X METRIC 24°
CONE HEAVY BULKHEAD STRAIGHT

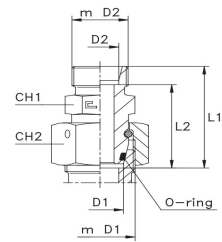
- ISO 8434-1



Part Number	Metric Male Thread	suits tube	L1 - mm	L2 - mm	L3 - mm	L4 - mm	Hex A/F (CH1)	Hex A/F (CH2)	PN (bar)
MS-MSK-2020	M20-1.5	12	22	38	15	31	27	27	630
MS-MSK-2222	M22-1.5	14	25	40	17	32	30	30	630
MS-MSK-2424	M24-1.5	16	25	40	17	32	32	32	400
MS-MSK-3030	M30-2	20	28	44	18	34	41	41	400
MS-MSK-3636	M36-2	25	32	47	20	35	46	46	400
MS-MSK-4242	M42-2	30	35	51	22	38	50	50	400
MS-MSK-5252	M52-2	38	38	53	22	37	65	65	315

MS-US

MET HEAVY MALE X MET HEAVY F/M
METRIC 24° CONE HEAVY MALE X METRIC 24°
CONE HEAVY FEMALE SWIVEL NUT STRAIGHT



Part Number	Metric Male Thread	Metric Female Thread - m D1	D2 - mm	D1 - mm	L1-mm	L2 - mm	Hex A/F (CH1)	Hex A/F (CH2)	PN (bar)
MS-US-1414	M14-1.5	M14-1.5	6	6					
MS-US-1416	M14-1.5	M16-1.5	6	8	36	29	14	19	630
MS-US-1418	M14-1.5	M18-1.5	6	10	39	32	17	22	630
MS-US-1616	M16-1.5	M14-1.5	8	8					
MS-US-1618	M16-1.5	M18-1.5	8	10	38.5	31.5	17	22	630
MS-US-1620	M16-1.5	M20-1.5	8	12	38.5	31.5	17	24	630
MS-US-1818	M18-1.5	M18-1.5	10	10					
MS-US-1820	M18-1.5	M20-1.5	10	10	38.5	31	19	24	630
MS-US-1822	M18-1.5	M22-1.5	10	12	41	33.5	19	27	630
MS-US-1824	M18-1.5	M24-1.5	10	16					
MS-US-2020	M20-1.5	M20-1.5	12	12					
MS-US-2022	M20-1.5	M22-1.5	12	14	43	35.5	22	27	630
MS-US-2024	M20-1.5	M24-1.5	12	16	45.5	38	22	30	400
MS-US-2030	M20-1.5	M30-2	12	20					
MS-US-2036	M20-1.5	M36-2	12	25					
MS-US-2042	M20-1.5	M42-2	12	30					
MS-US-2222	M22-1.5	M22-1.5	14	14					
MS-US-2224	M22-1.5	M24-1.5	14	16	47.5	39.5	24	30	400
MS-US-2230	M22-1.5	M30-2	14	20	50	42	27	36	400
MS-	M24-1.5	M24-1.5	16	16					

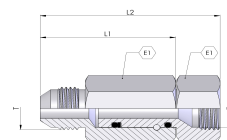
US-2424									
MS-US-2430	M24-1.5	M30-2	16	20	50	41.5	27	36	400
MS-US-2436	M24-1.5	M36-2	16	25	54.5	46	32	46	400
MS-US-2442	M24-1.5	M42-2	16	30	59	50.5	41	50	400
MS-US-3030	M30-2	M30-2	20	20					
MS-US-3036	M30-2	M36-2	20	25	56.5	46	32	46	400
MS-US-3042	M30-2	M42-2	20	30	61	50.5	41	50	400
MS-US-3636	M36-2	M36-2	25	25					
MS-US-3642	M36-2	M42-2	25	30	63	51	41	50	400
MS-US-3652	M36-2	M52-2	25	38					315
MS-US-4242	M42-2	M42-2	30	30					
MS-US-4252	M42-2	M52-2	30	38					
MS-US-5252	M52-2	M52-2	38	38					

SJS

JIC MALE X JIC FEMALE

JIC 37° FLARE MALE X JIC 37° FLARE FIXED

FEMALE STRAIGHT SWIVEL



Part Number	Body thread	Stem thread	Seal kit
SJS-GJF0909V/H	9/16	9/16	RKSJ-9S6V
SJS-GJF1212V/H	3/4	3/4	RKSJ-9S6V
SJS-GJF1717V/H	1-1/16	1-1/16	RKSJ-9S12V
SJS-GJF2121V/H	1-5/16	1-5/16	RKSJ-9S16V

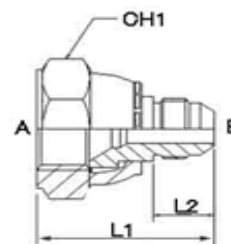
TK

JIC MALE X JIC FEMALE

JIC 37° FLARE MALE X JIC 37° FLARE FEMALE

SWIVEL NUT REDUCER

- SAE J514

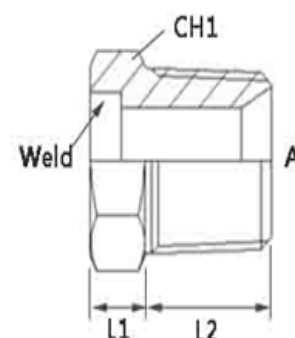


Part Number	B	A	L1	L2	CH1
TK-0907	9/16-18	7/16-20	25	14	18
TK-1207	3/4-16	7/16-20	25	14	22
TK-1209	3/4-16	9/16-18	25	14	22
TK-1407	7/8-14	7/16-20	26	14	25
TK-1409	7/8-14	9/16-18	26	14	25
TK-1412	7/8-14	3/4-16	36	17	25
TK-1707	1.1/16-12	7/16-20	28	14	32
TK-1709	1.1/16-12	9/16-18	28	14	32
TK-1712	1.1/16-12	3/4-16	30	17	32
TK-1714	1.1/16-12	7/8-14	42	19	32
TK-2112	1.5/16-12	3/4-16	33	17	38
TK-2114	1.5/16-12	7/8-14	35	19	38
TK-2117	1.5/16-12	1.1/16-12	37	22	38
TK-2617	1.5/8-12	1.1/16-12	38	22	51
TK-2621	1.5/8-12	1.5/16-12	39	23	51

TW-A

TUBEWELD X BSPT MALE

IMPERIAL TUBE WELD SOCKET X BSPT MALE



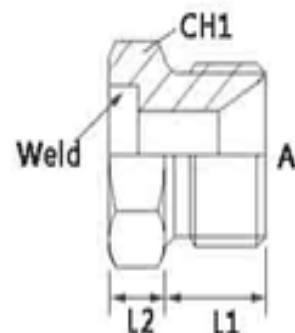
Part Number	suits tube	BSPT Male Thread (A)	Weld Socket	L2 - mm	L1 - mm	Hex A/F (CH1)
TW-A-0404	1/4	1/4-19	6.5 x 5	20	14	16
TW-A-0406	1/4	3/8-19	6.5 x 5	23	15	19
TW-A-0604	3/8	1/4-19	9.7 x 5	20	14	16
TW-A-0606	3/8	3/8-19	9.7 x 5	23	15	19
TW-A-0804	1/2	1/4-19	12.9 x 6	22	14	16
TW-A-0806	1/2	3/8-19	12.9 x 6	23	15	19
TW-A-0808	1/2	1/2-14	12.9 x 6	27	19	22
TW-A-1008	5/8	1/2-14	16 x 6	27	19	22
TW-A-1208	3/4	1/2-14	19.2 x 6	27	19	22
TW-A-1212	3/4	3/4-14	19.2 x 7	32	20	29
TW-A-1612	1	3/4-14	25.5 x 7	32	20	29
TW-A-1616	1	1-11	25.5 x 8	36	24	35
TW-A-2016	1.1/4	1-11	32 x 8	38	24	38
TW-A-2020	1.1/4	1.1/4-11	32 x 8	41	25	45
TW-A-2420	1.1/2	1.1/4-11	38.3 x 10	41	25	45
TW-A-2424	1.1/2	1.1/2-11	38.3 x 10	41	25	50

TW-B

TUBEWELD X BSP MALE

IMPERIAL TUBE WELD SOCKET X BSP 60° CONE

MALE



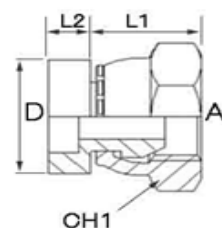
Part Number	suits tube	BSPP Male Thread (A)	Weld Socket	L1 - mm	L2 - mm	Hex A/F (CH1)
TW-B-0404	1/4	1/4-19	6.5 x 5	18	11	19
TW-B-0604	3/8	1/4-19	9.7 x 5	18	11	19
TW-B-0606	3/8	3/8-19	9.7 x 5	20	12	22
TW-B-0806	1/2	3/8-19	12.9 x 6	20	12	22
TW-B-0808	1/2	1/2-14	12.9 x 6	24	14	27
TW-B-1008	5/8	1/2-14	16 x 5	24	14	27
TW-B-1208	3/4	1/2-14	19.2 x 7	24	14	27
TW-B-1212	3/4	3/4-14	19.2 x 7	28	16	32
TW-B-1612	1	3/4-14	25.5 x 8	28	16	32
TW-B-1616	1	1-11	25.5 x 8	33	19	41
TW-B-2012	1.1/4	1.1/4-11	32 x 14	16	38	46
TW-B-2016	1.1/4	1-11	32 x 8	33	19	41
TW-B-2020	1.1/4	1.1/4-11	32 x 8	36	20	50
TW-B-2024	1.1/4	1.1/2-11	32 x 8	38	22	55
TW-B-2420	1.1/2	1.1/4-11	38.3 x 10	36	20	50
TW-B-2424	1.1/2	1.1/2-11	38.3 x 10	38	22	55
TW-B-3232	2	2-11	50.9 x 10	45	25	73

TW-C

TUBEWELD X BSP FEMALE

IMPERIAL TUBE WELD SOCKET X BSP 60° CONE

FEMALE SWIVEL NUT



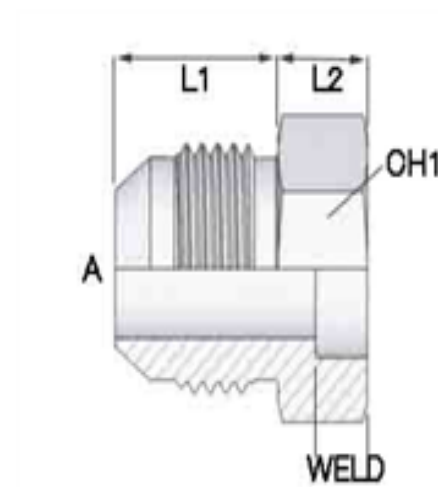
Part Number	suits tube	BSPP Female Thread (A)	Weld Socket	L1 - mm	L2 - mm	Diameter - mm	Hex A/F (CH1)
TW-C-0404	1/4	1/4-19	6.5 x 5	18	11	13	19
TW-C-0604	3/8	1/4-19	9.7 x 5	18	11	13	19
TW-C-0606	3/8	3/8-19	12.9 x 6	20	13	16	22
TW-C-0806	1/2	3/8-19	12.9 x 6	21	13	16	22
TW-C-0808	1/2	1/2-14	12.9 x 6	24	15	22	27
TW-C-1008	5/8	1/2-14	16 x 6	25	15	22	27
TW-C-1010	5/8	5/8-14	16 x 6	24	14	22	30
TW-C-1208	3/4	1/2-14	19.2 x 6.5	25	15	25	27
TW-C-1212	3/4	3/4-14	19.2 x 6.5	27	17	25	32
TW-C-1612	1	3/4-14	25.5 x 8	29	17	30	32
TW-C-1616	1	1-11	25.5 x 8	30	18	35	38
TW-C-2020	1.1/4	1.1/4-11	32 x 8	35	23	41	51
TW-C-2424	1.1/2	1.1/2-11	32 x 8	33	21	51	55
TW-C-3232	2	2-11	51 x 10	37	22	64	70

TW-G

TUBEWELD X JIC MALE

IMPERIAL TUBE WELD SOCKET X JIC 37° FLARE

MALE



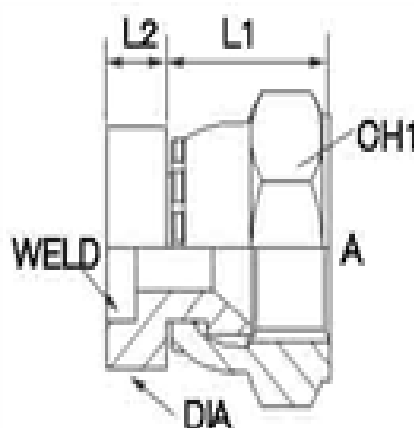
Part Number	suits tube	JIC Male Thread (A)	Weld Socket	L1 - mm	L2 - mm	Hex A/F (CH1)
TW-G-0407	1/4	7/16-20	6.5 x 5	21	15	16
TW-G-0409	1/4	9/16-18	6.5 x 5	21	15	16
TW-G-0609	3/8	9/16-18	9.7 x 5	22	14	16
TW-G-0809	1/2	9/16-18	12.9 x 6	23	15	16
TW-G-0812	1/2	3/4-16	12.9 x 6	25	17	22
TW-G-0814	1/2	7/8-14	12.9 x 6	30	20	25
TW-G-1012	5/8	3/4-16	16 x 6	27	17	25
TW-G-1014	5/8	7/8-14	16 x 6	30	20	25
TW-G-1212	3/4	3/4-16	19.2 x 7	29	17	29
TW-G-1214	3/4	7/8-14	19.2 x 7	32	20	29
TW-G-1217	3/4	1.1/16-12	19.2 x 7	34	22	29
TW-G-1219	3/4	1.3/16-12	19.2 x 7	35	23	32
TW-G-1614	1	7/16 - 20	25.5 x 8	33	19.3	1-3/8
TW-G-1617	1	1.1/16-12	25.5 x 8	36	22	35
TW-G-1621	1	1.5/16-12	25.5 x 8	37	23	35
TW-G-2021	1.1/4	1.5/16-12	32 x 8	37	23	41
TW-G-2026	1.1/4	1.5/8-12	32 x 8	40	24	44
TW-G-2430	1.1/2	1.7/8-12	38.3 x 10	44	28	51

TW-J

TUBEWELD X JIC FEMALE

IMPERIAL TUBE WELD SOCKET X JIC 37° FLARE

FEMALE SWIVEL NUT

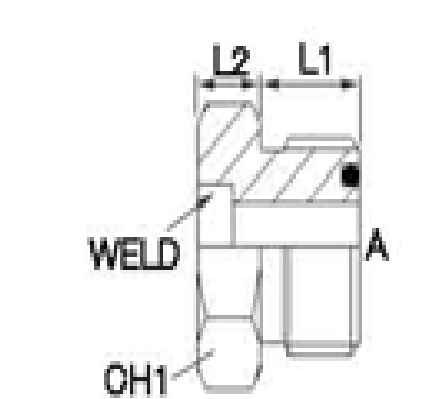


Part Number	suits tube	JIC Female Thread (A)	Weld Socket	L1 - mm	L2 - mm	Diameter - mm	Hex A/F (CH1)
TW-J-0407	1/4	7/16-20	6.5 x 5	14	7	13	15
TW-J-0409	1/4	9/16-18	6.5 x 5	15	9	13	19
TW-J-0609	3/8	9/16-18	9.7 x 5	16	9	16	19
TW-J-0612	3/8	3/4-12	9.7 x 6	18	10	19	24
TW-J-0809	1/2	9/16-18	12.9 x 4	20	10	19**	19
TW-J-0812	1/2	3/4-16	12.9 x 6	19	10	19	24
TW-J-0814	1/2	7/8-14	12.9 x 6	20	11	22	27
TW-J-1014	5/8	7/8-14	16 x 6	20	11	22	27
TW-J-1214	3/4	7/8-14	19.2 x 6.5	21	11	25	27
TW-J-1217	3/4	1.1/16-12	16.2 x 6.5	23	13	25	32
TW-J-1617	1	1.1/16-12	25.5 x 8	25	13	32	32
TW-J-1621	1	1.5/16-12	25.5 x 8	27	15	35	38
TW-J-2026	1.1/4	1.5/8-12	32 x 8	29	17	41	51
TW-J-2430	1.1/2	1.7/8-12	38.3 x 10	28	16	51	57
TW-J-3240	2	2.1/2-12	51 x 10	34	19	64	70

TW-R

TUBEWELD X ORFS MALE

IMPERIAL TUBE WELD SOCKET X ORFS MALE

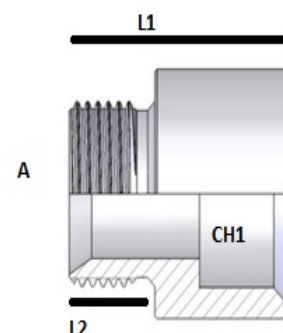


Part Number	suits tube	UNF Male Thread (A)	Weld Socket	L1 - mm	L2 - mm	Hex A/F (CH1)
TW-R-0609	3/8	9/16-18	9.7 x 5	19	10	19
TW-R-0611	3/8	11/16-16	9.7 x 5	20	11	19
TW-R-0813	1/2	13/16-16	12.9 x 6	22	13	22
TW-R-1016	5/8	1-14	16 X 6	24	14	27
TW-R-1219	3/4	1.3/16-12	19.2 x 7	28	17	32
TW-R-1619	1	1.3/16-12	25.5 x 7	29	17	35
TW-R-1623	1	1.7/16-12	25.5 x 8	33	18	38
TW-R-2023	1.1/4	1.7/16-12	32 x 8	33	18	38

TWS-B

PIPEWELD X BSP MALE

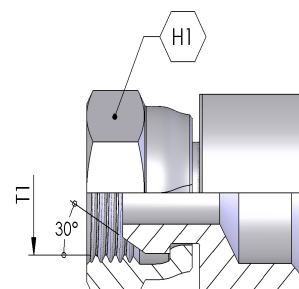
SCHEDULE PIPE WELD SOCKET X BSP 60° CONE MALE



Part Number	Suits Schedule Pipe	BSPP Male Thread (A)	Weld Socket	L1 - mm	L2 - mm	Hex A/F (CH1)
TWS-B-0808	1/2	1/2-14	21.6 x 12.6	34	14	32
TWS-B-1212	3/4	3/4-14	26.9 x 15.6	41	16	38
TWS-B-1616	1	1-11	33.5 x 20	49	19	45
TWS-B-2016	1.1/4	1-11	0	0	0	0
TWS-B-2020	1.1/4	1.1/4-11	42.3 x 20	50	20	57

TWS-C

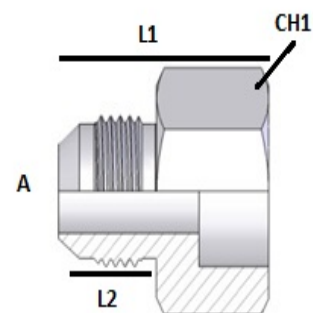
PIPEWELD X BSP FEMALE
SCHEDULE PIPE WELD SOCKET X BSP 60° CONE
FEMALE SWIVEL NUT



Part Number	Suits Schedule Pipe	BSPP Female Thread (T1)	Weld Socket	L1 - mm	L2 - mm	Hex A/F (H1)
TWS-C-0808	1/2	1/2-14	21.5 x 13	35	15	27
TWS-C-1212	3/4	3/4-14	26.8 x 16	42	17	32
TWS-C-1616	1	1-11	33.5 x 20	48	18	38
TWS-C-2020	1.1/4	1.1/4-11				
TWS-C-2424	1.1/2	1.1/2-11				

TWS-G

PIPEWELD X JIC MALE
SCHEDULE PIPE WELD SOCKET X JIC 37° FLARE
MALE

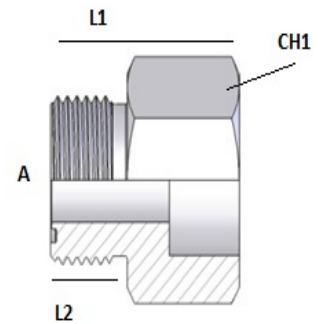


Part Number	Suits Schedule Pipe	JIC Male Thread (A)	Weld Socket	L1 - mm	L2 - mm
TWS-G-0812	1/2	3/4-16	21.5 x 13	37	17
TWS-G-0814	1/2	7/8-14	21.6 x 12.6	40	20
TWS-G-1212	3/4	3/4-16	26.8 x 16	42	17
TWS-G-1214	3/4	7/8-14	26.9 x 15.6	45	20
TWS-G-1217	3/4	1.1/16-12	26.8 x 16	46	22
TWS-G-1617	1	1.1/16-12	33.5 x 20	52	22
TWS-G-1621	1	1.5/16-12			
TWS-G-2026	1 1/4	1.5/8-12	42.3 x 20	55	24
TWS-G-2430	1 1/2	1.7/8-12	48.5 x 25	60	28

TWS-R

PIPEWELD X ORFS MALE

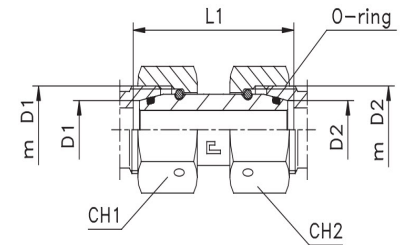
SCHEDULE PIPE WELD SOCKET X ORFS MALE



Part Number	Suits Schedule Pipe	ORFS Male Thread (A)	Weld Socket	L1 - mm	L2 - mm	Hex A/F (CH1)
TWS-R-1219	3/4	1.3/16-12	26.9 x 15.6	42	17	38
TWS-R-1619	1	1 3/16-14	33.5 x 20	48	17	
TWS-R-1623	1	1.7/16-12	33.5 x 20	48	18	44
TWS-R-2023	1.1/4	1.7/16-12	42.3 x 20	48	18	51
TWS-R-2027	1.1/4	1.11/16-12	42.3 x 20	48	18	57

UL-UL

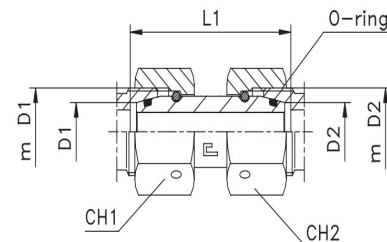
MET LIGHT FEMALE X MET LIGHT FEMALE
METRIC 24° CONE LIGHT FEMALE SWIVEL NUT X
METRIC 24° CONE LIGHT FEMALE SWIVEL NUT
STRAIGHT



Part Number	Metric Female Thread - m D2	Metric Female Thread - m D1	D2 - mm	D1 - mm	L1-mm	Hex A/F (CH1)	Hex A/F (CH2)	PN (bar)
UL-UL-1212	M12-1.5	M12-1.5	6	6	40	14	14	500
UL-UL-1214	M12-1.5	M14-1.5	6	8	37	17	14	500
UL-UL-1414	M14-1.5	M14-1.5	8	8	40	17	17	500
UL-UL-1416	M14-1.5	M16-1.5	8	10	37	19	17	500
UL-UL-1616	M16-1.5	M16-1.5	10	10	40	19	19	500
UL-UL-1618	M16-1.5	M18-1.5	10	12	36	22	19	400
UL-UL-1622	M16-1.5	M22-1.5	10	15	40	27	19	400
UL-UL-1818	M18-1.5	M18-1.5	12	12	40	22	22	400
UL-UL-1822	M18-1.5	M22-1.5	12	15	40	27	22	400
UL-UL-1826	M18-1.5	M26-1.5	12	18	40	34	22	400
UL-UL-2222	M22-1.5	M22-1.5	15	15	44	27	27	400
UL-UL-2226	M22-1.5	M26-1.5	15	18	44	32	27	400
UL-UL-2626	M26-1.5	M26-1.5	18	18	43	32	32	400
UL-UL-2630	M26-1.5	M30-2	18	22	46	36	32	250
UL-UL-2636	M26-1.5	M36-2	18	28	47	41	32	250
UL-UL-3030	M30-2	M30-2	22	22	50	36	36	250
UL-UL-3036	M30-2	M36-2	22	28	50	41	36	250
UL-UL-3636	M36-2	M36-2	28	28	51	41	41	250

US-US

MET HEAVY FEMALE X MET HEAVY FEMALE
METRIC 24° CONE HEAVY FEMALE SWIVEL NUT X
METRIC 24° CONE HEAVY FEMALE SWIVEL NUT
STRAIGHT



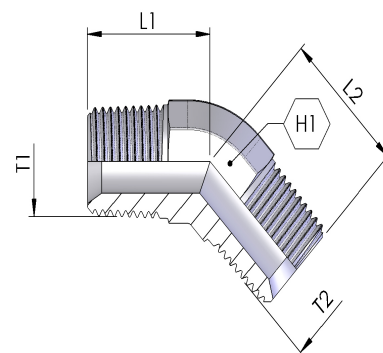
Part Number	Metric Female Thread - m D2	Metric Female Thread - m D1	D2 - mm	D1 - mm	L1-mm	Hex A/F (CH1)	Hex A/F (CH2)	PN (bar)
US-US-1418	M14-1.5	M18-1.5	6	10	38	22	17	800
US-US-1616	M16-1.5	M16-1.5	8	8	41	19	19	800
US-US-1820	M18-1.5	M20-1.5	10	12	40	24	22	630
US-US-2020	M20-1.5	M20-1.5	12	12	45	24	24	630
US-US-2222	M22-1.5	M22-1.5	14	14	49	27	27	630
US-US-3036	M30-2	M36-2	20	25	60	46	36	420
US-US-5252	M52-2	M52-2	38	38	83	60	60	420

45 DEGREE ADAPTORS

A-A-45

BSPT MALE X BSPT MALE

BSPT MALE X BSPT MALE 45° ELBOW



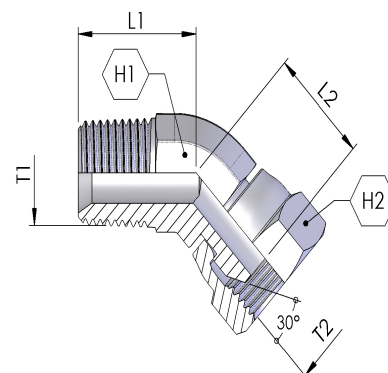
Part Number	Short Code	T1	T2	H1	L1	L2	PN (bar)
A-A-45-0202		1/8-28	1/8-28				
A-A-45-0204		1/8-28	1/4-19				
A-A-45-0404	ACD	1/4-19	1/4-19	14	22	22	275
A-A-45-0406		1/4-19	3/8-19				
A-A-45-0606	ACF	3/8-19	3/8-19	19	27	27	210
A-A-45-0608	ACG	3/8-19	1/2-14	22	24	29	210
A-A-45-0808	ACH	1/2-14	1/2-14	22	29	29	210
A-A-45-0812	ACI	1/2-14	3/4-14	27	32	32	170
A-A-45-1212	ACJ	3/4-14	3/4-14	27	32	32	170
A-A-45-1216	ACK	3/4-14	1-11	35	38	43	140
A-A-45-1616	ACL	1-11	1-11	35	43	43	140
A-A-45-2020		1 1/4-11	1 1/4-11				
A-A-45-2424		1 1/2-11	1 1/2-11				

A-C-45

BSPT MALE X BSP FEMALE

BSPT MALE X BSP 60° CONE FEMALE SWIVEL NUT

45° ELBOW

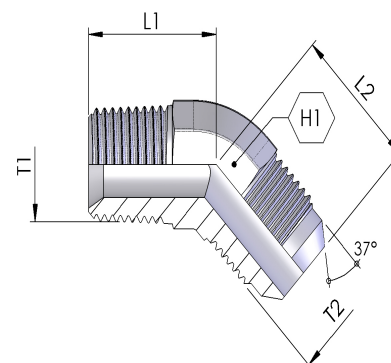


Part Number	Short Code	T1	T2	H1	H2	L1	L2	PN (bar)
A-C-45-0202	AHU	1/8-28	1/8-28	14	14	17	17	345
A-C-45-0404	AHV	1/4-19	1/4-19	14	19	22	20	275
A-C-45-0606	AHW	3/8-19	3/8-19	19	22	27	24	210
A-C-45-0808	AHX	1/2-14	1/2-14	22	27	29	24	210
A-C-45-1212	AHY	3/4-14	3/4-14	27	32	32	29	170
A-C-45-1616	AHZ	1-11	1-11	35	41	40	33	140
A-C-45-2020		1.1/4-11	1.1/4-11					
A-C-45-2424		1.1/2-11	1.1/2-11					

A-G-45

BSPT MALE X JIC MALE

BSPT MALE X JIC 37° FLARE MALE 45° ELBOW

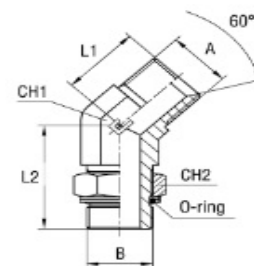


Part Number	Short Code	T1	T2	H1	L1	L2	PN (bar)
A-G-45-0207	AOG	1/8-28	7/16-20	14	17	20	345
A-G-45-0209		1/8-28	9/16-18	22			
A-G-45-0407	AOJ	1/4-19	7/16-20	14	22	20	275
A-G-45-0408	AOK	1/4-19	1/2-20	14	22	20	275
A-G-45-0409	AOL	1/4-19	9/16-18	14	22	21	275
A-G-45-0412	AOM	1/4-19	3/4-16	19	24	25	275
A-G-45-0609	AON	3/8-19	9/16-18	19	24	22	210
A-G-45-0612	AOP	3/8-19	3/4-16	19	24	25	210
A-G-45-0614	AOQ	3/8-19	7/8-14	22	27	28	210
A-G-45-0809	AOR	1/2-14	9/16-18	22	29	23	210
A-G-45-0812	AOS	1/2-14	3/4-16	22	29	25	210
A-G-45-0814	AOT	1/2-14	7/8-14	22	29	28	210
A-G-45-0817	AOU	1/2-14	1.1/16-12	27	31	32	210
A-G-45-1212	AOV	3/4-14	3/4-16	27	31	27	170
A-G-45-1214	AOW	3/4-14	7/8-14	27	31	30	170
A-G-45-1217	AOX	3/4-14	1.1/16-12	27	31	32	170
A-G-45-1221	AOY	3/4-14	1.5/16-12	35	33	38	170
A-G-45-1621	AOZ	1-11	1.5/16-12	35	38	38	140
A-G-45-2026	APA	1.1/4-11	1.5/8-12	44	43	41	80

A-BP-45

BSPT MALE X BSP ADJUSTABLE

BSPT MALE X BSP ADJUSTABLE STUD 45° ELBOW

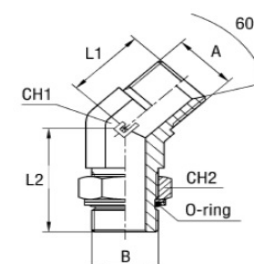


Part Number	A	B	L1	L2	CH1	CH2
A-BP-45-0404	1/4-19	1/4-19				
A-BP-45-0606	3/8-19	3/8-19				
A-BP-45-0808	1/2-14	1/2-14	30	37	22	27
A-BP-45-1212	3/4-14	3/4-14	38	48	27	32
A-BP-45-1616	1-11	1-11	39	50	35	41
A-BP-45-2020	1.1/4-11	1.1/4-11	44	55	45	51

B-BP-45

BSP MALE X BSP ADJUSTABLE

BSP 60° CONE MALE X BSP ADJUSTABLE STUD 45° ELBOW



- ISO 8434-6

Part Number	A	B	L1	L2	CH1	CH2
B-BP-45-0404	1/4-19	1/4-19	21	29	14	19
B-BP-45-0606	3/8-19	3/8-19	24	33	19	22
B-BP-45-0808	1/2-14	1/2-14	26	39	22	30
B-BP-45-1212	3/4-14	3/4-14	32	44	27	36
B-BP-45-1616	1-11	1-11	37	47	33	46
B-BP-45-2020	1.1/4-11	1.1/4-11	39	48	41	50

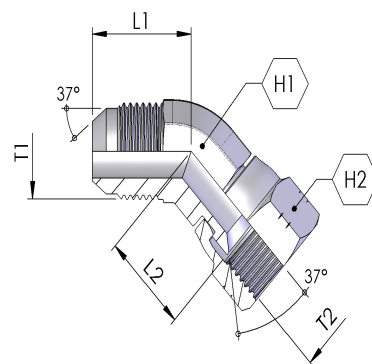
G-J-45

JIC MALE X JIC FEMALE

JIC 37° FLARE MALE X JIC 37° FLARE FEMALE

SWIVEL NUT 45° ELBOW

- ISO 8434-2



Part Number	Short Code	T1	T2	H1	H2	L1	L2	PN (bar)
G-J-45-0707	CHZ	7/16-20	7/16-20	14	14	20	15	350
G-J-45-0909	CIB	9/16-18	9/16-18	14	19	21	19	350
G-J-45-1212	CIC	3/4-16	3/4-16	19	22	25	22	310
G-J-45-1414	CID	7/8-14	7/8-14	22	27	28	24	240
G-J-45-1717	CIE	1.1/16-12	1.1/16-12	27	32	32	24	240
G-J-45-2121	CIF	1.5/16-12	1.5/16-12	35	41	38	29	210
G-J-45-2626		1.5/8-12	1.5/8-12	41	50	40	51	

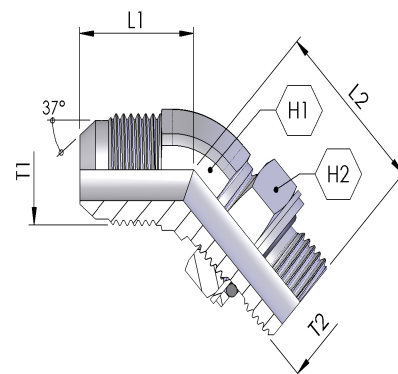
G-BP-45

JIC MALE X BSP ADJUSTABLE

JIC 37° FLARE MALE X BSP ADJUSTABLE STUD 45°

ELBOW

- ISO 8434-2



Part Number	Short Code	T1	T2	H1	H2	L1	L2	PN (bar)
G-BP-45-0704		7/16-20	1/4-19					
G-BP-45-0904	BYT	9/16-18	1/4-19	14	19	21	28	200
G-BP-45-0906	BYU	9/16-18	3/8-19	19	22	22	33	200
G-BP-45-0908		9/16-18	1/2-14					
G-BP-45-1206	BYW	3/4-16	3/8-19	19	22	25	33	200
G-BP-45-1208	BYX	3/4-16	1/2-14	22	27	25	37	200
G-BP-45-1212		3/4-16	3/4-14					
G-BP-45-1408	BYZ	7/8-14	1/2-14	22	27	28	37	200
G-BP-45-1712	BZC	1.1/16-12	3/4-14	27	36	32	42	200
G-BP-45-2116	BZD	1.5/16-12	1-11	35	41	37.5	47	200
G-BP-45-2616		1.5/8-12	1-11					

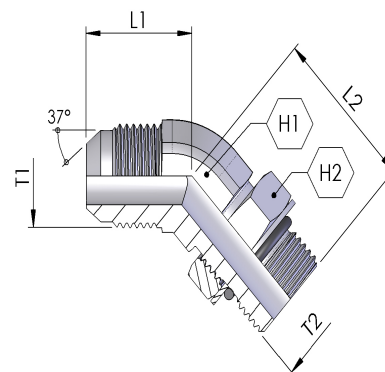
G-NP-45

JIC MALE X UNO ADJUSTABLE

JIC 37° FLARE MALE X UNO ADJUSTABLE STUD 45°

ELBOW

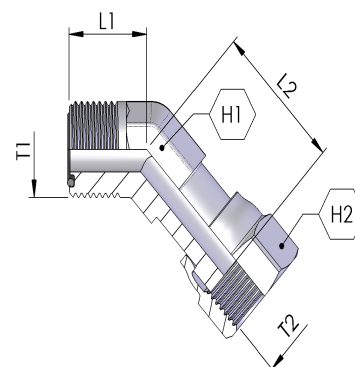
- ISO 8434-2



Part Number	Short Code	T1	T2	H1	H2	L1	L2	PN (bar)
G-NP-45-0707	CRY	7/16-20	7/16-20	14	14	20	27	315
G-NP-45-0808	CSA	1/2-20	1/2-20	14	16	20	27	315
G-NP-45-0909	CSB	9/16-18	9/16-18	14	17	21	28	250
G-NP-45-0912	CSC	9/16-18	3/4-16	19	22	22	32	250
G-NP-45-1212	CSE	3/4-16	3/4-16	19	22	25	32	250
G-NP-45-1214	CSF	3/4-16	7/8-14	22	27	25	37	250
G-NP-45-1414	CSI	7/8-14	7/8-14	22	27	28	37	200
G-NP-45-1717	CSM	1.1/16-12	1.1/16-12	27	32	32	42	200
G-NP-45-1721	CSN	1.1/16-12	1.5/16-12	35	41	36	47	160
G-NP-45-2121	CSQ	1.5/16-12	1.5/16-12	35	41	38	47	160
G-NP-45-2626	CSS	1.5/8-12	1.5/8-12	44	50	41	49	125

R-T-45

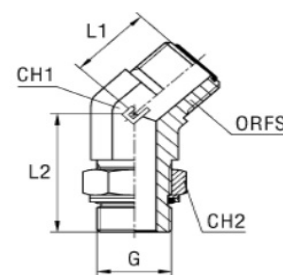
ORFS MALE X ORFS FEMALE
ORFS MALE X ORFS FEMALE SWIVEL NUT 45°
ELBOW



Part Number	T1	T2	L1 (mm)	L2 (mm)	H1 (mm)	H2 (mm)
R-T-45-0909	9/16-18	9/16-18	16	27	14	17
R-T-45-1111	11/16-16	11/16-16	19	29	19	22
R-T-45-1313	13/16-16	13/16-16	21	38	19	24
R-T-45-1616	1-14	1-14	24	41	27	30
R-T-45-1919	1.3/16-12	1.3/16-12	26	47	30	36
R-T-45-2323	1.7/16-12	1.7/16-12	30	54	36	41
R-T-45-2727	1.11/16-12	1.11/16-12	32	58	41	50

R-BP-45

ORFS MALE X BSP ADJUSTABLE
ORFS MALE X BSP ADJUSTABLE STUD 45° ELBOW



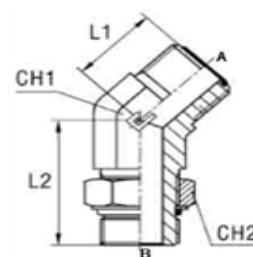
Part Number	A	G	L1	L2	CH1	CH2
R-BP-45-1912	1.3/16-12	3/4-14	26	47	30	36
R-BP-45-2316	1.7/16-12	1-11				

R-NP-45

ORFS MALE X UNO ADJUSTABLE

ORFS MALE X UNO ADJUSTABLE STUD 45° ELBOW

- SAE J1453



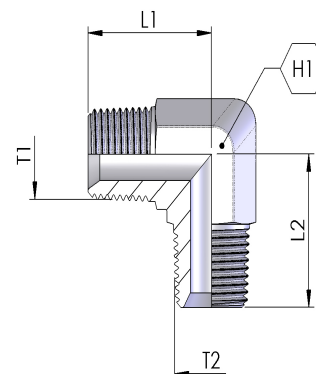
Part Number	A	B	L1	L2	CH1	CH2
R-NP-45-0907	9/16-18	7/16-20	16	30	14	14
R-NP-45-1109	11/16-16	9/16-18	19	33	19	17
R-NP-45-1312	13/16-16	3/4-16	21	37	19	22
R-NP-45-1314	13/16-16	7/8-14	21	45	22	27
R-NP-45-1614	1-14	7/8-14	24	45	27	27
R-NP-45-1917	1.3/16-12	1.1/16-12	26	50	30	32
R-NP-45-2321	1.7/16-12	1.5/16-12	30	53	36	41

90 DEGREE ADAPTORS

A-A-90

BSPT MALE X BSPT MALE

BSPT MALE X BSPT MALE 90° ELBOW



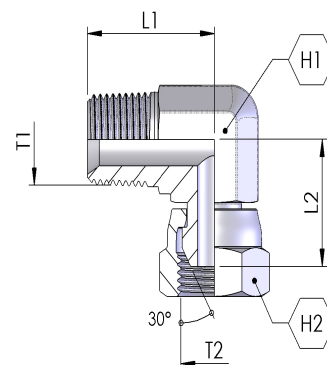
Part Number	Short Code	T1	T2	H1	L1	L2	PN (bar)
A-A-90-0202	ACO	1/8-28	1/8-28	12	20	20	345
A-A-90-0204	ACP	1/8-28	1/4-19	14	20	25	275
A-A-90-0404	ACQ	1/4-19	1/4-19	14	25	25	275
A-A-90-0406	ACR	1/4-19	3/8-19	19	28	31	210
A-A-90-0408	ACS	1/4-19	1/2-14	22	30	35	210
A-A-90-0606	ACU	3/8-19	3/8-19	19	31	31	210
A-A-90-0608	ACV	3/8-19	1/2-14	22	30	35	210
A-A-90-0808	ACW	1/2-14	1/2-14	22	35	35	210
A-A-90-0812	ACX	1/2-14	3/4-14	27	40	40	170
A-A-90-1212	ACY	3/4-14	3/4-14	27	40	40	170
A-A-90-1216	ADA	3/4-14	1-11	35	43	48	140
A-A-90-1616	ACZ	1-11	1-11	35	48	48	140
A-A-90-1620	ADB	1-11	1.1/4-11	41	54	55	80
A-A-90-2020	ADC	1.1/4-11	1.1/4-11	41	55	55	80
A-A-90-2424	ADD	1.1/2-11	1.1/2-11	50	60	60	70
A-A-90-3232	ADE	2-11	2-11	65	74	74	70

A-C-90

BSPT MALE X BSP FEMALE

BSPT MALE X BSP 60° CONE FEMALE SWIVEL NUT

90° ELBOW

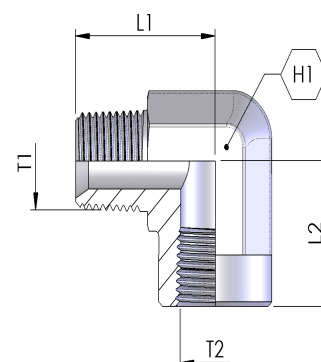


Part Number	Short Code	T1	T2	H1	H2	L1	L2	PN (bar)
A-C-90-0202	AIC	1/8-28	1/8-28	12	14	22	19	345
A-C-90-0404	AID	1/4-19	1/4-19	14	19	26	23	275
A-C-90-0406	AIE	1/4-19	3/8-19	19	22	32	26	275
A-C-90-0604	AIF	3/8-19	1/4-19	19	19	32	25	210
A-C-90-0606	AIG	3/8-19	3/8-19	19	22	32	26	210
A-C-90-0608	AIH	3/8-19	1/2-14	22	27	32	29	210
A-C-90-0806	AIL	1/2-14	3/8-19	22	22	36	27	210
A-C-90-0808	AIJ	1/2-14	1/2-14	22	27	36	29	210
A-C-90-0812	AIK	1/2-14	3/4-14	27	32	43	35	210
A-C-90-1208	AIL	3/4-14	1/2-14	27	27	43	33	170
A-C-90-1212	AIM	3/4-14	3/4-14	27	32	43	35	170
A-C-90-1216	AIN	3/4-14	1-11	35	41	45	40	170
A-C-90-1612	AIO	1-11	3/4-14	35	32	48	39	140
A-C-90-1616	AIP	1-11	1-11	35	41	48	40	140
A-C-90-1620		1-11	1.1/4-11					
A-C-90-2020	AIQ	1.1/4-11	1.1/4-11	41	48	57	47	80
A-C-90-2424	AIR	1.1/2-11	1.1/2-11	50	58	65	53	70

A-E-90

BSPT MALE X BSPT FEMALE

BSPT MALE X BSPT FIXED FEMALE 90° ELBOW

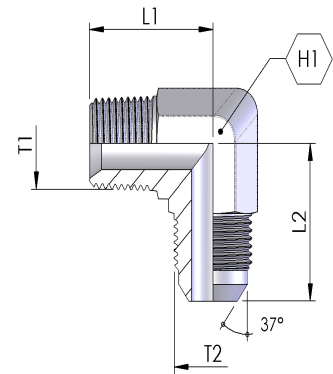


Part Number	Short Code	T1	T2	H1	L1	L2	PN (bar)
A-E-90-0202	ALN	1/8-28	1/8-28	14	20	17	345
A-E-90-0404	ALO	1/4-19	1/4-19	19	28	22	275
A-E-90-0606	ALQ	3/8-19	3/8-19	22	30	26	210
A-E-90-0806	ALT	1/2-14	3/8-19	22	35	26	210
A-E-90-0808	ALU	1/2-14	1/2-14	27	37	31	210
A-E-90-0812	ALV	1/2-14	3/4-14	35	42	35	170
A-E-90-1212	ALW	3/4-14	3/4-14	35	42	35	170
A-E-90-1616	ALX	1-11	1-11	41	50	41	140
A-E-90-2020	ALY	1.1/4-11	1.1/4-11	50	61	43	80
A-E-90-2424		1.1/4-11	1.1/4-11				

A-G-90

BSPT MALE X JIC MALE

BSPT MALE X JIC 37° FLARE MALE 90° ELBOW



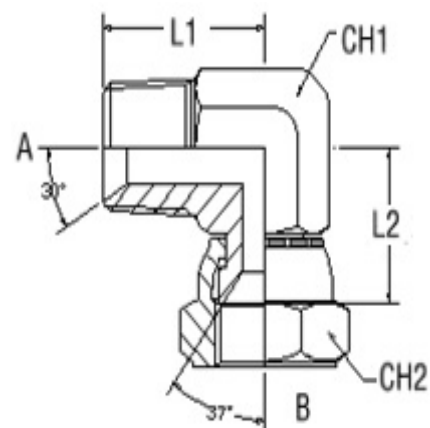
Part Number	Short Code	T1	T2	H1	L1	L2	PN (bar)
A-G-90-0207	APB	1/8-28	7/16-20	14	20	24	345
A-G-90-0208	APC	1/8-28	1/2-20	14	20	24	345
A-G-90-0209	APD	1/8-28	9/16-18	14	20	26	345
A-G-90-0407	APE	1/4-19	7/16-20	14	25	24	275
A-G-90-0408	APF	1/4-19	1/2-20	14	25	24	275
A-G-90-0409	APG	1/4-19	9/16-18	14	25	26	275
A-G-90-0412	APH	1/4-19	3/4-16	19	28	32	275
A-G-90-0607	API	3/8-19	7/16-20	19	31	29	210
A-G-90-0609	APK	3/8-19	9/16-18	19	31	29	210
A-G-90-0612	APL	3/8-19	3/4-16	19	31	32	210
A-G-90-0614	APM	3/8-19	7/8-14	22	30	36	210
A-G-90-0807	APN	1/2-14	7/16-20	22	35	31	210
A-G-90-0809	APO	1/2-14	9/16-18	22	35	31	210
A-G-90-0812	APP	1/2-14	3/4-16	22	35	34	210
A-G-90-0814	APQ	1/2-14	7/8-14	22	35	36	210
A-G-90-0817	APR	1/2-14	1.1/16-12	27	40	42	210
A-G-90-1212	APT	3/4-14	3/4-16	27	40	36	170
A-G-90-1214	APU	3/4-14	7/8-14	27	40	39	170
A-G-90-1217	APV	3/4-14	1.1/16-12	27	40	42	170
A-G-90-1221	APX	3/4-14	1.5/16-12	35	43	47	170
A-G-90-1617	APY	1-11	1.1/16-12	35	48	46	140
A-G-90-1621	APZ	1-11	1.5/16-12	35	48	47	140
A-G-90-1626	AQA	1-11	1.5/8-12	41	54	53	140
A-G-90-2017	AQB	1.1/4-11	1.1/16-12	41	55	51	80
A-G-90-2021	AQC	1.1/4-11	1.5/16-12	41	55	53	80
A-G-90-2026	AQD	1.1/4-11	1.5/8-12	41	55	53	80
A-G-90-2426		1.1/2-11	1.5/8-12	60	65	59	
A-G-90-2430	AQF	1.1/2-11	1.7/8-12	50	60	59	70

A-J-90

BSPT MALE X JIC FEMALE

BSPT MALE X JIC 37° FLARE FEMALE SWIVEL NUT

90° ELBOW

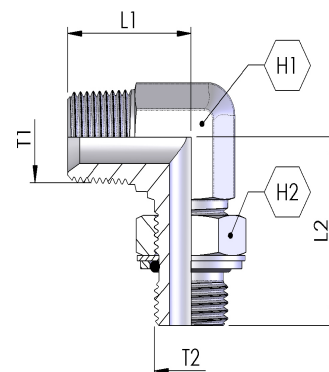


Part Number	A	B	L1	L2	CH1	CH2
A-J-90-0207	1/8-28	7/16-20	24	19	14	15
A-J-90-0407	1/4-19	7/16-20	24	19	14	15
A-J-90-0609	3/8-19	9/16-18	27	23	19	19
A-J-90-0812	1/2-14	3/4-16	35	27	22	24
A-J-90-0814	1/2-14	7/8-14	35	29	22	27
A-J-90-1217	3/4-14	1.1/16-12	40	30	27	32
A-J-90-1621	1-11	1.5/16-12				

A-BP-90

BSPT MALE X BSP ADJUSTABLE

BSPT MALE X BSP ADJUSTABLE STUD 90° ELBOW



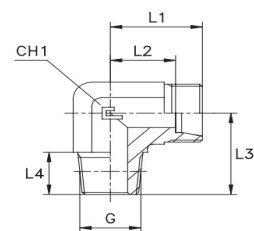
Part Number	Short Code	T1	T2	H1	H2	L1	L2	PN (bar)
A-BP-90-0404		1/4-19	1/4-19					
A-BP-90-0406		1/4-19	3/8-19					
A-BP-90-0606		3/8-19	3/8-19	24	31	39		
A-BP-90-0608		3/8-19	1/2-14					
A-BP-90-0808	AGP	1/2-14	1/2-14	22	27	35	43	200
A-BP-90-0812		1/2-14	3/4-14					
A-BP-90-1212	AGR	3/4-14	3/4-14	27	36	40	47	170
A-BP-90-1616	AGS	1-11	1-11	35	41	47	53	140

A-ML-90

BSPT MALE X MET LIGHT MALE

BSPT MALE X METRIC 24° CONE LIGHT MALE 90°

ELBOW



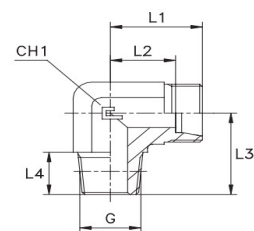
Part Number	Metric Male Thread	BSPT Male Thread (G)	Working Pressure (bar)	suits tube	L1 - mm	L2 - mm	L3 - mm	L4 - mm	Hex A/F (CH1)
A-ML-90-0212	M12-1.5	1/8-28	315	6	19	12	20	8	12
A-ML-90-0412	M12-1.5	1/4-19	315	6	21	14	26	12	12
A-ML-90-0414	M14-1.5	1/4-19	315	8	21	14	26	12	12
A-ML-90-0416	M16-1.5	1/4-19	315	10	22	15	27	12	14
A-ML-90-0616	M16-1.5	3/8-19	315	10	24	17	28	12	17
A-ML-90-0618	M18-1.5	3/8-19	315	12	24	17	28	12	17
A-ML-90-0822	M22-1.5	1/2-14	315	15	28	21	34	14	19
A-ML-90-0826	M26-1.5	1/2-14	315	18	31	24	36	14	24
A-ML-90-1230	M30-2	3/4-14	160	22	35	28	42	16	27

A-MS-90

BSPT MALE X MET HEAVY MALE

BSPT MALE X METRIC 24° CONE HEAVY MALE 90°

ELBOW

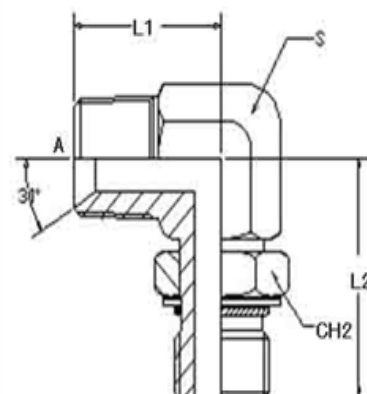


Part Number	Metric Male Thread	BSPT Male Thread (G)	Working Pressure (bar)	suits tube	L1 - mm	L2 - mm	L3 - mm	L4 - mm	Hex A/F (CH1)
A-MS-90-0414	M14-1.5	1/4-19	630	6	23	16	26	12	12
A-MS-90-0416	M16-1.5	1/4-19	630	8	24	17	27	12	14
A-MS-90-0618	M18-1.5	3/8-19	630	10	25	18	28	12	17
A-MS-90-0620	M20-1.5	3/8-19	630	12	29	22	28	12	17
A-MS-90-0820	M20-1.5	1/2-14	630	12	28	21	32	14	19
A-MS-90-0822	M22-1.5	1/2-14	630	14	30	22	32	14	19
A-MS-90-0824	M24-1.5	1/2-14	400	16	33	25	32	14	24
A-MS-90-1230	M30-2	3/4-14	400	20	37	27	42	16	27
A-MS-90-1636	M36-2	1-11	400	25	42	30	48	18	36
A-MS-90-2042	M42-2	1.1/4-11	400	30	49	36	54	20	41

A-NP-90

BSPT MALE X UNO ADJUSTABLE

BSPT MALE X UNO ADJUSTABLE STUD 90° ELBOW



Part Number	A	B	L1	L2	S	CH2
A-NP-90-0407	1/4-19	7/16-20	25	31	14	16
A-NP-90-0409	1/4-19	9/16-18	25	32	14	19
A-NP-90-0412	1/4-19	3/4-16	27	37	19	24
A-NP-90-0609	3/8-19	9/16-18	31	35	19	19
A-NP-90-0612	3/8-19	3/4-16	29	37	19	24
A-NP-90-0614	3/8-19	7/8-14	28	39	22	27
A-NP-90-0812	1/2-14	3/4-16	35	39	22	24
A-NP-90-0814	1/2-14	7/8-14	33	44	22	27
A-NP-90-0817	1/2-14	1.1/16-12	44	49	27	32
A-NP-90-1214	3/4-14	7/8-14	40	49	27	27
A-NP-90-1217	3/4-14	1.1/16-12	38	49	27	32
A-NP-90-1621	1-11	1.5/16-12	45	52	35	38

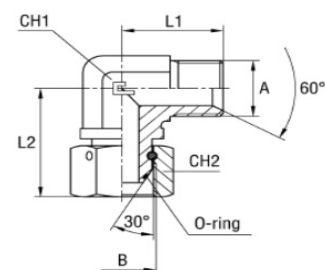
B-C-90

BSP MALE X BSP FEMALE

BSP 60° CONE MALE X BSP 60° CONE FEMALE

SWIVEL NUT 90° ELBOW

- ISO 8434-6



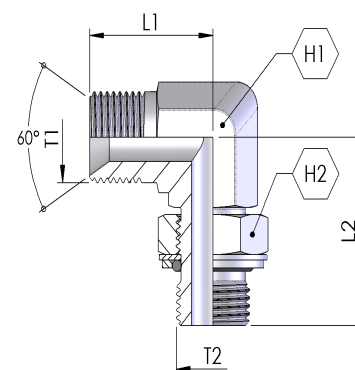
Part Number	A	B	L1	L2	CH1	CH2
B-C-90-0404	1/4-19	1/4-19	26	33	14	19
B-C-90-0606	3/8-19	3/8-19				
B-C-90-0808	1/2-14	1/2-14	34	43	22	27
B-C-90-1212	3/4-14	3/4-14				
B-C-90-1616	1-11	1-11	45	61	33	41

B-BP-90

BSP MALE X BSP ADJUSTABLE

BSP 60° CONE MALE X BSP ADJUSTABLE STUD 90°
ELBOW

- ISO 8434-6

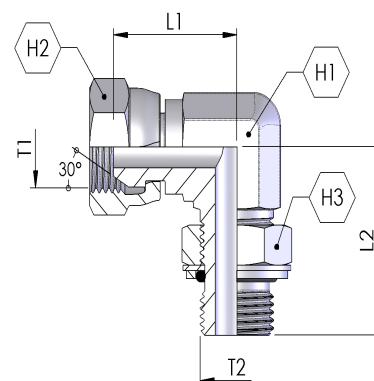


Part Number	Short Code	T1	T2	H1	H2	L1	L2	PN (bar)
B- BP-90-0404	BBL	1/4-19	1/4-19	14	19	26	32	200
B- BP-90-0406		1/4-19	3/8-19					
B- BP-90-0604		3/8-19	1/4-19					
B- BP-90-0606	BBO	3/8-19	3/8-19	19	22	30	36	200
B- BP-90-0608		3/8-19	1/2-14					
B- BP-90-0806		1/2-14	3/8-19					
B- BP-90-0808	BBR	1/2-14	1/2-14	22	27	35	43	200
B- BP-90-0812		1/2-14	3/4-14					
B- BP-90-1208		3/4-14	1/2-14					
B- BP-90-1212	BBU	3/4-14	3/4-14	27	36	41	47	200
B- BP-90-1612		1-11	3/4-14					
B- BP-90-1616	BBW	1-11	1-11	35	41	47	53	200
B- BP-90-2020		1.1/4-11	1.1/4-11					

C-BP-90

BSP FEMALE X BSP ADJUSTABLE
BSP 60° CONE FEMALE SWIVEL NUT X BSP
ADJUSTABLE STUD 90° ELBOW

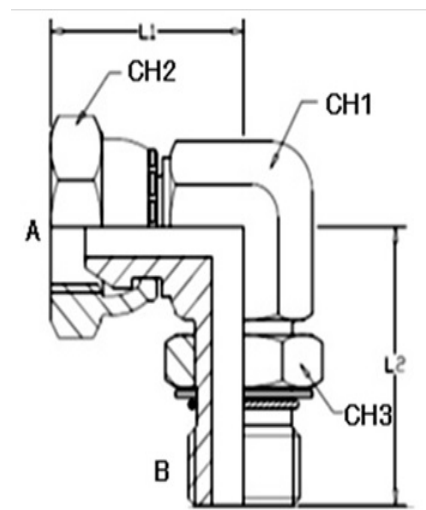
- ISO 8434-6



Part Number	Short Code	T1	T2	H1	H2	H3	L1	L2	PN (bar)
C-BP-90-0404	BRA	1/4-19	1/4-19	19	19		26	32	200
C-BP-90-0606	BRC	3/8-19	3/8-19	19	22	22	30	36	200
C-BP-90-0808	BRD	1/2-14	1/2-14	22	27		35	43	200
C-BP-90-1212	BRF	3/4-14	3/4-14	27	32	36	41	47	200
C-BP-90-1616	BRG	1-11	1-11	35	41	41	44	53	200
C-BP-90-2020		1.1/4-11	1.1/4-11	41	50	50	64	58	

C-NP-90

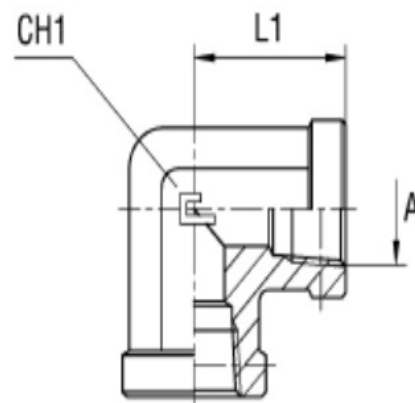
BSP FEMALE X UNO ADJUSTABLE
BSP 60° CONE FEMALE SWIVEL NUT X UNO
ADJUSTABLE STUD 90° ELBOW



Part Number	A	B	L1	L2	CH1	CH2	CH3
C-NP-90-0609	3/8-19	9/16-18	31	33	19	19	22
C-NP-90-0612	3/8-19	3/4-16	31	35	19	24	22
C-NP-90-0812	1/2-14	3/4-16					
C-NP-90-0814	1/2-14	7/8-14	33	41	25	25	25
C-NP-90-1217	3/4-14	1 1/16-12					
C-NP-90-1621	1-11	1 5/16-12					

E-E-90

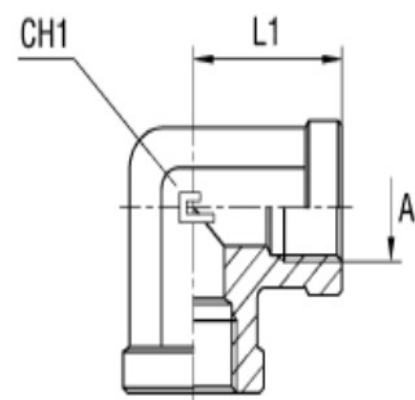
BSPT FEMALE X BSPT FEMALE
BSPT FIXED FEMALE X BSPT FIXED FEMALE 90°
ELBOW



Part Number	A	L1	CH1
E-E-90-0202	1/8-28	22	17
E-E-90-0404	1/4-19	23	23
E-E-90-0606	3/8-19	25	27
E-E-90-0808	1/2-14	29	33
E-E-90-1212	3/4-14	34	39
E-E-90-1616	1-11	40	47
E-E-90-2020	1.1/4-11	45	57
E-E-90-2424	1.1/2-11	51	63
E-E-90-3232	2-11	60	76

F-F-90

BSP FEMALE X BSP FEMALE
BSP FIXED FEMALE X BSP FIXED FEMALE 90°
ELBOW



Part Number	A	L1	CH1
F-F-90-0202	1/8-28		
F-F-90-0404	1/4-19		
F-F-90-0606	3/8-19	26	22
F-F-90-0808	1/2-14	31	27
F-F-90-1212	3/4-14	35	33
F-F-90-1616	1-11	41	41

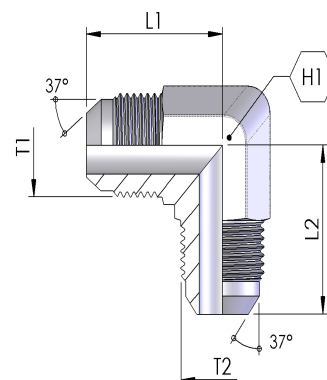
G-G-90

JIC MALE X JIC MALE

JIC 37° FLARE MALE X JIC 37° FLARE MALE 90°

ELBOW

- ISO 8434-2



Part Number	Short Code	T1	T2	H1	L1	L2	PN (bar)
G-G-90-0707	CCU	7/16-20	7/16-20	14	24	24	350
G-G-90-0808	CCW	1/2-20	1/2-20	14	24	24	350
G-G-90-0909	CCX	9/16-18	9/16-18	14	26	26	350
G-G-90-0912	CDA	9/16-18	3/4-16	19	29	32	310
G-G-90-1212	CDB	3/4-16	3/4-16	19	32	32	310
G-G-90-1214	CDC	3/4-16	7/8-14	22	33	36	240
G-G-90-1414	CDD	7/8-14	7/8-14	22	36	36	240
G-G-90-1417	CDE	7/8-14	1.1/16-12	27	39	42	240
G-G-90-1717	CDF	1.1/16-12	1.1/16-12	27	40	40	240
G-G-90-1721		1.1/16-12	1.5/16-12				
G-G-90-2121	CDH	1.5/16-12	1.5/16-12	35	48	47	210
G-G-90-2626	CDI	1.5/8-12	1.5/8-12	41	53	53	170

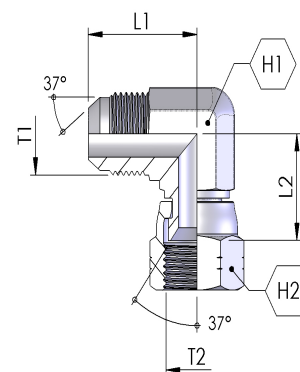
G-J-90

JIC MALE X JIC FEMALE

JIC 37° FLARE MALE X JIC 37° FLARE FEMALE

SWIVEL NUT 90° ELBOW

- ISO 8434-2



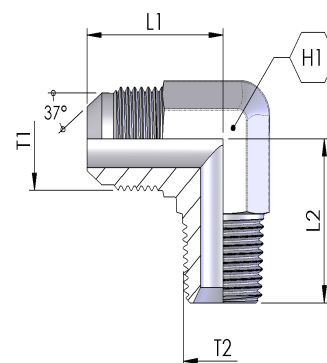
Part Number	Short Code	T1	T2	H1	H2	L1	L2	PN (bar)
G-J-90-0707	CIJ	7/16-20	7/16-20	14	14	24	17	350
G-J-90-0808		1/2-20	1/2-20					
G-J-90-0909	CIL	9/16-18	9/16-18	14	19	26	22	350
G-J-90-1212	CIN	3/4-16	3/4-16	19	22	32	24	310
G-J-90-1414	CIP	7/8-14	7/8-14	22	27	36	28	240
G-J-90-1717	CIR	1.1/16-12	1.1/16-12	27	32	42	30	240
G-J-90-2121	CIS	1.5/16-12	1.5/16-12	35	41	46	36	210
G-J-90-2626	CIT	1.5/8-12	1.5/8-12	41	50	53	43	170
G-J-90-3030		1.7/8-12	1.7/8-12					

G-L-90

JIC MALE X NPTF MALE

JIC 37° FLARE MALE X NPTF MALE 90° ELBOW

- SAE J514



Part Number	Short Code	T1	T2	H1	L1	L2	PN (bar)
G-L-90-0702	CMZ	7/16-20	1/8-27	12	22	20	345
G-L-90-0704		7/16-20	1/4-18	14	24	28	
G-L-90-0706		7/16-20	3/8-18	19	28	31	
G-L-90-0802		1/2-20	1/8-27	14	24	20	
G-L-90-0904		9/16-18	1/4-18	14	28	28	
G-L-90-0906		9/16-18	3/8-18	19	29	31	
G-L-90-0908		9/16-18	1/2-14	22	29	37	
G-L-90-1204		3/4-16	1/4-18	19	32	31	
G-L-90-1206		3/4-16	3/8-18	19	32	31	
G-L-90-1208		3/4-16	1/2-14	22	34	37	
G-L-90-1212		3/4-16	3/4-14	27	36	40	
G-L-90-1406		7/8-14	3/8-18	22	37	33	
G-L-90-1408		7/8-14	1/2-14	22	37	37	
G-L-90-1412		7/8-14	3/4-14	27	39	40	
G-L-90-1712		1.1/16-12	3/4-14	27	42	40	
G-L-90-1716		1.1/16-12	1-11.5	33	45	50	
G-L-90-2620		1.5/8-12	1.1/4-11.5	41	52	60	

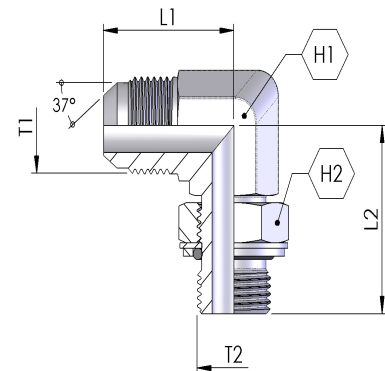
G-BP-90

JIC MALE X BSP ADJUSTABLE

JIC 37° FLARE MALE X BSP ADJUSTABLE STUD 90°

ELBOW

- ISO 8434-2



Part Number	Short Code	T1	T2	H1	H2	L1	L2	PN (bar)
G-BP-90-0702	BZI	7/16-20	1/8-28	14	14	24	27	200
G-BP-90-0704	BZJ	7/16-20	1/4-19	14	19	24	32	200
G-BP-90-0706		7/16-20	3/8-19	19	22	29	37	
G-BP-90-0708		7/16-20	1/2-14	22	27	31	43	
G-BP-90-0804		1/2-20	1/4-19					
G-BP-90-0902		9/16-18	1/8-28					
G-BP-90-0904	BZO	9/16-18	1/4-19	14	19	27	32	200
G-BP-90-0906	BZP	9/16-18	3/8-19	19	22	29	37	200
G-BP-90-0908	BZQ	9/16-18	1/2-14	22	27	31	43	200
G-BP-90-1204		3/4-16	1/4-19					
G-BP-90-1206	BZS	3/4-16	3/8-19	19	22	32	37	200
G-BP-90-1208	BZT	3/4-16	1/2-14	22	27	34	43	200
G-BP-90-1212		3/4-16	3/4-14	27	36	36	49	
G-BP-90-1406		7/8-14	3/8-19	22	22	37	38	
G-BP-90-1408	BZW	7/8-14	1/2-14	22	27	37	43	200
G-BP-90-1412	BZX	7/8-14	3/4-14	27	36	39	50	200
G-BP-90-1708	BZY	1.1/16-12	1/2-14	27	27	41	47	200
G-BP-90-1712	BZZ	1.1/16-12	3/4-14	27	36	41	50	200
G-	CAA	1.1/6-12	1-11	35	41	46	52	200

BP-90-1716								
G- BP-90-2112		1.5/16-12	3/4-14	33	36	46	50	
G- BP-90-2116	CAC	1.5/6-12	1-11	35	41	47	52	200
G- BP-90-2120		1.5/16-12	1.1/4-11					
G- BP-90-2616		1.5/8-12	1-11	41	41	53	58	
G- BP-90-2620		1.5/8-12	1.1/4-11	41	50	53	58	
G- BP-90-3020		1.7/8-12	1.1/4-11					
G- BP-90-3024		1.7/8-12	1.1/2-11	48	55	59	60	

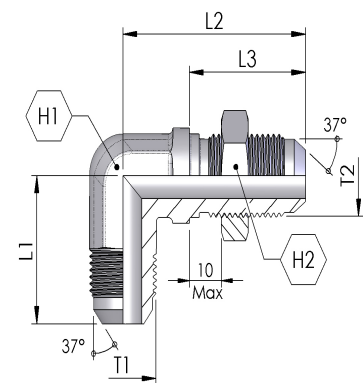
G-GK-90

JIC MALE X JIC BULKHEAD

JIC 37° FLARE MALE X JIC 37° FLARE BULKHEAD

90° ELBOW

- ISO 8434-2



Part Number	Short Code	T1	T2	H1	H2	L1	L2	L3	PN (bar)
G- GK-90-0707	CGF	7/16-20	7/16-20	11.1	17	25	41	28	350
G- GK-90-0909	CGG	9/16-18	9/16-18	14.3	22	28	46	30	350
G- GK-90-1212	CGH	3/4-16	3/4-16	19	24	35	54	35	310
G- GK-90-1414	CGI	7/8-14	7/8-14	22	30	40	61	39	240
G- GK-90-1717	CGJ	1.1/16-12	1.1/16-12	27	36	45	68	43	240
G- GK-90-2121		1.5/16-12	1.5/16-12	33	41	49.5	71	43	290

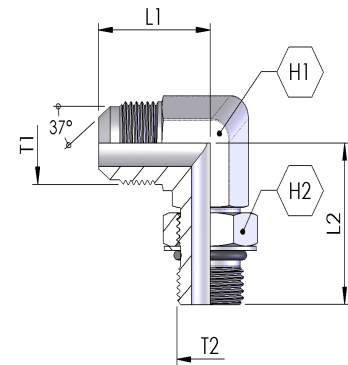
G-NP-90

JIC MALE X UNO ADJUSTABLE

JIC 37° FLARE MALE X UNO ADJUSTABLE STUD 90°

ELBOW

- ISO 8434-2



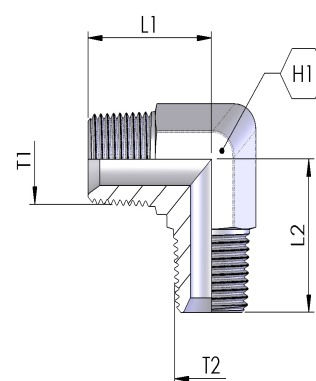
Part Number	Short Code	T1	T2	H1	H2	L1	L2	PN (bar)
G-NP-90-0707	CST	7/16-20	7/16-20	14	14	24	28	315
G-NP-90-0709		7/16-20	9/16-18	14	18	27	32	
G-NP-90-0808		1/2-20	1/2-20					
G-NP-90-0809		1/2-20	9/16-18					
G-NP-90-0907		9/16-18	7/16-20	14	14	27	30	
G-NP-90-0908		9/16-18	1/2-20					
G-NP-90-0909	CTB	9/16-18	9/16-18	14	17	27	31	250
G-NP-90-0912	CTC	9/16-18	3/4-16	19	22	29	37	250
G-NP-90-0914		9/16-18	7/8-14					
G-NP-90-1212	CTG	3/4-16	3/4-16	19	22	32	37	250
G-NP-90-1214	CTH	3/4-16	7/8-14	22	27	34	43	200
G-NP-90-1217		3/4-16	1.1/16-12					
G-NP-90-1221		3/4-16	1.5/16-12					
G-NP-90-1412		7/8-14	3/4-16	22	22	37	40	
G-NP-90-1414	CTL	7/8-14	7/8-14	22	27	37	43	200
G-NP-90-1417	CTM	7/8-14	1.1/16-12	27	32	39	50	200
G-NP-90-1712		1.1/16-12	3/4-16	27	22	42	42	
G-NP-90-1714		1.1/16-12	7/8-14	27	25	42	45	
G-	CTP	1.1/16-12	1.1/16-12	27	32	41	50	200

NP-90-1717								
G- NP-90-1721		1.1/16-12	1.5/16-12	33	38	45	52	
G- NP-90-2117		1.5/16-12	1.1/16-12					
G- NP-90-2121	CTT	1.5/16-12	1.5/16-12	35	41	47	52	160
G- NP-90-2126		1.5/16-12	1.5/8-12					
G- NP-90-2621		1.5/8-12	1.5/16-12					
G- NP-90-2626		1.5/8-12	1.5/8-12	41	48	52	57	
G- NP-90-3030		1.7/8-12	1.7/8-12					

L-L-90

NPTF MALE X NPTF MALE

NPTF MALE X NPTF MALE 90° ELBOW



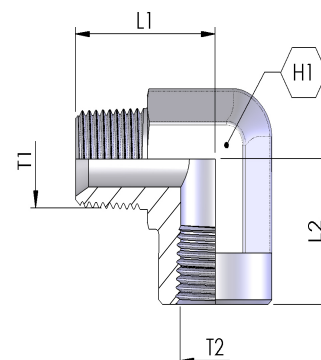
Part Number	T1	T2	L1 (mm)	L2 (mm)	H1 (mm)
L-L-90-0202	1/8-27	1/8-27	20	20	13
L-L-90-0404	1/4-18	1/4-18	28	28	16
L-L-90-0406	1/4-18	3/8-18	30	31	21
L-L-90-0606	3/8-18	3/8-18	31	31	21
L-L-90-0608	3/8-18	1/2-14	33	37	24
L-L-90-0808	1/2-14	1/2-14	37	37	24
L-L-90-1212	3/4-14	3/4-14	40	40	29
L-L-90-1616	1-11.5	1-11.5	50	50	35

L-AC-90

NPTF MALE X NPTF FEMALE

NPTF MALE X NPTF FIXED FEMALE 90° ELBOW

- SAE J514



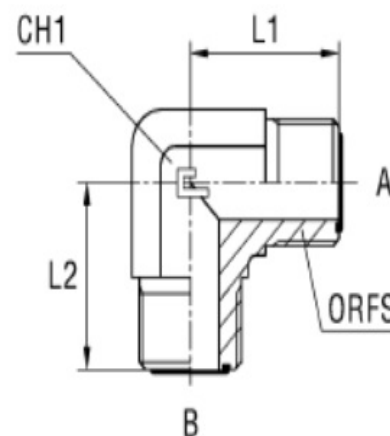
Part Number	T1	T2	L1 (mm)	L2 (mm)	H1 (mm)
L-AC-90-0202	1/8-27	1/8-27	20	17	14
L-AC-90-0404	1/4-18	1/4-18	28	23	19
L-AC-90-0606	3/8-18	3/8-18	31	26	22
L-AC-90-0808	1/2-14	1/2-14	37	31	27
L-AC-90-1212	3/4-14	3/4-14	40	35	33

R-R-90

ORFS MALE X ORFS MALE

ORFS MALE X ORFS MALE 90° ELBOW

- ISO 8434-3



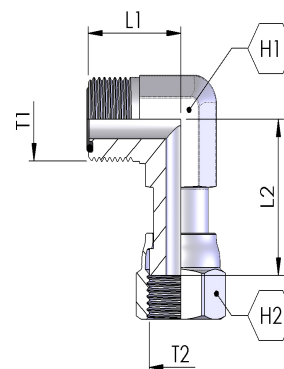
Part Number	A	B	L1	L2	CH1
R-R-90-0909	9/16-18	9/16-18	22	22	14
R-R-90-1111	11/16-16	11/16-16	25	25	19
R-R-90-1313	13/16-16	13/16-16	28	28	19
R-R-90-1616	1-14	1-14	34	34	27
R-R-90-1919	1.3/16-12	1.3/16-12	38	38	30
R-R-90-2323	1.7/16-12	1.7/16-12	42	42	36

R-T-90

ORFS MALE X ORFS FEMALE

ORFS MALE X ORFS FEMALE SWIVEL NUT 90°
ELBOW

- ISO 8434-3

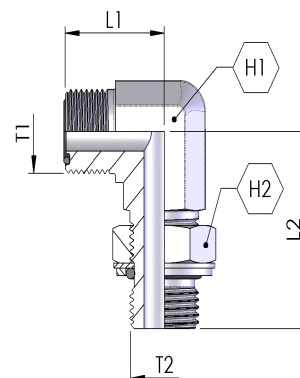


Part Number	ORFS Male Thread (A)	ORFS Female Thread (B)	L1 - mm	L2 - mm	Hex A/F (CH1)	Hex A/F (CH2)
R-T-90-0909	9/16-18	9/16-18	22	27	14	17
R-T-90-1111	11/16-16	11/16-16	25	29	19	22
R-T-90-1313	13/16-16	13/16-16	28	38	19	24
R-T-90-1616	1-14	1-14	34	41	27	30
R-T-90-1919	1.3/16-12	1.3/16-12	38	47	30	36
R-T-90-2323	1.7/16-12	1.7/16-12	42	54	36	41
R-T-90-2727	1.11/16-12	1.11/16-12	45	58	41	50

R-BP-90

ORFS MALE X BSP ADJUSTABLE

ORFS MALE X BSP ADJUSTABLE STUD 90° ELBOW



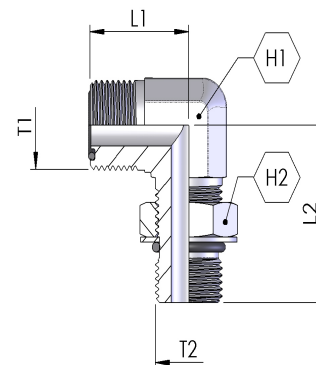
Part Number	Short Code	T1	T2	H1	H2	L1	L2	PN (bar)
R-BP-90-0904	DZR	9/16-18	1/4-19	14	19	22	35	200
R-BP-90-1106	DZU	11/16-16	3/8-19	19	22	25	38	200
R-BP-90-1306	DZV	13/16-16	3/8-19	19	22	28	38	200
R-BP-90-1308	DZW	13/16-16	1/2-14	22	27	30	48	200
R-BP-90-1608	DZX	1-14	1/2-14	27	27	34	48	200
R-BP-90-1612	DZY	1-14	3/4-14	27	36	34	51	200
R-BP-90-1912	DZZ	1.3/16-12	3/4-14	30	36	38	52	200
R-BP-90-1916	EAA	1.3/16-12	1-11	36	41	42	59	200
R-BP-90-2316	EAC	1.7/16-12	1-11	36	41	42	59	200

R-NP-90

ORFS MALE X UNO ADJUSTABLE

ORFS MALE X UNO ADJUSTABLE STUD 90° ELBOW

- SAE J1453

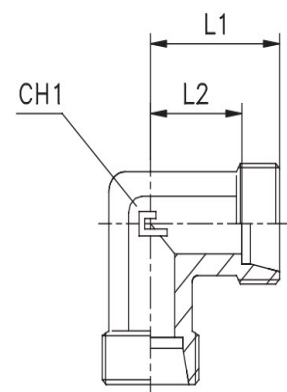


Part Number	Short Code	T1	T2	H1	H2	L1	L2	PN (bar)
R-NP-90-0907	EBM	9/16-18	7/16-20	14	17	22	32	400
R-NP-90-0909	EBN	9/16-18	9/16-18	17	19	24	36	400
R-NP-90-1107		11/16-16	7/16-20					
R-NP-90-1109	EBQ	11/16-16	9/16-18	17	19	25	36	400
R-NP-90-1112	EBR	11/16-16	3/4-16	19	24	27	41	400
R-NP-90-1309	EBS	13/16-16	9/16-18	19	19	28	37	400
R-NP-90-1312	EBT	13/16-16	3/4-16	19	24	28	41	400
R-NP-90-1314		13/16-16	7/8-14	24	27	31	50	
R-NP-90-1612	EBW	1-14	3/4-16	24	24	34	46	400
R-NP-90-1614	EBX	1-14	7/8-14	24	27	34	50	400
R-NP-90-1917	ECA	1.3/16-12	1.1/16-12	30	36	38	55	400
R-NP-90-2321	ECD	1.7/16-12	1.5/16-12	36	41	42	60	315
R-NP-90-2726	ECE	1.11/16-12	1.5/8-12	41	50	45	62	250

ML-ML-90

MET LIGHT MALE X MET LIGHT MALE
METRIC 24° CONE LIGHT MALE X METRIC 24°
CONE LIGHT MALE 90° ELBOW

- ISO 8434-1



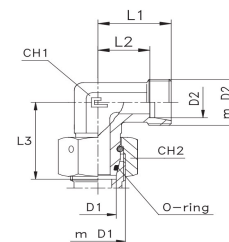
Part Number	Metric Male Thread	suits tube	L1 - mm	L2 - mm	Hex A/F (CH1)	PN (bar)
ML-ML-90-1212	M12-1.5	6	19	12	12	315
ML-ML-90-1414	M14-1.5	8	21	14	12	315
ML-ML-90-1616	M16-1.5	10	22	15	14	315
ML-ML-90-1818	M18-1.5	12	24	17	17	315
ML-ML-90-2222	M22-1.5	15	28	21	19	315
ML-ML-90-2626	M26-1.5	18	31	24	24	315
ML-ML-90-3030	M30-2	22	35	28	27	160
ML-ML-90-3636	M36-2	28	38	31	36	160
ML-ML-90-4545	M45-2	35	45	35	41	160
ML-ML-90-5252	M52-2	42	51	40	50	160

ML-UL-90

MET LIGHT MALE X MET LIGHT F/M

METRIC 24° CONE LIGHT MALE X METRIC 24°

CONE LIGHT FEMALE SWIVEL NUT 90° ELBOW

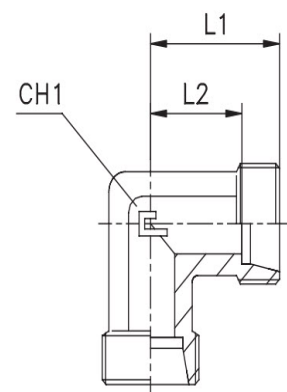


Part Number	Metric Male Thread	Metric Female Thread	suits tube	L1 - mm	L2 - mm	L3 - mm	Hex A/F (CH1)	Hex A/F (CH2)	NP (bar)
ML-UL-90-1212	M12-1.5	M12-1.5	6	19	12	26	12	14	315
ML-UL-90-1414	M14-1.5	M14-1.5	8	21	14	28	12	17	315
ML-UL-90-1616	M16-1.5	M16-1.5	10	22	15	29	14	19	315
ML-UL-90-1818	M18-1.5	M18-1.5	12	24	17	30	17	22	315
ML-UL-90-2222	M22-1.5	M22-1.5	15	28	21	33	19	27	315
ML-UL-90-2626	M26-1.5	M26-1.5	18	31	24	36	24	32	315
ML-UL-90-3030	M30-2	M30-2	22	35	28	39	27	36	160
ML-UL-90-3636	M36-2	M36-2	28	38	31	42	36	41	160
ML-UL-90-4545	M45-2	M45-2	35	45	35	42	41	50	160
ML-UL-90-5252	M52-2	M52-2	42	51	40	56	50	60	160

MS-MS-90

MET HEAVY MALE X MET HEAVY MALE
METRIC 24° CONE HEAVY MALE X METRIC 24°
CONE HEAVY MALE 90° ELBOW

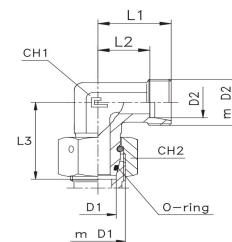
- ISO 8434-1



Part Number	Metric Male Thread	suits tube	L1 - mm	L2 - mm	Hex A/F (CH1)	DN (bar)
MS-MS-90-1414	M14-1.5	6	23	16	12	630
MS-MS-90-1616	M16-1.5	8	24	17	14	630
MS-MS-90-1818	M18-1.5	10	25	18	17	630
MS-MS-90-2020	M20-1.5	12	29	22	17	630
MS-MS-90-2222	M22-1.5	14	30	22	19	630
MS-MS-90-2424	M24-1.5	16	33	25	24	400
MS-MS-90-3030	M30-2	20	37	27	27	400
MS-MS-90-3636	M36-2	25	42	30	36	400
MS-MS-90-4242	M42-2	30	49	36	41	400
MS-MS-90-5252	M52-2	38	57	41	50	315

MS-US-90

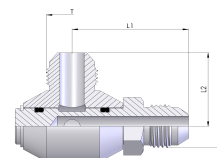
MET HEAVY MALE X MET HEAVY F/M
METRIC 24° CONE HEAVY MALE X METRIC 24°
CONE HEAVY FEMALE SWIVEL NUT 90° ELBOW



Part Number	Metric Male Thread	Metric Female Thread	suits tube	L1 - mm	L2 - mm	L3 - mm	Hex A/F (CH1)	Hex A/F (CH2)	NP (bar)
MS-US-90-1414	M14-1.5	M14-1.5	6	23	16	27	12	17	315
MS-US-90-1616	M16-1.5	M16-1.5	8	24	17	28	14	19	315
MS-US-90-1818	M18-1.5	M18-1.5	10	25	18	30	17	22	315
MS-US-90-2020	M20-1.5	M20-1.5	12	29	22	31	17	24	315
MS-US-90-2222	M22-1.5	M22-1.5	14	30	22	35	19	27	315
MS-US-90-2424	M24-1.5	M24-1.5	16	33	25	37	24	30	315
MS-US-90-3030	M30-2	M30-2	20	37	27	45	27	36	160
MS-US-90-3636	M36-2	M36-2	25	42	30	50	36	46	160
MS-US-90-4242	M42-2	M42-2	30	49	36	56	41	50	160
MS-US-90-5252	M52-2	M52-2	38	57	41	63	50	60	160

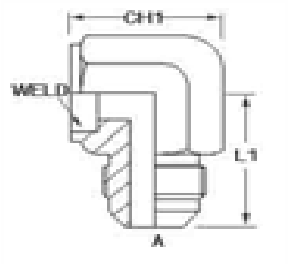
SJ90

JIC MALE X JIC MALE
JIC 37° FLARE MALE X JIC 37° FLARE MALE 90°
ELBOW SWIVEL



Part Number	Body thread	Stem thread	Seal kit
SJ90-GG0909V/H	9/16	9/16	RKSJ-9S6V

TW-G-90
TUBEWELD X JIC MALE 90° ELBOW
IMPERIAL TUBE WELD SOCKET X JIC 37° FLARE
MALE 90° ELBOW

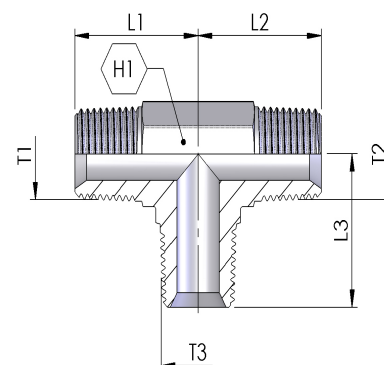


Part Number	suits tube	JIC Male Thread (A)	Weld Socket	L2 - mm	L1 - mm	Hex A/F (CH1)
TW-G-90-0609	3/8	9/16-18	9.7 x 5	8	23	16
TW-G-90-1012	5/8	3/4-16	16 x 6	13	30	25
TW-G-90-1014	5/8	7/8-14	16 x 6	13	33	25
TW-G-90-1217	3/4	1.1/16-12	19.2 x 6	14	36	29

TEE ADAPTORS

A-A-A

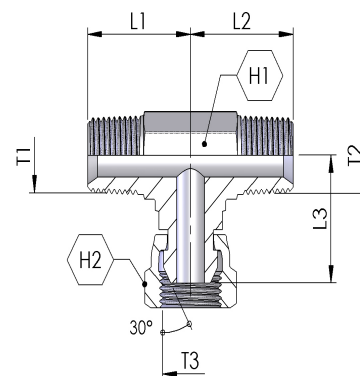
BSPT MALE X BSPT MALE X BSPT MALE
BSPT MALE X BSPT MALE X BSPT MALE TEE



Part Number	Short Code	T1	T2	T3	H1	L1	L2	L3	PN (bar)
A-A-A-020202	ADF	1/8-28	1/8-28	1/8-28	12	20	20	20	345
A-A-A-040404	ADG	1/4-19	1/4-19	1/4-19		25	25	25	275
A-A-A-060606	ADK	3/8-19	3/8-19	3/8-19		31	31	31	210
A-A-A-080808	ADM	1/2-14	1/2-14	1/2-14	22	35	35	35	210
A-A-A-121212	ADQ	3/4-14	3/4-14	3/4-14	27	40	40	40	170
A-A-A-161616	ADR	1-11	1-11	1-11	35	47	47	47	140
A-A-A-202020	ADS	1.1/4-11	1.1/4-11	1.1/4-11	41	55	55	55	80
A-A-A-242424	ADT	1.1/2-11	1.1/2-11	1.1/2-11	50	60	60	60	70
A-A-A-323232	ADU	2-11	2-11	2-11	65	76	76	76	70

A-A-C

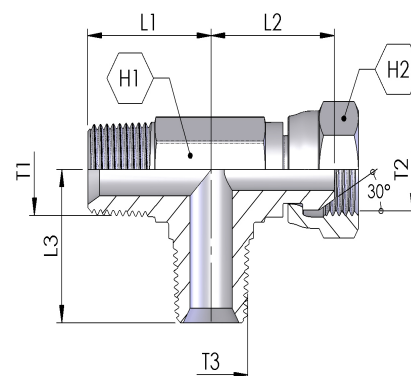
BSPT MALE X BSPT MALE X BSP FEMALE
 BSPT MALE X BSPT MALE X BSP 60° CONE FEMALE
 SWIVEL NUT BRANCH TEE



Part Number	Short Code	T1	T2	T3	H1	H2	L1	L2	L3
A-A-C-040404	ADY	1/4-19	1/4-19	1/4-19	14	19	25	25	20
A-A-C-060606	ADZ	3/8-19	3/8-19	3/8-19	19	22	31	31	30
A-A-C-080808	AEA	1/2-14	1/2-14	1/2-14	22	27	35	35	35
A-A-C-121212		3/4-14	3/4-14	3/4-14	27	32	40	40	37
A-A-C-161616		1-11	1-11	1-11	35	41	46	46	42

A-C-A

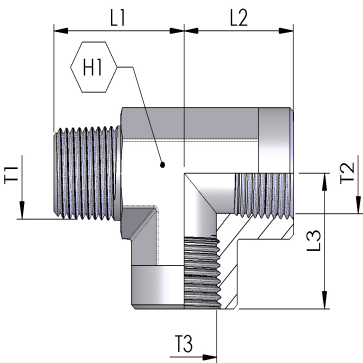
BSPT MALE X BSP FEMALE X BSPT MALE
BSPT MALE X BSP 60° CONE FEMALE SWIVEL NUT
X BSPT MALE RUN TEE



Part Number	Short Code	T1	T2	T3	H1	H2	L1	L2	L3
A-C-A-040404	AIS	1/4-19	1/4-19	1/4-19	14	19	25	20	25
A-C-A-060606	AIT	3/8-19	3/8-19	3/8-19	19	22	31	30	31
A-C-A-080808	AIU	1/2-14	1/2-14	1/2-14	22	27	35	35	35
A-C-A-121212	AIV	3/4-14	3/4-14	3/4-14	27	32	40	42	40
A-C-A-161616	AIW	1-11	1-11	1-11	35	41	47	47	47
A-C-A-202020	AIX	1.1/4-11	1.1/4-11	1.1/4-11	41	50	55	54	55

A-E-E

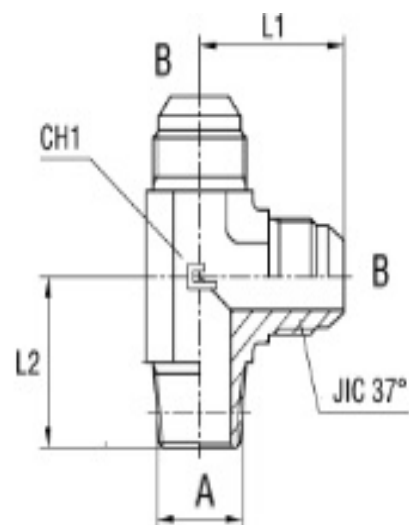
BSPT MALE X BSPT FEMALE X BSPT FEMALE
BSPT MALE X BSPT FIXED FEMALE X BSPT FIXED
FEMALE RUN TEE



Part Number	Short Code	T1	T2	T3	H1	L1	L2	L3	PN (bar)
A-E-E-040404	AMA	1/4-19	1/4-19	1/4-19	19	28	22	22	275
A-E-E-060606	AMB	3/8-19	3/8-19	3/8-19	22	31	26	26	210
A-E-E-080808	AMC	1/2-14	1/2-14	1/2-14	27	37	31	31	210
A-E-E-121212		3/4-14	3/4-14	3/4-14	35	44	34		
A-E-E-161616		1-11	1-11	1-11	41	52	42		

A-G-G

BSPT MALE X JIC MALE X JIC MALE
BSPT MALE X JIC 37° FLARE MALE X JIC 37° FLARE
MALE RUN TEE

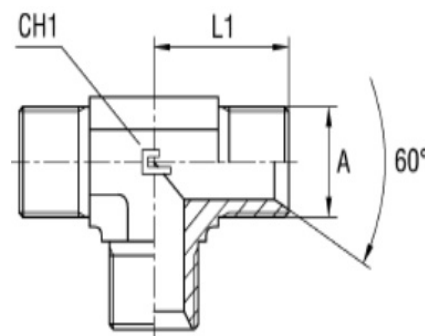


Part Number	A	B	L1	L2	CH1
A-G-G-020707	1/8-28	7/16-20	23	20	14
A-G-G-040707	1/4-19	7/16-20	24	28	14
A-G-G-040909	1/4-19	9/16-18	28	28	14
A-G-G-061212	3/8-19	3/4-16	32	31	19
A-G-G-081212	1/2-14	3/4-16	34	38	22
A-G-G-121717	3/4-14	1.1/16-12	42	40	27

B-B-B

BSP MALE X BSP MALE X BSP MALE
BSP 60° CONE MALE X BSP 60° CONE MALE X BSP
60° CONE MALE TEE

- ISO 8434-6

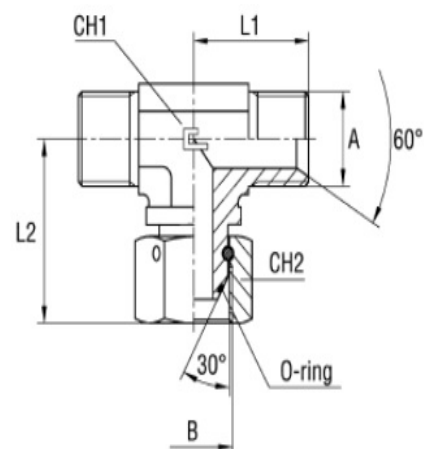


Part Number	A	L1	CH1
B-B-B-040404	1/4-19	26	14
B-B-B-060606	3/8-19		
B-B-B-080808	1/2-14		

B-B-C

BSP MALE X BSP MALE X BSP FEMALE
BSP 60° CONE MALE X BSP 60° CONE MALE X BSP
60° CONE FEMALE SWIVEL NUT BRANCH TEE

- ISO 8434-6

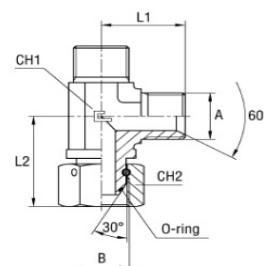


Part Number	A	B	L1	L2	CH1	CH2
B-B-C-040404	1/4-19	1/4-19	26	33	14	19
B-B-C-060606	3/8-19	3/8-19	29	37	19	22
B-B-C-080808	1/2-14	1/2-14	34	43	22	27
B-B-C-121212	3/4-14	3/4-14	41	54	27	32
B-B-C-202020	1.1/4-11	1.1/4-11	57	64	41	50

B-C-B

BSP MALE X BSP FEMALE X BSP MALE
BSP 60° CONE MALE X BSP 60° CONE FEMALE
SWIVEL NUT X BSP 60° CONE MALE RUN TEE

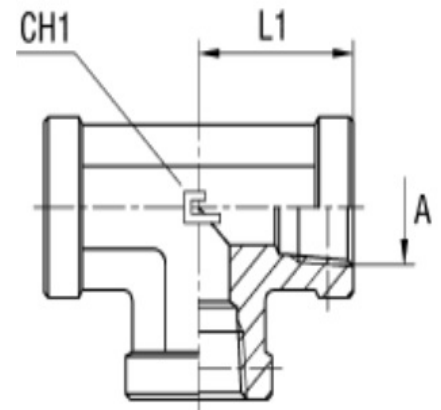
- ISO 8434-6



Part Number	A	B	L1	L2	CH1	CH2
B-C-B-040404	1/4-19	1/4-19	26	33	14	19
B-C-B-060606	3/8-19	3/8-19	29	37	19	22
B-C-B-080808	1/2-14	1/2-14	34	43	22	27
B-C-B-121212	3/4-14	3/4-14	41	54	27	32
B-C-B-161616	1-11	1-11	45	61	33	41
B-C-B-202020	1.1/4-11	1.1/4-11	57	64	41	50
B-C-B-242424	1.1/2-11	1.1/2-11	59	73	48	55

E-E-E

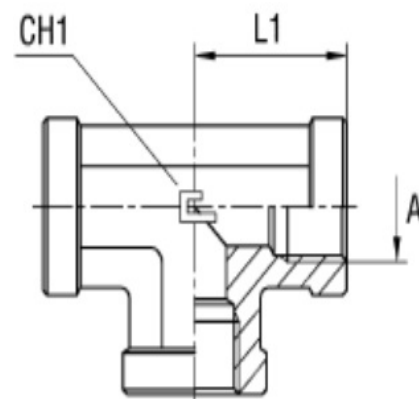
BSPT FEMALE X BSPT FEMALE X BSPT FEMALE
BSPT FIXED FEMALE X BSPT FIXED FEMALE X BSPT
FIXED FEMALE TEE



Part Number	A	L1	CH1
E-E-E-020202	1/8-28	17	14
E-E-E-040404	1/4-19	23	23
E-E-E-060606	3/8-19	25	27
E-E-E-080808	1/2-14	29	33
E-E-E-121212	3/4-14	34	39
E-E-E-161616	1-11	38	47
E-E-E-202020	1.1/4-11	45	53
E-E-E-242424	1.1/2-11	51	63

F-F-F

BSP FEMALE X BSP FEMALE X BSP FEMALE
BSP FIXED FEMALE X BSP FIXED FEMALE X BSP
FIXED FEMALE TEE

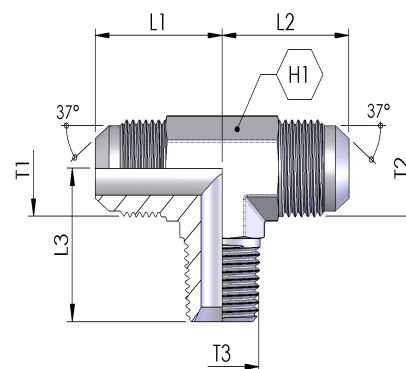


Part Number	A	L1	CH1
F-F-F-020202	1/8-28	17	14
F-F-F-040404	1/4-19	23	19
F-F-F-060606	3/8-19	26	22
F-F-F-080808	1/2-14	31	27
F-F-F-121212	3/4-14	35	33
F-F-F-161616	1-11	41	41
F-F-F-202020	1.1/4-11	43	48

G-G-A

JIC MALE X JIC MALE X BSPT MALE

JIC 37° FLARE MALE X JIC 37° FLARE MALE X BSPT
MALE BRANCH TEE



Part Number	Short Code	T1	T2	T3	H1	L1	L2	L3	PN (bar)
G-G-A-070702	CDK	7/16-20	7/16-20	1/8-28	12	23	23	20	345
G-G-A-070704	CDL	7/16-20	7/16-20	1/4-19	14	27	27	27	275
G-G-A-090906	CDN	9/16-18	9/16-18	3/8-19	19	29	29	31	210
G-G-A-121206	CDO	3/4-16	3/4-16	3/8-19	19	32	32	31	210
G-G-A-121208	CDP	3/4-16	3/4-16	1/2-14	22	34	34	35	210
G-G-A-141408	CDR	7/8-14	7/8-14	1/2-14	22	36	36	35	210
G-G-A-171712	CDT	1.1/16-12	1.1/16-12	3/4-14	27	42	42	40	170
G-G-A-212116	CDU	1.5/16-12	1.5/16-12	1-11	35	46	46	47	140

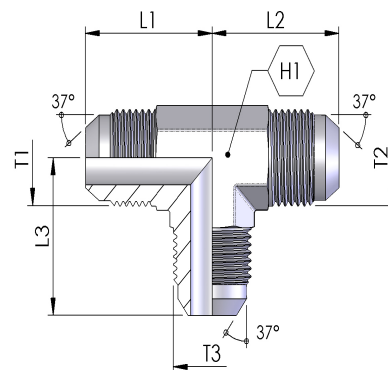
G-G-G

JIC MALE X JIC MALE X JIC MALE

JIC 37° FLARE MALE X JIC 37° FLARE MALE X JIC

37° FLARE MALE

- ISO 8434-2

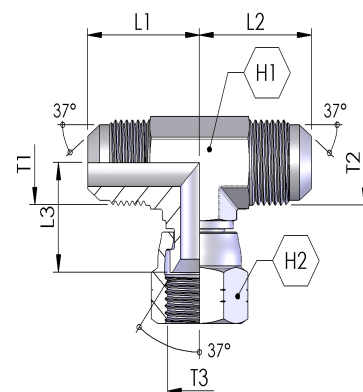


Part Number	Short Code	T1	T2	T3	H1	L1	L2	L3	PN (bar)
G-G-G-070707		7/16-20	7/16-20	7/16-20	11	23			
G-G-G-080808		1/2-20	1/2-20	1/2-20	14	24			
G-G-G-090909	CEJ	9/16-18	9/16-18	9/16-18	14	27	27	27	350
G-G-G-121212	CEK	3/4-16	3/4-16	3/4-16	19	32	32	32	310
G-G-G-141414	CEO	7/8-14	7/8-14	7/8-14	22	36	36	36	240
G-G-G-141417		7/8-14	7/8-14	1.1/16-12					
G-G-G-171717	CEQ	1.1/16-12	1.1/16-12	1.1/16-12	27	42	42	42	240
G-G-G-191919		1.3/16-12	1.3/16-12	1.3/16-12	32	46			
G-G-G-212117		1.5/16-12	1.5/16-12	1.1/16-12					
G-G-G-212121		1.5/16-12	1.5/16-12	1.5/16-12	33	46			
G-G-G-262626		1.5/8-12	1.5/8-12	1.5/8-12	41	53			
G-G-G-303030		1.7/8-12	1.7/8-12	1.7/8-12	48	59			

G-G-J

JIC MALE X JIC MALE X JIC FEMALE
JIC 37° FLARE MALE X JIC 37° FLARE MALE X JIC
37° FLARE FEMALE SWIVEL NUT BRANCH TEE

- ISO 8434-2

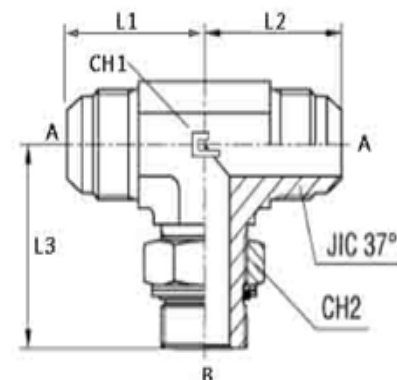


Part Number	Short Code	T1	T2	T3	H1	H2	L1	L2	L3
G-G-J-070707	CFH	7/16-20	7/16-20	7/16-20	12	14	23	23	17
G-G-J-080808		1/2-20	1/2-20	1/2-20					
G-G-J-090909	CFJ	9/16-18	9/16-18	9/16-18	14	19	27	27	22
G-G-J-121212	CFK	3/4-16	3/4-16	3/4-16	19	22	32	32	24
G-G-J-141414	CFL	7/8-14	7/8-14	7/8-14	22	27	36	36	28
G-G-J-171717	CFM	1.1/16-12	1.1/16-12	1.1/16-12	27	32	42	42	30
G-G-J-212121	CFO	1.5/16-12	1.5/16-12	1.5/16-12	35	41	46	46	36
G-G-J-262626	CFP	1.5/16-12	1.5/16-12	1.5/16-12	41	50	53	53	43
G-G-J-303030		1.7/8-12	1.7/8-12	1.7/8-12					

G-G-BP

JIC MALE X JIC MALE X BSP ADJUSTABLE
JIC 37° FLARE MALE X JIC 37° FLARE MALE X BSP
ADJUSTABLE STUD BRANCH TEE

- ISO 8434-2

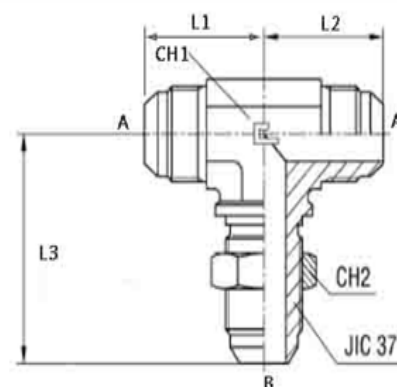


Part Number	A	B	L1	L2	CH1	CH2
G-G-BP-070702	7/16-20	1/8-28	23	26	11	14
G-G-BP-090904	9/16-18	1/4-19	27.5	32	14	19
G-G-BP-121206	3/4-16	3/8-19	32	37	19	22
G-G-BP-121208	3/4-16	1/2-14	34	43	22	27
G-G-BP-171712	1.1/16-12	3/4-14	42	49	27	36
G-G-BP-212116	1.5/16-12	1-11	46	52	33	41

G-G-GK

JIC MALE X JIC MALE X JIC BULKHEAD
JIC 37° FLARE MALE X JIC 37° FLARE MALE X JIC
37° FLARE BULKHEAD BRANCH TEE

- ISO 8434-2

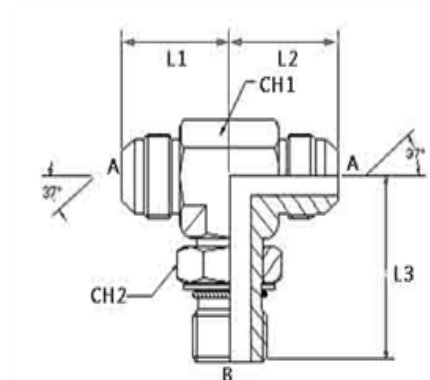


Part Number	A	L1	L2	L3	CH1	CH2
G-G-GK-090909	9/16-18	28	46	30	16	21
G-G-GK-121212	3/4-16	35	54	35	21	25
G-G-GK-171717	1.1/16-12	45	68	43	29	35

G-G-NP

JIC MALE X JIC MALE X UNO ADJUSTABLE
JIC 37° FLARE MALE X JIC 37° FLARE MALE X UNO
ADJUSTABLE STUD BRANCH TEE

- ISO 8434-2

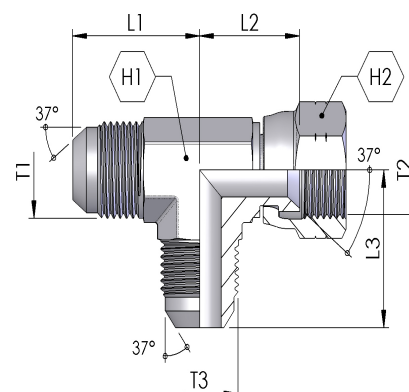


Part Number	A	B	L1	L2	CH1	CH2
G-G-NP-070707	7/16-20	7/16-20	23	26	11	14
G-G-NP-090909	9/16-18	9/16-18	27	32	14	18
G-G-NP-121212	3/4-16	3/4-16	32	37	19	22
G-G-NP-141414	7/8-14	7/8-14	37	43	22	25
G-G-NP-171717	1.1/16-12	1.1/16-12	42	49	27	32
G-G-NP-212121	1.5/16-12	1.5/16-12	46	52	33	38

G-J-G

JIC MALE X JIC FEMALE X JIC MALE
JIC 37° FLARE MALE X JIC 37° FLARE FEMALE
SWIVEL NUT X JIC 37° FLARE MALE RUN TEE

- ISO 8434-2

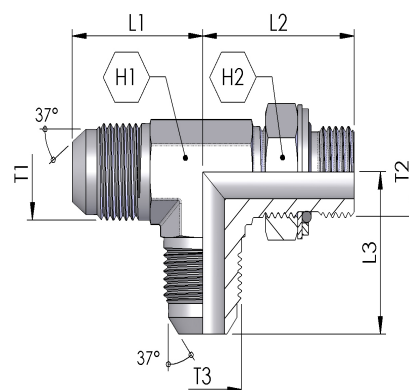


Part Number	Short Code	T1	T2	T3	H1	H2	L1	L2	L3
G-J-G-070707	CKR	7/16-20	7/16-20	7/16-20	12	14	23	17	23
G-J-G-080808		1/2-20	1/2-20	1/2-20					
G-J-G-090909	CKU	9/16-18	9/16-18	9/16-18	14	19	27	22	27
G-J-G-121212	CKV	3/4-16	3/4-16	3/4-16	19	22	32	24	32
G-J-G-141414	CKX	7/8-14	7/8-14	7/8-14	22	27	36	28	36
G-J-G-171717	CKY	1.1/16-12	1.1/16-12	1.1/16-12	27	32	42	30	42
G-J-G-191919		1.3/16-12	1.3/16-12	1.3/16-12					
G-J-G-212121	CLC	1.5/16-12	1.5/16-12	1.5/16-12	35	41	46	36	46
G-J-G-262626		1.5/8-12	1.5/8-12	1.5/8-12					
G-J-G-303030		1.7/8-12	1.7/8-12	1.7/8-12					

G-BP-G

JIC MALE X BSP ADJUSTABLE X JIC MALE
JIC 37° FLARE MALE X BSP ADJUSTABLE STUD X
JIC 37° FLARE MALE RUN TEE

- ISO 8434-2

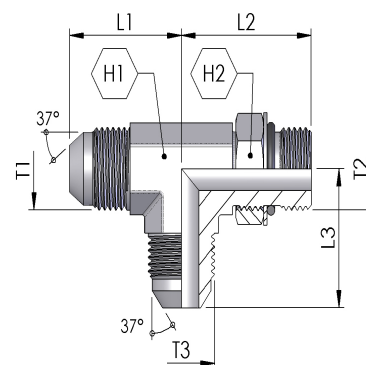


Part Number	A	T1	T2	T3	H1	H2	L1	L2	L3
G-BP-G-090409	CAK	9/16-18	1/4-19	9/16-18	14	19	26	32	26
G-BP-G-120612	CAM	3/4-16	3/8-19	3/4-16	19	22	31	37	31
G-BP-G-120812	CAN	3/4-16	1/2-14	3/4-16	22	27	34	43	34
G-BP-G-140814	CAO	7/8-14	1/2-14	7/8-14	22	27	37	43	37
G-BP-G-171217	CAP	1.1/16-12	3/4-14	1.1/16-12	27	36	42	50	42
G-BP-G-211621	CAQ	1.5/16-12	1-11	1.5/16-12	36	41	46	55	46
G-BP-G-262026		1.5/8-12	1.1/4-11	1.5/8-12	41	50	53		58

G-NP-G

JIC MALE X UNO ADJUSTABLE X JIC MALE
JIC 37° FLARE MALE X UNO ADJUSTABLE STUD X
JIC 37° FLARE MALE RUN TEE

- ISO 8434-2

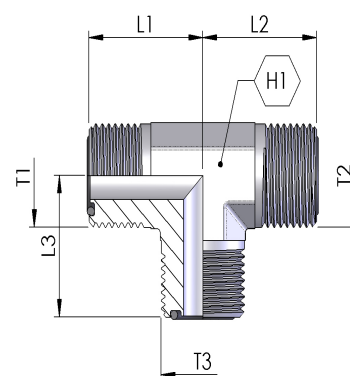


Part Number	T1	T2	L1 (mm)	L2 (mm)	L3 (mm)	H1 (mm)	H2 (mm)
G-NP-G-070707	7/16-20	7/16-12	22.6	26.2	22.6	11	14
G-NP-G-090909	9/16-18	9/16-18	26.9	31.7	26.9	14	18
G-NP-G-121212	3/4-16	3/4-16	31.7	36.9	31.7	19	22
G-NP-G-141414	7/8-14	7/8-14	36.9	43.2	36.9	22	25
G-NP-G-171717	1.1/16-12	1.1/16-12	42.2	45.2	42.2	27	32

R-R-R

ORFS MALE X ORFS MALE X ORFS MALE
ORFS MALE X ORFS MALE X ORFS MALE TEE

- ISO 8434-3

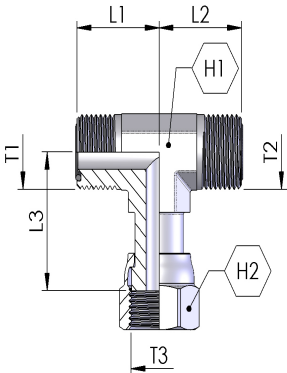


Part Number	T1/T2/T3	L1/L2/L3 (mm)	H1 (mm)
R-R-R-090909	9/16-18	22	14
R-R-R-111111	11/16-16	25	19
R-R-R-131313	13/16-16	28	19
R-R-R-161616	1-14	33	27
R-R-R-191919	1.3/16-12	38	30
R-R-R-232323	1.7/16-12	42	36

R-R-T

ORFS MALE X ORFS MALE X ORFS FEMALE
ORFS MALE X ORFS MALE X ORFS FEMALE SWIVEL
NUT BRANCH TEE

- ISO 8434-3

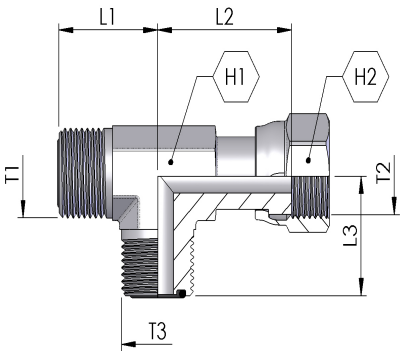


Part Number	T1/T2	T3	L1/L2 (mm)	L3 (mm)	H1 (mm)	H2 (mm)
R-R-T-090909	9/16-18	9/16-18	22	27	14	17
R-R-T-111111	11/16-16	11/16-16	25	29	19	22
R-R-T-131313	13/16-16	13/16-16	28	38	19	24
R-R-T-161616	1-14	1-14	34	41	27	30
R-R-T-191919	1.3/16-12	1.3/16-12	38	47	30	36
R-R-T-232323	1.7/16-12	1.7/16-12	42	54	36	41
R-R-T-272727	1.11/16-12	1.11/16-12	45	58	41	50

R-T-R

ORFS MALE X ORFS FEMALE X ORFS MALE
ORFS MALE X ORFS FEMALE SWIVEL NUT X ORFS
MALE RUN TEE

- ISO 8434-3

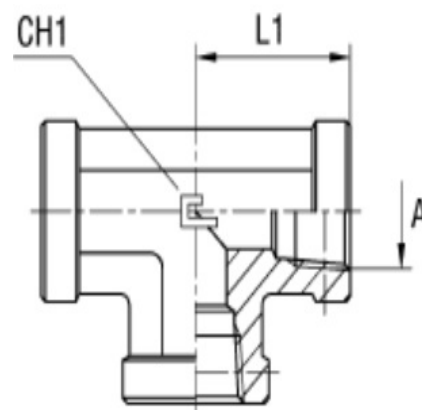


Part Number	T1	T2	T3	L1	L2	L3	H1	H2	H3
R-T-R-090909	9/16-18	9/16-18	9/16-18	22	27	14	14	17	
R-T-R-111111	11/16-16	11/16-16	11/16-16	25	29	19	19	22	
R-T-R-131313	13/16-16	13/16-16	13/16-16	28	38	19	19	24	
R-T-R-161616	1-14	1-14	1-14	34	41	27	27	30	
R-T-R-191919	1.3/16-12	1.3/16-12	1.3/16-12	38	47	30	30	36	
R-T-R-232323	1.7/16-12	1.7/16-12	1.7/16-12	42	54	36	36	41	
R-T-R-272727	1.11/16-12	1.11/16-12	1.11/16-12	45	58	41	41	50	

AC-AC-AC

NPTF FEMALE X NPTF FEMALE X NPTF FEMALE
NPTF FIXED FEMALE X NPTF FIXED FEMALE X NPTF
FIXED FEMALE TEE

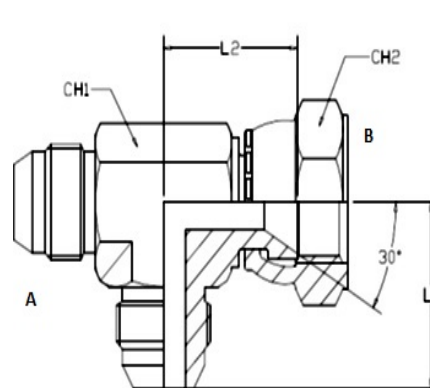
- SAE J514



Part Number	A	L1	CH1
AC-AC-AC-020202	1/8-27	16.76	16
AC-AC-AC-040404	1/4-18	22.35	19
AC-AC-AC-060606	3/8-18	25.91	22
AC-AC-AC-080808	1/2-14	31.24	29
AC-AC-AC-121212	3/4-14	34.54	35

AX-UX-AX

JIS BSP MALE X JIS BSP FEMALE X JIS BSP MALE
JIS BSP 30° FLARE MALE X JIS BSP 30° FLARE
FEMALE SWIVEL NUT X JIS BSP 30° FLARE MALE
RUN TEE



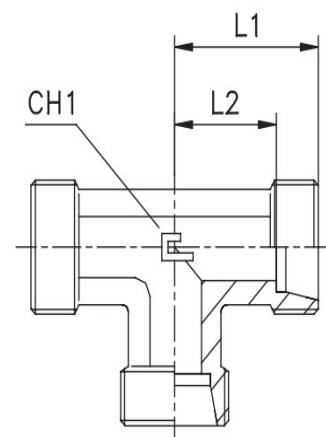
Part Number	A	B	L1	L2	CH1	CH2
AX-UX- AX-040404	1/4-19	1/4-19				
AX-UX- AX-060606	3/8-19	3/8-19	29	20	19	22
AX-UX- AX-080808	1/2-14	1/2-14				

ML-ML-ML

MET LIGHT MALE TEE

METRIC 24° CONE LIGHT MALE TEE

- ISO 8434-1



Part Number	Metric Male Thread	suits tube	L1 - mm	L2 - mm	Hex A/F (CH1)	PN (bar)
ML-ML-ML-121212	M12-1.5	6	19	12	12	315
ML-ML-ML-141414	M14-1.5	8	21	14	12	315
ML-ML-ML-161616	M16-1.5	10	22	15	14	315
ML-ML-ML-181818	M18-1.5	12	24	17	17	315
ML-ML-ML-222222	M22-1.5	15	28	21	19	315
ML-ML-ML-262626	M26-1.5	18	31	24	24	315
ML-ML-ML-303030	M30-2	22	35	28	27	160
ML-ML-ML-363636	M36-2	28	38	31	36	160
ML-ML-ML-454545	M45-2	35	45	35	41	160
ML-ML-ML-525252	M52-2	42	51	40	50	160

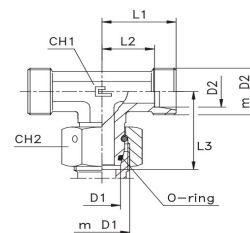
ML-ML-UL

MET LIGHT MALE X MET LIGHT F/M

METRIC 24° CONE LIGHT MALE X METRIC 24°

CONE LIGHT FEMALE SWIVEL NUT BRANCH TEE

- ISO 8434-1



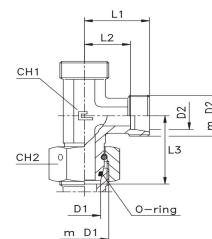
Part Number	Metric Male Thread	Metric Female Thread	suits tube	L1 - mm	L2 - mm	L3 - mm	Hex A/F (CH1)	PN (bar)
ML-ML-UL-121212	M12-1.5	M12-1.5	6	19	12	26	12	315
ML-ML-UL-141414	M14-1.5	M14-1.5	8	21	14	28	12	315
ML-ML-UL-161616	M16-1.5	M16-1.5	10	22	15	29	14	315
ML-ML-UL-181818	M18-1.5	M18-1.5	12	24	17	30	17	315
ML-ML-UL-222222	M22-1.5	M22-1.5	15	28	21	33	19	315
ML-ML-UL-262626	M26-1.5	M26-1.5	18	31	24	36	24	315
ML-ML-UL-303030	M30-2	M30-2	22	35	28	39	27	160

ML-UL-ML

MET LIGHT MALE X MET LIGHT F/M

METRIC 24° CONE LIGHT MALE X METRIC 24°

CONE LIGHT FEMALE SWIVEL NUT RUN TEE

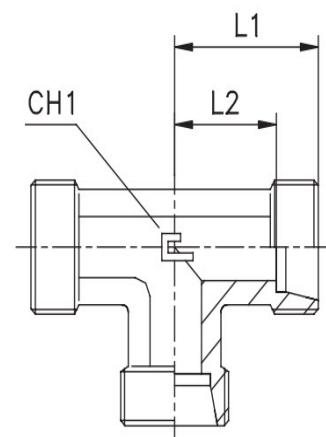


Part Number	Metric Male Thread - D2	Metric Female Thread - D1	suits tube	L1 - mm	L2 - mm	L3 - mm	Hex A/F (CH1)	Hex A/F (CH2)	NP (bar)
ML-UL-ML-121212	M12-1.5	M12-1.5	6	19	12	26	12	14	315
ML-UL-ML-141414	M14-1.5	M14-1.5	8	21	14	28	12	17	315
ML-UL-ML-161616	M16-1.5	M16-1.5	10	22	15	29	14	19	315
ML-UL-ML-181818	M18-1.5	M18-1.5	12	24	17	30	17	22	315
ML-UL-ML-222222	M22-1.5	M22-1.5	15	28	21	33	19	27	315
ML-UL-ML-262626	M26-1.5	M26-1.5	18	31	24	36	24	32	315
ML-UL-ML-303030	M30-2	M30-2	22	35	28	39	27	36	160
ML-UL-ML-363636	M36-2	M36-2	28	38	31	42	36	41	160

MS-MS-MS

MET HEAVY MALE TEE

METRIC 24° CONE HEAVY MALE TEE



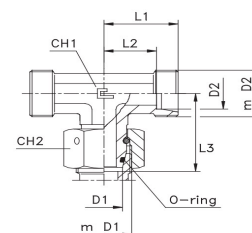
Part Number	Metric Male Thread	suits tube	L1 - mm	L2 - mm	L3 - mm	Hex A/F (CH1)	Working Pressure (bar)
MS-MS-MS-141414	M14-1.5	6	23	16	31	12	630
MS-MS-MS-161616	M16-1.5	8	24	17	32	14	630
MS-MS-MS-181818	M18-1.5	10	25	18	34	17	630
MS-MS-MS-202020	M20-1.5	12	29	22	38	17	630
MS-MS-MS-222222	M22-1.5	14	30	22	40	19	630
MS-MS-MS-242424	M24-1.5	16	33	25	43	24	400
MS-MS-MS-303030	M30-2	20	37	27	48	27	400
MS-MS-MS-363636	M36-2	25	42	30	54	36	400
MS-MS-MS-424242	M42-2	30	49	36	62	41	400
MS-MS-MS-525252	M52-2	38	57	41	72	50	315

MS-MS-US

MET HEAVY MALE X MET HEAVY F/M

METRIC 24° CONE HEAVY MALE X METRIC 24°

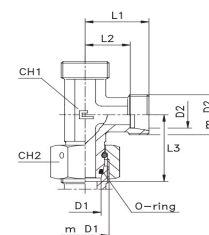
CONE HEAVY FEMALE SWIVEL NUT BRANCH TEE



Part Number	Metric Male Thread	Metric Female Thread	suits tube	L1 - mm	L2 - mm	L3 - mm	Hex A/F (CH1)	PN (bar)
MS-MS-US-141414	M14-1.5	M14-1.5	6	23	16	27	12	315
MS-MS-US-161616	M16-1.5	M16-1.5	8	24	17	28	14	315
MS-MS-US-181818	M18-1.5	M18-1.5	10	25	18	30	17	315
MS-MS-US-202020	M20-1.5	M20-1.5	12	29	22	31	17	315
MS-MS-US-222222	M22-1.5	M22-1.5	14	30	22	35	19	315
MS-MS-US-242424	M24-1.5	M24-1.5	16	33	25	37	24	315
MS-MS-US-303030	M30-2	M30-2	20	37	27	45	27	160
MS-MS-US-363636	M36-2	M36-2	25	42	30	50	36	160
MS-MS-US-424242	M42-2	M42-2	30	49	36	56	41	160
MS-MS-US-525252	M52-2	M52-2	38	57	41	63	50	160

MS-US-MS

MET HEAVY MALE X MET HEAVY F/M
METRIC 24° CONE HEAVY MALE X METRIC 24°
CONE HEAVY FEMALE SWIVEL NUT RUN TEE



Part Number	Metric Male Thread	Metric Female Thread	suits tube	L1 - mm	L2 - mm	L3 - mm	Hex A/F (CH1)	Hex A/F (CH2)	PN (bar)
MS-US-MS-181818	M18-1.5	M18-1.5	10	25	18	31	17	22	315
MS-US-MS-202020	M20-1.5	M20-1.5	12	29	22	31	17	24	315
MS-US-MS-222222	M22-1.5	M22-1.5	14	30	22	35	19	27	315
MS-US-MS-242424	M24-1.5	M24-1.5	16	33	25	37	24	30	315
MS-US-MS-303030	M30-2	M30-2	20	37	27	45	27	36	160
MS-US-MS-363636	M36-2	M36-2	25	42	30	50	36	46	160
MS-US-MS-424242	M42-2	M42-2	30	49	36	56	41	50	160
MS-US-MS-525252	M52-2	M52-2	38	57	41	63	50	60	160

Field Attachable Hosetails

Section 6



GENERAL INFORMATION

The Hydraulink range of hose couplings are available in three main series; Swage, Field Attachable (often referred to as reusable) and Push-on.

The field attachable series hosetail is designed for use with SAE 100R1AT and SAE 100R2AT hose. The field attachable ferrule is selected to match the relevant hose. Please note that Hydraulink field attachable hosetails should only be used with the field attachable ferrules listed in section six of this catalogue.

Hydraulink thread forms and sealing methods are manufactured to the relevant international standards where applicable. All dimensions shown are nominal, and subject to change due to ongoing product development. For critical applications, please contact Hydraulink to confirm dimensions.

Hydraulink Fluid Connectors Ltd. reserves the right to discontinue, or to alter the design and specification of any product listed in this catalogue.

PART NUMBERING SYSTEM – FIELD ATTACHABLE COUPLINGS

The Hydraulink part numbering system is a concise product description in coded form. The part number consists of four modules as follows:

Module 1. Prefix letter; denotes coupling type.

S = Swage

R = Field Attachable (Reusable)

P = Push-on

R5 = Field Attachable (Reusable) to suit SAE 100R5 hose

SU = Suction tail.

Module 2. Series Numbers; denotes the thread form or sealing method (coupling end) and the configuration of the hosetail.

E.g.; series code #51 denotes a BSPP swivel nut female in a swept 90° configuration,
series code #29 denotes a JIC female swivel nut in a compact 90° configuration.

Please refer to the following “Series Codes and Descriptions” for further information regarding coupling ends and configurations.

Module 3. Coupling end size; denotes the size of the thread form or sealing method of the hosetail. Sizes are expressed as follows;

English/American threads; expressed in 1/16th inch increments denoting the key diameter.
For example; 08 = $8/16 = 1/2$ " and 19 = $19/16 = 1\ 3/16$ ".

Metric threads; expressed in millimetres with prefix M, denoting the key diameter.
For example; M10 = 10mm O.D. thread.

Flanges; express the nominal size of the flange head. Nominal sizing refers to the maximum internal bore.

For example a 12 flange head would have a maximum internal bore of $12/16 = 3/4$ ".

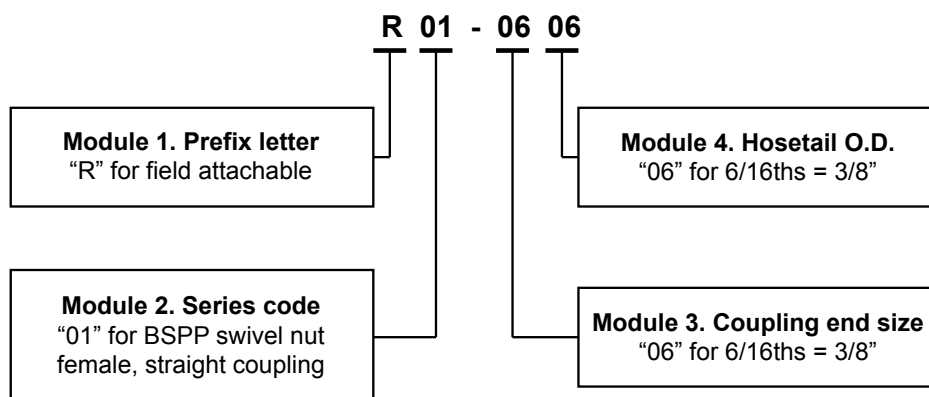
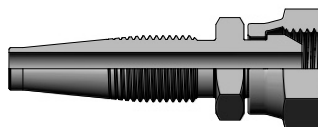
Please refer technical section for further information regarding coupling ends, thread forms and sealing methods.

Module 4. Hosetail outside diameter; denotes both the nominal O.D. of the hosetail and the I.D. of the hose it would suit. Sizes are expressed in 1/16th inch increments.

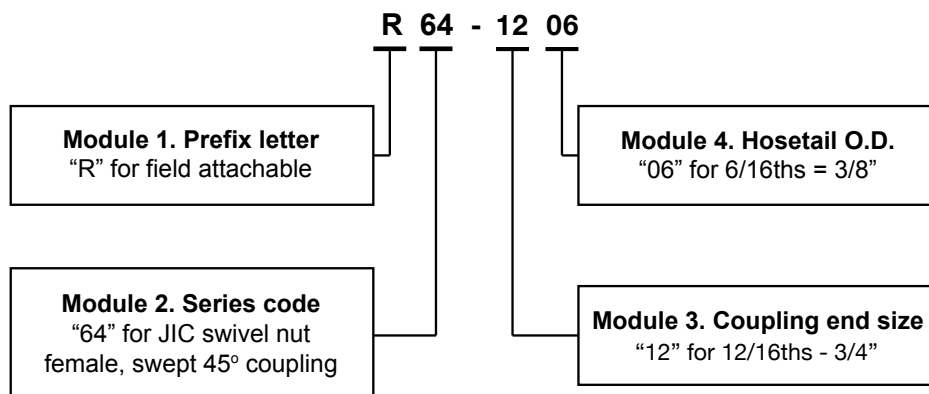
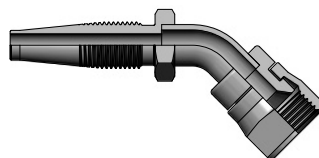
For example; 06 = $6/16 = 3/8$ " and 20 = $20/16 = 1\ 1/4$ ".

PART NUMBERING SYSTEM – EXAMPLES**Part number: R01-0606**

Complete description: 3/8" BSPP swivel nut female x 3/8" hose tail, straight field attachable coupling.

**Part number: R64-1206**

Complete description: 3/4" JIC swivel nut female x 3/8" hose tail, swept 45° field attachable coupling.



SERIES CODES AND DESCRIPTIONS - HOSETAILS

CODE	DESCRIPTION	CODE	DESCRIPTION
01	BSP PARALLEL SWIVEL NUT FEMALE	51	BSPP SWIVEL NUT FEMALE 90° SWEPT BEND
02	BSP PARALLEL SWIVEL NUT FEMALE FLATFACE	52	ORFS SWIVEL NUT FEMALE 90° SWEPT BEND
03	SAE SWIVEL NUT FEMALE	53	METRIC ISO/GAZ SWIVEL NUT FEMALE 90° SWEPT BEND
04	JIC SOLID (FIXED) FEMALE	54	SAE CODE 62 FLANGE 60° SWEPT BEND
05	JIC SWIVEL NUT FEMALE	545	CAT XT5 FLANGE 60° SWEPT BEND
06	BSPT SOLID (FIXED) FEMALE	55	JIC SWIVEL NUT FEMALE 90° SWEPT BEND
07	NPSM SWIVEL NUT FEMALE	56	ORFS SWIVEL NUT FEMALE 90° LONG LEG SWEPT BEND
08	BSP PARALLEL SOLID (FIXED) FEMALE	57	BSPP SWIVEL NUT FEMALE 90° LONG LEG SWEPT BEND
09	SAE MALE	58	JIC SWIVEL NUT FEMALE 90° LONG LEG SWEPT BEND
10	SAE INVERTED FLARE MALE	59	SAE CODE 61 FLANGE 90° SWEPT BEND
11	NPTF SOLID (FIXED) FEMALE	60	BSPP SWIVEL NUT FEMALE 45° SWEPT BEND
110	SAE CODE 61 FLANGE 110° SWEPT BEND	61	SAE CODE 62 FLANGE 90° SWEPT BEND
12	BSP PARALLEL MALE	615	CAT XT5 FLANGE 90° SWEPT BEND
13	ORFS SWIVEL NUT FEMALE	616	O&K SAE CODE 62 FLANGE 90° SWEPT BEND
13R	ORFS SWIVEL NUT FEMALE, SHORT STEM	62	SAE CODE 62 FLANGE 45° SWEPT BEND
133	ORFS SWIVEL NUT FEMALE 30° SWEPT BEND	625	CAT XT5 FLANGE 45° SWEPT BEND
135	SAE CODE 61 FLANGE 135° SWEPT BEND	626	O&K SAE CODE 62 FLANGE 45° SWEPT BEND
14	BSP TAPER MALE SWIVEL	63	ORFS SWIVEL NUT FEMALE 45° SWEPT BEND
15	BSP TAPER MALE	64	JIC SWIVEL NUT FEMALE 45° SWEPT BEND
16	NPTF MALE	65	MINI-CHECK TEST POINT METRIC FEMALE/SPIGOT
17	METRIC MALE (STUD END)	66	SAE CODE 61 FLANGE 60° SWEPT BEND
18	JIC MALE	67	SAE CODE 61 FLANGE 22.5° SWEPT BEND
19	UNO MALE SWIVEL	674	SAE CODE 62 FLANGE 22.5° SWEPT BEND
20	UNO MALE	675	CAT XT5 FLANGE 22.5° SWEPT BEND
21	POCLAIN FLANGE	68	SAE CODE 61 FLANGE 45° SWEPT BEND
22	SAE CODE 62 FLANGE STRAIGHT	69	SAE CODE 61 FLANGE 67.5° SWEPT BEND
225	CAT XT5 FLANGE STRAIGHT	695	CAT XT5 FLANGE 67.5° SWEPT BEND
226	O&K SAE CODE 62 FLANGE STRAIGHT	70	JIS (KOMATSU) METRIC SWIVEL NUT FEMALE
23	SAE CODE 61 FLANGE STRAIGHT	71	JIS (KOMATSU) FLANGE STRAIGHT
236	O&K SAE CODE 61 FLANGE STRAIGHT	72	JIS (KOMATSU) FLANGE 90° SWEPT BEND
24	BSPT MALE SWIVEL 90°	73	JIS (KOMATSU) FLANGE 45° SWEPT BEND
25	BSP PARALLEL SWIVEL NUT FEMALE 90° COMPACT	74	FRENCH GAZ METRIC SWIVEL NUT FEMALE
26	BSPT MALE 90° COMPACT	75	JIS 30° FLARE (MITSUBISHI) SWIVEL NUT FEMALE
27	SAE SWIVEL NUT FEMALE 90° COMPACT	76	DIN METRIC 60° CONE SWIVEL NUT FEMALE
28	JIC MALE SWIVEL 90° COMPACT	77	METRIC GLOBE SEAL SWIVEL NUT FEMALE
29	JIC SWIVEL NUT FEMALE 90° COMPACT	78	HEAVY DIN METRIC MALE
30	WATERBLAST SWIVEL NUT FEMALE	79	HEAVY DIN METRIC SWIVEL NUT FEMALE
31	DIN METRIC 60° CONE MALE STRAIGHT	80	LIGHT DIN METRIC MALE
32	UNO MALE SWIVEL 90° COMPACT	81	LIGHT DIN METRIC SWIVEL NUT FEMALE
33	JIC MALE 90° COMPACT	82	METRIC STANDPIPE
34	JIS (KOMATSU) METRIC MALE	83	HEAVY DIN METRIC SWIVEL NUT FEMALE 90° SWEPT BEND
35	JIS 30° FLARE (MITSUBISHI) MALE	84	HEAVY DIN METRIC SWIVEL NUT FEMALE 45° SWEPT BEND
36	BSP TAPER MALE 45°	85	HEAVY DIN METRIC SWIVEL NUT FEMALE 90° COMPACT
37	SAE SWIVEL NUT FEMALE 45° SWEPT BEND	86	LIGHT DIN METRIC SWIVEL NUT FEMALE 90° SWEPT BEND
38	BANJO	87	LIGHT DIN METRIC SWIVEL NUT FEMALE 45° SWEPT BEND
39	POCLAIN FLANGE	88	LIGHT DIN METRIC SWIVEL NUT FEMALE 90° COMPACT
39N	POCLAIN FLANGE 90°	89	JIS (KOMATSU) METRIC SWIVEL NUT FEMALE 90° SWEPT BEND
39F	POCLAIN FLANGE 45°	90	HOSE JOINER
40	ORFS MALE	91	JIS 30° FLARE (MITSUBISHI) SWIVEL NUT FEM. 90° SWEPT BEND
S40N	ORFS MALE 90° SWEPT BEND	92	IMPERIAL STANDPIPE
41	SAE SWIVEL NUT FEMALE 90° SWEPT BEND	93	METRIC 90° STANDPIPE
42	SAE INVERTED FLARE MALE 45° SWEPT BEND	94	SAE IMPERIAL TUBE CONNECTOR
43	SAE INVERTED FLARE MALE 90 SWEPT BEND	95	DIN 60° METRIC SWIVEL NUT FEMALE 90° SWEPT BEND
44	KOBELCO METRIC MALE	96	LIFESAVER
45	SAE CODE 61 FLANGE 30° SWEPT BEND	97	WEO (CEJN) STRAIGHT STANDPIPE
456	O&K SAE CODE 61 FLANGE 30° SWEPT BEND		
46	SAE CODE 62 FLANGE 30° SWEPT BEND		
465	CAT XT5 FLANGE 30° SWEPT BEND		
466	O&K SAE CODE 62 FLANGE 30° SWEPT BEND		
47	FRENCH GAZ METRIC MALE		
48	JIS (KOMATSU) METRIC MALE		
49	STAPLELOCK FEMALE		
50	STAPLELOCK MALE		

SUFFIX CODES FOR SERIES CODES

N	NINETY DEGREE	e.g. S40N
F	FORTY FIVE DEGREE	e.g. S40F
S	SWIVEL MALE	e.g. S18S
K	COMPACT BLOCK 45°	e.g. S64K, S60K
C	CYLINDRICAL/ROUND BAR TAIL STYLE	e.g. S01C
H	HEXAGONAL BAR TAIL STYLE	e.g. S05H

SUFFIX CODES FOR PART NUMBERS

GS	GATES GLOBAL SPIRAL NON-SKIVE	e.g. S66-2020GS
PCM	GATES SPIRAL SKIVE TYPE	e.g. SMS15-24PCM

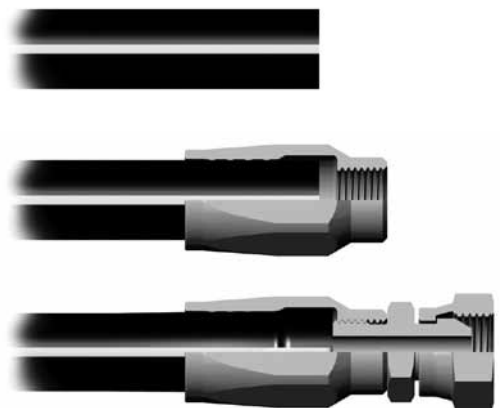
ASSEMBLY INSTRUCTIONS

Non-Skive Field Attachable Couplings

Ensure hose is cut square, with minimal end “flaring”.

Screw ferrule body onto hose in an anti-clockwise direction until hose is 3 to 5mm clear of inside body.

Lightly lubricate the tailpiece and the female thread of the ferrule body, then screw the tailpiece into the ferrule body in a clockwise direction until the hex on the tailpiece abuts the ferrule body.



Please refer to training manual for more detailed assembly instructions.

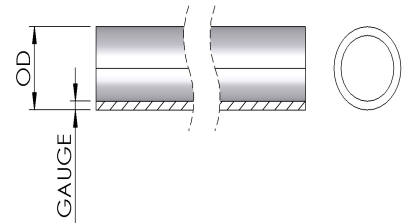
Our product range is constantly evolving and Hydraulink reserve the right to change technical specifications without notice

HYDRAULIC TUBE

ST

IMPERIAL HYDRAULIC TUBE - UNPLATED
SEAMLESS HYDRAULIC LINE TUBE - IMPERIAL O.D.

- Working Pressure calculated using a tensile strength of 340MPa (49300psi), at a safety factor of 4:1.
- Flow capacity calculated using a fluid velocity of 20ft/sec (6.1m/sec)
- Standards: Conforms to specifications of ASTM A179
- NOTE: Working and burst pressures can vary based on tensile strength of material.



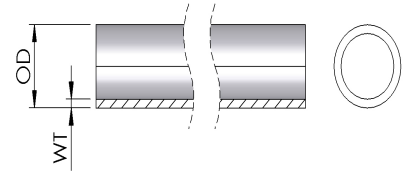
Part Number	O.D - inches	O.D - mm	Wall thickness - Gauge	Wall thickness - mm	Weight - kg/m	Working Pressure - bar	Working Pressure - psi	Flow - l/min
ST-0420	1/4	6.35	20	0.91		280	4060	5.8
ST-0618	3/8	9.5	18	1.22	0.25	252	3660	14.4
ST-0816	1/2	12.7	16	1.63	0.45	252	3660	25.4
ST-1016	5/8	15.9	16	1.63	0.57	195	2830	45.4
ST-1610	1	25.4	10	3.25	1.48	250	3625	102
ST-2010	1.1/4	31.8	10	3.25		195	2820	184
ST-2410	1.1/2	38.1	10	3.25		159	2300	290
ST-3210	2	50.8	10	3.25		116	1680	570
STP-0420	1/4	6.35	20	0.91		280	4060	5.8
STP-0618	3/8	9.5	18	1.22	0.25	252	3660	14.4
STP-0816	1/2	12.7	16	1.63	0.45	252	3660	25.4
STP-1016	5/8	15.9	16	1.63	0.57	195	2830	45.4
STP-1214	3/4	19.1	14	2.03	0.85	202	2930	65
STP-1610	1	25.4	10	3.25	1.48	250	3625	102
STP-2010	1.1/4	31.8	10	3.25		195	2820	184

ST-M

METRIC HYDRAULIC TUBE - PLATED

SEAMLESS HYDRAULIC LINE TUBE - METRIC O.D.

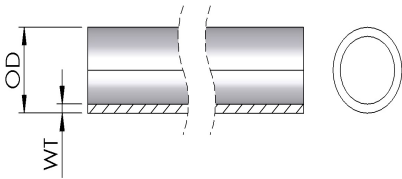
- Working Pressure calculated using a tensile strength of 340MPa (49300psi), at a safety factor of 3:1.
- Flow capacity calculated using a fluid velocity of 20ft/sec (6.1m/sec)
- Standards: Conforms to specifications of ASTM A179 / DIN 2391/C
- NOTE: Working and burst pressures can vary based on tensile strength of material.



Part Number	O.D - mm	Wall thickness - mm	Weight - kg/m	Working Pressure - bar	Working Pressure - psi	Flow - l/min
STP-M1025	10	2.5		590	8550	7.2
STP-M1015	10	1.5	0.31	303	4390	16.7
STP-M1215	12	1.5	0.39	244	3540	21.8
STP-M1420	14	2.0	0.59	286	4150	34.2
STP-M1515	15	1.5	0.50	190	2755	49.2
STP-M1620	16	2.0	0.69	244	3540	49.2
STP-M1815	18	1.5	0.61	155	2250	76.8
STP-M2025	20	2.5	1.08	244	3540	76.8
STP-M2220	22	2.0	0.99	170	2470	111
STP-M2530	25	3.0	1.63	233	3380	123
STP-M3040	30	3.0	2.00	263	3820	165
STP-M3520	35	2.5	2.00	103	1490	307
STP-M3850	38	5.0	3.35	260	3770	268
STP-M610	6	1.0	0.12	345	5000	5.5
STP-M810	8	1.0	0.24	245	3550	8.6

HYDRAULIC PIPE

PIPE SC
HYDRAULIC PIPE
ANSI SCHEDULE 80 NOMINAL BORE HYDRAULIC
PIPE



Part Number	Nominal Bore	O.D - inches	O.D - mm	I.D - inches	I.D - mm	Wall thickness - inches	Wall thickness - mm	Working Pressure - bar	Working Pressure - psi
PIPE SC 80 1	1	1.32	33.53	0.96	24.3	0.18	4.6101	125	1815
PIPE SC 80 1 1/4	1.1/4	1.66	42.16	1.28	32.5	0.19	4.826	105	1526
PIPE SC 80 1/2	1/2	0.84	21.34	0.55	14.0	0.15	3.683	159	2302
PIPE SC 80 3/4	3/4	1.05	26.67	0.74	18.8	0.16	3.937	136	1968

Field Attachable Ferrules

Section 7



GENERAL INFORMATION

The field attachable ferrules listed in this section are specifically designed for use with SAE 100R1AT and SAE100R2AT hose and the field attachable ferrules listed in section five of this catalogue. Use of component combinations other than those specified may result in reduced service life or premature failure of the hose assembly. In such cases no warranty will apply.

Hydraulink field attachable ferrules are of a proprietary design, and have all been comprehensively tested within the performance parameters of the relevant hose types. To obtain maximum performance from hose assemblies, field attachable ferrules must be assembled as per Hydraulink's following assembly instructions.

All dimensions shown are nominal, and subject to change due to ongoing product development. For critical applications, please contact Hydraulink to confirm dimensions.

Hydraulink Fluid Connectors Ltd. reserves the right to discontinue, or to alter the design and specification of any product listed in this catalogue.

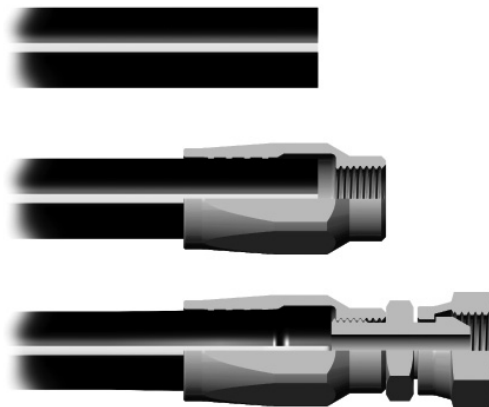
ASSEMBLY INSTRUCTIONS

Non-Skive Field Attachable Couplings

Ensure hose is cut square, with minimal end “flaring”.

Screw ferrule body onto hose in an anti-clockwise direction until hose is 3 to 5mm clear of inside body.

Lightly lubricate the tailpiece and the female thread of the ferrule body, then screw the tailpiece into the ferrule body in a clockwise direction until the hex on the tailpiece abuts the ferrule body.



Please refer to training manual for more detailed assembly instructions.

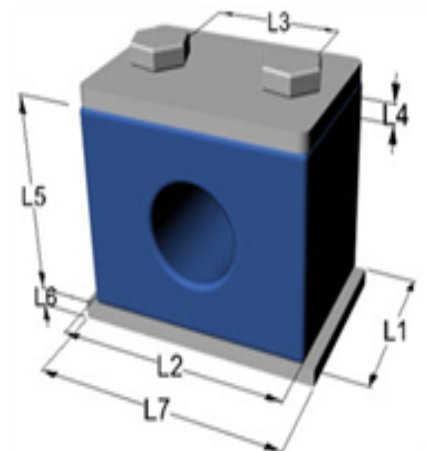
Our product range is constantly evolving and Hydraulink reserve the right to change technical specifications without notice

SINGLE TUBE CLAMPS

CS

SINGLE TUBE CLAMPS
COMPLETE SINGLE CLAMPS WITH
POLYPROPYLENE INSERTS

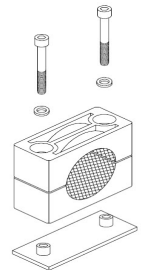
- *Nominal bore.
- **CS1 series clamps have only 1 bolt.



CS-C

SINGLE TUBE CLAMPS

COMPLETE SINGLE CLAMPS WITH POLYPROPYLENE INSERTS



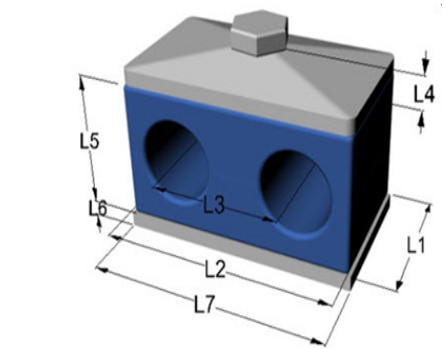
- When ordering stainless steel componentry type XBP for stainless base plate, XTP for stainless top plate, XHB for stainless hex bolt.
- *Cap screw and washer are to be used without the top plate.

Part Number	Clamp Insert	Top Plate	Base Plate	Hex Bolt	Hex Bolt size
CS1-08C	CS1-08	CS1-TP	CS1-BP	CS1/2-HB	M6 X 30
CS1-M10C	CS1-M10	CS1-TP	CS1-BP	CS1/2-HB	M6 X 30
CS1-M12C	CS1-M12	CS1-TP	CS1-BP	CS1/2-HB	M6 X 30
CS1-M8C	CS1-M8	CS1-TP	CS1-BP	CS1/2-HB	M6 X 30
CS2-04C	CS2-04	CS2-TP	CS2-BP	CS1/2-HB	M6 X 30
CS2-06C	CS2-06	CS2-TP	CS2-BP	CS1/2-HB	M6 X 30
CS2-08C	CS2-08	CS2-TP	CS2-BP	CS1/2-HB	M6 X 30
CS2-M10C	CS2-M10	CS2-TP	CS2-BP	CS1/2-HB	M6 X 30
CS2-M12C	CS2-M12	CS2-TP	CS2-BP	CS1/2-HB	M6 X 30
CS2-M6C	CS2-M6	CS2-TP	CS2-BP	CS1/2-HB	M6 X 30
CS2-M8C	CS2-M8	CS2-TP	CS2-BP	CS1/2-HB	M6 X 30
CS3-M14C	CS3-M14	CS3-TP	CS3-BP	CS3-HB	M6 X 35
CS3-M15C	CS3-M15	CS3-TP	CS3-BP	CS3-HB	M6 X 35
CS3-M16C	CS3-M16	CS3-TP	CS3-BP	CS3-HB	M6 X 35
CS3-M18C	CS3-M18	CS3-TP	CS3-BP	CS3-HB	M6 X 35
CS4-12C	CS4-12	CS4-TP	CS4-BP	CS4-HB	M6 X 40
CS4-16C	CS4-16	CS4-TP	CS4-BP	CS4-HB	M6 X 40
CS4-H08C	CS4-H08	CS4-TP	CS4-BP	CS4-HB	M6 X 40
CS4-M20C	CS4-M20	CS4-TP	CS4-BP	CS4-HB	M6 X 40
CS4-M22C	CS4-M22	CS4-TP	CS4-BP	CS4-HB	M6 X 40
CS4-M25C	CS4-M25	CS4-TP	CS4-BP	CS4-HB	M6 X 40
CS5-20C	CS5-20	CS5-TP	CS5-BP	CS5-HB	M6 X 45
CS5-H12C	CS5-H12	CS5-TP	CS5-BP	CS5-HB	M6 X 45
CS5-M28C	CS5-M28	CS5-TP	CS5-BP	CS5-HB	M6 X 45
CS5-M30C	CS5-M30	CS5-TP	CS5-BP	CS5-HB	M6 X 45
CS6-H16C	CS6-H16	CS6-TP	CS6-BP	CS6-HB	M6 X 60
CS6-H20C	CS6-H20	CS6-TP	CS6-BP	CS6-HB	M6 X 60
CS6-M35C	CS6-M35	CS6-TP	CS6-BP	CS6-HB	M6 X 60
CS6-M38C	CS6-M38	CS6-TP	CS6-BP	CS6-HB	M6 X 60
CS7-32C	CS7-32	CS7-TP	CS7-BP	CS7-HB	M6 X 70
CS7-H24C	CS7-H24	CS7-TP	CS7-BP	CS7-HB	M6 X 70
CS7-M45C	CS7-M45	CS7-TP	CS7-BP	CS7-HB	M6 X 70

DOUBLE TUBE CLAMPS**CF**

DOUBLE TUBE CLAMPS

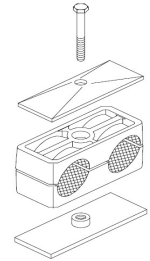
COMPLETE DOUBLE CLAMPS W. POLYPROPYLENE
INSERTS



CF-C

DOUBLE TUBE CLAMPS

COMPLETE DOUBLE CLAMPS W. POLYPROPYLENE INSERTS



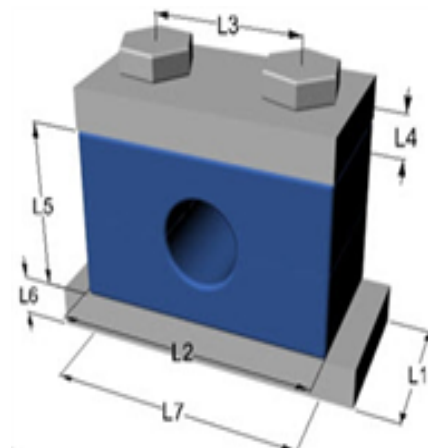
- When ordering stainless steel componentry type XBP for stainless base plate, XTP for stainless top plate, XHB for stainless hex bolt.
- *Cap screw and washer are to be used without the top plate.

Part Number	Clamp Insert	Top Plate	Base Plate	Hex Bolt	Hex Bolt size
CF1-04C	CF1-04	CF1-TP	CF1-BP	CF1-HB	M6 X 35
CF1-06C	CF1-06	CF1-TP	CF1-BP	CF1-HB	M6 X 35
CF1-08C	CF1-08	CF1-TP	CF1-BP	CF1-HB	M6 X 35
CF1-M10C	CF1-M10	CF1-TP	CF1-BP	CF1-HB	M6 X 35
CF1-M12C	CF1-M12	CF1-TP	CF1-BP	CF1-HB	M6 X 35
CF1-M8C	CF1-M8	CF1-TP	CF1-BP	CF1-HB	M6 X 35
CF2-08C	CF2-08	CF2-TP	CF2-BP	CF2-HB	M8 X 35
CF2-M14C	CF2-M14	CF2-TP	CF2-BP	CF2-HB	M8 X 35
CF2-M15C	CF2-M15	CF2-TP	CF2-BP	CF2-HB	M8 X 35
CF2-M16C	CF2-M16	CF2-TP	CF2-BP	CF2-HB	M8 X 35
CF2-M18C	CF2-M18	CF2-TP	CF2-BP	CF2-HB	M8 X 35
CF3-12C	CF3-12	CF3-TP	CF3-BP	CF3-HB	M8 X 45
CF3-16C	CF3-16	CF3-TP	CF3-BP	CF3-HB	M8 X 45
CF3-H08C	CF3-H08	CF3-TP	CF3-BP	CF3-HB	M8 X 45
CF3-M20C	CF3-M20	CF3-TP	CF3-BP	CF3-HB	M8 X 45
CF3-M22C	CF3-M22	CF3-TP	CF3-BP	CF3-HB	M8 X 45
CF3-M25C	CF3-M25	CF3-TP	CF3-BP	CF3-HB	M8 X 45
CF4-M28C	CF4-M28	CF4-TP	CF4-BP	CF4-HB	M8 X 50
CF4-M30C	CF4-M30	CF4-TP	CF4-BP	CF4-HB	M8 X 50
CF5-20C	CF5-20	CF5-TP	CF5-BP	CF5-HB	M8 X 65
CF5-H20C	CF5-H20	CF5-TP	CF5-BP	CF5-HB	M8 X 65
CF5-M35C	CF5-M35	CF5-TP	CF5-BP	CF5-HB	M8 X 65
CF5-M38C	CF5-M38	CF5-TP	CF5-BP	CF5-HB	M8 X 65

HEAVY DUTY SINGLE TUBE CLAMPS

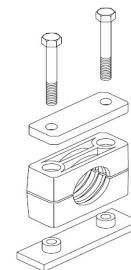
CP

HEAVY DUTY SINGLE TUBE CLAMPS
COMPLETE SINGLE CLAMPS W. POLYPROPYLENE
INSERTS



CP-C

HEAVY DUTY SINGLE TUBE CLAMPS COMPLETE SINGLE CLAMPS W. POLYPROPYLENE INSERTS



- When ordering stainless steel componentry type XBP for stainless base plate, XTP for stainless top plate, XHB for stainless hex bolt.
- *Cap screw and washer are to be used without the top plate.

Part Number	Clamp Insert	Top Plate	Base Plate	Hex Bolt	Hex Bolt size
CP1S-08C	CP1S-08	CP1S-TP	CP1S-BP	CP1S-HB	M10 X 45
CP1S-12C	CP1S-12	CP1S-TP	CP1S-BP	CP1S-HB	M10 X 45
CP2S-12C	CP2S-12	CP2S-TP	CP2S-BP	CP2S-HB	M10 X 60
CP2S-16C	CP2S-16	CP2S-TP	CP2S-BP	CP2S-HB	M10 X 60
CP2S-H08C	CP2S-H08	CP2S-TP	CP2S-BP	CP2S-HB	M10 X 60
CP2S-H12C	CP2S-H12	CP2S-TP	CP2S-BP	CP2S-HB	M10 X 60
CP2S-M25C	CP2S-M25	CP2S-TP	CP2S-BP	CP2S-HB	M10 X 60
CP3S-20C	CP3S-20	CP3S-TP	CP3S-BP	CP3S-HB	M10 X 70
CP3S-24C	CP3S-24	CP3S-TP	CP3S-BP	CP3S-HB	M10 X 70
CP3S-H16C	CP3S-H16	CP3S-TP	CP3S-BP	CP3S-HB	M10 X 70
CP3S-H20C	CP3S-H20	CP3S-TP	CP3S-BP	CP3S-HB	M10 X 70
CP3S-M30C	CP3S-M30	CP3S-TP	CP3S-BP	CP3S-HB	M10 X 70
CP3S-M40C	CP3S-M40	CP3S-TP	CP3S-BP	CP3S-HB	M10 X 70
CP4S-32C	CP4S-32	CP4S-TP	CP4S-BP	CP4S-HB	M12 X 100
CP4S-H20C	CP4S-H20	CP4S-TP	CP4S-BP	CP4S-HB	M12 X 100
CP4S-H24C	CP4S-H24	CP4S-TP	CP4S-BP	CP4S-HB	M12 X 100
CP4S-H32C	CP4S-H32	CP4S-TP	CP4S-BP	CP4S-HB	M12 X 100
CP4S-M45C	CP4S-M45	CP4S-TP	CP4S-BP	CP4S-HB	M12 X 100

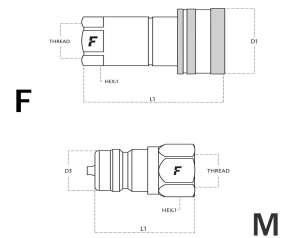
STANDARD SERIES

QNV

POPPET SEAL COUPLINGS

INTERCHANGE WITH ISO 7241-1 PART A IN 08 SIZE

- Please enquire for other thread forms and sizes.
- Overall length when connected is calculated based on both couplings having the same thread form and size.
- Recommended for: Agriculture, industrial, construction, earthmoving.
- Connection: Connect without pressure - pull back female sleeve and push couplings to connect. Disconnect under pressure not allowed - pull back female sleeve to disconnect.
- Latching: Balls latching.
- Shut-off system: Poppet valve. Guidevalve with mechanical backstop.
- Temperature range: -25°C to +125°C
- Standards: 08 (1/2) size only; Interchangeability according to ISO 7241-1 part A
- All other sizes; Faster proprietary standard.
- Interchangeability with all QNS series couplings to 16 (1)

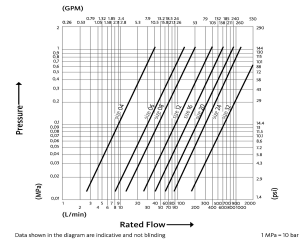


QNV - TECHNICAL DATA

POPPET SEAL COUPLINGS

INTERCHANGE WITH ISO 7241-1 PART A IN 08 SIZE

Pressure Drop



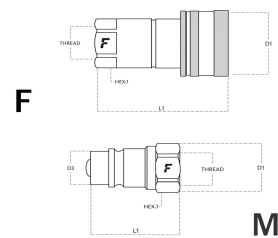
Part Number	Rated Flow (l/min)	Force to connect - N	Force to connect - lb	Maximum WP Connected - bar	Maximum WP Connected - psi	Minimum BP Disconnected - psi	Minimum BP Connected - psi	Fluid Spill - ml max
QNV-F04	15	55	12.1	350	5000	20000	20000	0.8
QNV-F06	50	85	18.7	300	4500	20000	17400	1.3
QNV-F08	75	80	17.9	300	4500	17400	17400	1.8
QNV-F0812Q	75	80	17.9	300	4500	17400	17400	1.8
QNV-F0814Q	75	80	17.9	300	4500	17400	17400	1.8
QNV-F08M22	75	80	17.9	300	4500	17400	17400	1.8
QNV-F12	150	150	33.7	300	4500	17400	17400	8
QNV-F16	220	130	28.6	250	3625	14500	14500	13
QNV-F20	340	145	31.9	220	3300	13500	13500	30
QNV-F24	450	265	58.4	200	3000	12000	12000	34
QNV-F32	1000	250	56.2	150	2250	9000	9000	100
QNV-M04	15	55	12.1	350	5000	20000	20000	0.8
QNV-M06	50	85	18.7	300	4500	17400	17400	1.3
QNV-M08	75	80	17.9	300	4500	17400	17400	1.8
QNV-M0812Q	75	80	17.9	300	4500	17400	17400	1.8
QNV-M0814Q	75	80	17.9	300	4500	17400	17400	1.8
QNV-M08M22	75	80	17.9	300	4500	17400	17400	1.8
QNV-M12	150	150	33.7	300	4500	17400	17400	8
QNV-M16	220	130	28.6	250	3625	14500	14500	13
QNV-M20	340	145	31.9	220	3300	13500	13500	30
QNV-M24	450	265	58.4	200	3000	12000	12000	34
QNV-M32	1000	250	56.2	150	2250	9000	9000	100

QNS

BALL SEAL COUPLINGS

INTERCHANGE WITH ISO 7241-1 PART A IN 08 SIZE

- Please enquire for other thread forms and sizes. For sizes larger than 16 (1) refer to QNV series.
- NOTE: Only size 08 (1/2) is interchangeable with ISO 7241-1 part A.
- Recommended for: Agriculture, industrial, construction, earthmoving.
- Connection: Connect without pressure - pull back female sleeve and push couplings to connect. Disconnect under pressure not allowed - pull back female sleeve to disconnect.
- Latching: Balls latching.
- Shut-off system: Ball valve.
- Temperature range: -25°C to +125°C
- Standards: 08 (1/2) size only; Interchangeability according to ISO 7241-1 part A
- All other sizes; Interchangeability according to Faster internal standard. Interchangeability with all QNV series couplings (all sizes).

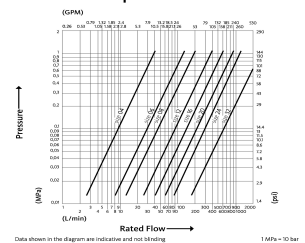


QNS - TECHNICAL DATA

BALL SEAL COUPLINGS

INTERCHANGE WITH ISO 7241-1 PART A IN 08 SIZE

Pressure Drop



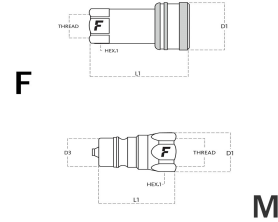
Part Number	Rated Flow (l/min)	Force to connect - N	Force to connect - lb	Maximum WP Connected - bar	Maximum WP Connected - psi	Minimum BP Disconnected - psi	Minimum BP Connected - psi	Fluid Spill - ml max
QNS-F04	15	55	12.1	250	3625	14500	20300	0.7
QNS-F06	30	83	18.3	250	3625	14500	20300	1
QNS-F08	50	89	19.6	200	2900	11600	17400	1.5
QNS-F12	80	170	37.4	170	2465	13775	21750	7
QNS-F16	140	140	30.8	220	3190	17400	23200	11
QNS-M04	15	55	12.1	250	3625	14500	20300	0.7
QNS-M06	30	83	18.3	250	3625	14500	20300	1
QNS-M08	50	89	19.6	200	2900	12325	17400	1.5
QNS-M12	80	170	37.4	170	2465	9860	21750	7
QNS-M16	140	140	30.8	220	3190	13050	23200	11

QANV

POPPET SEAL COUPLINGS

INTERCHANGE ACCORDING TO ISO 7241-1 PART A

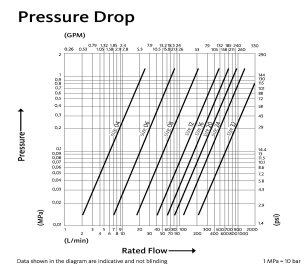
- Please enquire for other combinations of base size and thread form.
- Overall length when connected is calculated based on both couplings having the same thread form and size.
- Recommended for: Agricultural applications.
- Connection: Connect without pressure - pull back female sleeve and push couplings to connect. Disconnect under pressure not allowed - pull back female sleeve to disconnect.
- Latching: Balls latching.
- Shut-off system: Poppet valve. Guidevalve with mechanical backstop.
- Temperature range: -25°C to +125°C
- Standards: Interchangeability according to ISO 7241-1 part A



QANV - TECHNICAL DAT

POPPET SEAL COUPLINGS

INTERCHANGE ACCORDING TO ISO 7241-1 PART A



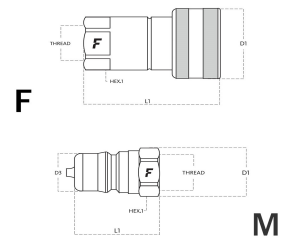
Part Number	Rated Flow (l/min)	Force to connect - N	Force to connect - lb	Maximum WP Connected - bar	Maximum WP Connected - psi	Minimum BP Disconnected - psi	Minimum BP Connected - psi	Fluid Spill - ml max
QANV-F04	9	45	10	500	7500	30000	30000	0.5
QANV-F06	30	80	17.6	300	4500	18000	21000	1.1
QANV-F12	180	150	34	300	4500	18000	18000	8
QANV-F16	270	180	40	250	3625	14500	14500	13
QANV-M04	9	45	10	500	7500	30000	30000	0.5
QANV-M06	30	80	17.6	300	4500	24000	21000	1.1
QANV-M12	180	150	34	300	4500	18000	18000	8
QANV-M16	270	180	40	250	3625	14500	14500	13

QHNV

POPPET SEAL COUPLINGS

INTERCHANGE ACCORDING TO ISO 7241-1 PART B

- Please enquire for other combinations of base size and thread form.
- Overall length when connected is calculated based on both couplings having the same thread form and size.
- Recommended for: Industrial applications.
- Connection: Connect without pressure - pull back female sleeve and push couplings to connect. Disconnect under pressure not allowed - pull back female sleeve to disconnect.
- Latching: Balls latching.
- Shut-off system: Poppet valve. Guide valve with mechanical backstop.
- Temperature range: -25°C to +125°C
- Standards: Interchangeability according to ISO 7241-1 part B
- Interchangeability with all QBHNV and SQHNV series couplings.



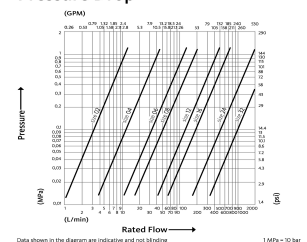
Part Number	Base Size	Threadform	Thread size	Coupling Length - L1	Coupling O.D - D1	Hex Size A/F (Hex 1)	Inner Coupling O.D - D3
QHNV-F02	02	BSPPF socket	1/8-27	50.0	23	18	
QHNV-M02	02	BSPPF socket	1/8-27	31.5	18.5	17	10.8

QHNV - TECHNICAL DAT

POPPET SEAL COUPLINGS

INTERCHANGE ACCORDING TO ISO 7241-1 PART B

Pressure Drop



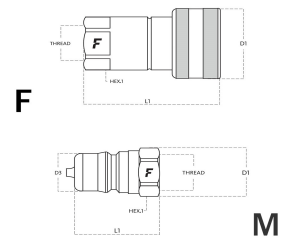
Part Number	Rated Flow (l/min)	Force to connect - N	Force to connect - lb	Maximum WP Connected - bar	Maximum WP Connected - psi	Minimum BP Disconnected - psi	Minimum BP Connected - psi	Fluid Spill - ml max
QHNV-F04	17	65	14.3	450	6750	27000	30000	1
QHNV-F06	50	80	17.6	300	4500	19500	18000	1.5
QHNV-F08	75	92	20.3	350	5250	21000	21000	2.8
QHNV-F12	190	120	26.4	250	3625	16500	14500	10
QHNV-F16	270	180	39.6	300	4500	18000	18000	13
QHNV-M04	17	65	14.3	450	6750	27000	30000	1
QHNV-M06	50	80	17.6	300	4500	27000	18000	1.5
QHNV-M08	75	92	20.3	350	5250	22500	21000	2.8
QHNV-M12	190	120	26.4	250	3625	14500	14500	10
QHNV-M16	270	180	39.6	300	4500	18000	18000	13

QBHNV

BRASS POPPET SEAL

INTERCHANGE ACCORDING TO ISO 7241-1 PART B

- Please enquire for other combinations of base size and thread form.
- Overall length when connected is calculated based on both couplings having the same thread form and size.
- Recommended for: Industrial or chemical applications.
- Connection: Connect without pressure - pull back female sleeve and push couplings to connect. Disconnect under pressure not allowed - pull back female sleeve to disconnect.
- Latching: Balls latching.
- Shut-off system: Poppet valve. Guidevalve with mechanical backstop.
- Temperature range: -25°C to +125°C
- Standards: Interchangeability according to ISO 7241-1 part B
Interchangeability with all QHNV and SQHNV series couplings.

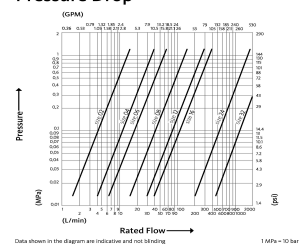


QBHNV - TECHNICAL DA

BRASS POPPET SEAL

INTERCHANGE ACCORDING TO ISO 7241-1 PART B

Pressure Drop



Part Number	Rated Flow (l/min)	Maximum WP Connected - bar	Maximum WP Connected - psi	Minimum BP Disconnected - psi	Minimum BP Connected - psi
QBHNV-F02	6	220	3175	20300	21750
QBHNV-F04	16	200	2900	17400	17400
QBHNV-F06	25	150	2175	10150	14500
QBHNV-F08	60	170	2450	13050	13050
QBHNV-F12	110	100	1450	7250	14775
QBHNV-M02	6	220	3175	13050	21750
QBHNV-M04	16	200	2900	11600	17400
QBHNV-M06	25	150	2175	8700	14500
QBHNV-M08	60	170	2450	10150	13050
QBHNV-M12	110	100	1450	5800	14775

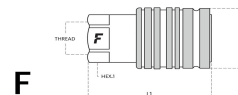
AGRICULTURAL SERIES

QPS

POPPET SEAL COUPLINGS

INTERCHANGE ACCORDING TO ISO 7241-1 PART A

- QPS are only available in 08 (1/2) base size.
- Please enquire for thread forms and sizes.
- NOTE: Male coupling is base size 08 (1/2) QNS series. QPS series is only female couplings.
- Recommended for: Agricultural equipment.
- Connection: Connect without pressure - push male coupling to connect. Disconnect under pressure not allowed - pull male coupling to disconnect.
- Latching: Balls latching.
- Shut-off system: Poppet valve.
- Temperature range: -25°C to +125°C
- Standards: Interchangeability according to ISO 7241-1 part A standard.



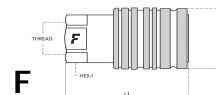
Part Number	Base Size	Threadform	Thread size	Coupling Length (L1)	Coupling O.D (D1)	Hex Size A/F (Hex 1)
QPS-F08	08	BSPPF socket	1/2-14	66.0	38	27

QPV

PUSH/PULL POPPET SEAL

INTERCHANGE ACCORDING TO ISO 7241-1 PART A

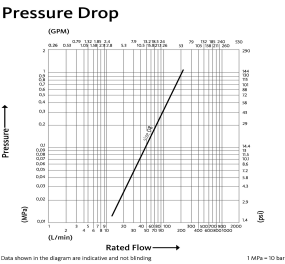
- QPV are only available in 08 (1/2) base size.
- Please enquire for thread forms and sizes.
- NOTE: Male coupling is base size 08 (1/2) QNV series. QPV series is only female couplings.
- Recommended for: Agricultural equipment.
- Connection: Connect without pressure - push male coupling to connect. Disconnect under pressure not allowed - pull male coupling to disconnect.
- Latching: Balls latching.
- Shut-off system: Poppet valve.
- Temperature range: -25°C to +125°C
- Standards: Interchangeability according to ISO 7241-1 part A standard.



QPV - TECHNICAL DATA

PUSH/PULL POPPET SEAL

INTERCHANGE ACCORDING TO ISO 7241-1 PART A

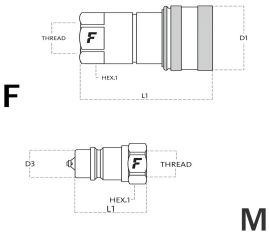


Part Number	Rated Flow (l/min)	Force to connect - N	Force to connect - lb	Maximum WP Connected - bar	Maximum WP Connected - psi	Minimum BP Disconnected - psi	Minimum BP Connected - psi	Fluid Spill - ml max
QPV-F08	75	160	35	260	3770	15950	21460	2

Q4

POPPET SEAL WITH DECOMPRESSION POPPET

INTERCHANGE ACCORDING TO ISO 7241-1 PART A

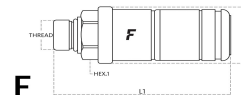


Part Number	Base Size	Threadform	Thread size	Coupling Length (L1)	Coupling O.D (D1)	Hex Size A/F (Hex 1)	Inner Coupling O.D - D3
Q4NV-M08	08	BSPPF socket	1/2-14	44.0	30	27	20.5
Q4PV-F08	08	BSPPF socket	1/2-14	66.0	38	27	

Q3CFHF

AGRICULTURAL BREAKAWAY - HIGH FLOW
INTERCHANGE ACCORDING TO ISO 7241-1 PART A

- Q3CFHF are only available in 08 (1/2) base size.
- Please enquire for optional thread forms and sizes.
- NOTE: Male coupling is base size 08 (1/2) QNV series.
- Recommended for: Agricultural equipment.
- Connection: Connect without pressure, or with only male coupling under pressure.
- Disconnect under pressure in emergency only.
- Latching: Ball lock latching.
- Shut-off system: Poppet valve.
- Temperature range: -25°C to +125°C.



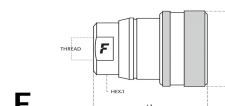
F

Part Number	Base Size	Threadform	Thread size	Coupling Length (L1)	Coupling O.D (D1)	Hex Size A/F (Hex 1)
Q3CFHF-F08	08	BSPPF socket	1/2-14	106.2	42	27
Q3CFHF-F0812GK	08	JICM bulkhead	3/4-16	123.7	42	32
Q3CFHF-F0822M	08	Male metric	M22-1.5	109.2	42	32

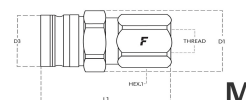
QVF

HYDRAULIC BRAKE COUPLINGS
INTERCHANGE ACCORDING TO ISO 5676

- Recommended for: Agricultural hydraulic brake systems.
- QVF series are only available in base size 06 (3/8).
- Please enquire for alternative thread forms.
-
- Connection/Disconnection: Without pressure.

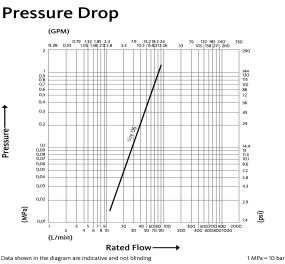


F



M

QVF - TECHNICAL DATA
 HYDRAULIC BRAKE COUPLINGS
 INTERCHANGE ACCORDING TO ISO 5676



Part Number	Base Size	Rated Flow (l/min)	Force to connect - N	Force to connect - lb	Maximum WP Connected - bar	Maximum WP Connected - psi	Minimum BP Disconnected - psi	Minimum BP Connected - psi
QVF-F06X	06	40	125	27.5	220	3175	24200	13050
QVF-M0618MK	06	40	125	27.5	220	3175	13050	13050

TRANSPORT SERIES

QNZV
 POPPET SEAL COUPLINGS
 PBR INTERCHANGE



QNZV - TECHNICAL DAT

POPPET SEAL COUPLINGS

COUPLINGS SPECIFICALLY DESIGNED FOR

AUST/NZ TRANSPORT MARKET

Part Number	Rated Flow (l/min)	Maximum WP Connected - bar	Maximum WP Connected - psi	Minimum BP Disconnected - psi	Minimum BP Connected - psi
QNZV-F16	160	230	3335	13340	17200
QNZV-M16	160	230	3335	13340	17200

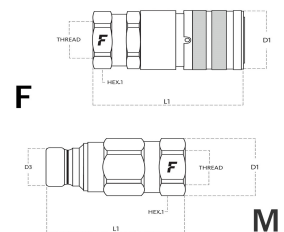
FLAT FACE SERIES

QFFH

FLAT FACE COUPLINGS

INTERCHANGE ACCORDING TO ISO 16028

- Sizes above 16 are available on request, but are to a proprietary standard not ISO 16028.
- Please enquire for other combinations of base size and thread form.
- Overall length when connected is calculated based on both couplings having the same thread form and size.
- Recommended for: Agriculture, industrial, construction, earthmoving.
- Connection: Connect without pressure - push couplings to connect. Disconnect under pressure not allowed - pull back female sleeve to disconnect.
- Latching: Balls latching.
- Shut-off system: Flat valve (male coupling with double valve).
- Temperature range: -25°C to +100°C
- Standards: Interchangeability according to ISO 16028.

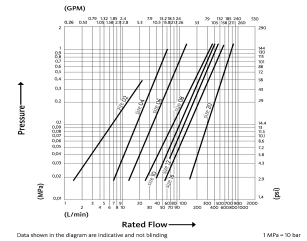


QFFH - TECHNICAL DAT

FLAT FACE COUPLINGS

INTERCHANGE ACCORDING TO ISO 16028

Pressure Drop



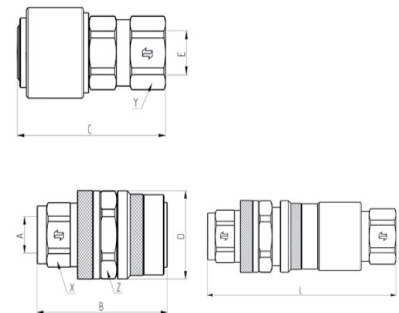
Part Number	ISO Size	Rated Flow (l/min)	Force to connect - N	Force to connect - lb	Maximum WP Connected - bar	Maximum WP Connected - psi	Minimum BP Disconnected - psi	Minimum BP Connected - psi	Fluid Spill - ml max
QFFH-F04	6.3	25	110	24.7	350	5000	24200	25700	0.006
QFFH-F06	10	50	150	33.7	350	5000	24200	24200	.008
QFFH-F0608	12.5	50	150	33.7	350	5000	24200	24200	.008
QFFH-F0612Q	12.5	50	150	33.7	350	5000	24200	24200	.008
QFFH-F08	12.5	110	210	47.2	350	5000	20000	24200	0.01
QFFH-F0812	12.5	110	210	47.2	350	5000	20000	24200	0.01
QFFH-F0814Q	12.5	110	210	47.2	350	5000	20000	24200	0.01
QFFH-F0816RK	12.5	110	210	47.2	350	5000	20000	24200	0.01
QFFH-F0817Q	12.5	110	210	47.2	350	5000	20000	24200	0.01
QFFH-F1017Q	16	125	205	46.1	350	5000	20000	20000	0.01
QFFH-F12	19	160	215	48.3	350	5000	20000	20000	0.01
QFFH-F1216	19	160	215	48.3	350	5000	20000	20000	0.01
QFFH-F1217Q	19	160	215	48.3	350	5000	20000	20000	0.01
QFFH-F16	25	230	280	62.9	350	5000	20000	24200	0.01
QFFH-M04	6.3	25	110	24.7	350	5000	20000	25700	0.006
QFFH-M06	10	50	150	33.7	350	5000	20000	24200	.008
QFFH-M0608	12.5	50	150	33.7	350	5000	20000	24200	.008
QFFH-M0612Q	12.5	50	150	33.7	350	5000	20000	24200	.008
QFFH-M08	12.5	110	210	47.2	350	5000	20000	24200	0.01
QFFH-M0812	12.5	110	210	47.2	350	5000	20000	24200	0.01
QFFH-M0814GK	12.5	110	210	47.2	350	5000	20000	24200	0.01
QFFH-M0814Q	12.5	110	210	47.2	350	5000	20000	24200	0.01
QFFH-	12.5	110	210	47.2	350	5000	20000	24200	0.01

M0816RK									
QFFH-M0817Q	12.5	110	210	47.2	350	5000	20000	24200	0.01
QFFH-M1017Q	16	125	205	46.1	350	5000	20000	20000	0.01
QFFH-M12	19	160	215	48.3	350	5000	20000	20000	0.01
QFFH-M1216	19	160	215	48.3	350	5000	20000	20000	0.01
QFFH-M1217Q	19	160	215	48.3	350	5000	20000	20000	0.01
QFFH-M16	25	230	280	62.9	350	5000	20000	24200	0.01

Q3FFV

FLAT FACE SCREW-LOCK
FASTER PROPRIETARY STANDARD

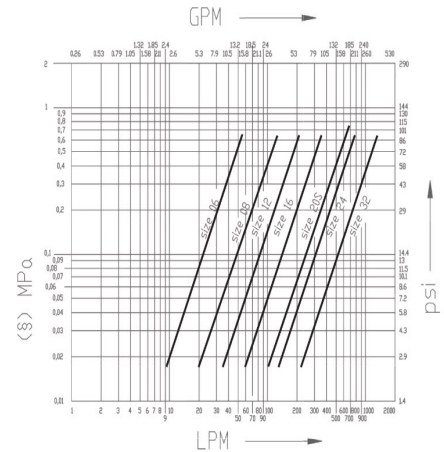
- Please enquire for other combinations of base size and thread form.
- Overall length when connected is calculated based on both couplings having the same thread form and size.
- Recommended for: Industrial, construction, earthmoving.
- Connection: Connect with pressure - screw couplings together to connect. Disconnect with pressure - unscrew couplings to disconnect. Female coupling has safety lock to prevent loosening when connected.
- NOTE: Can be connected with pressure in either or both couplings.
- Latching: Threaded with safety lock.
- Shut-off system: Flat valve.
- Temperature range: -25°C to +100°C
- Standards: Interchangeability according to Faster internal standard.



Q3FFV - TECHNICAL DA FLAT FACE SCREW-LOCK FASTER PROPRIETARY STANDARD

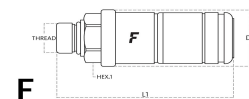
Pressure Drop

Data shown in the diagram are indicative and not binding.
(S) 1 MPa = 10 bar
Dash size are specified.



Part Number	ISO Size	Rated Flow (l/min)	Force to connect - lb	Maximum WP Connected - bar	Maximum WP Connected - psi	Minimum BP Disconnected - psi	Minimum BP Connected - psi	Fluid Spill - ml max
Q3FFV-F08	12.5	19	67.4	250	3625	14500	14500	0.01
Q3FFV-F12	20	39.7	67.4	250	3625	14500	14500	0.03
Q3FFV-F16	25	50.2	89.9	300	4350	17400	23200	0.03
Q3FFV-M08	12.5	19	67.4	250	3625	14500	14500	0.01
Q3FFV-M12	20	39.7	67.4	250	3625	14500	14500	0.03
Q3FFV-M16	25	50.2	89.9	300	4350	17400	23200	0.03

Q3FFH FLAT FACE COUPLINGS INTERCHANGE ACCORDING TO ISO 16028



Part Number	Base Size	Threadform	Thread Size	Coupling Length - L1	Coupling O.D - D1	Hex Size A/F (Hex 1)	Inner Coupling O.D - D3
Q3FFH-F06	06	BSPPF socket	3/8-19	75	30	27	
Q3FFH-F08	08	BSPPF socket	1/2-14	81.3	38	34	
Q3FFH-F12	12	BSPPF socket	3/4-14	100	48	42	
Q3FFH-M06	06	BSPPF socket	3/8-19	100	30	32	19.7
Q3FFH-M08	08	BSPPF socket	1/2-14	115.7	37	34	24.5
Q3FFH-M12	12	BSPPF socket	3/4-14	128.4	46	42	30

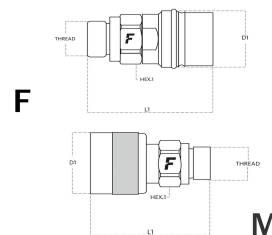
SCREW LOCK SERIES

QCVV

POPPET SEAL COUPLINGS

INTERCHANGE ACCORDING TO ISO 14541

- For sizes above 16 please enquire.
- Please enquire for other combinations of base size and thread form.
- Overall length when connected is calculated based on both couplings having the same thread form and size.
- Recommended for: Agriculture, industrial, construction, earthmoving.
- Connection: Connect or disconnect under residual pressure.
- Latching: Threaded.
- Shut-off system: Poppet valve.
- Temperature range: -25°C to +125°C
- Standards: Interchangeability according to ISO 14541.

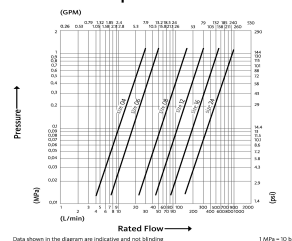


QCVV - TECHNICAL DAT

POPPET SEAL COUPLINGS

INTERCHANGE ACCORDING TO ISO 14541

Pressure Drop



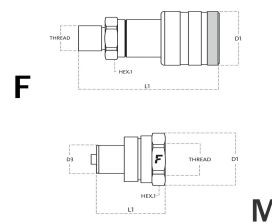
Part Number	Rated Flow (l/min)	Maximum WP Connected - bar	Maximum WP Connected - psi	Minimum BP Disconnected - psi	Minimum BP Connected - psi
QCVV-F08	75	400	5800	20000	20000
QCVV-F12	135	350	5000	17100	20000
QCVV-F16	250	350	5000	18600	20000
QCVV-M08	75	400	5800	17100	20000
QCVV-M12	135	350	5000	15700	20000
QCVV-M16	250	350	5000	15700	20000

QPVV

HYDRAULIC TOOL COUPLINGS

INTERCHANGE WITH EUROPE AND US MARKETS

- QPVV series are only available in base sizes 04 and 06 (1/4 and 3/8).
- Please enquire for further thread forms and sizes.
- Connection: Connect with pressure - screw couplings together to connect.
- Disconnect with pressure - unscrew couplings to disconnect.
- NOTE: Can be connected with pressure in either or both couplings.
- Latching: Threaded with safety lock.
- Shut-off system: Poppet valve. Interchanges with ball-type hydraulic tool couplings.
- Temperature range: -25°C to +125°C
- Standards: Faster proprietary standard; interchange with US and European hydraulic tool couplings.

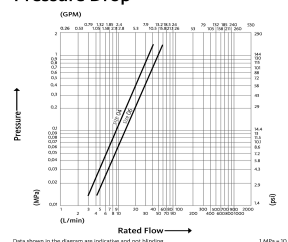


QPVV - TECHNICAL DAT

HYDRAULIC TOOL COUPLINGS

INTERCHANGE WITH EUROPE AND US MARKETS

Pressure Drop



Part Number	Rated Flow (l/min)	Maximum WP Connected - bar	Maximum WP Connected - psi	Minimum BP Disconnected - psi	Minimum BP Connected - psi
QPVV-F04L	15	1030	14935	47850	47850
QPVV-F06L	20	1000	14500	43500	43500
QPVV-M04AC	15	1030	14935	44950	47850
QPVV-M06AC	20	1000	14500	47850	43500

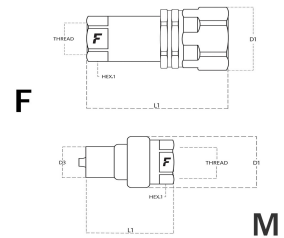
QVV

DUAL LOCK

FASTER PROPRIETARY STANDARD

(INTERCHANGES WITH QVV AND QNV MALES)

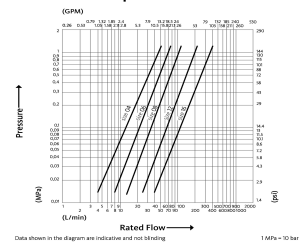
- For sizes above 16 please refer to QVVS series.
- Please enquire for other combinations of base size and thread form.
- Overall length when connected is calculated based on both couplings having the same thread form and size.
- Recommended for: Agriculture, industrial, construction, earthmoving.
- Connection: For QVV male couplings (A); connect or disconnect under pressure.
- Latching: Threaded.
- Shut-off system: Poppet valve. Guidevalve with mechanical backstop.
- Connection: For QNV male couplings (B); connect without pressure - pull back female sleeve and push couplings to connect. Disconnect under pressure not allowed - pull back female sleeve to disconnect.
- Latching: Balls latching.
- Shut-off system: Poppet valve. Reinforced guidevalve with mechanical backstop.
- Temperature range: -25°C to +125°C
- Standards: 08 (1/2) size female only; Interchangeability according to ISO 7241-1 part A. All other sizes; Faster proprietary standard.



QVV - TECHNICAL DATA

DUAL LOCK
FASTER PROPRIETARY STANDARD

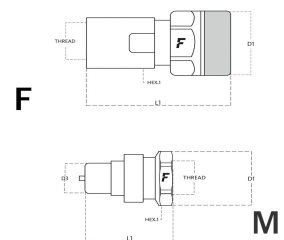
Pressure Drop



Part Number	Rated Flow (l/min)	Maximum WP Connected - bar	Maximum WP Connected - psi	Minimum BP Disconnected - psi	Minimum BP Connected - psi	Fluid Spill - ml max
QVV-F04	18	350	5075	24650	21750	1.5
QVV-F06	30	300	4350	17400	21750	2
QVV-F08	45	300	4350	18850	23200	3
QVV-F12	90	250	3625	14500	17400	10
QVV-F16	140	230	3625	14210	17400	15
QVV-M04	18	350	5075	20300	21750	1.5
QVV-M06	30	300	4350	17400	21750	2
QVV-M08	45	300	4350	17400	23200	3
QVV-M12	90	250	3625	14500	17400	10
QVV-M16	140	230	3625	13500	17400	15

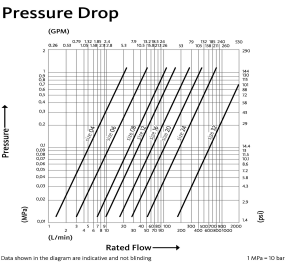
QVVS

DUAL LOCK
FASTER PROPRIETARY STANDARD



- Sizes above 20 (1.1/4) are available on request.
- Please enquire for other combinations of base size and thread form.
- Overall length when connected is calculated based on both couplings having the same thread form and size.
- Recommended for: Construction, earthmoving, hydraulic tools.
- Connection: Connect with pressure - screw couplings together to connect. Disconnect with pressure - unscrew couplings to disconnect.
- NOTE: Can be connected with pressure in either or both couplings.
- Latching: Threaded.
- Shut-off system: Poppet valve. Reinforced guidevalve with mechanical backstop.
- Temperature range: -25°C to +125°C
- Standards: Faster proprietary standard. Interchangeability with all QVV series couplings to size 16 (1).

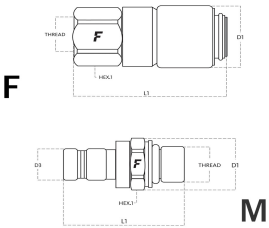
QVVS - TECHNICAL DAT
DUAL LOCK
FASTER PROPRIETARY STANDARD



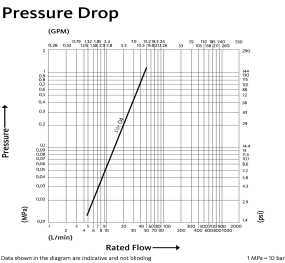
Part Number	Rated Flow (l/min)	Maximum WP Connected - bar	Maximum WP Connected - psi	Minimum BP Disconnected - psi	Minimum BP Connected - psi	Fluid Spill - ml max
QVVS-F20	140	600	8700	26100	29000	15
QVVS-M04	8	800	11600	34800	36250	1
QVVS-M06	18	760	11020	42050	33350	1.5
QVVS-M08	30	730	10585	34510	31900	2
QVVS-M12	45	700	10150	30740	31030	3
QVVS-M16	90	530	7685	23200	28130	10
QVVS-M20	140	600	8700	26100	29000	15
QVVS-F04	8	800	11600	34800	36250	1
QVVS-F06	18	760	11020	36250	33350	1.5
QVVS-F08	30	730	10585	31900	31900	2
QVVS-F12	45	700	10150	33350	31030	3
QVVS-F16	90	530	7685	32480	28130	10

DIAGNOSTIC SERIES

QDF
 FLAT FACE DIAGNOSTIC COUPLINGS
 INTERCHANGE ACCORDING TO ISO 15171-1



QDF - TECHNICAL DATA
 FLAT FACE DIAGNOSTIC COUPLINGS
 INTERCHANGE ACCORDING TO ISO 15171-1



Part Number	Rated Flow (l/min)	Maximum WP Connected - bar	Maximum WP Connected - psi	Minimum BP Disconnected - psi	Minimum BP Connected - psi
QDF-F0402AC	2	470	6815	21750	26100
QDF-F04AC	2	470	6815	21750	26100
QDF-M0402AC	2	470	6815	27550	26100
QDF-M0409N	2	470	6815	27550	26100
QDF-M04AC	2	470	6815	27550	26100

COUPLING REPAIR KITS

QRK

QNV REPAIR KITS

REPLACEMENT SEALS FOR FEMALE COUPLINGS

- When seals are damaged due to foreign material, it can be economic to replace them rather than the entire coupling.



Part Number	Suits coupling with base size	Coupling size - in
QRK-04	04	1/4
QRK-06	06	3/8
QRK-08	08	1/2
QRK-12	12	3/4
QRK-16	16	1
QRK-20	20	1.1/4

QRK-4BD / 4FI

FLAT FACE MANIFOLD COUPLINGS

COUPLINGS FOR FLAT FACE MANIFOLD (BOBCAT)



Part Number	Base Size	Standard
QRK-4BD-FFHF08	08	ISO 16028
QRK-4BD-FFHM08	08	ISO 16028
QRK-4BD-FFNM06	06	ISO 16028 /HTMA
QRK-4FIF08	08	ISO 16028
QRK-4FIM08	08	ISO 16028

QSK

FFH and MULTIFASTER MALE SEAL REPLACEMENT SEALS FOR MALE COUPLINGS

- When seals are damaged due to foreign material, it can be economic to replace them rather than the entire coupling.



Part Number	Suits coupling with base size	Coupling size - in
QSK-M06MF	06	3/8

COUPLING PROTECTION

QT

QNV DUST COVERS

PVC COVERS FOR QNV SERIES COUPLINGS



Part Number	QNV Male Size	QNV Female Size	Colour
QT-F04B	04		Blue
QT-F04BLK	04		Black
QT-F04Y	04		Yellow
QT-F06B	06		Blue
QT-F06Y	06		Yellow
QT-F08B	08		Blue
QT-F08BLK	08		Black
QT-F08G	08		Green
QT-F08O	08		Orange
QT-F08R	08		Red
QT-F08Y	08		Yellow
QT-F12B	12		Blue
QT-F12Y	12		Yellow
QT-F16B	16		Blue
QT-M04B		04	Blue
QT-M04BLK		04	Black
QT-M04Y		04	Yellow
QT-M06B		06	Blue
QT-M06G		06	Green
QT-M06Y		06	Yellow
QT-M08B		08	Blue
QT-M08BLK		08	Black
QT-M08G		08	Green
QT-M08O		08	Orange
QT-M08R		08	Red
QT-M08Y		08	Yellow
QT-M12B		12	Blue
QT-M16B		16	Blue

QAT

AUTOMATIC DUST COVER

NYLON DUST COVER FOR PUSH/PULL COUPLINGS

- Only available in 08 (1/2) size.
- This dust cap has been specifically designed for QPV and QCPV series couplings.
- It closes itself automatically when the male is disconnected, sealing off dust and dirt.
- It is produced in Nylon with stainless steel springs and is particularly resistant to weather changes and aging factors.
- It is available in various colours as above.



Part Number	Base Size	Colour
QAT-08B	08	blue

QTNZ

QNZV DUST COVERS

PVC COVERS FOR QNZV SERIES COUPLINGS

- QNZV protective covers are only available in base size 16 (1).
- QTNZ series covers protect QNZV series couplings from contamination and atmospheric agents when disconnected and not in use. Standard colour is yellow.
- Temperature range: -25°C to +100°C



Part Number	QNZV Male size	QNZV Female Size
QTNZ-F16	16	
QTNZ-M16		16

QTP
QPVV DUST COVERS
ALUMINIUM COVERS FOR HYDRAULIC TOOL
COUPLINGS

- Only available in 04 and 06 (1/4 and 3/8) size.
- QTP series covers protect QPVV series couplings from contamination, atmospheric agents and damage to sealing faces and connection threads when disconnected and not in use.



Part Number	QPVV Male	QPVV Female
QTP-F04S	04	
QTP-F06S	06	
QTP-M04S		04
QTP-M06S		06

QTVV

QVV / QVVS DUST COVERS ALUMINIUM COVERS FOR SCREW-LOCK COUPLINGS

- Please enquire for QTVV aluminium covers larger than size 20 (1.1/4).
- QTVV series covers protect QVV and QVVS series couplings from contamination, atmospheric agents and damage to sealing faces and connection threads when disconnected and not in use.

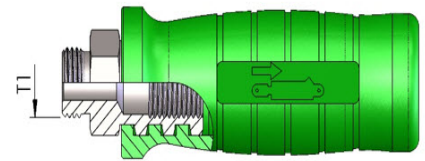
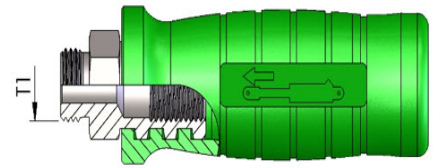


Part Number	QVV/QVVS Male	QVV/QVVS Female
QTVV-F04S	04	
QTVV-F06S	06	
QTVV-F08S	08	
QTVV-F12S	12	
QTVV-F16S	16	
QTVV-F20S	20	
QTVV-M04S		04
QTVV-M06S		06
QTVV-M08S		08
QTVV-M12S		12
QTVV-M16S		16
QTVV-M20S		20

COUPLING ACCESSORIES

QHGP QUICK-GRIPS

- Only available in 08 (1/2) size
- The QUICK-GRIP handle has been specifically designed for 08 Push-Pull series couplings
- Produced from a heat & UV compound which is particularly resistant to weather changes and aging factors
- Available in various colours and directional symbols as listed



Part Number	Base Size	Threadform	Thread Size - T1	Colour	Flow Symbol
QHGP-08BLP	08	BSPP Male	1/2 - 14	Black	Pressure
QHGP-08BLR	08	BSPP Male	1/2 - 14	Black	Return
QHGP-08BP	08	BSPP Male	1/2 - 14	Blue	Pressure
QHGP-08BR	08	BSPP Male	1/2 - 14	Blue	Return
QHGP-08GP	08	BSPP Male	1/2 - 14	Green	Pressure
QHGP-08GR	08	BSPP Male	1/2 - 14	Green	Return
QHGP-08GRP	08	BSPP Male	1/2 - 14	Grey	Pressure
QHGP-08GRR	08	BSPP Male	1/2 - 14	Grey	Return
QHGP-08RP	08	BSPP Male	1/2 - 14	Red	Pressure
QHGP-08RR	08	BSPP Male	1/2 - 14	Red	Return
QHGP-08YP	08	BSPP Male	1/2 - 14	Yellow	Pressure
QHGP-08YR	08	BSPP Male	1/2 - 14	Yellow	Return

R5 Field Attachables

Section 9



GENERAL INFORMATION

The Hydraulink range of hose couplings are available in three main series; Swage, Field Attachable (often referred to as reusable) and Push-on.

The R5 field attachable series coupling is a specialised type of field attachable, designed for use with Gates C5C, C5D and C5M hoses (SAE 100R5). The hosetail is supplied complete with ferrule to ensure compatibility of hosetail and ferrule.

NOTE: Please contact Hydraulink for further details and availability of hose couplings to suit Gates C5E hose.

Hydraulink thread forms and sealing methods are manufactured to the relevant international standards where applicable. All dimensions shown are nominal, and subject to change due to ongoing product development. For critical applications, please contact Hydraulink to confirm dimensions.

Hydraulink Fluid Connectors Ltd. reserves the right to discontinue, or to alter the design and specification of any product listed in this catalogue.

PART NUMBERING SYSTEM – R5 FIELD ATTACHABLE COUPLINGS

The Hydraulink part numbering system is a concise product description in coded form. The part number consists of four modules as follows:

Module 1. Prefix letter; denotes coupling type.

S = Swage

R = Field Attachable (Reusable)

P = Push-on

R5 = Field Attachable (Reusable) to suit SAE 100R5 hose

SU = Suction tail.

Module 2. Series Numbers; denotes the thread form or sealing method (coupling end) and the configuration of the hosetail.

E.g.; series code #51 denotes a BSPP swivel nut female in a swept 90° configuration,
series code #29 denotes a JIC female swivel nut in a compact 90° configuration.

Please refer to the following “Series Codes and Descriptions” for further information regarding coupling ends and configurations.

Module 3. Coupling end size; denotes the size of the thread form or sealing method of the hosetail. Sizes are expressed as follows;

English/American threads; expressed in 1/16th inch increments denoting the key diameter.
For example; 08 = $8/16 = 1/2$ " and 19 = $19/16 = 1\ 3/16$ ".

Metric threads; expressed in millimetres with prefix M, denoting the key diameter.
For example; M10 = 10mm O.D. thread.

Flanges; express the nominal size of the flange head. Nominal sizing refers to the maximum internal bore.

For example a 12 flange head would have a maximum internal bore of $12/16 = 3/4$ ".

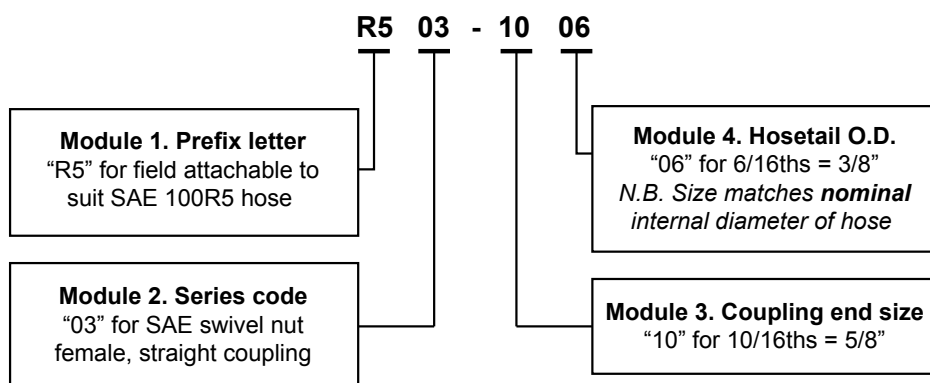
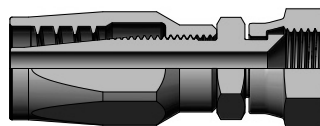
Please refer technical section for further information regarding coupling ends, thread forms and sealing methods.

Module 4. Hosetail outside diameter; denotes both the nominal O.D. of the hosetail and the I.D. of the hose it would suit. Sizes are expressed in 1/16th inch increments.
For example; 06 = $6/16 = 3/8$ " and 20 = $20/16 = 1\ 1/4$ ".

PART NUMBERING SYSTEM – R5 FIELD ATTACHABLE COUPLINGS

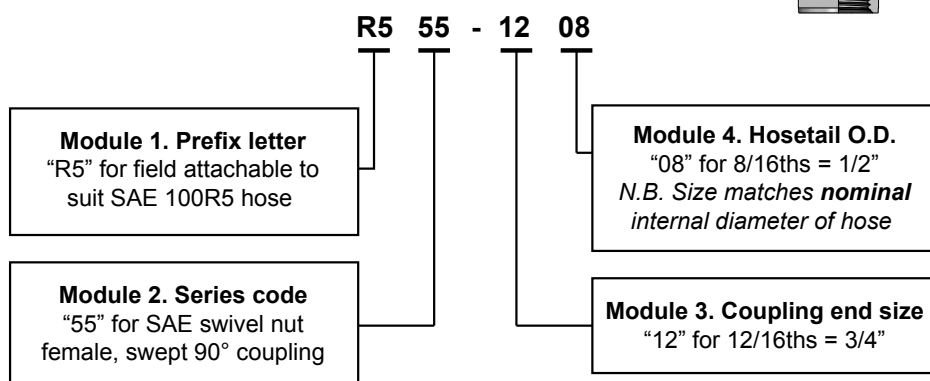
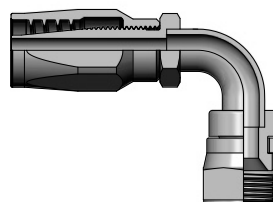
Part number: R503-1006

Complete description: 5/8" SAE swivel nut female x hose tail to suit 3/8" nominal bore SAE 100R5 hose (true bore 5/16"), straight field attachable coupling.



Part number: R555-1208

Complete description: 3/4" JIC swivel nut female x hose tail to suit 1/2" nominal bore SAE 100R5 hose (true bore 13/32"), swept 90° field attachable coupling.



SERIES CODES AND DESCRIPTIONS - HOSETAILS

CODE	DESCRIPTION	CODE	DESCRIPTION
01	BSP PARALLEL SWIVEL NUT FEMALE	51	BSPP SWIVEL NUT FEMALE 90° SWEPT BEND
02	BSP PARALLEL SWIVEL NUT FEMALE FLATFACE	52	ORFS SWIVEL NUT FEMALE 90° SWEPT BEND
03	SAE SWIVEL NUT FEMALE	53	METRIC ISO/GAZ SWIVEL NUT FEMALE 90° SWEPT BEND
04	JIC SOLID (FIXED) FEMALE	54	SAE CODE 62 FLANGE 60° SWEPT BEND
05	JIC SWIVEL NUT FEMALE	545	CAT XT5 FLANGE 60° SWEPT BEND
06	BSPT SOLID (FIXED) FEMALE	55	JIC SWIVEL NUT FEMALE 90° SWEPT BEND
07	NPSM SWIVEL NUT FEMALE	56	ORFS SWIVEL NUT FEMALE 90° LONG LEG SWEPT BEND
08	BSP PARALLEL SOLID (FIXED) FEMALE	57	BSPP SWIVEL NUT FEMALE 90° LONG LEG SWEPT BEND
09	SAE MALE	58	JIC SWIVEL NUT FEMALE 90° LONG LEG SWEPT BEND
10	SAE INVERTED FLARE MALE	59	SAE CODE 61 FLANGE 90° SWEPT BEND
11	NPTF SOLID (FIXED) FEMALE	60	BSPP SWIVEL NUT FEMALE 45° SWEPT BEND
110	SAE CODE 61 FLANGE 110° SWEPT BEND	61	SAE CODE 62 FLANGE 90° SWEPT BEND
12	BSP PARALLEL MALE	615	CAT XT5 FLANGE 90° SWEPT BEND
13	ORFS SWIVEL NUT FEMALE	616	O&K SAE CODE 62 FLANGE 90° SWEPT BEND
13R	ORFS SWIVEL NUT FEMALE, SHORT STEM	62	SAE CODE 62 FLANGE 45° SWEPT BEND
133	ORFS SWIVEL NUT FEMALE 30° SWEPT BEND	625	CAT XT5 FLANGE 45° SWEPT BEND
135	SAE CODE 61 FLANGE 135° SWEPT BEND	626	O&K SAE CODE 62 FLANGE 45° SWEPT BEND
14	BSP TAPER MALE SWIVEL	63	ORFS SWIVEL NUT FEMALE 45° SWEPT BEND
15	BSP TAPER MALE	64	JIC SWIVEL NUT FEMALE 45° SWEPT BEND
16	NPTF MALE	65	MINI-CHECK TEST POINT METRIC FEMALE/SPIGOT
17	METRIC MALE (STUD END)	66	SAE CODE 61 FLANGE 60° SWEPT BEND
18	JIC MALE	67	SAE CODE 61 FLANGE 22.5° SWEPT BEND
19	UNO MALE SWIVEL	674	SAE CODE 62 FLANGE 22.5° SWEPT BEND
20	UNO MALE	675	CAT XT5 FLANGE 22.5° SWEPT BEND
21	POCLAIN FLANGE	68	SAE CODE 61 FLANGE 45° SWEPT BEND
22	SAE CODE 62 FLANGE STRAIGHT	69	SAE CODE 61 FLANGE 67.5° SWEPT BEND
225	CAT XT5 FLANGE STRAIGHT	695	CAT XT5 FLANGE 67.5° SWEPT BEND
226	O&K SAE CODE 62 FLANGE STRAIGHT	70	JIS (KOMATSU) METRIC SWIVEL NUT FEMALE
23	SAE CODE 61 FLANGE STRAIGHT	71	JIS (KOMATSU) FLANGE STRAIGHT
236	O&K SAE CODE 61 FLANGE STRAIGHT	72	JIS (KOMATSU) FLANGE 90° SWEPT BEND
24	BSPT MALE SWIVEL 90°	73	JIS (KOMATSU) FLANGE 45° SWEPT BEND
25	BSP PARALLEL SWIVEL NUT FEMALE 90° COMPACT	74	FRENCH GAZ METRIC SWIVEL NUT FEMALE
26	BSPT MALE 90° COMPACT	75	JIS 30° FLARE (MITSUBISHI) SWIVEL NUT FEMALE
27	SAE SWIVEL NUT FEMALE 90° COMPACT	76	DIN METRIC 60° CONE SWIVEL NUT FEMALE
28	JIC MALE SWIVEL 90° COMPACT	77	METRIC GLOBE SEAL SWIVEL NUT FEMALE
29	JIC SWIVEL NUT FEMALE 90° COMPACT	78	HEAVY DIN METRIC MALE
30	WATERBLAST SWIVEL NUT FEMALE	79	HEAVY DIN METRIC SWIVEL NUT FEMALE
31	DIN METRIC 60° CONE MALE STRAIGHT	80	LIGHT DIN METRIC MALE
32	UNO MALE SWIVEL 90° COMPACT	81	LIGHT DIN METRIC SWIVEL NUT FEMALE
33	JIC MALE 90° COMPACT	82	METRIC STANDPIPE
34	JIS (KOMATSU) METRIC MALE	83	HEAVY DIN METRIC SWIVEL NUT FEMALE 90° SWEPT BEND
35	JIS 30° FLARE (MITSUBISHI) MALE	84	HEAVY DIN METRIC SWIVEL NUT FEMALE 45° SWEPT BEND
36	BSP TAPER MALE 45°	85	HEAVY DIN METRIC SWIVEL NUT FEMALE 90° COMPACT
37	SAE SWIVEL NUT FEMALE 45° SWEPT BEND	86	LIGHT DIN METRIC SWIVEL NUT FEMALE 90° SWEPT BEND
38	BANJO	87	LIGHT DIN METRIC SWIVEL NUT FEMALE 45° SWEPT BEND
39	POCLAIN FLANGE	88	LIGHT DIN METRIC SWIVEL NUT FEMALE 90° COMPACT
39N	POCLAIN FLANGE 90°	89	JIS (KOMATSU) METRIC SWIVEL NUT FEMALE 90° SWEPT BEND
39F	POCLAIN FLANGE 45°	90	HOSE JOINER
40	ORFS MALE	91	JIS 30° FLARE (MITSUBISHI) SWIVEL NUT FEM. 90° SWEPT BEND
S40N	ORFS MALE 90° SWEPT BEND	92	IMPERIAL STANDPIPE
41	SAE SWIVEL NUT FEMALE 90° SWEPT BEND	93	METRIC 90° STANDPIPE
42	SAE INVERTED FLARE MALE 45° SWEPT BEND	94	SAE IMPERIAL TUBE CONNECTOR
43	SAE INVERTED FLARE MALE 90 SWEPT BEND	95	DIN 60° METRIC SWIVEL NUT FEMALE 90° SWEPT BEND
44	KOBELCO METRIC MALE	96	LIFESAVER
45	SAE CODE 61 FLANGE 30° SWEPT BEND	97	WEO (CEJN) STRAIGHT STANDPIPE
456	O&K SAE CODE 61 FLANGE 30° SWEPT BEND		
46	SAE CODE 62 FLANGE 30° SWEPT BEND		
465	CAT XT5 FLANGE 30° SWEPT BEND		
466	O&K SAE CODE 62 FLANGE 30° SWEPT BEND		
47	FRENCH GAZ METRIC MALE		
48	JIS (KOMATSU) METRIC MALE		
49	STAPLELOCK FEMALE		
50	STAPLELOCK MALE		

SUFFIX CODES FOR SERIES CODES

N	NINETY DEGREE	e.g. S40N
F	FORTY FIVE DEGREE	e.g. S40F
S	SWIVEL MALE	e.g. S18S
K	COMPACT BLOCK 45°	e.g. S64K, S60K
C	CYLINDRICAL/ROUND BAR TAIL STYLE	e.g. S01C
H	HEXAGONAL BAR TAIL STYLE	e.g. S05H

SUFFIX CODES FOR PART NUMBERS

GS	GATES GLOBAL SPIRAL NON-SKIVE	e.g. S66-2020GS
PCM	GATES SPIRAL SKIVE TYPE	e.g. SMS15-24PCM

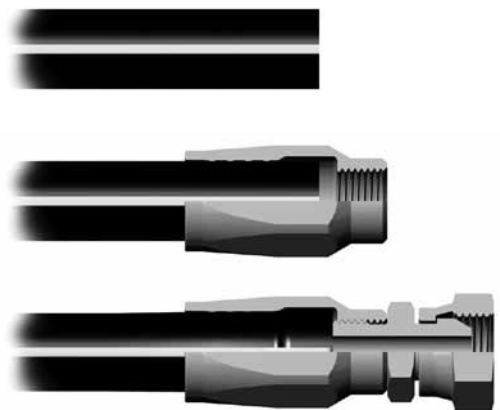
ASSEMBLY INSTRUCTIONS

Non-Skive Field Attachable Couplings

Ensure hose is cut square, with minimal end "flaring".

Screw ferrule body onto hose in an anti-clockwise direction until hose is 3 to 5mm clear of inside body.

Lightly lubricate the tailpiece and the female thread of the ferrule body, then screw the tailpiece into the ferrule body in a clockwise direction until the hex on the tailpiece abuts the ferrule body.



Please refer to training manual for more detailed assembly instructions.

Our product range is constantly evolving and Hydraulink reserve the right to change technical specifications without notice

BALL VALVES

BV

TWO WAY BALL VALVE

BLOCK TYPE WITH MOUNTING HOLES UP TO -16

- VALVES UP TO AND INCLUDING -16 ARE BLOCK TYPE BODY.
- VALVES -20 TO -32 HAVE A FORGED BODY.



Part Number	BSPP Female Thread	Internal Bore - mm	Working Pressure - bar	Working Pressure - psi	Mounting Hole Size - mm
BV-04	1/4-19	6	500	7250	4.5
BV-06	3/8-19	10	500	7250	6.5
BV-08	1/2-14	13	500	7250	6.5
BV-12	3/4-14	20	500	7250	6.5
BV-16	1-11	24	500	7250	6.7
BV-20	1.1/4-11	32	400	5800	n/a
BV-24	1.1/2-11	38	400	5800	n/a
BV-32	2-11	47.5	400	5800	n/a

BV3L

L-PORTED 3 WAY BALL VALVE

BLOCK TYPE WITH MOUNTING HOLES UP TO -16

- VALVES UP TO AND INCLUDING -16 ARE BLOCK TYPE BODY.
- VALVES -20 TO -32 HAVE A FORGED BODY.



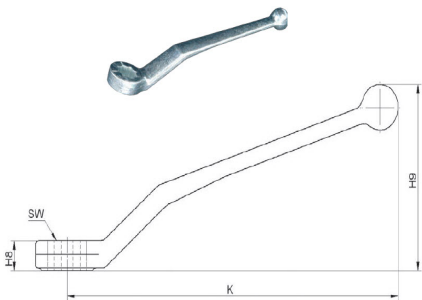
Part Number	BSPF Female Thread	Internal Bore - mm	Working Pressure - bar	Working Pressure - psi	Mounting Hole Size - mm
BV3L-04	1/4-19	6	400	5800	4.5
BV3L-06	3/8-19	9	400	5800	6.5
BV3L-08	1/2-14	11.5	350	5075	6.5
BV3L-12	3/4-14	18	350	5075	6.5
BV3L-16	1-11	22	350	5075	6.7
BV3L-20	1.1/4-11	32	400	5800	
BV3L-24	1.1/2-11	38	400	5800	

BV3T
T-PORTED 3 WAY BALL VALVE
2 POSITION



Part Number	BSPF Female Thread	Internal Bore - mm	Working Pressure - bar	Working Pressure - psi	Mounting Hole Size - mm
BV3T-04	1/4-19	6	400	5800	
BV3T-06	3/8-19	10	400	5800	
BV3T-08	1/2-14	13	350	5075	
BV3T-12	3/4-14	20	350	5075	
BV3T-16	1-11	25	350	5075	

BV-H
HANDLE



Part Number	Suits Valve Sizes	H8 (mm)	H9 (mm)	K (mm)
BV-H-04-08	1/4 - 3/8 - 1/2	8.7	36	107
BV-H-12-16	3/4 - 1	12	65	165
BV-H-20-32	1-1/4 - 1-1/2 - 2	14	66	211

BVSW

POSITIONING STOP PLATE



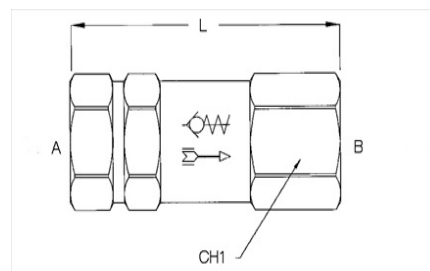
Part Number	Suits Valve Sizes
BVSW09	1/4 - 3/8 - 1/2
BVSW14	3/4 - 1

CHECK VALVES

CVF

BSPPF CHECK VALVE

STEEL CHECK VALVE (5 psi CRACK PRESSURE)

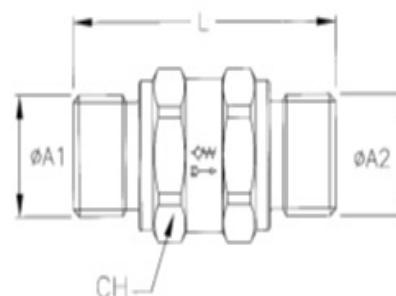


Part Number	Base Size	BSPP Female Thread (A)	BSPP Female Thread (B)	Overall Length (L)	Hex A/F (CH1)
CVF-04	04	1/4-19	1/4-19	50	19
CVF-06	06	3/8-19	3/8-19	60	24
CVF-08	08	1/2-14	1/2-14	70	27
CVF-12	12	3/4-14	3/4-14	86	34
CVF-16	16	1-11	1-11	100	41
CVF-20	20	1.1/4-11	1.1/4-11	130	50
CVF-24	24	1.1/2-11	1.1/2-11	145	60

CVM

BSPPM CHECK VALVE

STEEL CHECK VALVE (5 psi CRACK PRESSURE)



Part Number	Base Size	BSPP Male Thread (A1)	BSPP Male Thread (A2)	Overall Length (L)	Hex A/F (CH)
CVM-04	04	1/4-19	1/4-19	50	19
CVM-06	06	3/8-19	3/8-19	60	24
CVM-08	08	1/2-14	1/2-14	70	27

HOSE PROTECTION

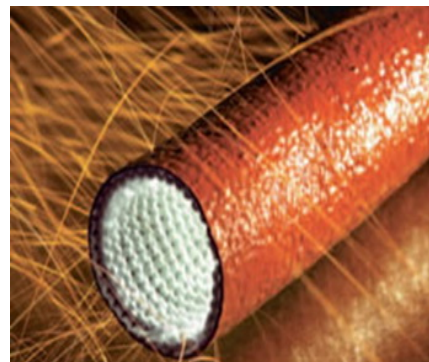
BR
VINYL BEND RESTRICTOR
TAPERED BLACK PVC SLEEVE



Part Number	I.D - mm	I.D - inches	Overall length - mm	Overall Length - inches	Suits Hose
BR1050	16	0.63	139.7	5.5	1/4 - 1 and 2 Wire
BR1051	18.54	0.73	152.4	6	3/8 - 1 and 2 Wire

HTG

HeatGuard® PROTECTIVE SLEEVING
KNITTED COATED FIBREGLASS HOSE SLEEVING



Part Number	I.D - mm	I.D - inches
HTG-10	15.75	5/8
HTG-12	19.05	3/4
HTG-14	22.35	7/8
HTG-16	25.4	1
HTG-18	28.45	1.1/8
HTG-22	35.05	1.3/8
HTG-24	38.1	1.1/2
HTG-26	41.15	1.5/8
HTG-28	44.45	1.3/4
HTG-32	50.8	2
HTG-36	57.15	2.1/4
HTG-40	63.5	2.1/2
HTG-44	69.85	2.3/4
HTG-48	76.2	3
HTG-6	9.53	3/8
HTG-8	12.7	1/2

SGX

HEAVY DUTY PROTECTIVE HOSE GUARD
HIGH DENSITY POLYETHYLENE PROTECTIVE HOSE
WRAP



Part Number	Nominal O.D - mm	Nominal I.D - mm	HOSE O.D RANGE - mm
SGX-110	150	135	150+
SGX-12	13	9	9 > 12
SGX-16	16.5	12	12 > 17
SGX-20	20	15	16 > 22
SGX-25	24.5	19	22 > 28
SGX-32	30	23	27 > 33
SGX-40	39	30.5	33 > 42
SGX-50	46.5	38	42 > 55
SGX-63	58	47	52 > 65
SGX-75	73	61	65 > 80
SGX-90	84.5	70.5	80 > 150

TEXS

WOVEN NYLON HOSE GUARD

MSHA APPROVED ABRASION RESISTANT
SLEEVEING



Part Number	Internal dimension - mm	Internal Dimension - inches	I.D when opened - mm	I.D when opened - inch
TEXS20	31	1.24	20	0.8
TEXS23	36	1.44	23	0.92
TEXS27	42	1.68	27	1.08
TEXS31	49	1.96	31	1.24
TEXS36	54	2.16	36	1.44
TEXS40	63	2.52	40	1.6
TEXS47	74	2.96	47	1.88
TEXS60	94	3.76	60	2.4
TEXS66	104	4.16	66	2.64
TEXS73	115	4.60	73	2.92

HOSE CLAMPS

ASS

STAINLESS STEEL CLAMP

GENERAL PURPOSE BAND CLAMPS



Part Number	Minimum Final I.D - mm	Minimum Final I.D - inches	Maximum Final I.D - mm	Maximum Final I.D - inches	Band width - mm	Band Width - inches	Hex Head - inches
ASS-04	6.3	0.25	15.875	0.625	7.9375	5/16	1/4
ASS-06	7.9	0.3125	22.225	0.875	7.9375	5/16	1/4
ASS-08	11.1	0.44	25.4	1	12.7	1/2	5/16
ASS-10	12.7	0.5	26.9875	1.0625	12.7	1/2	5/16
ASS-12	12.7	0.5	31.75	1.25	12.7	1/2	5/16
ASS-16	17.4	0.6875	38.1	1.5	12.7	1/2	5/16
ASS-20	19.0	0.75	44.45	1.75	12.7	1/2	5/16
ASS-24	25.4	1	50.8	2	12.7	1/2	5/16
ASS-28	31.7	1.25	57.15	2.25	12.7	1/2	5/16
ASS-32	38.1	1.5	63.5	2.5	12.7	1/2	5/16
ASS-36	44.4	1.75	69.85	2.75	12.7	1/2	5/16
ASS-40	50.8	2	76.2	3	12.7	1/2	5/16
ASS-44	57.1	2.25	82.55	3.25	12.7	1/2	5/16
ASS-48	63.5	2.5	88.9	3.5	12.7	1/2	5/16
ASS-56	76.2	3	101.6	4	12.7	1/2	5/16
ASS-60	82.5	3.25	107.95	4.25	12.7	1/2	5/16
ASS-64	63.5	2.5	114.3	4.5	12.7	1/2	5/16
ASS-80	89.0	3.5	140.0	5.5	12.7	1/2	5/16

HSHC

HEAVY DUTY HOSE CLAMP

T-BOLT TYPE HOSE CLAMP



Part Number	Minimum Final I.D - mm	Minimum Final I.D - inches	Maximum Final I.D - mm	Maximum Final I.D - inches	Bolt Thread	Bolt Head (mm)	Band Width - mm	Band Width - inches
HSHC17-19	17	0.67	19.00	0.75	M6	8	19.8	0.31

HSHC104-11 2	104	4.09	112.00	4.41	M8	13	27.5	0.51
HSHC113-12 1	113	4.45	121.00	4.76	M8	13	27.5	0.51
HSHC122-13 0	122	4.80	130.00	5.12	M8	13	27.5	0.51
HSHC131-13 9	131	5.16	139.00	5.47	M10	15	19.8	0.59
HSHC140-14 8	140	5.51	148.00	5.83	M10	15	19.8	0.59
HSHC149-16 1	149	5.87	161.00	6.34	M10	15	19.8	0.59
HSHC162-17 4	162	6.38	174.00	6.85	M10	15	19.8	0.59
HSHC175-18 7	175	6.89	187.00	7.36	M10	15	19.8	0.59
HSHC188-20 0	188	7.40	200.00	7.87	M10	15	19.8	0.59
HSHC201-21 3	201	7.91	213.00	8.39	M10	15	19.8	0.59
HSHC20-22	20	0.79	22.00	0.87	M6	8	19.8	0.31
HSHC227-23 9	227	8.94	239.00	9.41	M10	15	19.8	0.59
HSHC23-25	23	0.91	25.00	0.98	M6	8	19.8	0.31
HSHC240-25 2	240	9.45	252.00	9.92	M10	15	19.8	0.59
HSHC26-28	26	1.02	28.00	1.10	M6	8	19.8	0.31
HSHC29-31	29	1.14	31.00	1.22	M7	10	22	0.39
HSHC32-35	32	1.26	35.00	1.38	M7	10	22	0.39
HSHC36-39	36	1.42	39.00	1.54	M7	10	22	0.39
HSHC40-43	40	1.57	43.00	1.69	M7	10	22	0.39
HSHC42-45	42	1.65	45.00	1.69	M7	10	22	0.39
HSHC44-47	44	1.73	47.00	1.85	M7	10	22	0.39
HSHC48-51	48	1.89	51.00	2.01	M7	10	22	0.39
HSHC52-55	52	2.05	55.00	2.17	M7	10	22	0.39
HSHC56-59	56	2.20	59.00	2.32	M7	10	22	0.39
HSHC60-63	60	2.36	63.00	2.48	M7	10	22	0.39
HSHC64-67	64	2.52	67.00	2.64	M7	10	22	0.39
HSHC68-73	68	2.68	73.00	2.87	M8	13	27.5	0.51
HSHC74-79	74	2.91	79.00	3.11	M8	13	27.5	0.51
HSHC80-85	80	3.15	85.00	3.35	M8	13	27.5	0.51
HSHC86-91	86	3.39	81.00	3.19	M8	13	27.5	0.51
HSHC92-97	92	3.62	97.00	3.82	M8	13	27.5	0.51
HSHC98-103	98	3.86	103.00	4.06	M8	13	27.5	0.51

OT

TWIN EAR CLAMP

TWIN EAR ZINC PLATED GENERAL PURPOSE
CLAMP



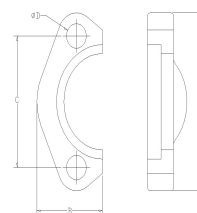
Part Number	Minimum Final I.D - mm	Maximum Final I.D - mm
OT-0507	5	7
OT-0709	7	9
OT-0911	8.1	11
OT-1113	10.8	13
OT-1315	12.5	15
OT-1417	14	17
OT-1517	14	17
OT-1518	15	18
OT-1720	16.2	20
OT-2023	19	23
OT-2327	22.5	27

SAE FLANGES

W

SAE C61 CLAMP

SAE CODE 61 FLANGE CLAMP

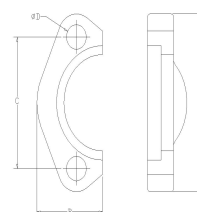


Part Number	NOMINAL SAE FLANGE SIZE	Diameter mm (A)	Width mm (B)	Bolt Hole Spacing mm (C)	Hole Size mm (D)
W-08	1/2	54	23	38.1	9
W-12	3/4	65.1	26.1	47.6	11
W-16	1	69.8	29.4	52.4	11
W-20	1 1/4	79.4	36.5	58.7	11
W-24	1 1/2	93.7	41.3	69.8	13.5
W-32	2	101.6	48.4	77.8	13.5
W-40	2 1/2				

WHP

SAE C62 CLAMP

SAE CODE 62 FLANGE CLAMP



Part Number	NOMINAL SAE FLANGE SIZE	Diameter mm (A)	Width mm (B)	Bolt Hole Spacing mm (C)	Hole Size mm (D)
WHP-08	1/2	56.3	28.1	40.5	9
WHP-12	3/4	71.4	30.2	50.8	11
WHP-16	1	80.9	34.9	57.1	13
WHP-20	1 1/4	95.2	38.9	66.7	15
WHP-24	1 1/2	112.7	47.6	79.4	17
WHP-32	2	133.3	57.1	96.8	21

CAP

UN SAE FLANGE CAPSCREW
UN THREAD SAE FLANGE CAPSCREW (ANSI B18.3)
AND WASHERS



Part Number	Size (UNC)	Suits spring washer
CAP12X112	1/2 x 1.1/2	WASHER 1/2
CAP12X134	1/2 x 1.3/4	WASHER 1/2
CAP34X212	3/4 x 2.1/2	WASHER 3/4
CAP38X112	3/8 x 1.1/2	WASHER 3/8
CAP38X114	3/8 x 1.1/4	WASHER 3/8
CAP516X114	5/16 x 1.1/4	WASHER 5/16
CAP58X2	5/8 x 2	WASHER M16
CAP716X112	7/16 x 1.1/2	WASHER 7/16
CAP716X134	7/16 x 1.3/4	WASHER 7/16

CAPM

MET SAE FLANGE CAPSCREW
METRIC THREAD SAE FLANGE CAPSCREW (DIN 912) AND WASHERS



Part Number	Size (Metric)	Suits spring washer
CAPM10X30	M10 x 30	WASHER M10
CAPM10X35	M10 x 35	WASHER M10
CAPM10X45	M10 x 45	WASHER M10
CAPM12X35	M12 x 35	WASHER M12
CAPM12X45	M12 x 45	WASHER M12
CAPM14X50	M14 x 50	WSP916B
CAPM16X55	M16 x 55	WASHER M16
CAPM20X65	M20 x 65	WASHER M20
CAPM8X25	M8 x 25	WASHER M08
CAPM8X30	M8 x 30	WASHER M08

WASHER

UN SPRING WASHERS
UN SPRING WASHERS FOR UN FLANGE CLAMP
BOLTS



Part Number	Size
WASHER 1/2	1/2
WASHER 3/4	3/4
WASHER 3/8	3/8
WASHER 5/16	5/16
WASHER 7/16	7/16

WASHER-M

MET SPRING WASHERS
METRIC SPRING WASHERS FOR METRIC FLANGE
CLAMP BOLTS

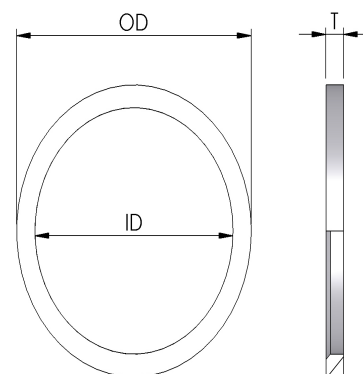


Part Number	Size
WASHER M08	8mm
WASHER M10	10mm
WASHER M12	12mm
WASHER M14	14mm
WASHER M16	16mm

FRS

SAE FLANGE SPACER

SAE CODE 62 FLANGE SPACER RING TO ADAPT TO
CATERPILLAR XT5 STYLE FLANGE CLAMP



Part Number	Suits SAE Nominal size	Outside Diameter - mm	Inside Diameter - mm	Thickness - mm
FRS-12	12	41	33	5.5
FRS-16	16	47.4	39	4.7
FRS-20	20	53.3	45	4
FRS-24	24	63.2	52	1.7
FRS-32	32	79.1	68	1.7

PROJECTILE CLEANING

CT-C

TUBE/HOSE CLEANING PROJECTILES - COUPLING
FOAM PROJECTILES FOR PNEUMATIC CLEANING
SYSTEMS



Part Number	Nominal O.D - mm	Hose/Tube min I.D - mm	Hose/Tube min I.D - inches	Hose/Tube max I.D - mm	Hose/Tube max I.D - inches	Standard pack quantity
CT-C07	7	5.26	0.21	6.48	0.26	100
CT-C10	10	7.52	0.30	8.70	0.34	100
CT-C12	12	9.02	0.36	10.43	0.41	100
CT-C14	14	10.53	0.41	12.17	0.48	100
CT-C16	16	12.03	0.47	13.91	0.55	100
CT-C18	18	13.53	0.53	15.65	0.62	100
CT-C20	20	15.04	0.59	17.39	0.68	100
CT-C22	22	16.54	0.65	19.13	0.75	100
CT-C26	26	19.55	0.77	22.61	0.89	50
CT-C33	33	24.81	0.98	28.70	1.13	40
CT-C40	40	30.08	1.18	34.78	1.37	30
CT-C50	50	37.59	1.48	43.48	1.71	20
CT-C60	60	45.11	1.78	52.17	2.05	20

CT-S

TUBE/HOSE CLEANING PROJECTILES - HOSE
FOAM PROJECTILES FOR PNEUMATIC CLEANING
SYSTEMS



Part Number	Nominal O.D - mm	Hose/Tube min I.D - mm	Hose/Tube min I.D - inches	Hose/Tube max I.D - mm	Hose/Tube max I.D - inches	Standard pack quantity
CT-S07	7	5.26	0.21	6.48	0.26	100
CT-S10	10	7.52	0.30	8.70	0.34	100
CT-S12	12	9.02	0.36	10.43	0.41	100
CT-S14	14	10.53	0.41	12.17	0.48	100
CT-S16	16	12.03	0.47	13.91	0.55	100
CT-S18	18	13.53	0.53	15.65	0.62	100
CT-S20	20	15.04	0.59	17.39	0.68	100
CT-S22	22	16.54	0.65	19.13	0.75	100
CT-S26	26	19.55	0.77	22.61	0.89	50
CT-S33	33	24.81	0.98	28.70	1.13	40
CT-S40	40	30.08	1.18	34.78	1.37	30
CT-S50	50	37.59	1.48	43.48	1.71	20
CT-S60	60	45.11	1.78	52.17	2.05	20

CT-A

TUBE/HOSE CLEANING PROJECTILES - ABRASIVE
FOAM PROJECTILES FOR PNEUMATIC CLEANING
SYSTEMS



Part Number	Nominal O.D - mm	Hose/Tube min I.D - mm	Hose/Tube min I.D - inches	Hose/Tube max I.D - mm	Hose/Tube max I.D - inches	Standard pack quantity
CT-A07	7	5.26	0.21	6.48	0.26	100
CT-A10	10	7.52	0.30	8.70	0.34	100
CT-A12	12	9.02	0.36	10.43	0.41	100
CT-A14	14	10.53	0.41	12.17	0.48	100
CT-A16	16	12.03	0.47	13.91	0.55	100
CT-A18	18	13.53	0.53	15.65	0.62	100
CT-A22	22	16.54	0.65	19.13	0.75	100
CT-A26	26	19.55	0.77	22.61	0.89	50
CT-A33	33	24.81	0.98	28.70	1.13	40
CT-A40	40	30.08	1.18	34.78	1.37	30
CT-A50	50	37.59	1.48	43.48	1.71	20
CT-A60	60	45.11	1.78	52.17	2.05	20

HOSE CLEANING

PCK-MULTI
PROJECTILE CLEANING KIT
PROJECTILE LAUNCHER AND NOZZLES IN CASE



Part Number	Height (case closed)	Width - mm	Depth - mm	Weight
PCK-MULTI	150	470	350	5kg

REPLACEMENT SEALS

D

BONDED SEAL

SELF CENTERING BONDED (DOWTY) SEAL

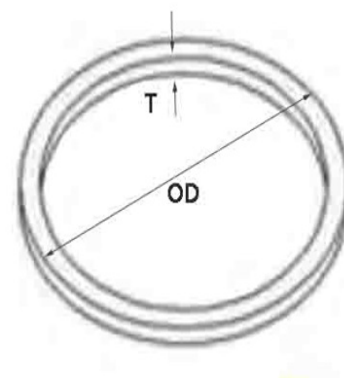


Part Number	Internal dimension - mm	Suits thread
D-02	10.4	1/8-28 BSPP
D-04	13.7	1/4-19 BSPP
D-06	17.3	3/8-19 BSPP
D-08	21.5	1/2-14 BSPP
D-10	24.3	5/8-14 BSPP
D-12	27.1	3/4-14 BSPP
D-16	33.9	1-11 BSPP
D-20	42.9	1.1/4-11 BSPP
D-24	48.4	1.1/2-11 BSPP
D-32	60.6	2-11 BSPP
D-M10	10	M10
D-M12	12	M12
D-M14	14	M14
D-M16	16	M16
D-M18	18	M18
D-M20	20	M20
D-M22	22	M22
D-M24	24	M24
D-M26	26	M26
D-M27	27	M27
D-M30	30	M30
D-M33	33	M33
D-M6	6	M6
D-M8	8	M8

RSB

BSP STUD STEEL RING

BSP STUD O-RING STEEL RETAINING RING



Part Number	Suits BSPP Male thread	Thickness - mm	Ring O.D - mm
RSB-04	1/4-19	1.5	20.2
RSB-06	3/8-19	1.6	23.9
RSB-08	1/2-14	1.7	28.7
RSB-12	3/4-14	1.8	35
RSB-16	1-11	2.3	44.4
RSB-20	1.1/4-11	2.3	54.8
RSB-24	1.1/2-11	2.3	56.9

V

BSP STUD O-RING

BSP STUD NITRILE O-RING



Part Number	Suits BSPP Male thread	Thickness - mm	Seal I.D - mm
V-02	1/8-28	2.38	6
V-04	1/4-19	2.38	11
V-06	3/8-19	2.38	14
V-08	1/2-14	2.38	19
V-12	3/4-14	2.38	24
V-16	1-11	2.5	30
V-20	1.1/4-11	3.175	38

FTS

FLARETITE SEAL

JIC 37° FLARE MALE FLARETITE CLIP ON SEAL



Part Number	Suits JIC Male thread
FTS37-07	7/16-20
FTS37-09	9/16-18
FTS37-12	3/4-16
FTS37-14	7/8-14
FTS37-17	1.1/16-12
FTS37-21	1.5/16-12
FTS37-26	1.5/8-12

IP

CAT FLANGE D-RING SEAL

D-SECTION RING INTERCHANGE WITH CAT 1P SERIES



Part Number	Suits Caterpillar nominal size	Flange Diameter - mm	Seal Thickness - mm	Seal I.D - mm
1P-3700	1/2	31.8	5	19
1P-3702	3/4	41.3	5	25.4
1P-3703	1	47.6	5	31.9
1P-3704	1.1/4	54	5	38.2
1P-3705	1.1/2	63.5	5	44.7
1P-3709	2	79.4	5	63.9

Y

SAE FLANGE O-RING

SAE CODE 61 & CODE 62 FLANGE NITRILE O-RING

- Y-10 JIS KOMATSU STYLE FLANGE



Part Number	Suits SAE Flange Nominal Size	Seal Thickness - mm	Seal I.D - mm
Y-08	1/2	3.6	18.5
Y-10	5/8*	3.6	21.8
Y-12	3/4	3.6	24.9
Y-16	1	3.6	33
Y-20	1.1/4	3.6	37.6
Y-24	1.1/2	3.6	47.2
Y-32	2	3.6	56.6
Y-40	2.1/2	3.6	69.3

Y-HP

SAE FLANGE O-RING - HIGH PRESSURE

SAE CODE 61 & CODE 62 FLANGE NITRILE O-RING

- Y-10 JIS KOMATSU STYLE FLANGE



Part Number	Suits SAE Flange Nominal Size	Seal Thickness - mm	Seal I.D - mm
Y-12HP	3/4	3.6	24.9
Y-16HP	1	3.6	33
Y-20HP	1.1/4	3.6	37.6

Z

ORFS O-RING

ORFS MALE NITRILE O-RING



Part Number	Suits ORFS Male Thread	Seal Thickness - mm	Seal I.D. - mm
Z-09	9/16-18	1.8	8.9
Z-11	11/16-16	1.8	10.2
Z-13	13/16-16	1.8	12.4
Z-16	1-14	1.8	15.6
Z-19	1.3/16-12	1.8	19.8
Z-23	1.7/16-12	1.8	24.4
Z-27	1.11/16-12	1.8	29.9
Z-32	2-12	1.8	37.8

X

UNO STUD O-RING

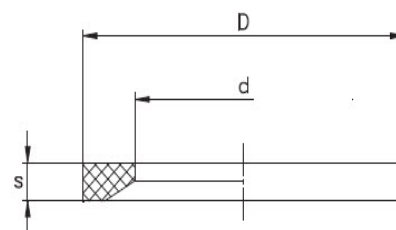
UNO STUD NITRILE O-RING



Part Number	Suits UNF Male Thread	Seal Thickness - mm	Seal I.D. - mm
X-07	7/16-20	1.8	8.9
X-08	1/2-20	1.8	10.5
X-09	9/16-18	2	11.9
X-12	3/4-16	2.2	16.4
X-14	7/8-14	2.5	19.2
X-17	1.1/16-12	3	23.5
X-19	1.3/16-12	3	26.6
X-21	1.5/16-12	3	29.7
X-26	1.5/8-12	3	37.5
X-30	1.7/8-12	3	43.7

ORT

ELASTOMERIC SEAL
BSP STUD CAPTIVE SEAL



Part Number	DIAMETER (D)	DIAMETER (d)	CROSS-SECTION (s)	SUITS THREAD SIZE
ORT-02	11.9	8.4	1.0	1/8 BSPP
ORT-04	16.5	11.6	1.5	1/4 BSPP
ORT-06	18.9	14.7	1.5	3/8 BSPP
ORT-08	23.9	18.5	1.5	1/2 BSPP
ORT-12	29.2	23.9	1.5	3/4 BSPP
ORT-16	35.7	29.7	2.0	1 BSPP

YU

POLYURETHANE U SEALS FOR SAE FLANGES
POLYURETHANE SEAL TO SUIT CODE 61 & 62 SAE
FLANGES

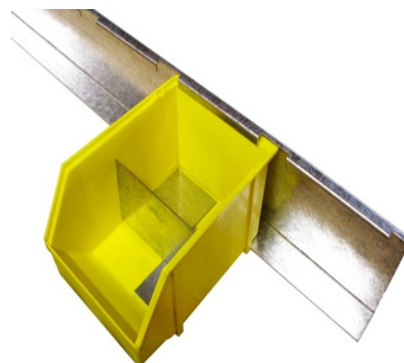


Part Number	Suits SAE Flange Nominal Size	External diameter - mm	Seal Thickness - mm (T)	Seal width-mm (S)
YU-12	3/4	31.8	3.4	3.8
YU-16	1	39.6	3.4	3.8
YU-20	1.1/4	44.5	3.4	3.8
YU-24	1.1/2	53.8	3.4	3.8
YU-32	2	63.4	3.4	3.8

STORAGE BINS

PB

STORAGE BINS AND RAILS
YELLOW PLASTIC STORAGE BINS AND
ACCESSORIES



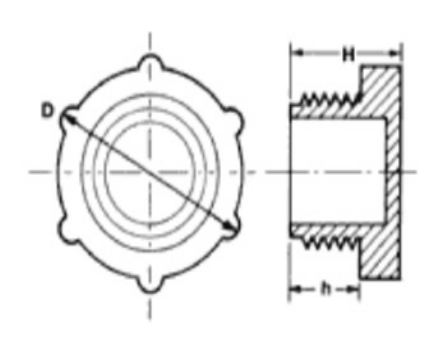
Part Number	Description	Height - mm	Width - mm	Depth - mm	Weight - kg
PB-11	Steel Divider	70	115	125	0.115
PB-12	Bin Rail	110	2340	35	3
PB-13	Plastic Bin	100	130	180	0.135

THREAD PROTECTION

PSB

BSP PLUG

BSP THREADED PLASTIC PROTECTIVE PLUG

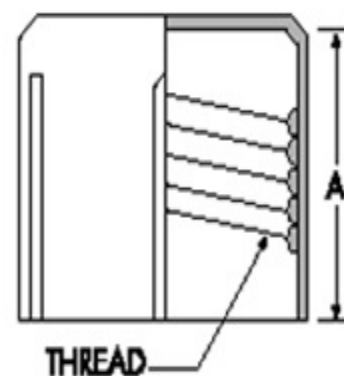


Part Number	BSPP Male Thread (A)	Thread - L1	Overall L2 - mm	Diameter CH1 - mm
P-B04	1/4-19	6.5	12.8	18.8
P-B06	3/8-19	5.5	12	22.9
P-B08	1/2-14	10.3	17.3	28
P-B12	3/4-14	11	17	32.3
P-B16	1-11	10.8	16.9	39.8

PSC

BSP CAP

BSP THREADED PLASTIC PROTECTIVE CAP

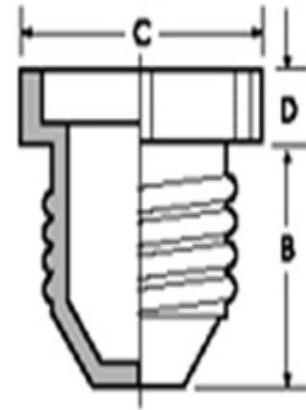


Part Number	BSPP Female Thread (A)	Overall L1 - mm
P-C04	1/4-19	10.5
P-C06	3/8-19	15.5
P-C08	1/2-14	21.2
P-C12	3/4-14	22
P-C16	1-11	26

PSG

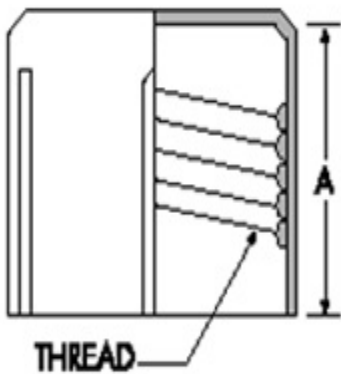
JIC PLUG

JIC THREADED PLASTIC PROTECTIVE PLUG



Part Number	JIC Male thread (A)	Thread - L1	Head - L2	Diameter CH1 - mm
P-G06	3/8-24	11.68	4.57	12.7
P-G07	7/16-20	13.46	4.83	15.75
P-G08	1/2-20	13.46	6.35	17.27
P-G09	9/16-18	12.7	6.35	20.57
P-G12	3/4-16	19.05	6.35	23.88
P-G14	7/8-14	22.1	6.35	26.93
P-G17	1.1/16-12	22.61	6.35	31.75
P-G21	1.5/16-12	23.62	6.35	38.1
P-G26	1.5/8-12	23.62	6.35	50.8

PSJ
JIC CAP
JIC THREADED PLASTIC PROTECTIVE CAP

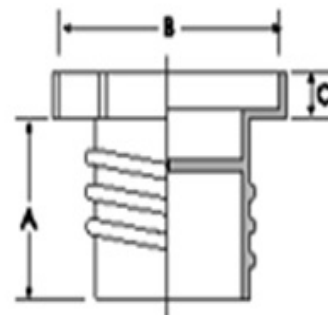


Part Number	JIC Female thread (A)	Overall L1 - mm
P-J06	3/8-24	11.94
P-J07	7/16-20	11.94
P-J08	1/2-20	11.94
P-J09	9/16-18	13.46
P-J12	3/4-16	14.48
P-J14	7/8-14	17.27
P-J17	1.1/16-12	19.05
P-J21	1.5/16-12	21.34
P-J26	1.5/8-12	23.1

PSR

ORFS PLUG

ORFS THREADED PLASTIC PROTECTIVE PLUG

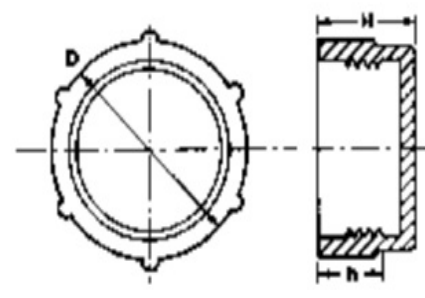


Part Number	UNF Male Thread (A)	Thread - L1	Head - L2	Diameter CH1 - mm
P-R09	9/16-18	12.2	6.35	17.3
P-R11	11/16-16	11.2	6.35	22.1
P-R13	13/16-16	12.7	6.35	23.9
P-R16	1-14	15	6.35	29.5
P-R19	1.3/16-12	16	6.35	33.8
P-R23	1.7/16-12	19	6.35	41.4

PST

ORFS CAP

ORFS THREADED PLASTIC PROTECTIVE CAP



Part Number	UNF Female Thread (A)	Thread - L1	Head - L2	Diameter CH1 - mm
P-T09	9/16-18	9.5	13.7	16.5
P-T11	11/16-16	11	15	20
P-T13	13/16-16	9.3	15.3	23.3
P-T16	1-14	12	17.2	27.6
P-T19	1.3/16-12	13	19.1	32.7
P-T23	1.7/16-12	15.2	21.7	38.9

PV

SAE C61 FLANGE CAP

SAE CODE 61 FLANGE PLASTIC PROTECTIVE CAP



Part Number	Nominal SAE Flange Size	Internal diameter - mm	Internal depth - mm
P-V08	1/2	30.2	9.91
P-V12	3/4	38.35	11.05
P-V16	1	44.7	11.81
P-V20	1.1/4	51.05	11.81
P-V24	1.1/2	60.58	11.81
P-V32	2	71.37	14.86

PVH

SAE C62 FLANGE CAP

SAE CODE 62 FLANGE PLASTIC PROTECTIVE CAP



Part Number	Nominal SAE Flange Size	Internal diameter - mm	Internal depth - mm
P-VH12	3/4	40.89	13.87
P-VH16	1	47.24	14.68
P-VH20	1.1/4	53.59	15.47
P-VH24	1.1/2	63.12	17.53
P-VH32	2	78.99	17.53

PVC
THREAD CAP (PVC)
PVC HEAT SHRINK PROTECTIVE CAP



Part Number	Internal diameter - mm
PVC CAP 25MM	25
PVC CAP 28MM	28
PVC CAP 31MM	31
PVC CAP 34MM	34
PVC CAP 38MM	38
PVC CAP 46MM	46

THREAD SEALANT

X005
THREAD TAPE



Part Number	PACKAGING
X005	ROLL

CABLE TIES

CABLE TIE

GENERAL PURPOSE CABLE TIE



Part Number	Width (mm)	Length (mm)
CT-5	4.8	300
CT-5L	7.6	380

WATERBLAST ACCESSORIES

WBC

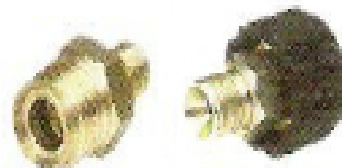
WATERBLAST QUICK RELEASE COUPLINGS



Part Number	Base size	Port Threadform	Thread size	Rated W.P (Bar)	Flow rate (L/m)
WBC-04F	06	BSPP Socket	1/4 - 19	250	30
WBC-04M	06	BSPP Socket	1/4 - 19	250	30
WBC-06F	06	BSPP Socket	3/8 - 19	250	30
WBC-06M	06	BSPP Socket	3/8 - 19	250	30

WBSB

WATERBLAST SWIVEL COUPLINGS



Part Number	Spigot size	Connection Threadform	Thread size	Port Threadform	Thread Size	Rated W.P (Bar)	Flow rate (L/m)
WBSB-F04	11mm	BSPP Female	1/2 - 14	BSPP Male	1/4 - 19	250	40
WBSB-F06	11mm	BSPP Female	1/2 - 14	BSPP Male	3/8 - 19	250	40
WBSB-M04	11mm	BSPP Male	1/2 - 14	BSPP Male	1/4 - 19	250	40
WBSB-M06	11mm	BSPP Male	1/2 - 14	BSPP Male	3/8 - 19	250	40

WBSE

WATERBLAST SWIVEL COUPLINGS



Part Number	Spigot size	Connection Threadform	Thread size	Port Threadform	Thread Size	Rated W.P (Bar)	Flow rate (L/m)
WBSE-F04	11mm	BSPP Female	1/2 - 14	BSPT Socket	1/4 - 19	250	40
WBSE-F06	11mm	BSPP Female	1/2 - 14	BSPT Socket	3/8 - 19	250	40
WBSE-M04	11mm	BSPP Male	1/2 - 14	BSPT Socket	1/4 - 19	250	40
WBSE-M06	11mm	BSPP Male	1/2 - 14	BSPT Socket	3/8 - 19	250	40

PRESSURE GAUGES

GB

63MM PRESSURE ANALOGUE GAUGE
BOTTOM ENTRY GAUGE WITH 63mm FACE



Part Number	BSPT Male (A)	Body O.D - mm	Face O.D - mm	O.A - mm	Depth - mm	Pressure range - psi	Pressure range - bar
GB-0145	1/4-19	63	69	86.2	31	0-145	0-10
GB-0300	1/4-19	63	69	86.2	31	0-300	0-20
GB-0600	1/4-19	63	69	86.2	31	0-600	0-40
GB-0850	1/4-19	63	69	86.2	31	0-850	0-60
GB-1450	1/4-19	63	69	86.2	31	0-1450	0-100
GB-2300	1/4-19	63	69	86.2	31	0-2300	0-160
GB-3600	1/4-19	63	69	86.2	31	0-3600	0-250
GB-5800	1/4-19	63	69	86.2	31	0-5800	0-400

GBS

63MM PRESSURE ANALOGUE GAUGE
BOTTOM ENTRY GAUGE WITH 63mm FACE



Part Number	BSPP Male (A)	Body O.D - mm	Face O.D - mm	O.A - mm	Depth - mm	Pressure range - psi	Pressure range - bar
GBS-0360	1/4-19	63	69	85.5	31	0-360	0-25
GBS-1450	1/4-19	63	69	85.5	31	0-1450	0-100
GBS-2300	1/4-19	63	69	85.5	31	0-2300	0-160
GBS-3600	1/4-19	63	69	85.5	31	0-3600	0-250
GBS-9000	1/4-19	63	69	85.5	31	0-9000	0-600

GBD

80MM DIGITAL PRESSURE GAUGE

BOTTOM ENTRY GAUGE WITH 80mm FACE

Part Number	BSPP Male (A)	Body O.D - mm	Face O.D - mm	Depth - mm	Pressure range - psi	Pressure range - bar
GBD-0100	1/4-19	80	72	46	0-1450	0-100
GBD-0400	1/4-19	80	72	46	0-5800	0-400
GBD-0700	1/4-19	80	72	46	0-10000	0-700

GBD-CASE

DIGITAL PRESSURE GAUGE CARRY CASE

CARRY CASE WITH SLOTS FOR GAUGES AND TEST
FITTINGS

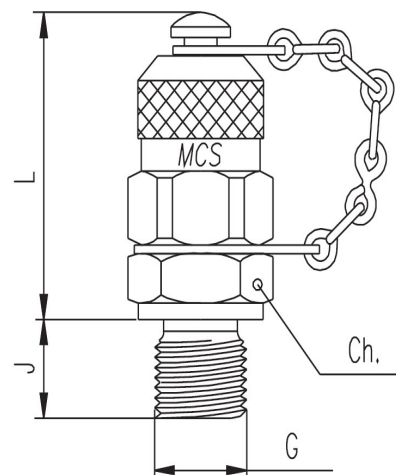
Part Number	Number of Gauges	Dimensions - mm
GBD-CASE-2	2	235x85x313

TEST POINTS

A-TP

MALE BSPT X TEST POINT

BSPT MALE X M16-2.0 TEST POINT

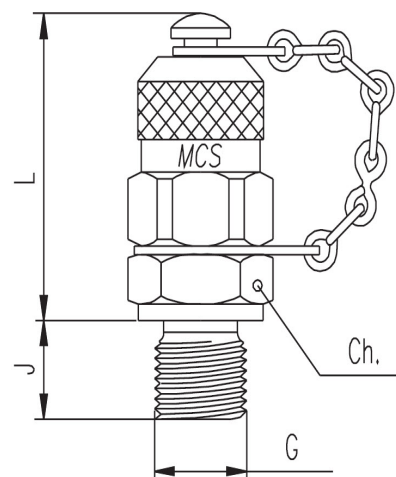


Part Number	BSPT Male Thread	Test point thread	L - mm	J - mm	Hex A/F (CH)	Working Pressure - bar
A-TP-02M16	1/8-28	M16-2	36	8	17	400
A-TP-04M16	1/4-19	M16-2	36	12	17	630

BX-TP

MALE BSPP X TEST POINT

BSPP MALE X M16-2.0 TEST POINT

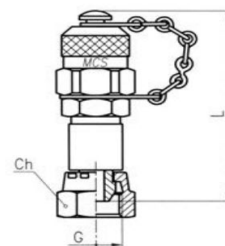


Part Number	BSPP Male Thread	Test point thread	L - mm	J - mm	Hex A/F (CH)	Working Pressure - bar
BX-TP-02M16	1/8-28	M16-2	38	8	17	400
BX-TP-04M16	1/4-19	M16-2	38	12	19	630
BX-TP-06M16	3/8-19	M16-2	38	12	22	630

C-TP

FEMALE BSPP X TEST POINT

BSPP FEMALE SWIVEL X M16-2.0 TEST POINT

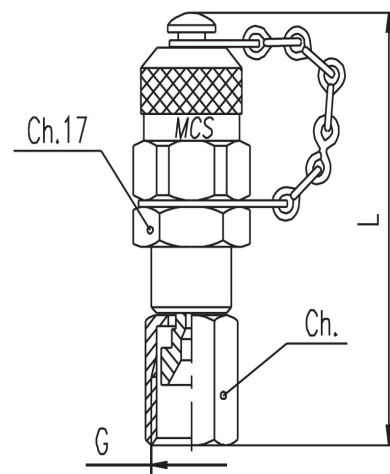


Part Number	BSPP Female Thread	Test point thread	L - mm	Hex A/F (CH)	Working Pressure - bar
C-TP-04M16	1/4-19	M16-2	62	19	630

J-TP

FEMALE JIC X TEST POINT

JIC FEMALE SWIVEL X M16-2.0 TEST POINT

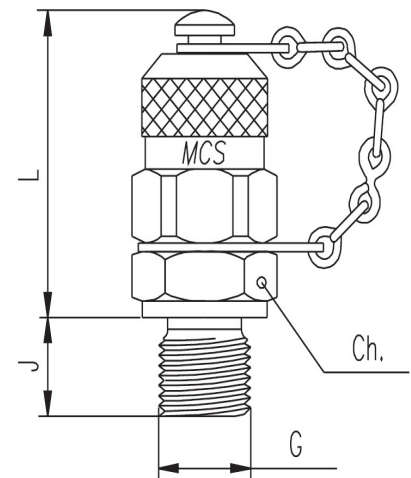


Part Number	JIC Female thread	Test point thread	L - mm	Hex A/F (CH)	Working Pressure - bar
J-TP-07M16	7/16-20	M16-2	60	14	450

N-TP

MALE UNO X TEST POINT

UNF O-RING MALE X M16-2.0 TEST POINT

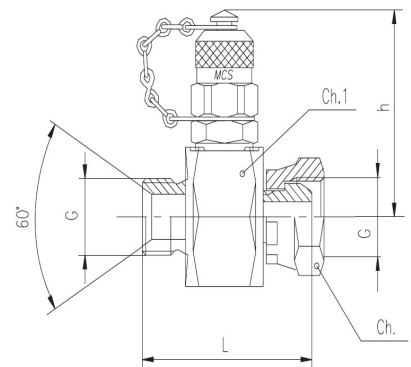


Part Number	UNF Thread	Test point thread	L - mm	J - mm	Hex A/F (CH)	Working Pressure - bar
N-TP-07M16	7/16-20	M16-2	38	11	17	630
N-TP-09M16	9/16-18	M16-2	38	12	19	630

B-C-TP

BSPP IN-LINE TEST POINT

BSPP MALE X FEMALE W. M16-2.0 TEST POINT ON BRANCH

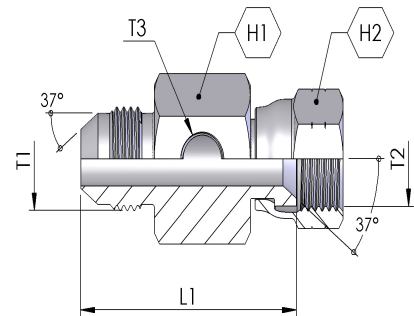


Part Number	BSPP Thread	Test point thread	L - mm	B - mm	Hex A/F (CH1)	Hex A/F (CH2)	Working Pressure - bar
B-C-TP-0404M16	1/4-19	M16-2	53	55	32	19	400
B-C-TP-0606M16	3/8-19	M16-2	60	55	32	22	400
B-C-TP-0808M16	1/2-14	M16-2	60	55	32	27	400
B-C-TP-1212M16	3/4-14	M16-2	68	55	32	32	400
B-C-TP-1616M16	1-11	M16-2	74	59.5	41	41	345

G-J-FP

JIC IN-LINE TEST POINT ADAPTOR

JIC MALE X FEMALE W. BSPP PORT ON HEX

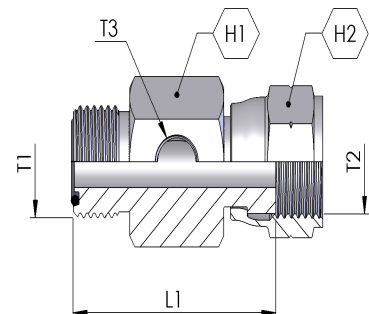


Part Number	JIC Thread Male Thread (A)	JIC Female Thread (B)	BSPP Female Thread (C)	L1 - mm	Hex A/F (CH1)	Hex A/F (CH2)
G-J-FP-070702	7/16-20	7/16-20	1/8-28	44.5	27	15
G-J-FP-090902	9/16-18	9/16-18	1/8-28	46	27	19
G-J-FP-121202	3/4-16	3/4-16	1/8-28	49	27	23
G-J-FP-141402	7/8-14	7/8-14	1/8-28	54	31.8	27
G-J-FP-171702	1.1/16-12	1.1/16-12	1/8-28	57.1	31.8	31

R-T-FP

ORFS IN-LINE TEST POINT ADAPTOR

ORFS MALE X FEMALE W. BSPP PORT ON HEX



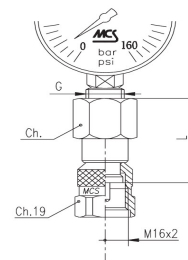
Part Number	ORFS Male Thread (A)	ORFS Female Thread (B)	BSPP Female Thread (C)	L1 - mm	Hex A/F (CH1)	Hex A/F (CH2)
R-T-FP-090902	9/16-18	9/16-18	1/8-28	39.4	27	19
R-T-FP-111102	11/16-16	11/16-16	1/8-28	41.7	27	22
R-T-FP-131302	13/16-16	13/16-16	1/8-28	46	27	24
R-T-FP-161602	1-14	1-14	1/8-28	48.5	31.8	30
R-T-FP-191902	1.3/16-12	1.3/16-12	1/8-28	52	31.8	36
R-T-FP-232302	1.7/16-12	1.7/16-12	1/8-28	55	31.8	41

GAUGE ADAPTORS

FX65

DIRECT GAUGE ADAPTOR

BSPP GAUGE SOCKET X M16-2.0 SWIVEL FEMALE



Part Number	BSPP Female Thread (A)	Test point thread (B)	L1 - mm	Hex A/F (CH1)	Hex A/F (CH2)	Working Pressure - bar
FX65-04M16	1/4-19	M16-2	34	19	19	630

MINICHECK

RTL

MINICHECK HOSE FOR TEST LEADS

KEVLAR / FIBRE BRAID REINFORCED HOSE

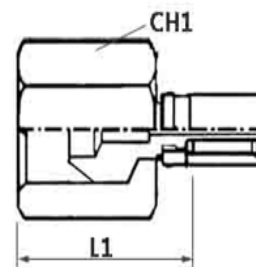


Part Number	Internal dimension - mm	External dimension - mm	Working pressure - psi	Working pressure - bar	Burst pressure - psi	Burst pressure - bar	Weight per metre - g
RTL-M2	2 +/-0.1	5 +/-0.1	9135	630	27550	1900	18
RTL-M4	4 +/-0.2	8 +/-0.2	4640	320	13920	960	47

SMC01

BSPP FEMALE STRAIGHT

BSPP SWIVEL NUT FEMALE WITH 60° CONE

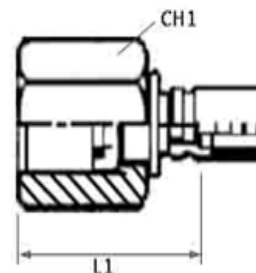


Part Number	BSPP Female Thread	Hose I.D - mm	DIN	Hex A/F (CH1)	Cutoff mm (L1)	Max working Pressure - bar
SMC01-02M2	1/8-28	2	DN2	14	14	400
SMC01-04M2	1/4-19	2	DN2	17	18	630
SMC01-04M4	1/4-19	4	DN4	17	18	500

SMC02

BSPP FEMALE STRAIGHT

BSPP FEMALE SWIVEL FLAT FACE WITH O-RING
(c/w ferrule)

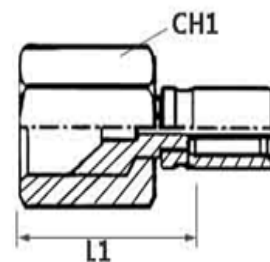


Part Number	BSPP Female Thread	Hose I.D - mm	DIN	Hex A/F (CH1)	Cutoff mm (L1)	Max working Pressure - bar
SMC02-04M2	1/4-19	2	DN2	17	15	630

SMC05

JIC FEMALE STRAIGHT

JIC FEMALE SWIVEL WITH 37° CONE

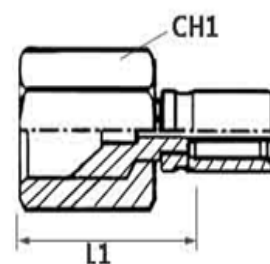


Part Number	JIC Female thread	Hose I.D - mm	DIN	Hex A/F (CH1)	Cutoff mm (L1)	Max working Pressure - bar
SMC05-07M2	7/16-20	2	DN2	14	15	450
SMC05-07M4	7/16-20	4	DN4	14	15	450

SMC13

ORFS FEMALE STRAIGHT

ORFS SWIVEL NUT FEMALE

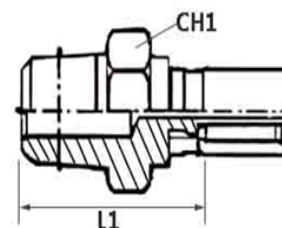


Part Number	ORFS Female Thread	Hose I.D - mm	DIN	Hex A/F (CH1)	Cutoff mm (L1)	Max working Pressure - bar
SMC13-09M2	9/16-18	2	DN2	17	18	400

SMC16

NPTF MALE STRAIGHT

NPTF FIXED MALE TO SUIT PORT

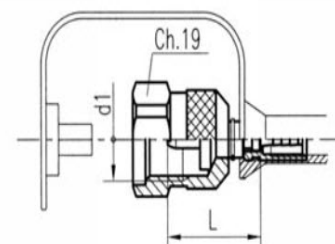


Part Number	NPTF Male Thread	Hose I.D - mm	DIN	Hex A/F (CH1)	Cutoff mm (L1)	Max working Pressure - bar
SMC16-02M2	1/8-27	2	DN2	13	21	400
SMC16-02M4	1/8-27	4	DN4	13	21	400
SMC16-04M2	1/4-18	2	DN2	17	26	630

SMC65

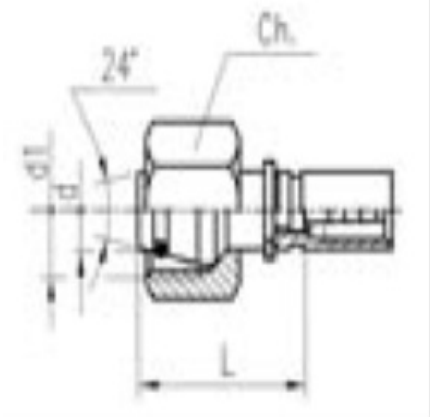
METRIC FEMALE STRAIGHT

METRIC FEMALE SWIVEL TEST SPIGOT (c/w ferrule)



Part Number	Metric Male Thread (D1)	Hose I.D - mm	DIN	Hex A/F (CH19)	Cutoff mm (L)	Max working Pressure - bar
SMC65-M12M2	M12.65 - 1.5	2	DN2		22	630
SMC65-M16M2	M16 - 2	2	DN2	19	24	630

SMC79
HEAVY DIN FEMALE STRAIGHT
HEAVY DIN METRIC FEMALE 24° CONE SLIP NUT



Part Number	Metric Female Thread	Hose I.D - mm	DIN	Tube size	Hex A/F (CH)	Cutoff (L)	Max working Pressure - bar
SMC79-M14M2	M14-1.5	2	DN2	6	17	21	630

SWAGERS

XP16

FINNPOWER P16 SWAGER

SWAGER FOR HOSE ASSEMBLIES TO 1 INCH



Part Number	Swaging Range (mm)	Swaging Force (kN)	Power Source	Swage Control	Length - mm	Width - mm	Height - mm	Weight - kg
XP16-HPZ	10 - 45	955	Handpump	Vernier	331	386	271	26

XP20

FINNPOWER P20 SWAGER

SWAGER FOR HOSE ASSEMBLIES TO 1 1/4 INCH



Part Number	Swaging Range (mm)	Swaging Force (kN)	Power Source	Swage Control	Length - mm	Width - mm	Height - mm	Weight - kg
XP20-CS-12 V	10 - 61	1370	12V DC	MS*	571	533	387	83
XP20N-MS-1PH	10 - 61	1370	12V DC	MS*	650	510	620	140

XP32

FINNPOWER P32 SWAGER

SWAGER FOR HOSE ASSEMBLIES TO 2 INCH



Part Number	Swaging Range (mm)	Swaging Force (kN)	Power Source	Swage Control	Length - mm	Width - mm	Height - mm	Weight - kg
XP32-CS-24 V	10 - 87	2000	24V DC	MS**	626	543	421	116
XP32N-MS-3PH	10 - 87	2000	3 phase	MS**	675	520	620	205

CUTOFF SAWS

XCM30

FINNPOWER CM30 CUT-OFF SAW
BENCH MOUNTED 3Kw CUT-OFF SAW

- CM30 is designed for workshop use. CM30 is manually operated and easy to use and it comes with a fume exhaust connection



Part Number	Max Hose Size	Power Source	Control	Length - mm	Width - mm	Height - mm	Weight - kg
XCM30-12V	1 1/4 ID 1&2 wire & 3/4 spiral	12V DC (1.1kW)	manual	600	503	739	50
XCM30-230V	2 ID 1&2 wire & 1 1/4 spiral	1 Phase / 230V (2.2kW)	manual	600	503	739	50

XCM35

FINNPOWER CM30 CUT-OFF SAW
STAND MOUNTED 3Kw CUT-OFF SAW

- CM35 is designed for workshop use. CM35 capacity is same as the CM30 but it comes with manual foot pedal. CM35 is easy to use and it comes with a fume exhaust connection



Part Number	Max Hose Size	Power Source	Control	Length - mm	Width - mm	Height - mm	Weight - kg
XCM35-230V	2 ID 1&2 wire & 1 1/4 spiral	1 Phase / 230V (2.2kW)	manual	600	503	739	60

SPARE PARTS

PARTS

FINNPOWER CRIMPER SPARES



Part Number	Description
CS-003361	SCALE STICKER FOR P20HP/P20CS
CS-048102	P20 PISTON SEAL
CS-048201	P20 CYLINDER SEAL
CS-053001	P20 MASTER DIE SPRING
CS-053003	P32 MASTER DIE SPRING
CS-053089	P16 MASTER DIE SPRING (OUTER)
CS-053092	P16 MASTER DIE SPRING (INNER)
CS-053093	SPRING FOR P16-HP
CS-053202	P20 GAS RETURN CYLINDER
CS-062014	P20 & P32 CONTROLLER DIAL ASS
CS-093450	P20 MASTER POWER SWITCH
CS-11006	P20 SCALE PIN
CS-11010	P20 DIE PINS (NON-QUICKCHANGE
CS-11026	LOCK BOLT FOR P20 SCALE PIN CO
CS-11030	P20 SCALE PIN COLLAR
CS-111134	PIN FOR QC TOOL
CS-112043/LP	P20 MASTER DIE LOCK-PIN ASSY -
CS-112044	P20 DIE-PIN - QUICKCHANGE TYPE
CS-11380	P20 MASTER DIE LOCK-PIN ASSY -
CS-60424	P20CS CONTROL VERNIER
CS-60426	P32CS CONTROL VERNIER
CS-691043	P20 QUICKCHANGE TOOL
CS-691561	P16 CONTROL VERNIER
CS-702932	P32 FOAM INSERTS FOR MASTER-DI
CS-702933	P20 FOAM INSERTS FOR MASTER-DI
CS-703528	P32MS CONTROL VERNIER
CS-703643	P20MS CONTROL VERNIER

D16

FINNPOWER P16 DIE SEGMENTS



Part Number	Description
D16-10	P16 CRIMPER 10mm DIE SEGMENT
D16-14	P16 CRIMPER 14mm DIE SEGMENT
D16-16	P16 CRIMPER 16mm DIE SEGMENT
D16-19	P16 CRIMPER 19mm DIE SEGMENT
D16-23	P16 CRIMPER 23mm DIE SEGMENT
D16-27	P16 CRIMPER 27mm DIE SEGMENT
D16-31	P16 CRIMPER 31mm DIE SEGMENT

D20

FINNPOWER P20 DIE SEGMENTS



Part Number	Description
D20-10	P20 CRIMPER 10mm DIE SEGMENT
D20-14	P20 CRIMPER 14mm DIE SEGMENT
D20-16	P20 CRIMPER 16mm DIE SEGMENT
D20-19	P20 CRIMPER 19mm DIE SEGMENT
D20-23	P20 CRIMPER 23mm DIE SEGMENT
D20-27	P20 CRIMPER 27mm DIE SEGMENT
D20-31	P20 CRIMPER 31mm DIE SEGMENT
D20-36	P20 CRIMPER 36mm DIE SEGMENT
D20-41	P20 CRIMPER 41mm DIE SEGMENT
D20-47	P20 CRIMPER 47mm DIE SEGMENT

D32
FINNPOWER P32 DIE SEGMENTS



Part Number	Description
D32-16	P32 CRIMPER 16mm DIE SEGMENT
D32-22	P32 CRIMPER 22mm DIE SEGMENT
D32-39	P32 CRIMPER 39mm DIE SEGMENT
D32-47	P32 CRIMPER 47mm DIE SEGMENT
D32-57	P32 CRIMPER 57mm DIE SEGMENT
D32-74	P32 CRIMPER 74mm DIE SEGMENT

Tube Fittings

Section 12



GENERAL INFORMATION

The Hydraulink range of tube fittings are available in two main series; “bite-type” compression fittings to suit tube, and socket-weld fittings to suit tube or pipe.

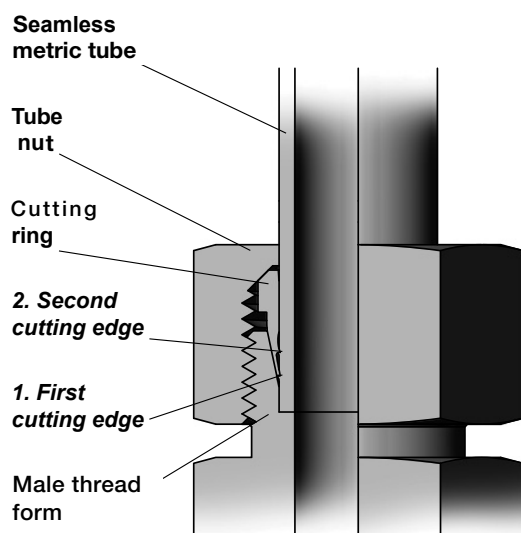
D.I.N. bite-type or compression tube fittings supplied by Hydraulink suit a wide range of sizes and working pressures, and are available with many variations of end type and configuration. Please refer technical section for further information regarding end types, thread forms and sealing methods. Hydraulink tube fittings are typically manufactured from high quality steel and finished with a silver trivalent chromium plating and clear sealant to further increase protection against corrosion. Other material types (such as AISI316 stainless steel) are available on request, as are fittings to suit imperial tube.

Socket-weld fittings are manufactured by Hydraulink to suit metric and imperial hydraulic tube, and to suit schedule pipe. Please refer to section twelve for further detail on pipe and tube. Hydraulink socket-weld fittings are available in a wide range of end types and are typically manufactured from high quality steel and supplied unfinished for ease of welding.

Hydraulink thread forms and sealing methods are manufactured to the relevant international standards where applicable. All dimensions shown are nominal, and subject to change due to ongoing product development. For critical applications, please contact Hydraulink to confirm dimensions.

Hydraulink Fluid Connectors Ltd. reserves the right to discontinue, or to alter the design and specification of any product listed in this catalogue.

ASSEMBLY INSTRUCTIONS - DIN METRIC COMPRESSION FITTINGS



The Hydraulink range of D.I.N. tube fittings are manufactured to ISO 8434-1/DIN 2353 norms and are a mechanical fitting with a double cutting ring for assembly onto metric tube. The cutting ring system provides fast assembly of removable tubes, avoids welding, tapping and flaring, and so can simplify hydraulic system installation and maintenance.

During tightening of the nut, the cutting ring is compressed according to the bore of the 24° internal cone of the male fitting and bites into the steel tube. This compression produces two

deep cuts which provide sealing and resistance to the assembly loosening. The first cut (1 - see left) is visible due to a lifting of the outer surface on the diameter of the tube, while the second cut is concealed by the cutting ring (2 - see left). The second cut balances the forces on the whole assembly and provides resistance to vibration loosening the assembly.

Please see below for nominal torque values for tightening light and heavy DIN series in Nm (Newton Metres). Please note the appropriate torque can vary according to material or tolerances.

Before assembling, ensure that the tube is cut square, and that the tube and fitting are aligned.

Lubricate all components before assembly. Use a mineral based oil for carbon steel fittings and a nickel based anti seizing compound for stainless fittings.

Ensure the tube is inserted as far as possible into the fitting before commencing tightening.

When tightening, ensure the tube does not turn with the nut.

Once tightened, the cutting ring may still turn on the tube, but it is critical that the first cutting edge of the cutting ring has indentation on a minimum of 80% of the diameter of the tube.

TIGHTENING TORQUES LIGHT (L) SERIES			
Tube O.D.	Thread O.D. & Pitch	Carbon Steel (Nm)	Stainless Steel (Nm)
6	M12-1.5	20	30
8	M14-1.5	25	55
10	M16-1.5	30	85
12	M18-1.5	40	120
15	M22-1.5	60	130
18	M26-1.5	90	220
22	M30-2.0	170	320
28	M36-2.0	210	500
35	M45-2.0	360	970
42	M52-2.0	490	1110

TIGHTENING TORQUES HEAVY (S) SERIES			
Tube O.D.	Thread O.D. & Pitch	Carbon Steel (Nm)	Stainless Steel (Nm)
6	M14-1.5	25	45
8	M16-1.5	30	55
10	M18-1.5	40	90
12	M20-1.5	50	105
14	M22-1.5	70	150
16	M24-1.5	80	180
20	M30-2.0	140	340
25	M36-2.0	230	530
30	M42-2.0	300	610
38	M52-2.0	430	850

N.B. Torque values are nominal and supplied as a guide only.

Our product range is constantly evolving and Hydraulink reserve the right to change technical specifications without notice

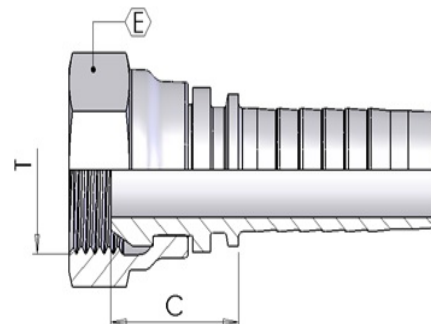
SWAGETAILS

SS01

BSP FEMALE STRAIGHT

BSP 60° CONE FEMALE SWIVEL NUT STRAIGHT

- ISO 12151-6



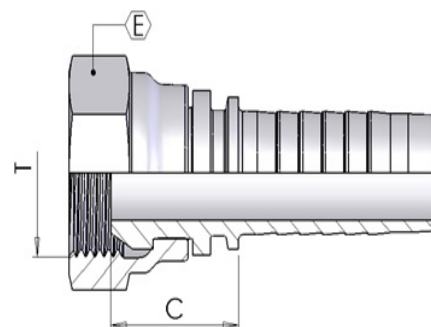
Part Number	BSPP Female Thread (T)	Hose I.D (Inches)	Hose I.D (mm)	Dash size	Hex A/F (E)	Cutoff - C
SS01-0204	1/8-28	1/4-19	6.4	04	14	15
SS01-0403	1/4-19	3/16	4.8	03	19	15.5
SS01-0404	1/4-19	1/4	6.4	04	19	16
SS01-0406	1/4-19	3/8	9.5	06		
SS01-0604	3/8-19	1/4	6.4	04	22	17.5
SS01-0606	3/8-19	3/8	9.5	06	22	18
SS01-0806	1/2-14	3/8	9.5	06	27	19
SS01-0808	1/2-14	1/2	12.7	08	27	19
SS01-1010	5/8-19	5/8	15.9	10	30	20.8
SS01-1208	3/4-14	1/2	12.7	08	32	22.5
SS01-1212	3/4-14	3/4	19	12	32	24
SS01-1616	1-11	1	25.4	16	41	27.5

SS05

JIC FEMALE STRAIGHT

JIC 37° FLARE FEMALE SWIVEL NUT STRAIGHT

- ISO 12151-5/SAE J516



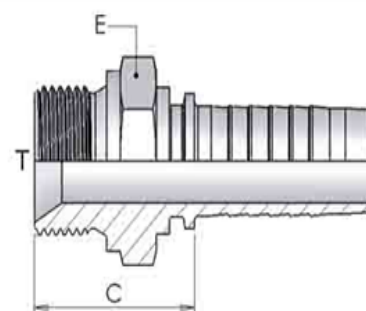
Part Number	JIC Female Thread (T)	Hose I.D (Inches)	Hose I.D (mm)	Dash size	Hex A/F (E)	Cutoff - C
SS05-0703	7/16-20	3/16	4.8	03	14	14.5
SS05-0704	7/16-20	1/4	6.4	04	14	15
SS05-0804	1/2-20	1/4	6.4	04	17	16
SS05-0904	9/16-18	1/4	6.4	04	19	17
SS05-0906	9/16-18	3/8	9.5	06	19	17
SS05-1206	3/4-16	3/8	9.5	06	24	19
SS05-1208	3/4-16	1/2	12.7	08	24	19.5
SS05-1408	7/8-14	1/2	12.7	08	27	20.5
SS05-1410	7/8-14	5/8	15.9	10	27	20.5
SS05-1712	1.1/16-12	3/4	19.0	12	32	23
SS05-2116	1.5/16-12	1	25.4	16	38	24.5

SS12

BSP MALE STRAIGHT

BSP 60° CONE MALE STRAIGHT

- ISO 12151-6

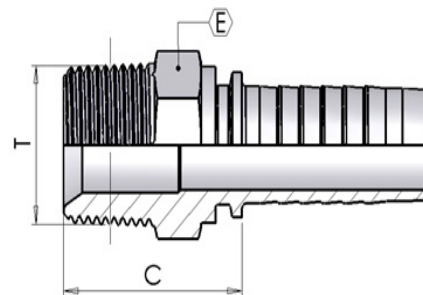


Part Number	BSPP Male Thread (T)	Hose I.D (Inches)	Hose I.D (mm)	Dash size	Hex A/F (E)	Cutoff - C
SS12-0606	3/8-19	3/8	9.5	06	22	29.5
SS12-0808	1/2-14	1/2	12.7	08	27	29.5

SS15

BSPT MALE STRAIGHT

BSP TAPERED MALE STRAIGHT



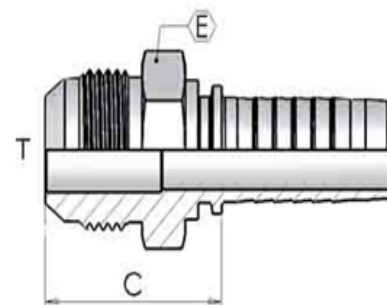
Part Number	BSPT Male Thread (T)	Hose I.D (Inches)	Hose I.D (mm)	Dash size	Hex A/F (E)	Cutoff - C
SS15-0404	1/4-19	1/4	6.4	04	17	28
SS15-0604	3/8-19	1/4	6.4	04	19	28
SS15-0606	3/8-19	3/8	9.5	06	19	29.5
SS15-0806	1/2-14	3/8	9.5	06	22	29.5
SS15-0808	1/2-14	1/2	12.7	08	22	29.5
SS15-1208	3/4-14	1/2	12.7	08	22	29.5
SS15-1212	3/4-14	3/4	19	12	30	39
SS15-1616	1-11	1	25.4	16	36	47

SS18

JIC MALE STRAIGHT

JIC 37° FLARE MALE STRAIGHT

- ISO 12151-5/SAE J516



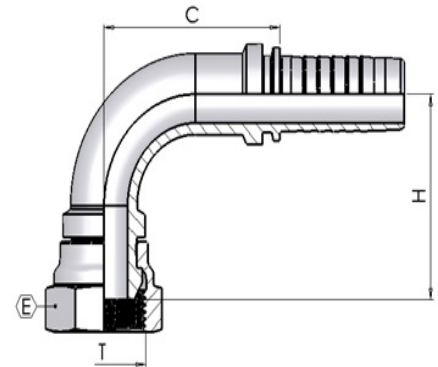
Part Number	JIC Male Thread (T)	Hose I.D (Inches)	Hose I.D (mm)	Dash size	Hex A/F (E)	Cutoff - C
SS18-0704	7/16-20	1/4	6.4	04	14	30
SS18-1206	3/4-14	3/8	9.5	06	22	29.5

SS51

BSP FEMALE 90° ELBOW

BSP 60° CONE FEMALE SWIVEL NUT 90° ELBOW

- ISO 12151-6



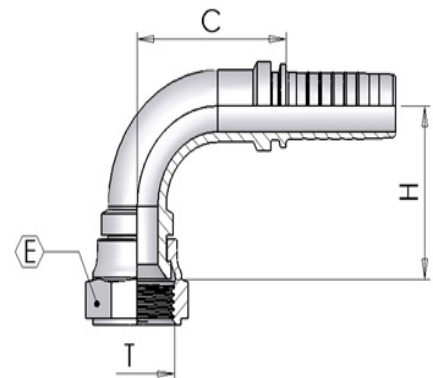
Part Number	BSP Female Thread (T)	Hose I.D (Inches)	Hose I.D (mm)	Dash size	Hex A/F (E)	Drop - H	Cutoff - C
SS51-0403	1/4-19	3/16	4.8	03	19	31.5	32
SS51-0404	1/4-19	1/4	6.4	04	19	31.5	28
SS51-0606	3/8-19	3/8	9.5	06	22	39	38.5
SS51-0808	1/2-14	1/2	12.7	08	27	44	42.5
SS51-1212	3/4-14	3/4	19	12	32	63	66
SS51-1616	1-11	1	25.4	16	41	79.5	79

SS55

JIC FEMALE 90° ELBOW

JIC 37° FLARE FEMALE SWIVEL NUT 90° ELBOW

- ISO 12151-5/SAE J516



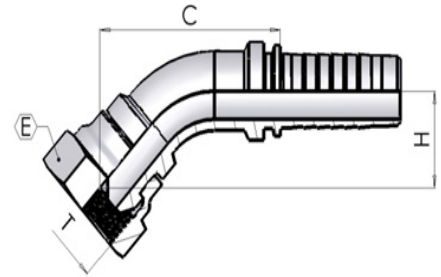
Part Number	JIC Female Thread (T)	Hose I.D (Inches)	Hose I.D (mm)	Dash size	Hex A/F (E)	Drop - H	Cutoff - C
SS55-0703	7/16-20	3/16	4.8	03	14		
SS55-0704	7/16-20	1/4	6.4	04	14	30.5	28
SS55-0904	9/16-18	1/4	6.4	04	19	32	28
SS55-0906	9/16-18	3/8	9.5	06	19	38	38.5
SS55-1206	3/4-16	3/8	9.5	06	24	40	38.5
SS55-1208	3/4-16	1/2	12.7	08	24	44	42.5
SS55-1408	7/8-14	1/2	12.7	08	27	45.5	43
SS55-1712	1.1/16-12	3/4	19	12	32	62	66
SS55-2116	1.5/16-12	1	25.4	16	38	76	79

SS60

BSP FEMALE 45° ELBOW

BSP 60° CONE FEMALE SWIVEL NUT 45° ELBOW

- ISO 12151-6



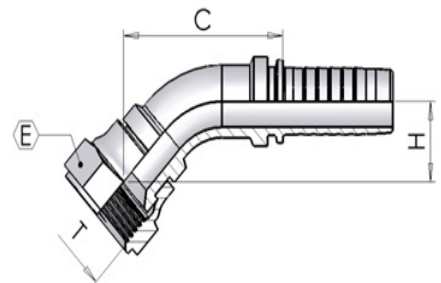
Part Number	BSPP Female Thread (T)	Hose I.D (Inches)	Hose I.D (mm)	Dash size	Hex A/F (E)	Drop - H	Cutoff - C
SS60-0403	1/4-19	3/16	4.8	03	19	19.5	34.5
SS60-0404	1/4-19	1/4	6.4	04	19	15.5	46.5
SS60-0606	3/8-19	3/8	9.5	06	22	20.6	62.1
SS60-0808	1/2-14	1/2	12.7	08	27	22.3	67.8
SS60-1212	3/4-14	3/4	19.0	12	32	27.1	102.1
SS60-1616	1-11	1	25.4	16	41	36.6	125.6

SS64

JIC FEMALE 45° ELBOW

JIC 37° FLARE FEMALE SWIVEL NUT 45° ELBOW

- ISO 12151-5/SAE J516



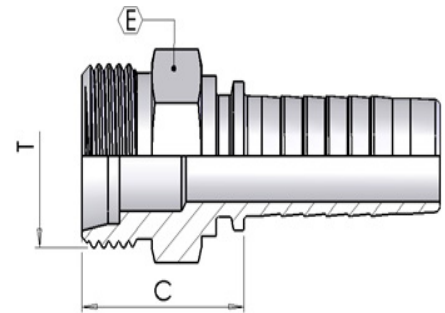
Part Number	JIC Female Thread (T)	Hose I.D (Inches)	Hose I.D (mm)	Dash size	Hex A/F (E)
SS64-0703	7/16-20	3/16	4.8	03	
SS64-0704	7/16-20	1/4	6.4	04	14
SS64-0904	9/16-18	1/4	6.4	04	19
SS64-0906	9/16-18	3/8	9.5	06	19
SS64-1206	3/4-16	3/8	9.5	06	24
SS64-1208	3/4-16	1/2	12.7	08	24
SS64-1408	7/8-14	1/2	12.7	08	27
SS64-1712	1.1/16-12	3/4	19	12	32
SS64-2116	1.5/16-12	1	25.4	16	38

SS78

MET HEAVY MALE STRAIGHT

METRIC 24° CONE HEAVY MALE STRAIGHT

- ISO 12151-5



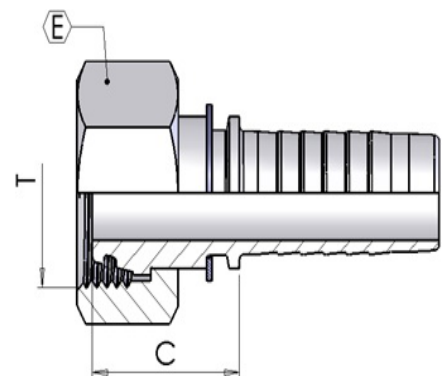
Part Number	Metric Male Thread (T)	Hose I.D (Inches)	Hose I.D (mm)	Dash size	Tube Size	Hex A/F (E)	Cutoff - C
SS78-M1604	M16-1.5	1/4	6.4	04	8	17	26.5
SS78-M1806	M18-1.5	3/8	9.5	06	10	19	29.5
SS78-M2006	M20-1.5	3/8	9.5	06	12	22	29.5
SS78-M2206	M22-1.5	3/8	9.5	06	14	24	29.5
SS78-M2408	M24-1.5	1/2	12.7	08	16	27	29.5
SS78-M3012	M30-2	3/4	19	12	20	32	39
SS78-M3616	M36-2	1	25.4	16	25	41	47

SS79

MET HEAVY FEMALE STRAIGHT

METRIC 24° CONE HEAVY FEMALE SWIVEL NUT STRAIGHT

- ISO 12151-5



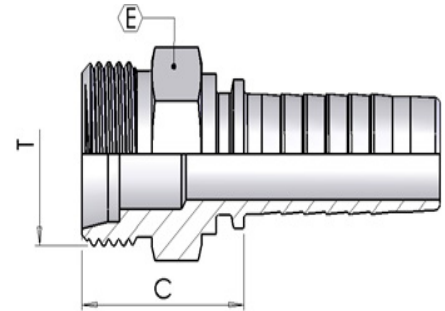
Part Number	Metric Female Thread (T)	Hose I.D (Inches)	Hose I.D (mm)	Dash size	Tube Size	Hex A/F (E)	Cutoff - C
SS79-M1604	M16-1.5	1/4	6.4	04	8	19	25
SS79-M1804	M18-1.5	1/4	6.4	04	10	22	26
SS79-M2006	M20-1.5	3/8	9.5	06	12	24	23
SS79-M2206	M22-1.5	3/8	9.5	06	14	27	33
SS79-M2408	M24-1.5	1/2	12.7	08	16	30	35
SS79-M3010	M30-2	5/8	15.9	10	20	36	36.8
SS79-M3012	M30-2	3/4	19	12	20	36	33.6
SS79-M3612	M36-2	3/4	19	12	25	46	43

SS80

MET LIGHT MALE STRAIGHT

METRIC 24° CONE LIGHT MALE STRAIGHT

- ISO 12151-5



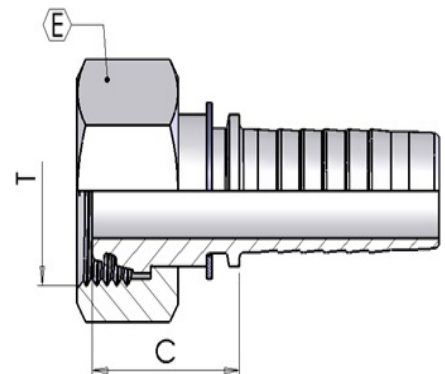
Part Number	Metric Male Thread (T)	Hose I.D (Inches)	Hose I.D (mm)	Dash size	Tube Size	Hex A/F (E)	Cutoff - C
SS80-M1604	M16-1.5	1/4	6.4	04	10	17	28
SS80-M1606	M16-1.5	3/8	9.5	06	12	17	29.5
SS80-M1806	M18-1.5	3/8	9.5	06	12	19	29.5
SS80-M2208	M22-1.5	1/2	12.7	08	15	24	29.5

SS81

MET LIGHT FEMALE STRAIGHT

METRIC 24° CONE LIGHT FEMALE SWIVEL NUT STRAIGHT

- ISO 12151-5

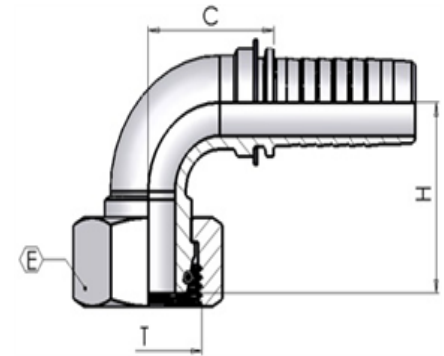


Part Number	Metric Female Thread (T)	Hose I.D (Inches)	Hose I.D (mm)	Dash size	Tube Size	Hex A/F (E)	Cutoff - C
SS81-M1204	M12-1.5	1/4	6.4	04	6	14	18.5
SS81-M1404	M14-1.5	1/4	6.4	04	8	17	24
SS81-M1604	M16-1.5	1/4	6.4	04	10	19	22
SS81-M1606	M16-1.5	3/8	9.5	06	10	19	24
SS81-M1806	M18-1.5	3/8	9.5	06	12	22	23
SS81-M2208	M22-1.5	1/2	12.7	08	15	27	29
SS81-M2608	M26-1.5	1/2	12.7	08	18	32	27.5
SS81-M2610	M26-1.5	5/8	15.9	10	18	32	30.5
SS81-M3012	M30-2	3/4	19	12	22	46	32.5
SS81-M3616	M36-2	1	25.4	16	28	41	33.5

SS83

MET HEAVY FEMALE 90° ELBOW
METRIC 24° CONE HEAVY FEMALE SWIVEL NUT
90° ELBOW

- ISO 12151-5

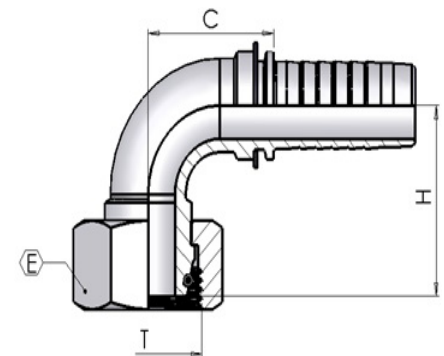


Part Number	Metric Female Thread (T)	Hose I.D (Inches)	Hose I.D (mm)	Dash size	Tube Size	Hex A/F (E)	Drop (H)	Cutoff - C
SS83-M2006	M20-1.5	3/8	9.5	06	12	24	34	33.5
SS83-M2408	M24-1.5	1/2	12.7	08	16	30	41	40
SS83-M3612	M36-2	3/4	19	12	25	46	58.5	56.2

SS86

MET LIGHT FEMALE 90° ELBOW
METRIC 24° CONE LIGHT FEMALE SWIVEL NUT 90° ELBOW

- ISO 12151-5



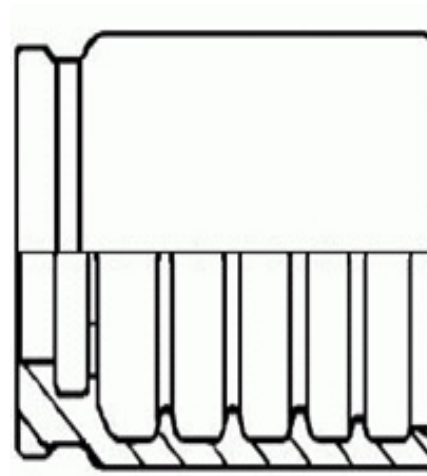
Part Number	Metric Female Thread (T)	Hose I.D (Inches)	Hose I.D (mm)	Dash size	Tube Size	Hex A/F (E)	Drop (H)	Cutoff - C
SS86-M1606	M16-1.5	3/8	9.5	06	10	19	45	38.5
SS86-M1806	M18-1.5	3/8	9.5	06	12	22	41	38.5
SS86-M2208	M22-1.5	1/2	12.7	08	15	27	47.5	42.5
SS86-M3012	M30-2	3/4	19	12	20			

FERRULES

SSCN

BRAIDED HOSE SWAGE FERRULE

NON-SKIVE SWAGE FERRULE FOR ONE & TWO-WIRE HOSE

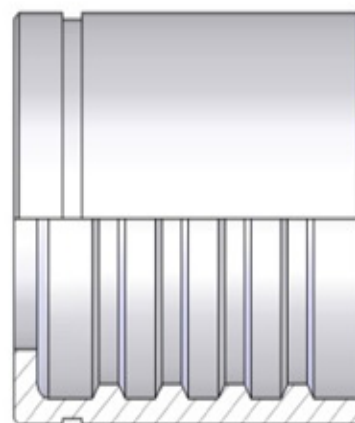


Part Number	Hose I.D inches	Hose I.D (mm)	Dash size	O.A Length	I.D - mm	O.D - mm
SSCN-04	1/4	6.4	04	30.0	15.6	23.0
SSCN-06	3/8	9.5	06	31.0	19.7	26.0
SSCN-08	1/2	12.7	08	32.0	23.0	29.0
SSCN-10	5/8	15.9	10	36.0	26.3	33.0
SSCN-12	3/4	19	12	42.5	30.2	37.0
SSCN-16	1	25.4	16	51.0	39.2	46.0

SSCNT

THERMOPLASTIC HOSE FERRULE

NON-SKIVE SWAGE FERRULE FOR THERMOPLASTIC HOSE



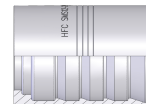
Part Number	Hose I.D inches	Hose I.D (mm)	Dash size	O.A Length	I.D - mm	O.D - mm
SSCNT-03	3/16	4.8	03	26.5	11.3	14.0
SSCNT-04	1/4	6.4	04	30.5	14.0	18.0
SSCNT-06	3/8	9.5	06	33.0	17.8	22.0
SSCNT-08	1/2	12.7	08	34.0	21.0	26.0

SSMS

SPIRAL HOSE SWAGE FERRULE

SKIVE SWAGE FERRULE FOR GATES SPIRAL 4

WIRE HOSE

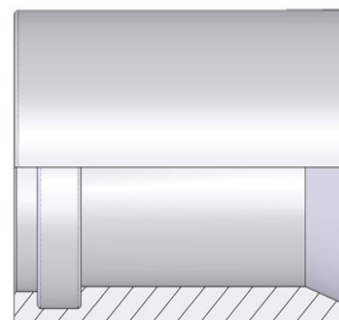


Part Number	Hose I.D inches	Hose I.D (mm)	Dash size	O.A Length	I.D - mm	O.D - mm
SSMS12-08	1/2	12.7	08	32.0	22.2	30.0
SSMS12-10	5/8	15.9	10	36	25.4	33.0
SSMS12-12	3/4	19	12	42.5	29.2	38.0
SSMS12-16	1	25.4	16	51.0	36.4	46.0

SSP1

PTFE SWAGE FERRULE

SWAGE FERRULE FOR PTFE SMOOTH TRUE BORE
HOSE



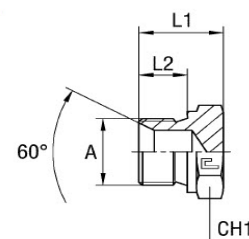
Part Number	Hose I.D inches	Hose I.D (mm)	Dash size	O.A Length	I.D - mm	O.D - mm
SSP1-04	1/4	6.4	04	30.0	11.0	15.0
SSP1-06	3/8	9.5	06	30.0	14.0	18.0
SSP1-08	1/2	12.7	08	32.0	19.0	24.0
SSP1-12	3/4	19	12	33.5	24.9	30.0
SSP1-16	1	25.4	16	45.0	30.3	36.0

ADAPTORS

SB

BSPP MALE PLUG

BSPP MALE HEX PLUG WITH 60° CONE

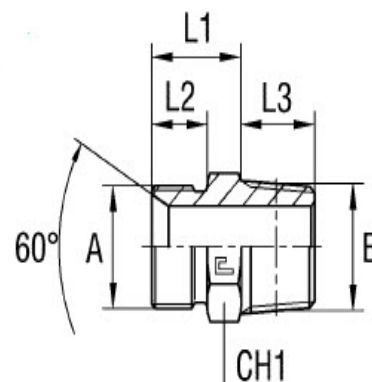


Part Number	Minimum Final I.D. - mm	Minimum Final I.D. - inches	Maximum Final I.D. - mm	Maximum Final I.D. - inches
SB15	12.7	0.5	17.46	0.69
SB19	17.46	0.69	20.64	0.81
SB22	20.64	0.81	23.81	0.94
SB25	23.81	0.94	26.99	1.06
SB29	26.99	1.06	30.16	1.19
SB34	33.34	1.31	38.10	1.50
SB41	38.1	1.5	44.45	1.75
SB48	44.45	1.75	50.8	2
SB54	50.8	2	57.15	2.25
SB60	57.15	2.25	63.5	2.5
SB67	63.5	2.5	69.85	2.75
SB73	69.85	2.75	76.2	3
SB-04	1/4-19	19	11	
SB-06	3/8-19	20.5	12	
SB-08	1/2-14	24	14	
SB-12	3/4-14	28	16	
SB-16	1-11	32	19	

SA-B

BSPT MALE X BSP MALE

BSPT MALE X BSP 60° CONE MALE STRAIGHT

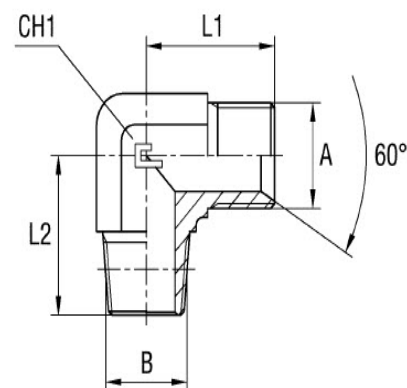


Part Number	BSPT Male Thread (B)	BSPP Male Thread (A)	Length mm (L1)	Thread Length - mm (L2)	Thread Length - mm (L3)	Hex A/F (CH1)
SA-B-0404	1/4-19	1/4-19	17	11	15	14
SA-B-0606	3/8-19	3/8-19	18	12	15	17
SA-B-0808	1/2-14	1/2-14	21	14	19	22
SA-B-1212	3/4-14	3/4-14	25	16	19	27
SA-B-1616	1-11	1-11	29	19	24	36

SA-B-90

BSPT MALE X BSP MALE

BSPT MALE X BSP 60° CONE MALE STRAIGHT

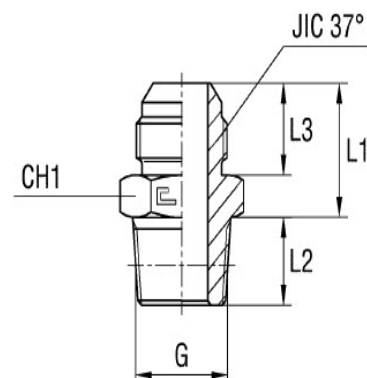


Part Number	BSPT Male Thread (B)	BSPP Male Thread (A)	L1 - mm	L2 - mm	Hex A/F (CH1)
SA-B-90-0606	3/8-19	3/8-19	29	31	19
SA-B-90-1212	3/4-14	3/4-14	41	40	27

SA-G

BSPT MALE X JIC MALE

BSPT MALE X JIC 37° FLARE MALE STRAIGHT

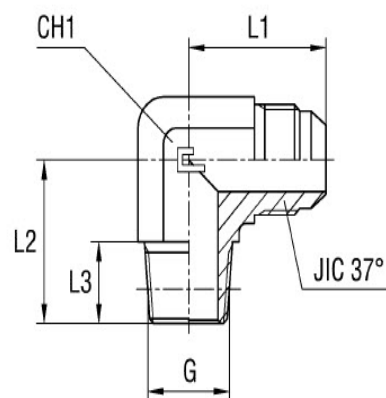


Part Number	BSPT Male Thread (G)	JIC Male Thread (JIC)	Length mm (L1)	Thread Length - mm (L2)	Thread Length - mm (L3)	Hex A/F (CH1)
SA-G-0207	1/8-28	7/16-20	21	10	14	14
SA-G-0407	1/4-19	7/16-20	21	15	14	14
SA-G-0409	1/4-19	9/16-18	22	15	14	17
SA-G-0609	3/8-19	9/16-18	22	15	14	17
SA-G-0612	3/8-19	3/4-16	25	15	17	22
SA-G-0812	1/2-14	3/4-16	25	19	17	22
SA-G-0814	1/2-14	7/8-14	29	19	20	24
SA-G-1621	1-11	1.5/16-12	35	24	23	36

SA-G-90

BSPT MALE X JIC MALE

BSPT MALE X JIC 37° FLARE MALE 90° ELBOW



Part Number	BPST Male Thread (G)	JIC Male Thread (JIC)	L1 - mm	L2 - mm	L3 - mm	Hex A/F (CH1)
SA-G-90-0609	3/8-19	9/16-18	30	31	15	19
SA-G-90-0612	3/8-19	3/4-16	32	31	14.5	19
SA-G-90-0812	1/2-14	3/4-16	32	37.5	19	22

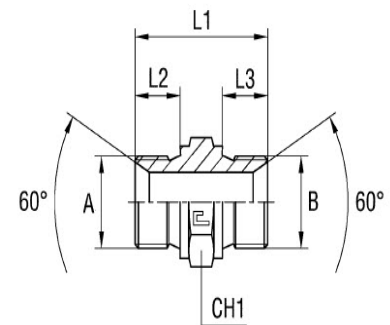
SB-B

BSP MALE X BSP MALE

BSP 60° CONE MALE X BSP 60° CONE MALE

STRAIGHT

- ISO 8434-6



Part Number	BSPP Male Thread (A)	BSPP Male Thread (B)	Length mm (L1)	Thread Length - mm (L2)	Thread Length - mm (L3)	Hex A/F (CH1)
SB-B-0404	1/4-19	1/4-19	32	11	11	19
SB-B-0406	1/4-19	3/8-19	34	11	12	22
SB-B-0606	3/8-19	3/8-19	35	12	12	22
SB-B-0608	3/8-19	1/2-14	39	12	14	27
SB-B-0808	1/2-14	1/2-14	41	14	14	27
SB-B-0812	1/2-14	3/4-14	45	14	16	32
SB-B-1212	3/4-14	3/4-14	47	16	16	32
SB-B-1616	1-11	1-11	54	19	19	41

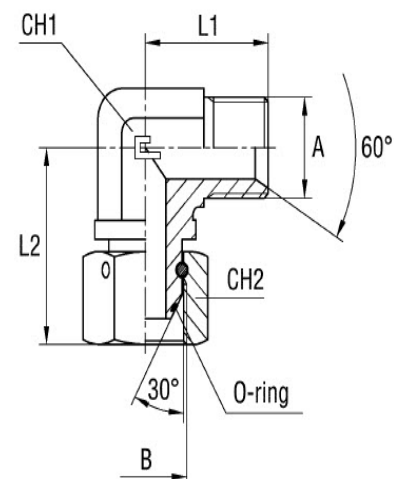
SB-C-90

BSP MALE X BSP FEMALE

BSP 60° CONE MALE X BSP 60° CONE FEMALE

SWIVEL NUT 90° ELBOW

- ISO 8434-6



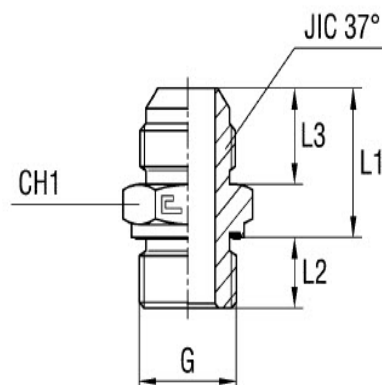
Part Number	BSPP Male Thread (A)	BSPP Female Thread (B)	L1 - mm	L2 - mm	Hex A/F (CH1)	Hex A/F (CH2)
SB-C-90-0404	1/4-19	1/4-19	26	33	14	19
SB-C-90-1212	3/4-14	3/4-14	41	54	27	32

SB-G

BSP MALE X JIC MALE

BSP 60° CONE MALE X JIC 37° FLARE MALE

STRAIGHT



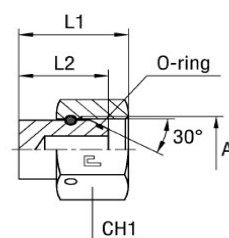
Part Number	BSPP Male Thread (G)	JIC Male Thread (JIC)	Thread (L1)	Thread Length mm (L2)	Thread Length - mm (L3)	Hex A/F (CH1)
SB-G-0407	1/4-19	7/16-20	23	12	14	19
SB-G-0409	1/4-19	9/16-18	23	12	14	19
SB-G-0609	3/8-19	9/16-18	24	12	14	22
SB-G-0612	3/8-19	3/4-16	27	12	17	22
SB-G-0812	1/2-14	3/4-16	29	14	17	27
SB-G-0814	1/2-14	7/8-14	31	14	19	27
SB-G-1217	3/4-14	1.1/16-12	35	16	22	32
SB-G-1621	1-11	1.5/16-12	38	18	23.1	41

SC

BSP FEMALE

BSP 60° CONE FEMALE SWIVEL NUT CAP

- ISO 8434-6

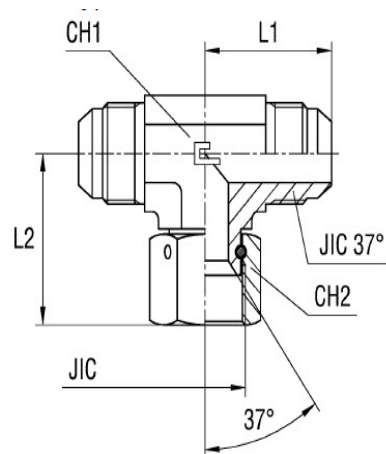


Part Number	BSPP Female Thread (A)	Length (L1)	Hex A/F (CH1)
SC-04	1/4-19	19	15
SC-08	1/2-14	24	19
SC-12	3/4-14	30	21

SG-G-J

JIC MALE X JIC MALE X JIC FEMALE
JIC 37° FLARE MALE X JIC 37° FLARE MALE X JIC
37° FLARE FEMALE SWIVEL NUT TEE

- ISO 8434-2

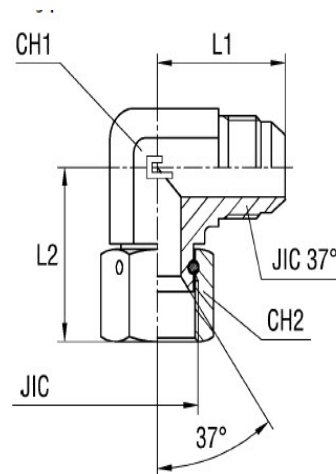


Part Number	JIC Male Thread (JIC 37)	JIC Female Thread (JIC)	L1 - mm	L2 - mm	Hex A/F (CH1)	Hex A/F (CH2)
SG-G-J-070707	7/16-20	7/16-20	23	27	11	14

SG-J-90

JIC MALE X JIC FEMALE
JIC 37° FLARE MALE X JIC 37° FLARE FEMALE
SWIVEL NUT 90° ELBOW

- ISO 8434-2

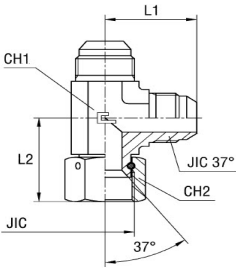


Part Number	JIC Male Thread (JIC 37)	JIC Female Thread (JIC)	L1 - mm	L2 - mm	Hex A/F (CH1)	Hex A/F (CH2)
SG-J-90-0707	7/16-20	7/16-20	23	27	11	14
SG-J-90-0909	9/16-18	9/16-18	28	31	14	19
SG-J-90-1212	3/4-16	3/4-16	32	36	19	22

SG-J-G

JIC MALE X JIC FEMALE X JIC MALE
JIC 37° FLARE MALE X JIC 37° FLARE FEMALE
SWIVEL NUT X JIC 37° FLARE MALE TEE

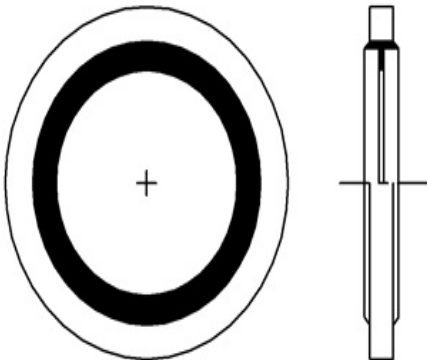
- ISO 8434-2



Part Number	JIC Male Thread (JIC 37)	JIC Female Thread (JIC)	L1 - mm	L2 - mm	Hex A/F (CH1)	Hex A/F (CH2)
SG-J-G-070707	7/16-20	7/16-20	23	27	11	14
SG-J-G-090909	9/16-18	9/16-18	28	31	14	19
SG-J-G-121212	3/4-16	3/4-16	32	36	19	22
SG-J-G-171717	1.1/16-12	1.1/16-12	42	44	27	32

REPLACEMENT SEALS

SD
BONDED SEAL
SELF CENTERING BONDED (DOWTY) SEAL
STAINLESS STEEL



Part Number	Internal dimension - mm	Suits thread
SD-04	13.7	1/4-19 BSPP
SD-06	17.3	3/8-19 BSPP
SD-08	21.5	1/2-14 BSPP
SD-10	23.5	5/8-14 BSPP
SD-12	27.1	3/4-14 BSPP
SD-16	33.9	1-11 BSPP
SD-20	42.9	1.1/4-11 BSPP
SD-24	48.4	1.1/2-11 BSPP

Quick Release Couplings

Section 15



GENERAL INFORMATION

Quick release couplings are primarily designed to allow quick and easy connection and disconnection of fluid transfer lines. The installation of quick release couplings in fluid power systems can eliminate the need to close valves, recharge and bleed the system as well as minimising fluid loss when a component or attachment is removed or fitted to the system, saving time and resources.

Although the ability for some quick release couplings to rotate and “self-align” reducing mechanical stress on adjoining parts of the system can be a benefit, it must be noted that quick release couplings are not designed for use as constant rotation unions or live swivels. The use of a coupling for such a purpose is not recommended and will void any warranty, or subsequent warranty claim.

Hydraulink supply a wide range of quick release couplings for many applications, and in many configurations of end type. To fulfill the requirements of the application the quick release coupling is being selected for, several questions will need to be considered which may include;

- What functions are required of the coupling?
- What is the fluid flow rate required?
- What is the system working pressure?
- What are the variations in system pressure; how high are the spikes?
- What is the allowable pressure drop at required flow rate?
- Does the coupling need to be connected or disconnected under pressure?
- What fluid or media is being used?
- Is minimum fluid loss or air inclusion critical?
- Does the coupling need to interchange with existing units?

Quick release couplings are typically manufactured in steel and finished with a silver trivalent chromium plating and clear sealant to further increase protection against corrosion, but some series are also available in AISI 316 stainless steel or brass. Please contact Hydraulink for further details of available materials and variants of internal seals.

Hydraulink thread forms and sealing methods are manufactured to the relevant international standards where applicable. All dimensions shown are nominal, and subject to change due to ongoing product development. For critical applications, please contact Hydraulink to confirm dimensions.

Hydraulink Fluid Connectors Ltd. reserves the right to discontinue, or to alter the design and specification of any product listed in this catalogue.

Our product range is constantly evolving and Hydraulink reserve the right to change technical specifications without notice

MULTIPURPOSE HOSE

PPDF11

MAXIMUS FC

PVC MULTIPURPOSE



- Conforming Standards: AS 2070
- Temperature: 0°C to +60°C
- Cover: Clear PVC Compound With Red Tracers
- Tube: Clear PVC Compound
- Reinforcement: Fabric Braid
- Applications: Industrial Use Of Air/ Petrol/Kerosene/Oil/Solvents and other uses where a clear tube is required. This hose is very flexible and features a petrol resistant tube with a red tracer in the outer cover to allow easy identification as a petrol line.

Part Number	Size	Hose I.D (mm)	Hose O.D (mm)	WP (psi)	BP (psi)	Weight kg/mtr
PPDF11-006	6	6.3	10.2	200	800	0.10
PPDF11-008	8	7.9	12.4	200	800	0.12
PPDF11-010	10	9.5	15	200	800	0.13
PPDF11-012	12	12.7	17.5	200	800	0.16
PPDF11-016	16	15.9	22	200	800	0.23
PPDF11-019	19	19.1	25.4	200	800	0.30
PPDF11-025	25	25.4	32	200	800	0.49
PPDF11-032	32	32.1	41	175	700	
PPDF11-038	38	38.1	48	175	700	0.82

REMD01

MAXIMUS RED NBR
RUBBER MULTIPURPOSE

MAXIMUS EMD01 Multipurpose - Non Conductive Cover 25mm WP 300 PSI

- Temperature: -40°C to +93°C
- Cover: Red Non-conductive Nitrile RMA Class C Extruded Compound
- Tube: Black; Extruded Nitrile RMA Class A Rubber Compound
- High Strength Synthetic Cord
- Applications: Recommended For Air/Water/Petroleum Oils/Petrol/Kerosene/Fuel Oil (to +49°C) and Lubricating Oils. Excellent Weather And Ozone Resistance. Non Conductive at 1000 Volts D.C

Part Number	Size	Hose I.D (mm)	Hose O.D (mm)	WP (psi)	BP (psi)	Weight kg/mtr
REMD01-006	6	6.3	14	300	1200	0.18
REMD01-008	8	7.9	15	300	1200	0.19
REMD01-010	10	9.5	16	300	1200	0.20
REMD01-012	12	12.7	22	300	1200	0.41
REMD01-016	16	15.9	27	300	1200	0.60
REMD01-019	19	19.1	29	300	1200	0.61
REMD01-025	25	25.4	37	300	1200	0.90
REMD01-032	32	32.1	44	300	1200	1.19
REMD01-038	38	38.1	54	300	1200	1.45
REMD01-051	51	50.8	66	300	1200	1.80

REMD05

MAXIMUS BLACK EPDM
RUBBER MULTIPURPOSE

MAXIMUS EMD05 Multipurpose - 25mm WP 200 PSI

- Temperature: -40°C to +93°C
- Cover: Black; Extruded EPDM Rubber Compound
- Tube: Black; Extruded EPDM Rubber Compound
- Reinforcement: High Strength Synthetic Cord
- Applications: For air and water applications requiring maximum flexibility. Outstanding resistance to heat and ozone with good cover resistance to vegetable oils.

Part Number	Size	Hose I.D (mm)	Hose O.D (mm)	WP (psi)	BP (psi)	Weight kg/mtr
REMD05-010	10	9.5	17	200	800	0.25
REMD05-012	12	12.7	21	200	800	0.35
REMD05-019	19	19.1	28	200	800	0.52
REMD05-025	25	25.4	36	200	800	0.80

PREMOFLEX

Premoflex® MULTI-PURPOSE HOSE
TWO YARN SPIRAL REINFORCED INDUSTRIAL
HOSE



- Recommended for: Premo Flex is the perfect choice for multiple applications requiring a highly flexible and cost-effective hose with maximum resistance to petroleum oils/kerosene/fuel oil (to 120°F) and lubricating oils (to 212°F). Premo Flex can be used for transferring gasoline or diesel fuels. It is also suitable for air and water applications; It offers excellent weather and ozone resistance and is nonconductive at 1000 volts D.C.
- Temperature range: -40°F to +212°F (-40°C to +100°C) continuous service.
- Tube: Type C (Nitrile). Black. RMA (Class A) high oil resistance.
- Reinforcement: Synthetic high tensile cord.
- Cover: Type C2 (Modified Nitrile). Red (black cover available on special order). All sizes thru 1/2 are perforated. RMA(Class B) medium oil resistance.
-

Part Number	Internal Size (in)	Internal Size (mm)	Internal Diameter - inches	External Diameter - inches	External Diameter - mm	Working Pressure - psi	Working pressure - bar	Min burst pressure - psi	Min burst pressure - bar
PREMOFLEX-06	06	10	3/8	0.66	16.8	250	17	750	52
PREMOFLEX-08	08	12	1/2	0.85	21.6	251	17	750	52
PREMOFLEX-10	10	16	5/8	0.98	24.9	250	17	750	52
PREMOFLEX-12	12	19	3/4	1.15	29.2	252	17	750	52
PREMOFLEX-16	16	25	1	1.47	37.3	250	17	750	52
PREMOFLEX-20	20	32	1.1/4	1.75	44.5	253	17	750	52
PREMOFLEX-24	24	38	1.1/2	2.00	50.8	250	17	750	52

PETROLEUM HOSE

REPD01

MAXIMUS R6 PUSH-ON
RUBBER PUSH-ON - BLACK

MAXIMUS EPD01 R6 Push-on

- Conforming Standards: SAE J517; SAE 100R6
- Temperature: -40°C to +100°C for air +71°C
- Cover: Black; Smooth Extruded Rubber Compound
- Tube: Black; Smooth Extruded Nitrile Rubber Compound
- Reinforcement: High Strength Synthetic Cord
- Applications: Recommended For Petroleum Based Hydraulics Oils/Water Glycol Antifreeze Solutions/Hot Lubricating Oils/Air. Not recommended for gasoline or diesel fuels. Cover is oil and abrasion resistant.

Part Number	Size	Hose I.D (mm)	Hose O.D (mm)	WP (psi)	BP (psi)	Weight kg/mtr
REPD01-005	5	4.8	11	525	2100	0.17
REPD01-006	6	6.3	12	425	1680	0.19
REPD01-008	8	7.9	14	425	1680	0.23
REPD01-010	10	9.5	16	425	1680	0.24
REPD01-012	12	12.7	20	425	1680	0.33
REPD01-016	16	15.9	23	425	1680	0.40
REPD01-019	19	19.1	27	315	1280	0.51

REPD10

MAXIMUS FUEL LINE & VAPOUR
RUBBER FUEL & VAPOUR

MAXIMUS EPD10 Fuel Line - 12 mm SAE 30 R7

- Conforming standards: SAE J517 and SAE 100R6
- Temperature: -40°C to +100°C for air +71°C
- Cover: Black; Smooth extruded rubber compound
- Tube: Black; Smooth extruded nitrile rubber compound
- Reinforcement: High strength synthetic cord
- Applications: Fuel line and vapour emission for flexible connections between rigid fuel distribution line and the engine and evaporative emission control systems as well as a vent line.

Part Number	Size	Hose I.D (mm)	Hose O.D (mm)	WP (psi)	BP (psi)	Weight kg/mtr
REPD10-006	6	6.3	13	50	200	0.18
REPD10-008	8	7.9	15	50	200	0.20
REPD10-010	10	9.5	16	50	200	0.21
REPD10-012	12	12.7	20	50	200	0.30

RWPD09

MAXIMUS PETROLEUM DELIVERY
RUBBER FUEL DELIVERY - 150 PSI

MAXIMUS WPD09 Petroleum Delivery - WP 150 PSI

- Conforming Standards: AS2683 Type 2; Grade 2; Kind 1
- Temperature: -20°C to +80°C
- Cover: Black; Smooth Wrapped Finish Rubber Compound
- Tube: Black; Rubber Compound
- Reinforcement: High Strength Synthetic Cord Plus Embedded Anti-static Copper Wire
- Applications: Softwall delivery hose for transfer of petroleum products with aromatic content up to 30%. Resistant to abrasion and weather.

Part Number	Size	Hose I.D (mm)	Hose O.D (mm)	WP (psi)	BP (psi)	Weight kg/mtr
RWPD09-019	19	19.1	29	150	450	0.53
RWPD09-025	25	25.4	35	150	450	0.64
RWPD09-032	32	32.1	42	150	450	0.80
RWPD09-038	38	38.1	48	150	450	0.95
RWPD09-051	51	50.8	63	150	450	1.54
RWPD09-063	63	63.5	76	150	450	1.93
RWPD09-076	76	76.1	89	150	450	2.55
RWPD09-102	102	101.6	116	150	450	2.38

FUEL LINE

GATES FUEL LINE & TANK VENT
BRAIDED FIBRE REINFORCED RUBBER FUEL HOSE



- Conforming Standards: Exceeds requirements of SAE 30R6 & SAE 30R7
- Temperature -40°C to +125°C
- Cover: NBR/PVC based
- Tube: Nitrile based
- Reinforcement: Synthetic high tensile textile
- Applications: Fuel line applications to provide flexible connections between rigid fuel distribution lines and the engine. Also for use in evaporative emission control systems and as a vent line. CAUTION: Not recommended for fuel injection systems. Gates Fuel line & Tank Vent hose's liner is resistant to oil, gasoline and gasohol. The cover is resistant to fuel, ozone and high temperatures.

Part Number	Size (in)	Hose I.D (mm)	Hose O.D (mm)	WP (psi)	Maximum Suction (mm.Hg)	Min Bend Radius (mm)
27068	1/4	6	12.7	50	610	76
27069	5/16	8	14.2	50	610	76
27070	3/8	10	15.8	50	610	100

MPI/FUEL INJECTION

GATES MPI/FUEL INJECTION

BRAIDED FIBRE REINFORCED RUBBER FUEL HOSE



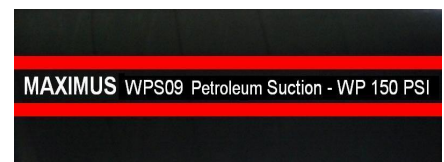
- Conforming Standards: Gates proprietary. Meets SAE 30R9 requirements and CARB CU-06-002 for low permeation
- Temperature -40°C to +135°C constant and +150°C intermittent
- Cover: Oil, heat, ozone and abrasion resistant
- Tube: Fluoroelastomer
- Reinforcement: Polyester braid
- Applications: Clamped hose applications on all fuel systems, including fuel injection system. Not designed to replace coupled hose assemblies on fuel injected engines. For use with leaded and unleaded gasoline, diesel fuel and gasoline blends of ethanol, methanol and ethers (up to maximum concentrations allowed by the EPA) and 100% methanol or ethanol and B100 biodiesel, up to 135°C. CAUTION: Do not submerge in gasoline.

Part Number	Size (in)	Hose I.D (mm)	Hose O.D (mm)	WP (psi)
27094	1/4	6	12.7	180
27095	5/16	8	14.2	180
27096	3/8	10	15.9	180

RWPS09

MAXIMUS PETROLEUM SUCTION

RUBBER OIL SUCTION - 150 PSI



- Conforming Standards: AS2683 Type 1; Grade 2; Kind 1
- Temperature: -20°C to +80°C
- Cover: Black; Smooth Wrapped Finish SBR Rubber
- Tube: Black; NBR Rubber Compound
- Reinforcement: High Strength Synthetic Cord Plus Embedded Steel Helix Wire
- Application: Lightweight Suction Hose for the transfer of petroleum products with an aromatic content up to 30%. Resistant to Abrasion And Weather.

Part Number	Size	Hose I.D (mm)	Hose O.D (mm)	WP (psi)	BP (psi)	Weight kg/mtr
RWPS09-019	19	19.1	29	150	450	0.60
RWPS09-025	25	25.4	35	150	450	0.85
RWPS09-032	32	32.1	42	150	450	0.96
RWPS09-038	38	38.1	48	150	450	1.10
RWPS09-051	51	50.8	63	150	450	1.86
RWPS09-076	76	76.1	89	150	450	2.92
RWPS09-102	102	101.6	118	150	450	4.78

RCPS-035

TGT PETROPLUS OIL & FUEL SUCTION & DELIVERY
HOSE

RUBBER OIL & FUEL SUCTION - 75 PSI



- Temperature: -30°C to +1000°C
- Cover: Black; Convoluted, fire proof and antistatic, cloth impression CR Rubber
- Tube: Black; Smooth NBR Rubber Compound
- Reinforcement: High strength synthetic cord plus embedded steel helix wire with 1 copper wire for hose grounding
- Application: Lightweight Suction Hose for the transfer of petroleum products with an aromatic content up to 50%. Resistant to Abrasion And Weather.

Part Number	Size	Hose I.D (mm)	Hose O.D (mm)	WP (psi)	BP (psi)	Weight kg/mtr	Min Bend Radius (mm)
RCPS-035	35	35	N/A	75	225	0.67	95

STEAM

RWSD14

VICTORIA

RUBBER STEAM HOSE



- Temperature: -40°C to +210°C
- Cover: Red; Smooth Wrapped Finish EPDM Rubber Compound
- Tube: Red; EPDM Rubber Compound
- Reinforcement: Piles Of Steel Wire Cord
- Applications: Steel cord hose designed for saturated steam at higher working pressure. Used In Factories; Chemical; Petrochemical and Shipyards. Resistant to weathering and ageing. Cover is pin pricked to prevent separation. Not recommended for steam cleaner.

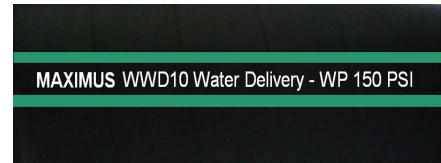
Part Number	Size	Hose I.D (mm)	Hose O.D (mm)	WP (psi)	BP (psi)	Weight kg/mtr
RWSD14-012	12	12.7	25	270	2700	0.49
RWSD14-019	19	19.1	32	270	2700	0.64
RWSD14-025	25	25.4	38	270	2700	0.87

AIR & WATER

RWWD10

MAXIMUS WATER DELIVERY

RUBBER WATER DELIVERY



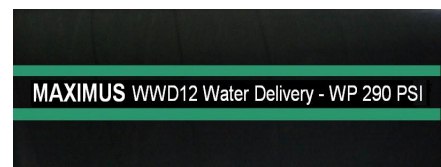
- Temperature: -35°C to +85°C
- Cover: Black; Smooth Wrapped Finish NBR Rubber Compound
- Tube: Black; NBR Rubber Compound
- Reinforcement: High Strength Synthetic Cord
- Applications: A softwall delivery hose suitable for a variety of purposes in many industries; Construction sites; Agriculture and Mines. Weathering and ozone resistant.

Part Number	Size	Hose I.D (mm)	Hose O.D (mm)	WP (psi)	BP (psi)	Weight kg/mtr
RWWD10-025	25	25.4	32	150	450	0.62
RWWD10-032	32	32.1	42	150	450	0.88
RWWD10-038	38	38.1	48	150	450	1.42
RWWD10-051	51	50.8	61	150	450	1.46
RWWD10-063	63	63.5	75	150	450	2.59
RWWD10-076	76	76.1	88	150	450	2.49
RWWD10-102	102	101.6	116	150	450	4.02

RWWD12

MAXIMUS HD WATER DELIVERY

RUBBER HD WATER DELIVERY



- Temperature: -20°C to +80°C
- Cover: Black; Smooth Wrapped Finish NBR Rubber Compound
- Tube: Black; NBR Rubber Compound
- Reinforcement: High Strength Synthetic Cord
- Applications: a softwall delivery hose suitable for a variety of purposes in many industries; Construction Sites; Agriculture And Mines. Weathering and Ozone Resistant.

Part Number	Size	Hose I.D (mm)	Hose O.D (mm)	WP (psi)	BP (psi)	Weight kg/mtr
RWWD12-038	38	38.1	51	290	870	1.54
RWWD12-051	51	50.8	66	290	870	2.36

RWWD23

ETNA

RUBBER MARINE WET EXHAUST

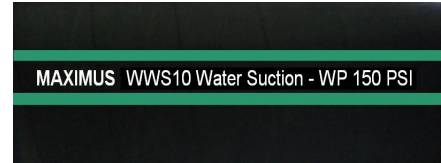


- Approved By Lloyds; Certificate 99/00169 (EZ)
- Temperature: -30°C to +100°C
- Cover: Black; Corrugated Wrapped Finish Cr Flame Retardant Rubber Compound
- Tube: Black; Cr Rubber Compound
- Reinforcement: High Strength Synthetic Cord Plus Embedded Steel Helix Wire
- Applications: Hardwall Hose specially designed for the marine industry for conveying wet exhaust fumes from the engine intake and bilge exhaust. Also; Due to Unique Sizes; Can Be Used In Industrial Applications.

Part Number	Size	Hose I.D (mm)	Min Bend Radius (mm)	WP (psi)	BP (psi)	Weight kg/mtr
RWWD23-025	25	25.4	110	25	75	0.48
RWWD23-032	32	32.1	130	25	75	0.65
RWWD23-038	38	38.1	150	25	75	0.75
RWWD23-045	45	44.5	170	25	75	0.87
RWWD23-051	51	50.8	180	25	75	1.07
RWWD23-063	63	63.5	200	25	75	1.30
RWWD23-076	76	76.1	250	25	75	1.46
RWWD23-090	90	88.9	330	25	75	1.73
RWWD23-102	102	101.6	410	25	75	2.06
RWWD23-127	127	127	560	25	75	2.58
RWWD23-152	152	152.6	680	25	75	3.18

RWWS10

MAXIMUS WATER SUCTION
RUBBER WATER SUCTION



- Temperature: -35°C to +85°C
- Cover: Black; Smooth Wrapped Finish NBR Rubber Compound
- Tube: Black; NBR Rubber Compound
- Reinforcement: High Strength Synthetic Cord Plus Two Steel Helix Wires
- Applications: Heavy Duty Water Suction and Delivery Hose; It handles Sewerage; Mud; Water and is Abrasion/Weathering/Ozone Resistant.

Part Number	Size	Hose I.D (mm)	Hose O.D (mm)	WP (psi)	BP (psi)	Weight kg/mtr
RWWS10-025	25	25.4	35	150	450	1.00
RWWS10-032	32	32.1	42	150	450	1.11
RWWS10-038	38	38.1	49	150	450	1.42
RWWS10-051	51	50.8	62	150	450	1.95
RWWS10-063	63	63.5	76	150	450	2.59
RWWS10-076	76	76.1	89	150	450	3.38
RWWS10-102	102	101.6	118	150	450	5.56
RWWS10-152	152	152.4	169	150	450	8.69

REWD10

MAXIMUS HOT WASH
RUBBER HOT WASHDOWN



- Temperature: -20°C to 100°C Continuous
- Cover: White; Extruded EPDM Perforated
- Tube: White; Extruded EPDM
- Reinforcement: High Strength Synthetic Cord
- Applications: Softwall washdown hose for use with cold and hot water to 100°C; Paper Mills; Dairies; Food Handling or Processing Plants requiring a non marking cover. Not for use with pure steam.

Part Number	Size	Hose I.D (mm)	Hose O.D (mm)	WP (psi)	BP (psi)	Weight kg/mtr
REWD10-012	12	12.7	23	200	800	0.43
REWD10-019	19	19.1	32	200	800	0.72
REWD10-025	25	25.4	39	200	800	0.98

PPDW10

MAXIMUS COLD WASHDOWN
PVC COMPOUND

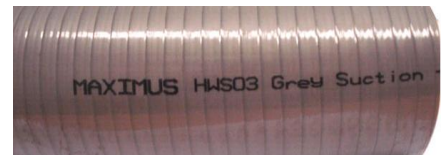


- Temperature: -10°C to +60°C
- Cover: White; Smooth; PVC Compound; 2 Blue Stripes
- Tube: Black; PVC Compound
- Reinforcement: Fabric Braid
- Applications: General Cold Water Washdown in Parks/Gardens/Dairies/Turf Watering.

Part Number	Size	Hose I.D (mm)	Hose O.D (mm)	WP (psi)	BP (psi)	Weight kg/mtr
PPDW10-019	19	20.5	26.5	145	580	0.40
PPDW10-025	25	25.1	34	145	580	0.58
PPDW10-032	32	32.1	42.5	145	580	0.85
PPDW10-038	38	38.1	49.5	145	580	1.11

PHWS03

MAXIMUS GREY
PVC SUCTION HOSE

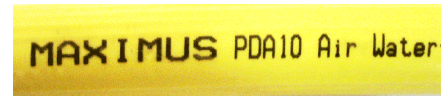


- Temperature: -10°C to +60°C
- Cover: Grey; Slightly Corrugated PVC Compound
- Tube: Grey PVC Compound
- Reinforcement: Anti-shock Rigid PVC Helix
- Applications: A general purpose hose for suction and delivery of waters; Mud; Acid; Latex; Grains and other materials. Can be used in agriculture and industry; Placed on Tank Trucks; Ships; Silos; Offers Resistance to Crushing/Abrasion/Attack From Atmospheric Agents and Most Chemicals.

Part Number	Size	Hose I.D (mm)	Hose O.D (mm)	WP (psi)	BP (psi)	Weight kg/mtr
PHWS03-025	25	25.4	32	120	360	0.37
PHWS03-032	32	32.1	39	120	360	0.51
PHWS03-038	38	38.1	46	120	360	0.67
PHWS03-051	51	50.8	60	100	300	1.02
PHWS03-063	63	63.5	73	95	285	1.44
PHWS03-076	76	76.1	87	85	255	2.22
PHWS03-102	102	101.6	115	80	240	3.03
PHWS03-152	152	152.4	170	60	180	6.45

PPDA10

MAXIMUS YELLOW
PVC AIR HOSE



- Conforming Standards: AS 2554
- Temperature: -10°C to +60°C
- Cover: Yellow; Smooth & Ribbed Abrasion Resistant PVC
- Tube: Black Oil Mist Resistant PVC Compound
- Reinforcement: Fabric Braid
- Applications: General Purpose Air; Water and Diluted Chemicals.

Part Number	Size	Hose I.D (mm)	Hose O.D (mm)	WP (psi)	BP (psi)	Weight kg/mtr
PPDA10-010	10	9.5	16.6	290	1160	0.17
PPDA10-012	12	12.7	19.3	290	1160	0.19
PPDA10-019	19	20.5	29	230	920	0.45
PPDA10-025	25	25.1	34.6	230	920	0.62
PPDA10-038	38	38.1	50.6	230	920	1.56

PPDA12

MAXIMUS BLUE AIR
PVC AIR HOSE



- Temperature: -10°C to +60°C
- Cover: Blue; Smooth & Ribbed PVC
- Tube: Black Oil Mist Resistant PVC
- Reinforcement: Fabric Braid
- Applications: Air; Water and Fluid Transfers at low temperatures.

Part Number	Size	Hose I.D (mm)	Hose O.D (mm)	WP (psi)	BP (psi)	Weight kg/mtr
PPDA12-006	6	6.3	11.5	290	1160	0.13
PPDA12-008	8	7.9	14	290	1160	0.13
PPDA12-010	10	9.5	16.6	290	1160	0.18
PPDA12-012	12	12.7	18.9	290	1160	0.22

AUTOMOTIVE

HEATER HOSE

GATES CHARTER HEATER HOSE

RUBBER HEATER HOSE

- Temperature: -40°C to +125°C
- Good resistance to high temperatures
- Moderate resistance to oil and grease contamination
- Good resistance to non-oil based coolant additives
- Similar to SAE 20R3 Class D-2
- Tested by Gates to assure reliability
- CAUTION: Do not use for fuel or oil transfer applications.



Part Number	Size (in)	Hose I.D (mm)	Hose O.D (mm)	WP (psi)
HEATER HOSE-08	1/2	12.7	19	60
HEATER HOSE-10	5/8	15.9	22	60
HEATER HOSE-12	3/4	19	26	50

AIR BRAKE

GATES AIR BRAKE

EPDM RUBBER AIR BRAKE HOSE

- Conforming Standards: Meets SAE J1402 specification
- Complies with DOT TMVSS 106 requirements
- Temperature -40°C to +100°C
- Cover: EPDM rubber
- Tube: EPDM rubber
- Reinforcement: Four alternating layers of spiralled fibre
- Applications: Truck, Bus and other mobile air brake systems. Can be used as flexible connector between frame and axle. Gates Air Brake Hose is resistant to the damaging effects of ozone and heat, plus harmful grease and oil common to air brake systems. Flexible and kink resistant.



Part Number	Size (in)	Hose I.D (mm)	Hose O.D (mm)	WP (psi)	BP (psi)
28760	3/8	10	19	225	1000
28761	1/2	12	22	225	1000

VACUUM TUBING

GATES VACUUM TUBING

EPDB BASED VACUUM TUBING



- Conforming Standards: Meets SAE J1037, J942B specifications
- Temperature -40°C to +125°C
- Cover: N/A
- Tube: EPDB based
- Reinforcement: N/A
- Applications: Ideal for windscreen washers, and vacuum operated accessories and radiator over flow. Gates Vacuum Tubing is resistant to heat, vacuum and kinking.

Part Number	Size	Hose I.D (mm)	Hose O.D (mm)	WP (psi)	Maximum Suction (mm.Hg)	Min Bend Radius (mm)
27042	4	4	4.8	25	760	40

FOOD

PHFS10

PLUTONE BIO

PVC FOOD S & D HOSE



- Conforming Standards: FDA Title 21 CFR Item 177.2600
- European Directive 10/2011
- Classes A/B/C for Food Contact
- USP Class VI
- Temperature -10°C to +60°C
- Cover: Transparent; Plasticised PVC
- Tube: Transparent; Plasticised PVC
- Reinforcement: Steel Spiral Helix
- Applications: Particularly suited for suction and delivery of liquids and dry materials. Resistant to atmospheric agents and most chemicals.

Part Number	Size	Hose I.D (mm)	Hose O.D (mm)	WP (psi)	BP (psi)	Weight kg/mtr
PHFS10-010	10	9.5	14.9	100	500	0.15
PHFS10-012	12	12.7	18.1	90	450	0.18
PHFS10-016	16	15.9	21.9	90	450	0.25
PHFS10-019	19	19.1	26.1	75	375	0.35
PHFS10-025	25	25.4	33.4	75	375	0.50
PHFS10-032	32	32.1	40.8	60	300	0.65
PHFS10-038	38	38.1	47.1	60	300	0.80
PHFS10-051	51	50.8	61.8	60	300	1.24
PHFS10-076	76	76.1	91.2	55	275	2.20

MATERIALS HANDLING

MH911022B
LUISIANA SEED DRILL
PVC S & D HOSE



- Temperature: -25°C to +55°C
- Cover: Black, slightly corrugated PVC Compound
- Tube: Black, smooth PVC Compound
- Reinforcement: Anti-shock rigid Grey PVC helix
- Applications: Abrasion Resistant for primary and secondary lines on Air Seeding equipment. Also for delivery and suction of liquids.

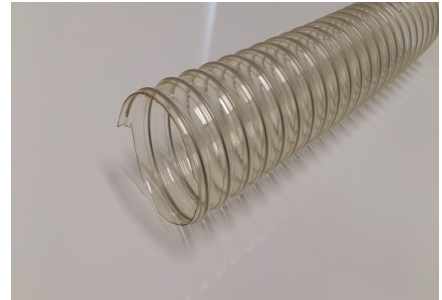
Part Number	Size	Hose I.D (mm)	Hose O.D (mm)	WP (psi)	BP (psi)	Vacuum (m h2o)	Weight (kg/m)
MH911022-32B	32	32	39.2	79	261	7	0.46

DUCTING

DUUFS

URAFLEX STANDARD
ESTER-POLYURETHANE

- Temperature: -30°C to +90°C
- Material: Ester-polyurethane
- Colour: Transparent
- Standard Length: 10 metres and up to 15 metres on request.
- Properties: Tight bend radius, extremely flexible, very light weight, high mechanical strength, highly compressible, good mineral oil resistance.
- Applications: Especially suitable for abrasive dust, powders, seed drills, fibres and sawdust. Not suitable in wet humid or moist conditions.

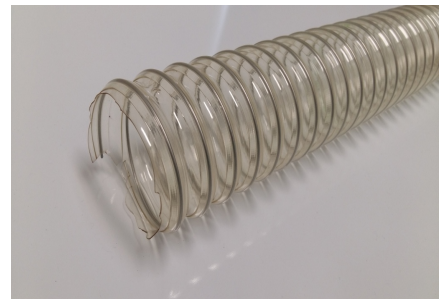


Part Number	Hose I.D (mm)	Min Bend Radius (mm)	Vacuum (bar)	WP (bar)	Weight kg/mtr	Wall Thickness (mm)
DUUFS-038	38	42	.31	.55	.17	.38
DUUFS-040	40	44	.28	.50	.19	.38
DUUFS-051	51	56	.22	.40	.29	.38

DUUFM

URAFLEX MEDIUM
ESTER-POLYURETHANE

- Temperature: -30°C to +90°C
- Material: Ester-polyurethane
- Colour: Transparent
- Standard Length: 10 metres and up to 15 metres on request.
- Properties: Good flexibility, light weight, high mechanical strength, compressible, good mineral oil resistance.
- Applications: Especially suitable for abrasive dust, powders, CNC extraction, seed drills, vacuum lifting, fibres and sawdust. Not suitable in wet humid or moist conditions.

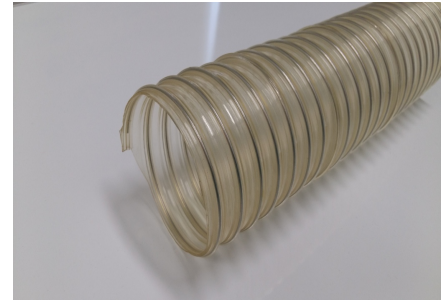


Part Number	Hose I.D (mm)	Min Bend Radius (mm)	Vacuum (bar)	WP (bar)	Weight kg/mtr	Wall Thickness (mm)
DUUFM-051	51	75	.26	.78	.31	.55
DUUFM-064	64	95	.24	.74	.42	.60
DUUFM-127	127	190	.12	.40	.93	.60
DUUFM-152	152	225	.10	.25	1.12	.60

DUUFH

URAFLEX HEAVY
ESTER-POLYURETHANE

- Temperature: -30°C to +90°C
- Material: Ester-polyurethane
- Colour: Transparent
- Standard Length: 10 metres and up to 15 metres on request.
- Properties: Rugged construction, high mechanical strength, higher vacuum rating, smoother bore, good mineral oil resistance.
- Applications: Especially suitable for abrasive dust, powders, fibres, sawdust, some gravel and granules. Not suitable in wet humid or moist conditions.



Part Number	Hose I.D (mm)	Min Bend Radius (mm)	Vacuum (bar)	WP (bar)	Weight kg/mtr	Wall Thickness (mm)
DUUFH-038	38	160	.44	1.80	.35	.8

DUTAS10

ELASTOFLEX
SANTOPRENE TPE

- Temperature: 0°C to +125°C
- Material: Santoprene TPE
- Colour: Black
- Standard Length: 10 metres and up to 15 metres on request.
- Properties: Extremely flexible, very light weight, not suitable in abrasive situations.
- Applications: Especially suitable for suction of gases, fumes and hot air transfer. UV and ozone resistance. Not for automotive use.

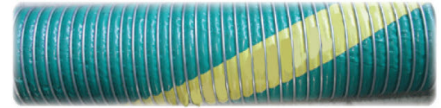


Part Number	Hose I.D (mm)	Min Bend Radius (mm)	Vacuum (bar)	WP (bar)	Weight kg/mtr	Wall Thickness (mm)
DUTAS10-032	32	48	.32	.32	.15	.55
DUTAS10-038	38	58	.31	.28	.17	.55
DUTAS10-040	40	60	.28	.26	.19	.55
DUTAS10-057	57	85	.18	.21	.31	.55
DUTAS10-076	76	110	.12	.18	.40	.60
DUTAS10-102	102	150	.085	.15	.50	.60
DUTAS10-127	127	190	.060	.095	.65	.60
DUTAS10-152	152	225	.050	.090	.66	.60

COMPOSITE HOSE

FUELFLEX

CODE 1000 FUEL HOSE



- Application: Designed to meet the required suction and delivery applications of the Petroleum Industry
- Conforming Standards: AS2683 - Type 1: Grade 3: Kind 1
- Construction: Multiple layers of polypropylene fabrics and films. Green with yellow spiral layline. Inner and outer wires are galvanised steel
- Temperature: -20°C to +80°C
- Safety Note: Hoses should be tested at 6 monthly intervals for correct electrical continuity and yearly for hydrostatic pressure performance. Call Hydraulink to arrange for us to visit onsite for testing.

Part Number	Size	Working Pressure (kPa)	Burst Pressure (kPa)	Min Bend Radius (mm)	Vacuum (kPa)	Weight (kg/m)
1000GY-100	100	700	1400	220	100	3.90

PETROFLEX

CODE 1003 FUEL HOSE

LIGHTWEIGHT FUEL HOSE



- Application: Designed to meet the required suction and delivery applications of the Petroleum Industry
- Conforming Standards: AS2683 - Type 2: Grade 3: Kind 1
- Construction: Multiple layers of polypropylene fabrics and films. Yellow with white spiral layline. Lightweight version of Code 1000. Inner wire is aluminium and outer wires are galvanised steel.
- Temperature: -20°C to +80°C
- Safety Note: Hoses should be tested at 6 monthly intervals for correct electrical continuity and yearly for hydrostatic pressure performance. Call Hydraulink to arrange for us to visit onsite for testing.

Part Number	Size	Working Pressure (kPa)	Burst Pressure (kPa)	Min Bend Radius (mm)	Vacuum (kPa)	Weight (kg/m)
1003-080	80	500	1000	125	100	2.20
1003-100	100	500	1000	220	100	2.60

HOSE PROTECTION

HR2

HOSE RESTRAINT

DOUBLE EYE ONE END

- Application: Designed to prevent uncontrolled movement of a pressure hose in the event of coupling disconnection or hose failure
- Construction: Two Ply Galvanised Strand. Alloy Ferrules. Galvanised Thimbles. Heat Shrink Protection. Call Hydraulink for more information.



Part Number	To Fit Hose O.D (mm)	Net Grip Length (mm)	Aggerate Breaking Strength (kg)	Ultimate Tensile Strength UTS	Heat Shrink Colour
WS-HR2019	19-28	500	3800	24	White
WS-HR2028	28-40	600	5800	35	Brown
WS-HR2060	60-70	900	10000	62	Blue

CAMLOCKS

GPA

TYPE A MALE ADAPTOR - BSP FEMALE
GENERAL PURPOSE



Part Number	Adaptor	BSP
GPA020	20	3/4
GPA025	25	1
GPA032	32	1 1/4
GPA040	40	1 1/2
GPA050	50	2
GPA065	65	2 1/2
GPA080	80	3
GPA100	100	4
GPA150	150	6

GPB

TYPE B FEMALE COUPLER - BSP MALE
GENERAL PURPOSE



Part Number	Coupler	BSP
GPB020	20	1/2
GPB025	25	1
GPB032	32	1 1/4
GPB040	40	1 1/2
GPB050	50	2
GPB065	65	2 1/2
GPB080	80	3
GPB100	100	4
GPB150	150	6

GPC

TYPE C FEMALE COUPLER - HOSE TAIL
GENERAL PURPOSE



Part Number	Coupler	BSP
GPC020	20	3/4
GPC025	25	1
GPC032	32	1 1/4
GPC040	40	1 1/2
GPC050	50	2
GPC065	65	2 1/2
GPC080	80	3
GPC100	100	4
GPC150	150	6

GPD

TYPE D FEMALE COUPLER - BSP FEMALE
GENERAL PURPOSE



Part Number	Coupler	BSP
GPD020	20	3/4
GPD025	25	1
GPD032	32	1 1/4
GPD040	40	1 1/2
GPD050	50	2
GPD065	65	2 1/2
GPD080	80	3
GPD100	100	4
GPD150	150	6

GPDC
TYPE DC DUST CAP
GENERAL PURPOSE



Part Number	Coupler Size
GPDC020	3/4
GPDC025	1
GPDC032	1 1/4
GPDC040	1 1/2
GPDC050	2
GPDC065	2 1/2
GPDC080	3
GPDC100	4
GPDC150	6

GPDP

TYPE DP DUST PLUG
GENERAL PURPOSE



Part Number	Adaptor Size
GPDP020	3/4
GPDP025	1
GPDP032	1 1/4
GPDP040	1 1/2
GPDP050	2
GPDP065	2 1/2
GPDP080	3
GPDP100	4
GPDP150	6

GPE

TYPE E MALE ADAPTOR - HOSE TAIL
GENERAL PURPOSE



Part Number	Adaptor	Hose Tail
GPE020	20	3/4
GPE025	25	1
GPE032	32	1 1/4
GPE040	40	1 1/2
GPE050	50	2
GPE065	65	2 1/2
GPE080	80	3
GPE100	100	4
GPE150	150	6

GPF
TYPE F MALE ADAPTOR - MALE BSP
GENERAL PURPOSE



Part Number	Adaptor	BSP
GPF020	20	3/4
GPF025	25	1
GPF032	32	1 1/4
GPF040	40	1 1/2
GPF050	50	2
GPF065	65	2 1/2
GPF080	80	3
GPF100	100	4
GPF150	150	6

CSSB
SEAL
BUNA - CAMLOCK SEAL

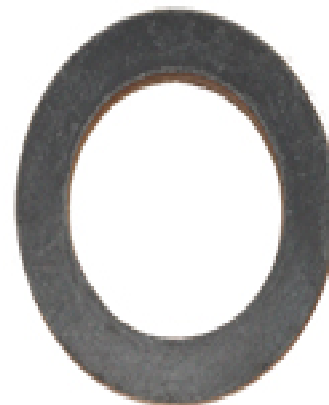


Part Number	Size (mm)
CSSB015	15
CSSB020	20
CSSB025	25
CSSB032	32
CSSB040	40
CSSB050	50
CSSB065	65
CSSB080	80
CSSB100	100
CSSB150	150
CSSB200	200

CSSV

SEAL

VITON - CAMLOCK SEAL

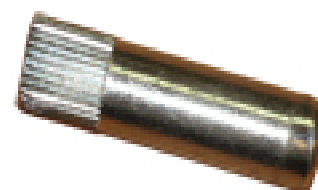


Part Number	Size (mm)
CSSV020	20
CSSV025	25
CSSV032	32
CSSV038	38
CSSV050	50
CSSV065	65
CSSV080	80
CSSV100	100
CSSV150	150

CSPSS

CAMLOCK PIN

STAINLESS STEEL



Part Number	Size (mm)
CSPSS025	25
CSPSS03265	32-65
CSPSS150	150

CSLB
CAMLOCK LEVER
BRASS



Part Number	Size (mm)
CSLB03265	32-65
CSLB080125	80-125
CSLB150200	150-200

SUCTION COUPLINGS

BRMT

BSP MALE HOSE TAIL

BRASS HOSE TAIL

- Applications: Used on hose assemblies in low pressure or suction applications



Part Number	BSP	Hose Tail
BRMT-012	1/2	1/2
BRMT-019	3/4	3/4
BRMT-01912	3/4	1/2
BRMT-025	1	1
BRMT-02512	1	1/2
BRMT-02519	1	3/4
BRMT-032	1 1/4	1 1/4
BRMT-038	1 1/2	1 1/2
BRMT-051	2	2
BRMT-063	2 1/2	2 1.2
BRMT-076	3	3
BRMT-102	4	4

BRNT

BSP FEMALE HOSE TAIL
BRASS HOSE TAIL

- Applications: Used on hose assemblies in low pressure or suction applications



Part Number	BSP	Hose Tail
BRNT-012	1/2	1/2
BRNT-019	3/4	3/4
BRNT-01912	3/4	1/2
BRNT-025	1	1
BRNT-02512	1	1/2
BRNT-02519	1	3/4
BRNT-032	1 1/4	1 1/4
BRNT-038	1 1/2	1 1/2
BRNT-051	2	2
BRNT-063	2 1/2	2 1/2
BRNT-076	3	3
BRNT-102	4	4

PPMT

BSP MALE HOSE TAIL
POLYPROPYLENE HOSE TAIL

- Applications: Used on hose assemblies in low pressure or suction applications



Part Number	BSP	Hose Tail
PPMT-012	1/2	1/2
PPMT-019	3/4	3/4
PPMT-025	1	1
PPMT-032	1 1/2	1 1/2
PPMT-038	1 1/2	1 1/2
PPMT-051	2	2
PPMT-076	3	3

PPNT

BSP FEMALE HOSE TAIL

POLYPROPYLENE HOSE TAIL

- Applications: Used on hose assemblies in low pressure or suction applications



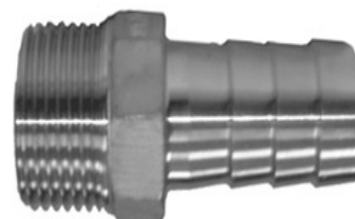
Part Number	BSP	Hose Tail
PPNT-019	3/4	3/4
PPNT-025	1	1
PPNT-032	1 1/2	1 1/2
PPNT-038	1 1/2	1 1/2
PPNT-051	2	2
PPNT-076	3	3

SSMT

BSP MALE HOSE TAIL

STAINLESS HOSE TAIL

- Applications: Used on hose assemblies in low pressure or suction applications



Part Number	BSP	Hose Tail
SSMT-006	1/4	1/4
SSMT-010	3/8	3/8
SSMT-012	1/2	1/2
SSMT-019	3/4	3/4
SSMT-025	1	1
SSMT-032	1 1/4	1 1/4
SSMT-038	1 1/2	1 1/2
SSMT-051	2	2
SSMT-063	2 1/2	2 1/2
SSMT-076	3	3
SSMT-102	4	4

CNSP

COMBINATION HOSE TAIL BSPTM
STEEL PLATED HOSE TAIL

- Applications: Used in hose assemblies for connection to other outlets. Serrated tail ensures positive grip on hose bore.

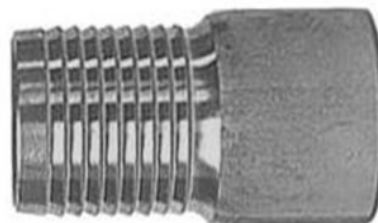


Part Number	Size (mm)
CNSP-019	19
CNSP-025	25
CNSP-032	32
CNSP-038	38
CNSP-051	51
CNSP-063	63
CNSP-076	76
CNSP-102	102
CNSP-152	152

CNSBB

COMBINATION HOSE TAIL
BLACK STEEL HOSE TAIL

- Applications: Black steel products are to facilitate the welding onto plate flanges or pipe port flanges to eliminate joins or other outlets.



Part Number	Size (mm)
CNSBB-038	38
CNSBB-051	51
CNSBB-063	63
CNSBB-076	76
CNSBB-102	102
CNSBB-152	152
CNSBB-203	203

HMSP

HOSE MENDER

STEEL HOSE MENDER

- Applications: For the joining of hoses in repair situations.



Part Number	Size (mm)
HMSP-019	19
HMSP-025	25
HMSP-032	32
HMSP-038	38
HMSP-051	51
HMSP-063	63
HMSP-076	76
HMSP-102	102
HMSP-152	152

GJCD103

GROUND JOINT

DUCTILE IRON GROUND JOINT - BSP

- Applications: For low and high pressure steam hose assemblies. The female spuds are fitted with copper seated to ensure sealing on assembly.



Part Number	Size (mm)
GJCDI03-012	12
GJCDI03-019	19
GJCDI03-025	25

CLAW COUPLERS

CACSG03

TYPE A CLAW COUPLER - MALE BSP
SG IRON COUPLING - BSPM THREAD

- Applications: Universal couplings used for the transfer of air and water in industrial/mining/mineral processing sites.



Part Number	Size (mm)
CACSG03-012	12
CACSG03-019	19
CACSG03-025	25

CACSG07

TYPE A CLAW COUPLER - HOSE TAIL
SG IRON COUPLING - HOSETAIL

- Applications: Universal couplings used for the transfer of air and water in industrial/mining/mineral processing sites.



Part Number	Size (mm)
CACSG07-012	12
CACSG07-019	19
CACSG07-025	25

CACSG10

TYPE A CLAW COUPLER - FEMALE BSP
SG IRON COUPLING - BSPF THREAD

- Applications: Universal couplings used for the transfer of air and water in industrial/mining/mineral processing sites.

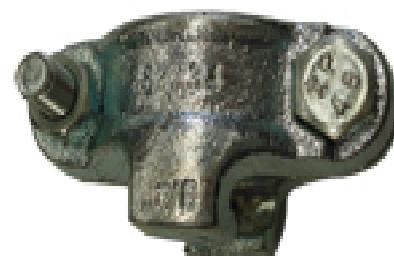


Part Number	Size (mm)
CACSG10-012	12
CACSG10-019	19
CACSG10-025	25

BC2

2 BOLT CLAW CLAMP
DUCTILE IRON HEAVY DUTY CLAMP

- Material specifications:
- Ductile Iron
- Applications: Heavy duty clamp designed for the retention of couplings with locking collars. Used for high pressure air lines or steam hose.



Part Number	Size (mm)	Hose I.D (mm)
BC215027	23.8-26.9	15
BC220033	30.1-33.3	20
BC220038	33.3-38.1	20
BC220043	38.1-42.8	20

CACSPD

CLIP
CLAW COUPLER CLIP



Part Number	Size (mm)
CACSPD-01076	76

NOZZLES**PPNJ**

POWERJET NOZZLE
BRASS VALVE - BSPF THREAD

- Applications: General washdown in dairy/marine/industrial/mining/horticulture industries. Lightweight construction with interchangeable hose tails for varying hose sizes.
- Material specifications: Polycarbonate Polymer.
- Flow rate: 275 LPM.



Part Number	Size (BSP)
PPNJ-025	1
PPNJ-038	1 1/2

PPNJA

POWERJET HOSE TAIL

- Applications: Used in conjunction with Powerjet Nozzle.



Part Number	Size (BSP)	Hose I.D (mm)
PPNJA-2519	1	19
PPNJA-2525	1	25
PPNJA-3819	1 1/2	19
PPNJA-3825	1 1/2	25
PPNJA-3832	1 1/2	32
PPNJA-3838	1 1/2	38

PNHC

POWERJET HOSE CLAMP NYLON 6

- Applications: Specially designed to compliment the Powerjet and Fire Hose Nozzles.
- These clamps offer a safer handling option over a Worm Drive Clamp.



Part Number	Hose I.D (mm)
PNHC-019	19
PNHC-025	25
PNHC-032	32
PNHC-038	38

WS44GU-S

WASHDOWN NOZZLE
INDUSTRIAL

- Applications: Industrial and general purpose washdown nozzles for use in dairy, marine, industrial, mining and horticultural industries. Commonly seen on concrete trucks and used in vehicle washdown bays.

Part Number	Size (BSP)
IND-WS44UG-S	3/4

DEWATERING PRODUCTS

BCRRS

SEAL
BAUER O-RING SEAL

- Temperature: -40°C to +100°C
- Material: NBR Rubber



Part Number	Size (mm)
BCRRS-076	76
BCRRS-102	102
BCRRS-152	152
BCRRS-203	203

BCSGFFD

HOSE TAIL FEMALE
FLANGED TABLE D

- Applications: Suction and delivery hoses used for transferring water/slurries/powders/sewerage/granules in irrigation/mining/industrial areas. System allows for 30° articulation at joint when installing. Can handle medium levels of vacuum and working pressures up to 20 bar.



Part Number	Size (mm)
BCSGFFD-076	76
BCSGFFD-102	102
BCSGFFD-152	152
BCSGFFD-203	203

BCSGFMD

HOSE TAIL MALE
FLANGED TABLE D

- Applications: Suction and delivery hoses used for transferring water/slurries/powders/sewerage/granules in irrigation/mining/industrial areas. System allows for 30° articulation at joint when installing. Can handle medium levels of vacuum and working pressures up to 20 bar.



Part Number	Size (mm)
BCSGFMD-076	76
BCSGFMD-102	102
BCSGFMD-152	152
BCSGFMD-203	203

BCSGHF

HOSE TAIL FEMALE

FEMALE BAUER HOSE TAIL

- Applications: Suction and delivery hoses used for transferring water/slurries/powders/sewerage/granules in irrigation/mining/industrial areas. System allows for 30° articulation at joint when installing. Can handle medium levels of vacuum and working pressures up to 20 bar.



Part Number	Size (mm)
BCSGHF-076	76
BCSGHF-102	102
BCSGHF-152	152
BCSGHF-203	203

BCSGHM

HOSE TAIL MALE

MALE BAUER HOSE TAIL

- Applications: Suction and delivery hoses used for transferring water/slurries/powders/sewerage/granules in irrigation/mining/industrial areas. System allows for 30° articulation at joint when installing. Can handle medium levels of vacuum and working pressures up to 20 bar.



Part Number	Size (mm)
BCSGHM-076	76
BCSGHM-102	102
BCSGHM-152	152
BCSGHM-203	203

BCSGL

LOCKING LEVER

BAUER LOCKING LEVER

- Material: Galvanised Steel



Part Number	Size (mm)
BCSGL-076	76
BCSGL-102	102
BCSGL-152	152
BCSGL-203	203

PNEUMATIC COUPLERS

QA210

ARO 210 INTERCHANGE HOSE BARB COUPLING



- Temperature range: -20°C to + 100°C (-4°F to +212°F)
- Working pressure: 0 to 35 bar (0 to 508 psi)
- Flow capacity: NW - 5
- Material: Coupler body, Sleeve, Valve: Brass
- Spring, Pins: Stainless steel
- Seals: Nitrile
- Plug: Steel
- Applications: Robust brass coupling with numerous connection options. Preferred application is the compressed air technology industry.
- Also particularly suited to use with water due to the brass valve.
- Interchangeability: TST 022, Rectus 14 & 22, ARO 210, Parker 50, Cejn 300, Orion 44150, JWL 522 & 532

Part Number	Hose Tail
QA210-04	1/4
QA210-05	5/16
QA210-08	1/2

QA210-SL

ARO 210 INTERCHANGE HOSE BARB COUPLING WITH SAFETY LOCK



- Temperature range: -20°C to + 100°C (-4°F to +212°F)
- Working pressure: 0 to 35 bar (0 to 508 psi)
- Flow capacity: NW - 5.5
- Material: Inner part: Aluminium
- Back part: Brass - Nickel plated
- Valve: Steel - Chrome plated
- Spring: Stainless steel
- Coupler body: Steel - Chrome plated
- Seals: Nitrile
- Balls: AISI 420 hardened
- Push button: AISI 420 hardened
- Applications: Preferred application is the compressed air technology industry.
- Interchangeability: TST 014 & 022, ARO 210, Rectus 14 & 22, Industrial interchange 1/4, Orion 44510, Cejn 300, JWL 522 & 532, DynaQuip DM-2, Aeroquip FD41, Gromelle G-16600

Part Number	Hose Tail
QA210-04SL	1/4
QA210-06SL	3/8
QA210-08SL	1/2

QA210-E

ARO 210 INTERCHANGE FEMALE THREAD COUPLING

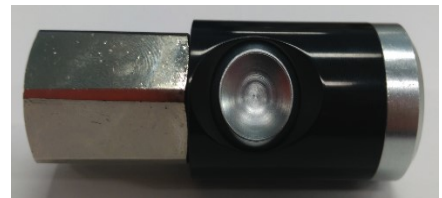


- Temperature range: -20°C to + 100°C (-4°F to +212°F)
- Working pressure: 0 to 35 bar (0 to 508 psi)
- Flow capacity: NW - 5
- Material: Coupler body, Sleeve, Valve: Brass
- Spring, Pins: Stainless steel
- Seals: Nitrile
- Plug: Steel
- Applications: Robust brass coupling with numerous connection options. Preferred application is the compressed air technology industry.
- Also particularly suited to use with water due to the brass valve.
- Interchangeability: TST 022, Rectus 14 & 22, ARO 210, Parker 50, Cejn 300, Orion 44150, JWL 522 & 532

Part Number	BSPF
QA210-E04	1/4
QA210-E06	3/8
QA210-E08	1/2

QA210-E SL

ARO 210 INTERCHANGE FEMALE THREAD COUPLING WITH SAFETY LOCK



- Temperature range: -20°C to + 100°C (-4°F to +212°F)
- Working pressure: 0 to 35 bar (0 to 508 psi)
- Flow capacity: NW - 5.5
- Material: Inner part: Aluminium
- Back part: Brass - Nickel plated
- Valve: Steel - Chrome plated
- Spring: Stainless steel
- Coupler body: Steel - Chrome plated
- Seals: Nitrile
- Balls: AISI 420 hardened
- Push button: AISI 420 hardened
- Applications: Preferred application is the compressed air technology industry.
- Interchangeability: TST 014 & 022, ARO 210, Rectus 14 & 22, Industrial interchange 1/4, Orion 44510, Cejn 300, JWL 522 & 532, DynaQuip DM-2, Aeroquip FD41, Gromelle G-16600

Part Number	BSPF
QA210-E04SL	1/4
QA210-E06SL	3/8
QA210-E08SL	1/2

MALE THREAD PLUG

ARO 210 INTERCHANGE

MALE THREAD PLUG



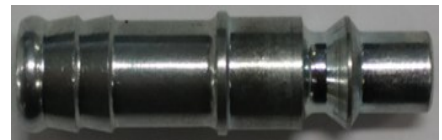
- Temperature range: -20°C to + 100°C (-4°F to +212°F)
- Working pressure: 0 to 35 bar (0 to 508 psi)
- Flow capacity: NW - 5
- Material: Coupler body, Sleeve, Valve: Brass
- Spring, Pins: Stainless steel
- Seals: Nitrile
- Plug: Steel
- Applications: Robust brass coupling with numerous connection options. Preferred application is the compressed air technology industry.
- Also particularly suited to use with water due to the brass valve.
- Interchangeability: TST 022, Rectus 14 & 22, ARO 210, Parker 50, Cejn 300, Orion 44150, JWL 522 & 532

Part Number	BSPTM
QA2608	1/4
QA2700	3/8
QA300405	1/2

HOSE BARB PLUG

ARO 210 INTERCHANGE

HOSE BARB PLUG



- Temperature range: -20°C to + 100°C (-4°F to +212°F)
- Working pressure: 0 to 35 bar (0 to 508 psi)
- Flow capacity: NW - 5
- Material: Coupler body, Sleeve, Valve: Brass
- Spring, Pins: Stainless steel
- Seals: Nitrile
- Plug: Steel
- Applications: Robust brass coupling with numerous connection options. Preferred application is the compressed air technology industry.
- Also particularly suited to use with water due to the brass valve.
- Interchangeability: TST 022, Rectus 14 & 22, ARO 210, Parker 50, Cejn 300, Orion 44150, JWL 522 & 532

Part Number	Hose Tail
QA3946	1/4
QA3947	5/16
QA3948	3/8

PBG-TS13

PNEUMATIC BLOW GUN
STANDARD NOZZLE

- Material Specifications: Impact resistant plastic with brass threaded connection.



Part Number	Description
PBG-TS13	STANDARD NOZZLE

BANDIMEX**TW001**

BANDIMEX HAND TOOL

- For Tightening And Cutting Of Bandimex Banding.



Part Number
TW001

TV001**BANDIMEX HAND TOOL ADAPTOR
STANDARD ADAPTOR**

- For Tightening And Cutting Of Bandimex Pre-formed Clamps.



Part Number

TV001

TV050**BANDIMEX HAND TOOL ADAPTOR
HEAVY DUTY ADAPTOR**

- For Tightening And Cutting Of Bandimex Pre-formed Clamps.



Part Number

TV050

W4BB2**BANDIMEX BAND**

- Material Specifications: Stainless Steel Grade 304
- Applications: Versatile and mobile system allowing the connection to Hose pipes/Cables/Boards etc. using selected size band and buckle. Assembly with hand tool either in factory or out in the field



Part Number	Width (mm)	Thickness (mm)
W4BB203	9.5	0.64
W4BB204	12.7	0.75
W4BB205	15.9	0.75

W4BS2**BANDIMEX BUCKLE**

- Material Specifications: Stainless Steel Grade 304
- Applications: Versatile and mobile system allowing the connection to Hose pipes/Cables/Boards etc. using selected size band and buckle. Assembly with hand tool either in factory or out in the field



Part Number	Width (mm)	Thickness (mm)
W4BS253	9.5	0.64
W4BS254	12.7	0.75
W4BS255	15.9	0.75
W4BS256	19.1	0.75

W4BV2

PRE-FORM CLAMPS

STAINLESS STEEL HOSE CLAMP

- Material Specifications: Stainless Steel Grade 304
- Applications: A quicker method of clamping hose assemblies. Just place the clamp over the open end of the hose and tighten with the hand tool either in the factory or out in the field.



Part Number	Clamp ID (mm)	Band Width
W4BV201	20.6	9.5
W4BV202	34.9	9.5
W4BV203	25.4	12.7
W4BV204	38.1	12.7
W4BV205	38.1	15.9
W4BV206	44.5	15.9
W4BV207	50.8	15.9
W4BV208	57.2	15.9
W4BV209	63.5	15.9
W4BV210	69.9	19.1
W4BV211	76.2	19.1
W4BV212	88.9	19.1
W4BV213	101.6	19.1
W4BV214	114.3	19.1
W4BV215	127	19.1
W4BV216	152.4	19.1
W4BV218	177.8	19.1
W4BV230	69.9	12.7
W4BV231	88.9	12.7
W4BV236	44.5	12.7
W4BV241	34.9	6.4
W4BV243	25.4	9.5
W4BV245	47.6	9.5

SUPER CLAMPS

W1CS

NORMA GBS

MILD STEEL HOSE CLAMP



- Material specifications:
- W1: Band/housing/screw are mild steel; Clear chromate
- Applications: Heavy duty hose clamp where high force is placed on the clamp when fixing to pressure and suction hoses. The mechanical interlock of the band/housing/solid bridge and specially designed bolt all combine to offer an all round stronger product with higher torque abilities.
- Conforming standard: DIN 3017

Part Number	Range (mm)	Band Width	Screw Head
W1CS019	17-19	18	8
W1CS021	19-21	18	8
W1CS023	21-23	18	8
W1CS025	23-25	18	8
W1CS028	25-27	18	8
W1CS031	29-31	18	8
W1CS035	31-34	18	8
W1CS039	34-37	18	8
W1CS041	37-40	18	8
W1CS043	40-43	18	8
W1CS047	43-47	20	10
W1CS051	47-51	20	10
W1CS055	51-55	20	10
W1CS059	55-59	20	10
W1CS063	59-63	20	10
W1CS067	63-68	20	10
W1CS073	68-73	25	13
W1CS079	73-79	25	13
W1CS085	79-85	25	13
W1CS091	85-91	25	13
W1CS097	91-97	25	13
W1CS103	97-104	25	13
W1CS112	104-112	25	13
W1CS121	112-121	25	13
W1CS130	121-130	25	13
W1CS139	130-140	30	17
W1CS148	140-150	30	17
W1CS161	150-162	30	17
W1CS174	162-174	30	17
W1CS187	174-187	30	17
W1CS200	187-200	30	17

W1CS213	200-213	30	17
W1CS226	213-226	30	17
W1CS239	226-239	30	17
W1CS252	239-252	30	17

W2CS

NORMA GBS

STAINLESS STEEL HOSE CLAMP



- Material specifications:
- W2: Band/housing are stainless steel grade 430 and screw is mild steel zinc plated
- Applications: Heavy duty hose clamp where high force is placed on the clamp when fixing to pressure and suction hoses. The mechanical interlock of the band/housing/solid bridge and specially designed bolt all combine to offer an all round stronger product with higher torque abilities.
- Conforming standard: DIN 3017

Part Number	Range (mm)	Band Width	Screw Head
W2CS019	17-19	18	8
W2CS021	19-21	18	8
W2CS023	21-23	18	8
W2CS025	23-25	18	8
W2CS028	25-27	18	8
W2CS031	29-31	18	8
W2CS035	31-34	18	8
W2CS039	34-37	18	8
W2CS041	37-40	18	8
W2CS043	40-43	18	8
W2CS047	43-47	20	10
W2CS051	47-51	20	10
W2CS055	51-55	20	10
W2CS059	55-59	20	10
W2CS063	59-63	20	10
W2CS067	63-68	20	10
W2CS073	68-73	25	13
W2CS079	73-79	25	13
W2CS085	79-85	25	13
W2CS091	85-91	25	13
W2CS097	91-97	25	13
W2CS103	97-104	25	13
W2CS112	104-112	25	13
W2CS121	112-121	25	13

W2CS130	121-130	25	13
W2CS139	130-140	30	17
W2CS148	140-150	30	17
W2CS161	150-162	30	17
W2CS174	162-174	30	17
W2CS187	174-187	30	17
W2CS200	187-200	30	17
W2CS213	200-213	30	17

W4CS

NORMA GBS

STAINLESS STEEL HOSE CLAMP



- Material specifications:
- W4: Band housing and screw are stainless steel grade 304
- Applications: Heavy duty hose clamp where high force is placed on the clamp when fixing to pressure and suction hoses. The mechanical interlock of the band/housing/solid bridge and specially designed bolt all combine to offer an all round stronger product with higher torque abilities.
- Conforming standard: DIN 3017

Part Number	Range (mm)	Band Width	Screw Head
W4CS019	17-19	18	8
W4CS021	19-21	18	8
W4CS023	21-23	18	8
W4CS025	23-25	18	8
W4CS028	25-27	18	8
W4CS031	29-31	18	8
W4CS035	31-34	18	8
W4CS039	34-37	18	8
W4CS041	37-40	18	8
W4CS043	40-43	18	8
W4CS047	43-47	20	10
W4CS051	47-51	20	10
W4CS055	51-55	20	10
W4CS059	55-59	20	10
W4CS063	59-63	20	10
W4CS067	63-68	20	10
W4CS073	68-73	25	13
W4CS079	73-79	25	13
W4CS085	79-85	25	13
W4CS091	85-91	25	13

W4CS097	91-97	25	13
W4CS103	97-104	25	13
W4CS112	104-112	25	13
W4CS121	112-121	25	13
W4CS130	121-130	25	13
W4CS139	130-140	30	17
W4CS148	140-150	30	17
W4CS161	150-162	30	17
W4CS174	162-174	30	17
W4CS187	174-187	30	17
W4CS200	187-200	30	17
W4CS213	200-213	30	17
W4CS226	213-226	30	17
W4CS239	226-239	30	17
W4CS252	239-252	30	17

WORM DRIVE CLAMPS

W3CWB

TORRO

STAINLESS STEEL HOSE CLAMP



- Material specifications: W3: Band/housing/screw are stainless steel grade 430
- Applications: A multi-application hose clamp used in industrial/marine/agricultural/automotive/mining industries. The pressed tooth form and the rounded raised edges prevent damage to the hose.
- Conforming Standard: DIN 3017

Part Number	Range (mm)	Band Width	Screw Head
W3CWB016	8-16	9.0	7
W3CWB022	12-20	9.0	7

W3CWC

TORRO

STAINLESS STEEL HOSE CLAMP

- Material specifications: W3: Band/housing/screw are stainless steel grade 430
- Applications: A multi-application hose clamp used in industrial/marine/agricultural/automotive/mining industries. The pressed tooth form and the rounded raised edges prevent damage to the hose.
- Conforming Standard: DIN 3017



Part Number	Range (mm)	Band Width	Screw Head
W3CWC027	16-27	12.0	7
W3CWC032	20-32	12.0	7
W3CWC040	25-40	12.0	7
W3CWC045	30-45	12.0	7
W3CWC050	35-50	12.0	7
W3CWC060	40-60	12.0	7
W3CWC070	50-70	12.0	7
W3CWC080	60-80	12.0	7
W3CWC090	70-90	12.0	7
W3CWC100	80-100	12.0	7
W3CWC110	90-110	12.0	7
W3CWC120	100-120	12.0	7
W3CWC130	110-130	12.0	7
W3CWC140	120-140	12.0	7
W3CWC150	130-150	12.0	7
W3CWC160	140-160	12.0	7
W3CWC170	150-170	12.0	7
W3CWC180	160-180	12.0	7
W3CWC200	180-200	12.0	7
W3CWC230	210-230	12.0	7

PIPE RETAINING CLAMPS

PCR

HD RUBBER LINED

W1 HIGH CARBON STEEL

- Material specifications: W1: Band/Rubber lined cover
- Applications: Pipe retaining clips (P Clips) are the ideal retaining elements for pipes, cables, cable harnesses, cable protection pipes, hoses and other applications.
- Features: 10 & 13mm mounting hole sizes
- Form fitting and adjustable band for ease of assembly and safe attachment
- Reinforced band ends prevent the clip from tearing or loosening in cases where there is high mechanical load



Part Number	Clamp Dia (mm)	Band Width (mm)	Mounting Hole (mm)
PCR-091016	9	16	10
PCR-101016	10	16	10
PCR-131319	13	19	13
PCR-161016	16	16	10
PCR-161319	16	19	13
PCR-191319	19	19	13
PCR-221319	22	19	13
PCR-251019	25	19	10
PCR-251319	25	19	13
PCR-321319	32	19	13
PCR-361319	36	19	13
PCR-381319	38	19	13
PCR-431319	43	19	13
PCR-471319	47	19	13
PCR-511319	51	19	13
PCR-641319	64	19	13

OETIKER CLAMP

OT1S
167 SERIES STEPLESS EAR CLAMP
STAINLESS STEEL HOSE CLAMP



- Material specifications: PG 167 Stainless Steel, Material no. 1.4301/UNS S30400
- Assembly Recommendations: The clamp ear is deformed with a constant tool jaw force, this practice is referred to as force priority closure. This assembly method ensures that a uniform and repeatable stress is applied to the joint in addition to a constant tensile force on the clamp interlock. Employing this methodology when closing a 167 series clamp will compensate for any component tolerance variations, and ensure that the clamp applies a constant radial force to the application.
- Features: Narrow band: concentrates transmission of clamping force
- Stepless over 360°: uniform compression or uniform surface pressure
- Burr-free strip edges: reduced risk of damage to parts being clamped.

Part Number	Range (mm)	Band Width (mm)	Ear Width Inside (mm)
OT1S-1013	10.8 - 13.3	7	8
OT1S-1316	13.2 - 15.7	7	8
OT1S-1418	14.6 - 17.8	7	10
OT1S-1721	17.8 - 21	7	10

Accessories

Section 17



GENERAL INFORMATION

Hydraulink stock a comprehensive range of accessories, from individual seals for adaptors to spill kits for rapid and convenient containment and disposal of hydraulic oil spills.

Various types of protective hose armour are available, to protect and prolong the service life of hose assemblies whether in conventional or aggressive environments. Some of these armours require clamping in place, and the ranges of clamps to do so are also in this section as well as tables for easy selection of protective hose armour based on hose size.

Bolts and washers for S.A.E. flanges and a wide variety of seals are among the essentials for new installations or for service work. Also listed are projectile cleaning kits to ensure every assembly manufactured is contamination free, and robust threaded plastic caps and plugs to protect those assemblies from further contamination once assembled.

For the mobile service vehicle, workshop or hose shop, Hydraulink supply a standardised bin and racking system detailed in this section, as well as various sizes of spill kit and environmentally responsible organic absorbent to contain either hydraulic oil or general spills.

Our product range is constantly evolving and Hydraulink reserve the right to change technical specifications without notice

BALL VALVES

BRVBE1
BALL VALVE
BRASS FULL BORE STAINLESS STEEL HANDLE

- Working Pressure: 350 PSI
- Temperature -20°C to +120°C
- Threads BSPP; ISO 228
- Applications: General Purpose Valve For Water/Oil/Gas.



Part Number	Size (IN)
BRVBE1-006	1/4
BRVBE1-010	3/8
BRVBE1-015	1/2
BRVBE1-020	3/4
BRVBE1-025	1
BRVBE1-032	1 1/4
BRVBE1-040	1 1/2
BRVBE1-050	2
BRVBE1-065	2 1/2
BRVBE1-080	3
BRVBE1-100	4

BRVBE1MF

BALL VALVE

BRASS FULL BORE STAINLESS STEEL HANDLE

MALE X FEMALE

- Working Pressure: 350 PSI
- Temperature -20°C to +120°C
- Threads BSPP; ISO 228
- Applications: General Purpose Valve For Water/Oil/Gas.



Part Number	Size (IN)
BRVBE1MF-015	1/2
BRVBE1MF-020	3/4
BRVBE1MF-025	1
BRVBE1MF-032	1 1/4
BRVBE1MF-040	1 1/2
BRVBE1MF-050	2

BRVB3L

BALL VALVE

BRASS 3 WAY FULL BORE - BOTTOM ENTRY L PORT

- Working Pressure: 360 PSI
- Temperature -10°C to +120°C
- Threads BSPP; ISO 228
- Applications: General Purpose Valve For Water/Oil.



Part Number	Size (IN)
BRVB3L-015	0.5
BRVB3L-020	3/4
BRVB3L-025	1
BRVB3L-040	1 1/2
BRVB3L-050	2

BRVBC

BALL VALVE

BRASS FULL BORE COMPACT

- Working Pressure: 350 PSI
- Temperature -20°C to +120°C
- Threads BSPP; ISO 228
- Applications: General Purpose Valve For Water/Oil/Gas.



Part Number	Size (IN)
BRVBC-006	1/4
BRVBC-010	3/8
BRVBC-015	1/2
BRVBC-020	3/4
BRVBC-025	1

BRVBCMF

BALL VALVE

BRASS FULL BORE COMPACT MALE X FEMALE

- Working Pressure: 350 PSI
- Temperature -20°C to +120°C
- Threads BSPP; ISO 228
- Applications: General Purpose Valve For Water/Oil/Gas.



Part Number	Size (IN)
BRVBCMF-006	1/4
BRVBCMF-010	3/8
BRVBCMF-015	1/2
BRVBCMF-020	3/4
BRVBCMF-025	1

BRVBM**BALL VALVE****BRASS MINI BALL VALVE**

- Working Pressure: 435 PSI
- Temperature -20°C to +120°C
- Threads BSPP; ISO 228
- Applications: General Purpose Valve For Water/Oil/Gas.



Part Number	Size (IN)
BRVBM-004	1/8
BRVBM-006	1/4
BRVBM-010	3/8
BRVBM-015	1/2

BRVBMMF**BALL VALVE****BRASS MINI BALL VALVE MALE X FEMALE**

- Working Pressure: 435 PSI
- Temperature -20°C to +120°C
- Threads BSPP; ISO 228
- Applications: General Purpose Valve For Water/Oil/Gas.



Part Number	Size (IN)
BRVBMMF-004	1/8
BRVBMMF-006	1/4
BRVBMMF-010	3/8
BRVBMMF-015	1/2

HYDRAULIC

OIL ISO 32

ISO GRADE 32 HYDRAULIC OIL



- Performance Standards: ISO 11158 category HM
- ISO 6743-4 category HM
- ANFOR NFE 48 603 HM
- ANFOR NFE 48-691 (wet)
- SS155434
- SEB 181 222
- VDMA 24318
- DIN 51 524 part 2 HLP
- CINCINNATI MILACRON P 70
- DENISON HF-0, HF-1, HF-2
- VICKERS I-286-S, M-2950-S
- ASTM D 6158
- US Steel 126, 136, 127
- RACINE variable volume vane pumps
- Commercial Hydraulics
- Eaton Brochure 03-401-2010
- Description: Blended from high-quality mineral oils possessing a high viscosity index and low pour point giving long and trouble free service life and will be chemically stable under severe operating conditions. Can be used for all types of hydraulic systems, verins working in very severe conditions. Construction machinery, agricultural machinery and in the industrial sector. Suitable for all types of pumps: Axial pistons, radial pistons, gear systems, blades. Formulated using paraffinic, high viscosity index mineral oil, augmented with performance additives including a zinc anti-wear treatment.

Part Number	Size (Litre)
OIL ISO 32 200L	200
OIL ISO 32 20L	20
OIL ISO 32 5L	5

OIL ISO 46

ISO GRADE 46 HYDRAULIC OIL

- Performance Standards: ISO 11158 category HM
- ISO 6743-4 category HM
- ANFOR NFE 48 603 HM
- ANFOR NFE 48-691 (wet)
- SS155434
- SEB 181 222
- VDMA 24318
- DIN 51 524 part 2 HLP
- CINCINNATI MILACRON P 70
- DENISON HF-0, HF-1, HF-2
- VICKERS I-286-S, M-2950-S
- ASTM D 6158
- US Steel 126, 136, 127
- RACINE variable volume vane pumps
- Commercial Hydraulics
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- Description: Blended from high-quality mineral oils possessing a high viscosity index and low pour point giving long and trouble free service life and will be chemically stable under severe operating conditions. Can be used for all types of hydraulic systems, verins working in very severe conditions. Construction machinery, agricultural machinery and in the industrial sector. Suitable for all types of pumps: Axial pistons, radial pistons, gear systems, blades. Formulated using paraffinic, high viscosity index mineral oil, augmented with performance additives including a zinc anti-wear treatment.



Part Number	Size (Litre)
OIL ISO 46 200L	200
OIL ISO 46 20L	20
OIL ISO 46 5L	5

OIL ISO 68

ISO GRADE 68 HYDRAULIC OIL

- Performance Standards: ISO 11158 category HM
- ISO 6743-4 category HM
- ANFOR NFE 48 603 HM
- ANFOR NFE 48-691 (wet)
- SS155434
- SEB 181 222
- VDMA 24318
- DIN 51 524 part 2 HLP
- CINCINNATI MILACRON P 70
- DENISON HF-0, HF-1, HF-2
- VICKERS I-286-S, M-2950-S
- ASTM D 6158
- US Steel 126, 136, 127
- RACINE variable volume vane pumps
- Commercial Hydraulics
- Eaton Brochure 03-401-2010
- Description: Blended from high-quality mineral oils possessing a high viscosity index and low pour point giving long and trouble free service life and will be chemically stable under severe operating conditions. Can be used for all types of hydraulic systems, verins working in very severe conditions. Construction machinery, agricultural machinery and in the industrial sector. Suitable for all types of pumps: Axial pistons, radial pistons, gear systems, blades. Formulated using paraffinic, high viscosity index mineral oil, augmented with performance additives including a zinc anti-wear treatment.



Part Number	Size (Litre)
OIL ISO 68 18L	18
OIL ISO 68 200L	200

MOTULTECH RUBRIC BIO

ISO GRADE 46 HYDRAULIC OIL
BIODEGRADABLE



- Performance Standards: ISO 6743-4
- ISO 15380
- DIN 51524 Part 2
- DIN 51524 Part 3
- Approvals: European Ecolabel under N° DE/027/027
- Ecolabel Blaue Engel under rubric N° RAL-UZ 178
- Bosch Rexroth under number RE 90221-01
- Waste code AW 130112
- Properties & Advantages: Very fluid at low temperatures allowing easy start up.
- Excellent shear resistance allowing use at very high pressure.
- Excellent anti-wear properties which increase the pumps life.
- Harmless to elastomers.
- High biodegradability level >90% in 21 days.
- High resistance to oxidation: Long drain oil.
- Anti-corrosion, Anti-rust, Anti-foam.
- Applications: Motul Rubric BIO 46 is a 100% synthetic biodegradable hydraulic oil using high performance Esters. Specially developed for all hydraulic systems working in severe conditions, operating at high pressure within important temperature variation and requiring an environmentally friendly Ecolabel lubricant.

Part Number	Size (KG)
100436	190
104418	20

FOOD GRADE HYDRAULIC

ISO GRADE 32 HYDRAULIC OIL

NSF H1 FOOD GRADE

- Applications: Food Grade Hydraulic Fluids are made from synthetic hydrocarbons (Poly Alph Olefins) and special additive packages recommended for hydraulic systems in food processing plants where incidental food contact may occur. They are also recommended as lubricants for bearings, chains, and valves in canning and bottling machinery etc. They may be applied by various methods including bath reservoir, force feed lubricator or circulating pump.
- Meets NSF H1 approval where incidental food contact can occur.
- All fluid components comply with FDA 21 CFR 178.3570 (Lubricants with incidental food contact)
- Advantages: High viscosity index for improved system performance.
- Provides far longer service life than most mineral based lubricants.
- Extended equipment life.
- Low pour point -55°
- Compatible with mineral oils and most synthetic oils.
- Greatly reduced fire and explosion hazard.
- Meet all requirements of FDA Regulation 21 CFR 178.3570

Part Number	Size (Litre)
OIL-FG32 20L	20

HDDO TRANSMISSION

MOTUL HD 80W-90

GEARBOX & DIFFERENTIAL LUBRICANT
MINERAL - EXTREME PRESSURE

- Standards: API GL-4 and GL-5 / MIL-L-2105D
- Applications: All mechanical transmission synchronised or not synchronised gearboxes, gearbox/differential, transfer gearbox and hypoid differentials without limited slip system operating under shocks, heavy loads and low revolution speed or moderate loads and high revolution speed. Extreme pressure lubricant for an efficient anti wear protection.



Part Number	Size (Litre)
103996	20

GEAR OIL 80W-90

GEARBOX & DIFFERENTIAL LUBRICANT
GL-5

- Standards: API GL-4 and GL-5 / MIL-L-2105D
- Applications: For the lubrication of car, truck, and tractor differential and final drives, transfer and steering gearboxes, and manual transmissions.
- Benefits: Special oxidation-resistant paraffinic base oils combined with high-performance extreme pressure (EP) additives are formulated in Gear Oils 80W90 to ensure long service life to transmission drive lines. .

Part Number	Size (Litre)
OIL-80W90 4L	4

DEXRON III

AUTOMATIC TRANSMISSION & POWER STEERING

- Product Description: DX3 is an automatic transmission fluid (ATF) for use in older automatic transmissions requiring Dexron® IIIH or Mercon® performance. It is also suitable for use in transmissions requiring other common performance levels such as Allison C4 and TES-389, and power steering, pump and hydraulic applications.
- Specifications: DX3 meets the following demanding performance requirements
 - Allison TES-389B and C-4
 - Ford Mercon® and XL-12
 - General Motors Dexron® IIIH
 - Volvo 97325, 97335 and 97340
 - ZF TE-ML 05L, 09L and 21L
 - TASA
 - Auto Trak II
 - BTR 95LE and BTR 85LE
 - Voith H55.6335.xx
 - Sperry-Vickers, Denison and Sundstrand hydraulic pump systems
- Power steering fluid applications and many hydraulic systems and smaller rotary air compressors



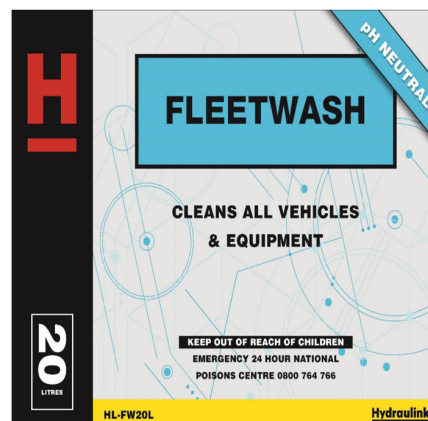
Part Number	Size (Litre)
OIL-DX3 20L	20

CLEANERS & DEGREASERS

HYDRAULINK FLEETWASH

BIODEGRADABLE & PH NEUTRAL

- **Product Description:** Fleetwash is a premium quality, general purpose cleaner with the added benefits of being biodegradable and pH neutral. Fleetwash has superior cleaning ability, enabling cleaning of dirt, oil, and grease from cars, trucks, earthmoving equipment and other machinery. Its versatility also allows for cleaning of floors and any other surface requiring removal of soils.
- **Features & Benefits:** Opaque blue liquid
- Includes powerful oil and grease cutting additives.
- Incorporates low toxicity/biodegradable additives.
- pH neutral formulation that not stain or dull highly polished surfaces.

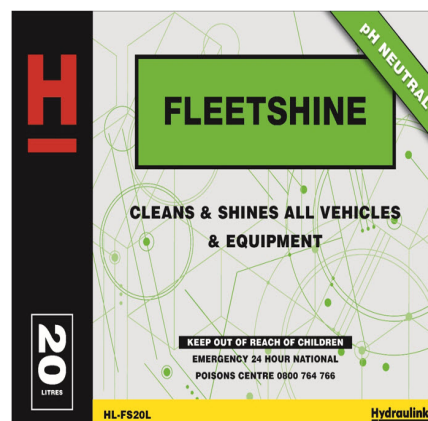


Part Number	Size (Litres)
HL-FW20L	20
HL-FW4L	4

HYDRAULINK FLEETSHIN

WASH & WAX

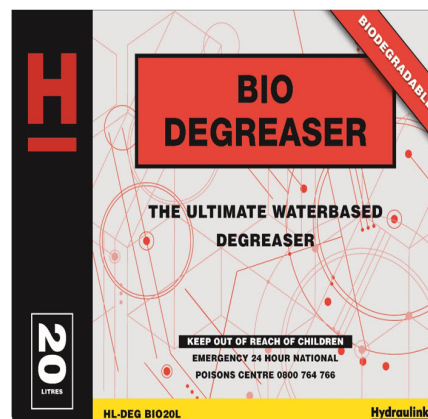
- **Product Description:** Fleetshine is a premium quality wash 'n' wax detergent specially formulated for cars, utes and trucks. Fleetshine provides effective removal of road film, dirt and grime and incorporates wax to create a long lasting shine. Fleetshine is biodegradable and pH neutral so will not dull or stain paint, polished chrome or aluminium.
- **Features & Benefits:** Opaque lime green liquid
- Premium quality formula
- Incorporates low toxicity/biodegradable additives.
- pH neutral formulation that not stain or dull highly polished surfaces.



Part Number	Size (Litres)
HL-FS20L	20
HL-FS4L	4

HYDRAULINK BIO DEGRE BIODEGRADABLE

- **Product Description:** Bio Degreaser is a One Stop Shop heavy duty product formulated to clean dirt, oil and grease from truck bodies, undercarriages and engines. Bio Degreaser's superior cleaning ability, also allows for removal of heavy soils from earth moving equipment, floors, curtainsiders and other surfaces requiring an extra-powerful cleaner/degreaser.
- **Features & Benefits:** Clear bright red liquid
- Incorporates low toxicity/biodegradable additives
- Incorporates powerful oil/grease cutting additives



Part Number	Size (Litre)
HL-DEG BIO20L	20
HL-DEG BIO4L	4

HYDRAULINK HD DEGRE NON AROMATIC SOLVENT

- **Product Description:** HD Degreaser is a non aromatic solvent formulated to clean tools, parts and machinery. In comparison to conventional kerosene/turpentine-based degreasers, HD Degreaser is environmentally friendly, safer to use and under current legislation is not classified as a flammable solvent. HD Degreaser is suitable for degreasing metal parts and equipment and can be applied by spray, swab or in a parts bath. HD Degreaser can be rinsed off and dried or left to air-dry on the parts/equipment to provide short-term rust prevention.
- **Features & Benefits:** Clear bright colourless liquid
- Non aromatic solvent
- Not classified as a Class 3 flammable product under current legislation
- Flexible application and the ability to provide rust protection for up to 1 week



Part Number	Size (Litre)
HL-DEG HD20L	20
HL-DEG HD4L	4

HYDRAULINK HAND CLEA CITRUS BASED

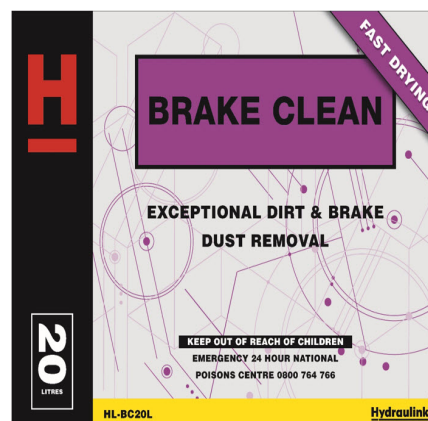
- **Product Description:** Hand Cleaner is a highly effective, biodegradable citrus-based hand cleaner designed to remove dirt, grime, oil and grease. Formulated with a grainy texture and powerful additives including d-limonene to aid in fast removal of soils, Hand Cleaner is also pH neutral and contains emollients to protect and condition hands against drying out.
- **Features & Benefits:** Yellow paste
- Powerful oil and grease cutting additives
- Contains emollients that conditions and protects, to avoid drying and cracking hands
- Biodegradable citrus based formula



Part Number	Size (Litre)
HL-HC20L	20
HL-HC5L	5
HL-HC5LP	5

HYDRAULINK BRAKE CLE FAST DRYING

- **Product Description:** Brake Clean is a fast drying solvent designed to remove brake dust and pads with the added ability to remove surface moisture. Applicable for all types of brake pads and discs. Apply by brush or spray. NOTE: Brake Clean is EXTREMELY FLAMMABLE. Use only in well ventilated areas away from any source of ignition.
- **Features & Benefits:** Clear bright light colourless liquid
- Light solvent carrier base enables fast evaporation of the solvent from the brake pad or disc.
- Ability to remove surface moisture minimises the propensity for surface rust to form on parts



Part Number	Size (Litre)
HL-BC20L	20
HL-BC4L	4

BRAKE CLEAN

HYDRAULINK BRAKE & INDUSTRIAL PARTS
CLEANER
600ML

- Applications: Hydraulink Brake and Industrial Parts Cleaner quickly removes grease and oil. Components can often be cleaned without having to disassemble them. Hydraulink Brake and Industrial Parts Cleaner is non-corrosive, non-staining and evaporates quickly leaving no residue. Hydraulink Brake and Industrial Parts Cleaner can be used on brakes, industrial machinery, tools and workshop equipment.



Part Number	Size (Litre)
BRAKE CLEAN	0.6

MOTUL BRAKE CLEAN 84

MOTUL BRAKE & PARTS CLEAN
840ML

- Applications: Motul Parts Clean Moderate Dry is a multipurpose non-chlorinated degreaser. It has longer drying time and stronger mist from spray nozzle than of Parts Clean Quick Dry. It is specially formulated to effectively degrease metal parts with oil and brake fluid residues.



Part Number	Size (Litre)
BRAKE CLEAN 840	0.84

GREASE

SUPER MOLYTAC

GREY/BLACK LITHIUM COMPLEX EP GREASE
3% MOLYBDENUM DISULPHIDE



- Advantages: Exceptional oxidation, rust and corrosion resistance
- Excellent resistance to water wash out, even at elevated temperatures
- Compatible with most grease except those gelled with bentone and aluminium complex thickeners
- Resists SQUEEZE OUT from surfaces requiring lubrication under heavy load conditions
- Wide temperature range -20°C to 180°C
- Description: SUPER MOLYTAC is a superior multi-purpose molybdenum disulphide containing grease possessing excellent lubrication characteristics suitable for use in a wide range of anti-friction and plain bearings, ball joints, CV joints, kingpins, and gears and couplings in automotive, marine, agricultural and industrial applications.

Part Number	Size (kg)
GREASE M 450GM	0.45

Fire Suppression Systems

Section 25



Heavy, mobile and stationary equipment represents a substantial investment for any business. Due to the often heavy demands placed on equipment performance, a significant consideration of risk for any operation today is damage to equipment or potential loss of life resulting from the ever-present risk of fire.

Reality is that occasionally machines catch fire, and consideration must be given to the costs of machine replacement and lost production. These costs are however, insignificant compared to the loss of life.

While there are a few common causes, it is worthwhile considering the options available to protect your investment in the case of such an event. The installation of a Fire Suppression System has now become an essential part of a company's overall risk management plan in order to minimise the risk to both operator and equipment.

System design and installation is carried out by trained and qualified personnel. Every system design begins with a thorough risk assessment of the equipment to be protected. This ensures that all fuel and ignition sources are identified and assessed for protection, resulting in a more effective management of the asset and its fire risks.

MusterII is in full compliance with all tests within AS 5062-2016

ALARM PANELS

ALARM PANEL KIT
MUSTER COMPLETE ALARM PANEL KIT

- Alarm Panel kit consists of: Alarm Panel with 1m cable and external data port, battery pack, 10m of 2 core silicone cable, electronic and LOP actuation tags, 2mm stainless steel bracket with bolts, 10 cable splices, 4 heat shrinks and installation manual.

Part Number
FS-M2APK01

ALARM PANEL
MUSTER ALARM PANEL & BATTERY ONLY



Part Number
FS-M2AP01

ALARM PANEL SERVICING

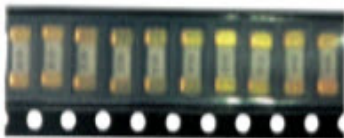
BATTERY PACK
LONG LIFE NON-RECHARGING LITHIUM ION
BATTERY



Battery Pack

Part Number
FS-M2BP01

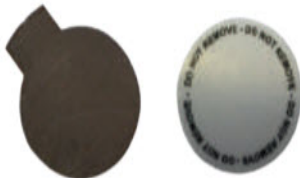
FUSE PACK
2 AMP X 10 UNIT PACK



Fuse Pack

Part Number
FS-M2FP01

ACTUATION TAG
MUSTER ACTUATION BLANKING T
LOP CONFIGURATION



LOP Tag (Discard for M2IPS Systems)

Part Number
FS-M2AT01
FS-M2AT02

REMOTE ACTUATORS

REMOTE ACTUATOR

MUSTER LOP REMOTE ACTUATOR P

- Manual actuation is a process that puts the power into the hands of the operator. It is important for the operator to know where the manual activation panel is and how to use it. Muster II uses a small box with a single motion , in accordance to AS 5062 regulations. The fast actuation gives the operator and machine the best chance of a fast response and the best chances for protection.



LOP Actuator: M2RA32PB

Part Number
FS-M2RA32PB

REMOTE ACTUATOR SERVICING

SECURITY TIE

MUSTER SECURITY TIE FOR ACTUATOR

- 9 inch security ties
- Thick tamper proof seals.



Security Tie

Part Number
FS-M2ST01

REPLACEMENT LABEL MUSTER LABEL REMOTE ACTUATOR

- UV stabilised, suits both remote actuators



Remote Actuator Label

Part Number
FS-M2L31

VALVE

ELECTRONIC ASSEMBLY MUSTER ELECTRONIC LHD VALVE

- The new MusterII valve design enables the valve to be configured for use with MusterWire fire sensing wire system.
- Using state of the art transducer technology located within the valve provides continued monitoring of the cylinder pressure and feeds that information back to the Alarm Panel.
- Includes solenoid valve, digital pressure gauge M2PG01 and valve nipple M2VN32 (22mm to 11/16 JIC M).



Part Number
FS-M2VA31

VALVE SERVICING

O-RING KIT
O RING KIT FOR VALVE ASSEMBLY

- Includes tool, silicone O-ring grease suits M2VA31, M2VA32, M2VA33.



O-ring Kit for Valve Assemblies

Part Number
FS-M2OK31

NIPPLE
NIPPLE 1.1/16 JICM X M22
1.1/16 JICM X M22

- Stainless steel replacement outlet nipple.



Discharge Outlet Nipples

Part Number	Thread 1	Thread 2
FS-M2VN31	3/4 JICM	M22 x 1.5
FS-M2VN32	1 1/16 JICM	M22 x 1.5

MUSTER SEAL

MUSTER THREAD SEAL 25ML TUBE

- MusterSeal has been designed specifically for stainless to stainless bonding.



MusterSeal

Part Number
FS-M2TS01

PRESSURE GAUGES

MECHANICAL PRESSURE

MUSTER FIELD REPLACEABLE GAUGE

- The MusterII system offers two types of pressure gauges; digital or mechanical. The digital gauge is electronic and comes with its own battery power supply. The digital gauge has a greater range of measurement allowing for more accurate cylinder pressure within 0.1% utilising state of the art transducer technology. The mechanical gauge is to assist with cold climates and underground mining applications.

Part Number
FS-M2PGR02

ACTUATION COMPONENTS

LOP
MUSTER FIRE SENSOR TUBE KIT 8M

- A complete range of actuation components are available. Manifold block and fire sensing tube are available for LOP. The LOP transducer assembly converts the air pressure in the fire sensor tube to an electronic signal. This is then sent to the Remote Actuator or Alarm Panel, reducing the length of air filled tube that is needed by the system.



Fire Sensor Tube

Part Number
FS-M2MB01
FS-M2TA02
FS-M2STK01
FS-M2STK02

CYLINDERS

CYLINDER KITS

MUSTER 110L CYLINDER KIT



- Stainless steel components have been used to ensure longevity and durability in harsh conditions, culminating in a high quality product with greater accuracy in performance. Constructed to AS 2470, the cylinders and brackets are made from 304 grade stainless steel including; the ring neck, relief valve and handles, and completed in a UV stabilised powder coated finish.
- Cylinders are manufactured in stainless steel and externally powder coated.
- Each cylinder incorporates a stainless steel filler plug and a safety relief valve.
- Cylinder assemblies use flexible pick-up tubes to allow the cylinders to be mounted from a 45° angle to vertical.
- Heavy duty welded stainless steel cylinder brackets have been designed to integrate with the cylinder to minimize space usage.
- The robust base plate has been designed for compactness and provides the smallest footprint possible.
- Vibration eliminators are available for applications where assemblies are subject to continuous movement or vibration.

Part Number
FS-M2CK022
FS-M2CK038
FS-M2CK066
FS-M2CK110

CYLINDER SERVICING

CYLINDER CHARGING KIT MUSTER CHARGE RIG KIT

- Used for cylinder commissioning
- Includes hard case
- Harris 825 N2 regulator
- 15m and 1m x 1/4 hose
- Ball valve
- Pressure gauge
- Type 51 nitrogen adaptor and other required adaptors.



Cylinder Charging Kit

Part Number	Suits cylinder
FS-M2CR01	66L and 110L

FILLING TUBE MUSTER FILLING TUBE FOR CYLINDER



Filling Tube

- The filling tube is a newly designed tool to ensure the highest degree of constant accuracy when filling the cylinders. All 4 cylinders are covered with a simple and easy locking adjustment. The tube is finished in a hard anodised finish to protect it in harsh environments.

Part Number
FS-M2FT01

DATE TEST TAG MUSTER ALUMINIUM DATE TEST TAG



Part Number
FS-M2TT01

METAL SPLIT SECURITY

MUSTER SPLIT SECURITY RING



Part Number	Suits cylinder
FS-M2SR01	22L

CYLINDER ACCESSORIES

CYLINDER BRACKETS

MUSTER BRACKET FOR 66L & 110L CYLINDERS



Cylinder Bracket

Part Number	Suits cylinder
FS-M2CB02238	66L
FS-M2CB66110	110L

CYLINDER STRAPS
MUSTER CYLINDER STRAP 66L &110L



Part Number
FS-M2CS02

VIBRATION ELIMINATOR
MUSTER VIBRATION ELIMINATOR ASSEMBLY 34MM
HIGH DENSITY RUBBER



Vibration Eliminator

Part Number	Suitable for
FS-M2VE34	MusterII

PICK UP HOSE
MUSTER PICK UP HOSE 110L



Part Number	Suitable for
FS-M2PU022	FSI
FS-M2PU038	ETI 38mm
FS-M2PU066	ETI 32mm
FS-M2PU110	Chubb/QTEC

SAFETY RELIEF VALVE
MUSTER SAFETY RELIEF VALVE
INCLUDES FILL PLUG



Safety Release Valve

Part Number	Size
FS-M2SRVP	22L

CYLINDER ADAPTORS

MUSTER SANDVIK CYLINDER ADAPTOR

- MusterII introduces great versatility with a range of optional cylinder adaptor nuts. Designed to suit a range of cylinders, the adaptors will suit most brands on the market.
- Stainless steel
- Used to upgrade existing systems after a compliant Risk assessment process
- 7 types available
- Suits M2VA31 and M2VA32 valve assemblies



Cylinder Adapter

Part Number	Size	Suits cylinder
FS-M2CA32	304ml	38L
FS-M2CA36	20L	
FS-M2CA37	200L	

STANDARD FOAM

AFFF 1% CONCENTRATE

MUSTER STANDARD 1% AFFF FOAM 20L

- The Foam Fire Suppression System utilises high grade AFFF at a 1% concentrate. AFFF is the leading agent used to fight large Class B (diesel and oils) flammable liquid fires and is used throughout the world typically in oil refineries, oil tank storage facilities, diesel depots and mobile applications. With a 99% water composition, AFFF is also effective in controlling both Class A fires (normal combustibles, wood, plastic, paper etc.) and Class B fires (Diesel, Oils, etc.).
- Sold as a concentrate
- Packaging designed by cylinder size
- Capable of suppressing a range of fire classes



Part Number	Description
FS-M2SFB020	Single mount assembly

NOZZLE ASSEMBLIES

INLINE

MUSTER INLINE SS TWIN MOUNT ASSEMBLY

- The range of nozzle assemblies are fully adjustable and can be configured to suit a variety of applications and environments. They can easily be positioned and angled to maximise their effectiveness. High quality stainless steel fittings come complete with a stainless steel mounting bracket.
- Stainless steel construction
- Inline and end of line available
- Easy to position
- Note: Nozzle type to be ordered separately. Mounting bracket and bolts included.



Part Number	Thread 1	Thread 2
FS-M2BA01	3/4 JICM	3/4 JICM

NOZZLES

NOZZLES

MUSTER NOZZLE CAP RED
60° & 120° SPRAY PATTERNS

- Key to a fire systems effectiveness are the discharge nozzles. Nozzles must be protected to reduce the chance of contaminants. MusterII nozzles come with the new high tech MusterCaps offering a tight tongue and groove seal on the nozzle face reducing the chance of the cap vibrating off and quick release feature that ensures the nozzle ejects the cap fast and effectively.
- Machined stainless steel
- Choice of either 60° or 120° spray patterns
- Durable and soft nozzle caps with quick release feature



Part Number	Thread 1	Thread 2
FS-M2NA01	1/8 BSPTM	7/16 JICM
FS-M2NA02	1/4 BSPTM	7/16 JICM
FS-M2NC01	66L	

FITTINGS

BULKHEADS

MUSTER BULKHEAD NIPPLE 1/16
JIC MALE

- All standard fittings such as bulkheads, nipples, adaptors are stainless steel to ensure durability in harsh working environments.

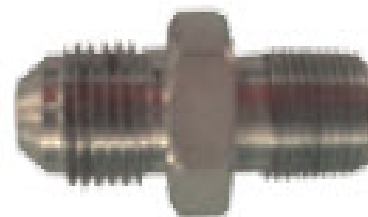


Part Number	Thread
FS-M2BH01	7/16 JICM
FS-M2BH02	3/4 JICM
FS-M2BH03	1 1/16 JICM

NIPPLES

MUSTER BULKHEAD NIPPLE 1/4 BSPM
BSPTM - JICM

- All standard fittings such as bulkheads, nipples, adaptors are stainless steel to ensure durability in harsh working environments.

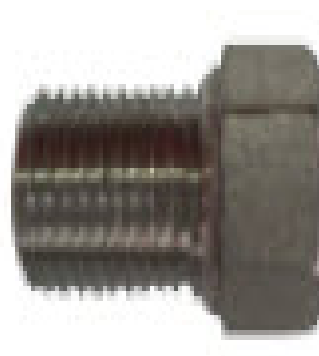


Part Number	Thread 1	Thread 2	Thread 3
FS-M2NP0207	1 1/16 JICM	1.1/16 JICF S/N	1.1/16 JICM
FS-M2NP0407	3/4 JICM	3/4 JICF S/N	3/4 JICM

PLUGS

MUSTER SS PLUG 1/4 BSPTM

- All standard fittings such as bulkheads, nipples, adaptors are stainless steel to ensure durability in harsh working environments.



Part Number	Description	Thread 1	Thread 2
FS-M2PL02	45°	1/4 BSPTM	1/4 BSPTF
FS-M2PL04	110L		

TEES

MUSTER SS TEE 7/16 JIC M-F-M JICM M-F-M

- All standard fittings such as bulkheads, nipples, adaptors are stainless steel to ensure durability in harsh working environments.



Part Number	Size
FS-M2MT01	2mm
FS-M2MT02	5mm
FS-M2T07	90°

GROMMETS
MUSTER RED SILICONE GROMMET

- Holds MusterWire, use with P clamps.



Part Number	I.D (inches)
FS-M2G01	3/4
FS-M2G02	1/4

HOSE

FIRE SUPPRESSION HOS

MUSTER RED FIRE HOSE 3/4 ID

MSHA APPROVED



- MusterII hoses are available in 3/4, 1/2 and 1/4 diameters. Smooth covered, with a natural and synthetic rubber which is abrasion, ozone and weather resistant. Red in colour, hoses are temperature rated to -40°C to +100°C.
- MSHA approved hose
- High tensile braid material
- Bright red colour for easy identification in the engine bay

Part Number	Suits hose
FS-M2SH01	3/4
FS-M2SH02	7/16-20
FS-M2SH03	3/4-16

HOSE TAILS

JIC FEMALE STRAIGHT

MUSTER PUSH LOCK HOSE TAIL STR

STAINLESS STEEL



- Push on hose fittings speed up the installation process. Strong barbs remove the need to crimp the hose, assembly can be done on the machine.
- Straight or 90° fitting types available
- Removes the need to crimp a hose

Part Number	JIC Female Thread	Hose I.D Inches
FS-M2HTP02	1 1/16-12	3/4
FS-M2HTP03	7/16-20	1/4

JIC FEMALE 90° ELBOW

MUSTER PUSH LOCK HOSE TAIL 90
STAINLESS STEEL

- Push on hose fittings speed up the installation process. Strong barbs remove the need to crimp the hose, assembly can be done on the machine.
- Straight or 90° fitting types available
- Removes the need to crimp a hose



Part Number
FS-M2HTP04
FS-M2HTP05
FS-M2HTP06

JIC FEMALE STRAIGHT

MUSTER FIELD ATTACHABLE JIC HOSE TAIL
CARBON STEEL

- Field attachable hose fittings speed up the installation process. Eliminating the requirement for expensive Swaging Machines. Assembly can be done on the machine.

Part Number	Size
FS-M2HTP01	66L

TUBE & TUBE FITTINGS

NUT & OLIVE

MUSTER COMPRESSION NUT FOR SS TUBE

- To improve installation time the stainless steel tube does not require flaring. Instead MusterII uses a compression sleeve fitting; the nut and olive are also made from stainless steel eliminating oxidation which can happen with brass.
- Stainless steel
- 304 grade tube, olive and nut
- Removes the need for flaring



Part Number
FS-M2SST02

LABELS

LABELS

MUSTER REMOTE ACTUATOR LOCATION LABEL

- A range of replacement labels for cylinders and actuators are readily available. It is important to inspect the tags and labels ensuring all are clearly identifiable during system inspection.
- UV stabilised
- Peel off numbers for shutdown time frame
- Part numbers printed on labels for easy reordering

Part Number	Description
FS-M2CL01	22L
FS-M2CL02	38L
FS-M2CL04	66L
FS-M2CL06	110L
FS-M2L09	110L
FS-M2L10	Warning (sml)
FS-M2L11	Warning (lge)
FS-M2L12	Arrow

Lubrication Systems

Section 26



The Lincoln QuickLub is an automated and centralised lubrication system that can improve productivity and extend the service life of your plant.

Suitable for all types of hydraulic and industrial applications undertaken across a diverse range of industries, the system automatically delivers lubricant through a single supply line to a network of metering valves.

Ideal for

- daily or weekly lubrications requirements
- Insufficient man power
- Hard to reach lubrication points

HOSE

HIGH PRESSURE HOSE

GREASE HOSE 4.1 ID GREASE FILLED
LUBRICATION HOSE 240 BAR



Part Number	Hose OD mm (da)	Hose ID mm (di)	Working Pressure (bar)	Bend Radius mm	Grease Filled
02-111-35114-1	8.6	4.0	240	20	No
02-504-36033-3	8.6	4.0	240	20	Yes

PLASTIC TUBE

PLASTIC GREASE TUBE GREASE FILLED
LUBRICATION TUBE



Part Number	Hose OD mm (da)	Hose ID mm (di)	Wall Thickness (mm)	Working Pressure (bar)	Grease Filled
02-112-35127-2	6.0	3.0	1.5	89	No
02-112-35127-7	4.0	2.3	.85	36	No
02-504-36041-2	6.0	3.0	1.5	89	Yes

HOSE GUARD

PLASTIC HELIX

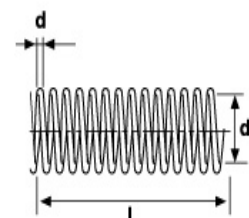
PLASTIC GREASE HOSE 12.6MM



Part Number	OD mm (da)	Wall Thickness mm (s)	Band Width mm
02-113-35075-3	11.5	1.0	10

SPRING GUARD

SPRING COIL SS 19X12

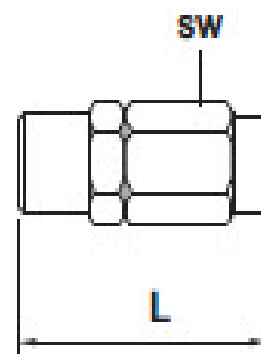


Part Number	Length mm (L)	ID mm (di)	Material Thickness mm (d)
02-111-35306-1	5000	10.6	1.2

SCREW SLEEVE

SCREW SLEEVE

28MM SCREW SLEEVE



Part Number	Sleeve Length mm	Hex A/F mm	Material
02-432-23031-1	28	12	Black Steel
02-432-23676-1	28	12	Stainless Steel

HOSE STUD

STRAIGHT HOSE STUD

6MM HOSE STUD SHORT

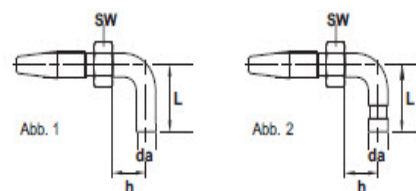
STRAIGHT HOSE STUD

Part Number	Length mm	Hex A/F mm (SW)	Material	OD mm (D1)
02-432-23067-1	30	10	Black Steel	6
02-432-23675-1	30	10	Stainless Steel	6
02-432-24162-1	21.5	6	Black Steel	6

90 HOSE STUD

6MM HOSE STUD 90DEG SHORT

90 HOSE STUD

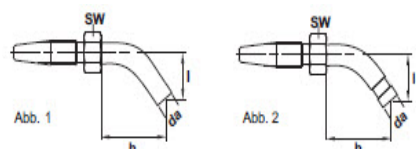


Part Number	Length mm	Hex A/F mm (SW)	Material	OD mm (da)	Drop mm (H)
02-532-30738-1	53	10	Black Steel	6	28
02-532-30739-1	37	10	Black Steel	6	28

45 HOSE STUD

6MM HOSE STUD 45DEG SHORT

45 HOSE STUD



Part Number	Length mm	Hex A/F mm (SW)	Material	OD mm (da)	Drop mm (H)
02-532-32183-1	25	10	Black Steel	6	35

FILLING CONNECTION

FILLING CONNECTION

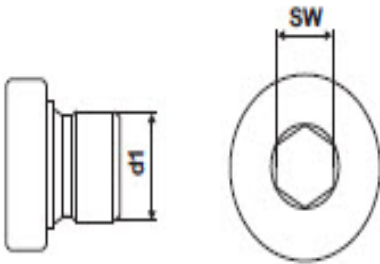
M20 X 1.5 FILLING CONNECTION

Part Number	Thread (D)	Thread (d1)	Hex A/F (sw)	Material	Length (L1)	Length (L2)
02-538-36763-1	M22 x 1.5	M26 X 1.5	27	Steel	38	26
02-538-36763-2	M20 X 1.5	M26 X 1.5	32	Steel	38	26

CLOSURE PLUG

PLUG

CLOSURE PLUG M10 X1

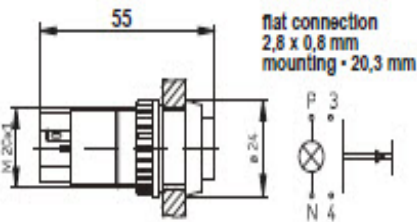


Part Number	Thread (D)	Hex Socket mm
02-303-17499-3	M10 X 1	5

ACCESSORIES

PUSH BUTTON

PUSH BUTTON SWITCH 24V



Part Number	Button Colour	Voltage	Capacity	Length (mm)
02-664-34005-5	Red			
02-664-36070-6	Green	24	1.2 W	55

GREASE

ALUMINIUM ADAPTOR FOR GREASE GUN FILLER
PUMP

Part Number	Material
03-000450-CAP	Aluminum

P CLAMP

LINCOLN P-CLAMP 10MM
P CLAMP

Part Number	Size (mm)
02-226-12557-1	6
02-226-12557-2	9
02-226-12557-3	12
02-226-12557-4	15
02-226-12557-6	20
02-226-12557-7	10

BATTERY

LINCOLN 14.4V BATTERY
LINCOLN 14.4 VOLT BATTERY

Part Number	Capacity (Volts)
01-001401	14.4

GREASE CARTRIDGE

450G GREASE CARTRIDGE

Part Number	Size (grams)
03-000450	450

WHIP HOSE

LINCOLN 30 WHIP HOSE

Part Number	Length (inch)	Working Pressure (psi)	Inlet Thread	Outlet Thread
01-001230	30	7500	7/16 UNF	1/8 NPTM

PUSH BUTTON

HELIOS SWITCH 12V

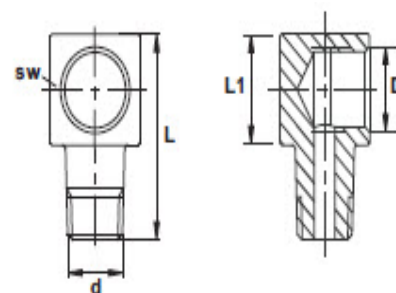
PUSH BUTTON SWITCH 12V

Part Number	Voltage
02-664-36070-5	12

ADAPTORS

90 DEG ADAPTOR

MALE ELBOW FOR HOSE STUD



Part Number	Thread 1 (D)	Thread 2 (d)	Hex A/F mm (sw)	Length mm (L)	Length mm (L1)
01-020023	M6 X 1	M6x1 taper	12	23	13
01-020026	1/8 BSPT	1/4-28 UNF	12	24	12
01-020029	1/8 BSP	1/8 BSPT	13	23	13
02-226-13756-9	1/8 BSPP	6mm Tube	12	23	12
02-226-14123-5	1/8 BSPP	6mm Tube	12	24	12

BANJO GREASE FITTING M10 X 1MM 3MM STEP

Part Number	Male Thread mm (G)	Female Thread mm (G1)	Step Length mm (L)	OD mm (D)
02-400-999-17	M10 X 1	M10 X 1	3	20

BANJO GREASE FITTING M10 X 1MM 8MM STEP

Part Number	Male Thread mm (G)	Female Thread mm (G1)	Step Length mm (L)	OD mm (D)
02-400-999-18	M10 X 1	M10 X 1	8	20

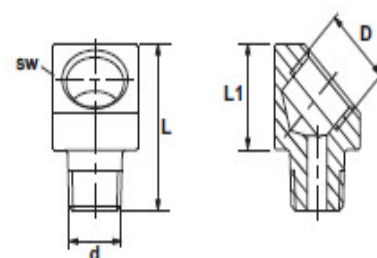
90 DEG SCREW FITTING

ELBOW 6MM X 1/8 NPT

Part Number	Tube Size (D)	Thread (d1)	Hex A/F (sw1)	Hex A/F (sw2)	Material
02-223-12380-6	6	1/4-28 BSPT	12	14	Galvanised Steel
02-223-12453-7	6	1/8-28 BSPT	11	12	Stainless Steel
02-223-12485-9	6	1/8-28 BSPT	11	12	Galvanised Steel
02-223-13021-3	6	M10 X 1 Taper	11	12	Galvanised Steel
02-223-13023-2	6	M6 X 1 Taper	11	12	Galvanised Steel
02-223-13023-3	6	M8 X 1 Taper	11	12	Galvanised Steel
02-223-13620-4	6	1/8-28 NPT	11	12	Galvanised Steel

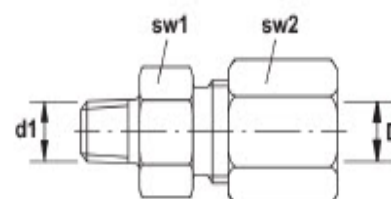
45 DEG ADAPTOR

ELBOW M/F 1/8 NPT 1/8NPT 45 DEG



Part Number	Thread 1 (D)	Thread 2 (d)	Hex A/F mm (sw)	Length mm (L)	Length mm (L1)
01-020028	1/8-27 BSP	1/8-27 bsp taper	13	23	13

STRAIGHT ADAPTOR MALE CONNECTOR GE6-LLM8 X 1KC

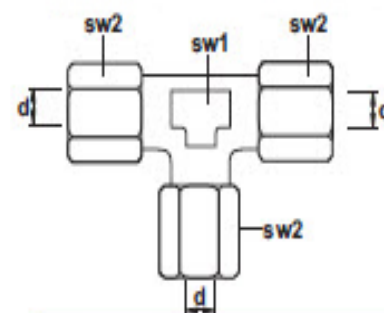


Part Number	ID mm (D)	Thread (d1)	Hex A/F (sw1)	Hex A/F (sw2)
02-223-12270-7	6	1/8 BSPT	12	14
02-223-12271-7	6	M10 X 1 Taper	11	12
02-223-12273-6	6	1/8 NPT	11	12
02-223-12477-8	6	1/4 BSPT	12	14
02-223-12533-9	6	M6 X 1 Taper	12	14
02-223-13023-1	6	M8 X 1 Taper	11	12

UNION CONNECTOR HIGH PRESSURE SMOOTH COLLAR

Part Number	Fitting OD mm (D1)	Fitting ID mm (D2)	Length mm (L1)	Working Pressure (Bar)
02-223-12482-9	12	6	26	80
02-226-13773-4	12	6	33.5	80

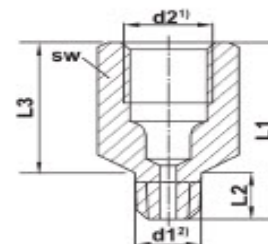
UNION TEE EQUAL TEE UNION T6 LLC



Part Number	Thread
02-223-12484-9	M6 X 1

EXTENSION ADAPTOR

EXT ADPTR M10X1 1/8BSP



Part Number	Male Thread (D1)	Female Thread (D2)	Length mm (L1)	Length mm (L2)	Length mm (L3)	Hex A/F (sw)	Tube OD mm
02-304-19230-1	1/8 BSPT	M10 X 1 Female	18	7	11	13	6

BANJO SWIVEL 1/8 BSP M10

Part Number	Thread (D)	Thread (d1)	Hex A/F (sw1)	Hex A/F (sw2)	Drop mm (H)	Length mm (L)	Tube OD mm
02-223-12478-9	M10 X 1	1/8-28 BSPT	15	14	30	26.5	6

BANJO SWIVEL 1/8 BSP M10

Part Number	Thread (D)	Thread (d1)	Hex A/F (sw1)	Hex A/F (sw2)	Drop mm (H)	Length mm (L)	Tube OD mm
02-223-12479-9	M10 X 1	1/8-28 BSPT	15	40	30	29	6

BULK HEAD

BULK HEAD NIPPLE M12 X 1.5



Part Number	Thread
01-03552-00	M12 X 1.5

CONNECTOR HIGH PRESSURE 1/8 BSPPM 6MM
TUBE

Part Number	Thread 1	Thread 2
02-226-14111-1	1/8 BSPPM	6mm Tube

PUSH IN CONNECTOR

STRAIGHT PUSH IN

PUSH IN FITTING GEK 6510 6MM M6

Part Number	Thread (D1)	Connection OD (D)	Connection ID (D2)	Hex A/F (sw1)	Thread Length (L1)	Fitting Length (L2)
02-226-13752-6	M10 x 1 Taper	9	4	10	8	20
02-226-13752-8	M6 X 1 Taper	9	4	10	7.5	18.5
02-226-13752-9	1/8-28 BSPT	9	4	11	8	20

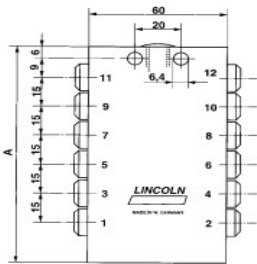
90 DEG PUSH IN

PUSH IN FITTING ELBOW M8 X 1

Part Number	Thread (D1)	Connection OD (D)	Connection ID (D2)	Hex A/F (sw1)	Thread Length (L1)	Fitting Length (L2)	Fitting Length (L3)
02-226-13753-4	1/8-28 BSPT	12	6	10	8	15	21
02-226-13756-7	M6 X 1 Taper	12	6	13	8	20.5	21.5
02-226-13756-8	1/2-28 BSPT	12	6	13	7.5	20.5	21.5

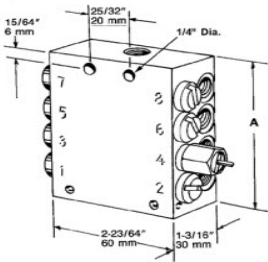
METERING DEVICE

SSV BLOCK
SSV 14 PORT DIVIDER BLOCK



Part Number	Ports
02-619-25730-2	8
02-619-25731-2	12
02-619-26473-1	6
02-619-26841-1	10
02-619-28862-1	14

SSVD BLOCK
SSVD METERING BLOCK 14 SCREWS



Part Number	Ports
02-649-29485-1	6
02-649-29486-1	8
02-649-29487-1	10
02-649-29488-1	12
02-649-29489-1	14

METERING SCREW 0.08 SSVD USE ONLY
METERING SCREW



Part Number	Thread	Flow Rate (cm3)
02-549-34254-1		.08

METERING SCREW 0.14 SSVD USE ONLY
METERING SCREW



Part Number	Thread	Flow Rate (cm3)
02-549-34254-2		.14

METERING SCREW 0.2 SSVD USE ONLY
METERING SCREW



Part Number	Thread	Flow Rate (cm3)
02-549-34254-3		.2

METERING SCREW 0.3 SSVD USE ONLY METERING SCREW



Part Number	Thread	Flow Rate (cm3)
02-549-34254-4		.3

METERING SCREW 0.4 SSVD USE ONLY METERING SCREW



Part Number	Thread	Flow Rate (cm3)
02-549-34254-5		.4

METERING SCREW 0.6 SSVD USE ONLY METERING SCREW



Part Number	Thread	Flow Rate (cm3)
02-549-34254-6		0.6

METERING SCREW 0.8 SSVD USE ONLY METERING SCREW



Part Number	Thread	Flow Rate (cm3)
02-549-34254-7		.8

METERING SCREW 1 SSVD USE ONLY METERING SCREW



Part Number	Thread	Flow Rate (cm3)
02-549-34254-8		1

METERING SCREW 1.4 SSVD USE ONLY METERING SCREW



Part Number	Thread	Flow Rate (cm3)
02-549-34254-9		1.8

METERING SCREW 1.8 SSVD USE ONLY METERING SCREW



Part Number	Thread	Flow Rate (cm3)
02-549-34255-1		1.8

OUTLET FITTING OUTLET FITTING ASSEMBLY M10 X 1

Part Number	Thread (G)	Thread (G1)	Tube OD mm (D)	Hex A/F (SW)	Hex A/F (SW1)
02-504-30344-4	M10 X 1 Male	M10 X 1 Female	6	11	12

EXTERNAL OUTLET LINCOLN OUTLET COMBINING SSV ELEMENT

Part Number	Thread (1)	Thread (2)	Height (mm)	Hex A/F (mm)
02-519-31826-1	M10 X 1	M10 X 1	36	12

TUBE CLAMPS

TUBE CLAMP

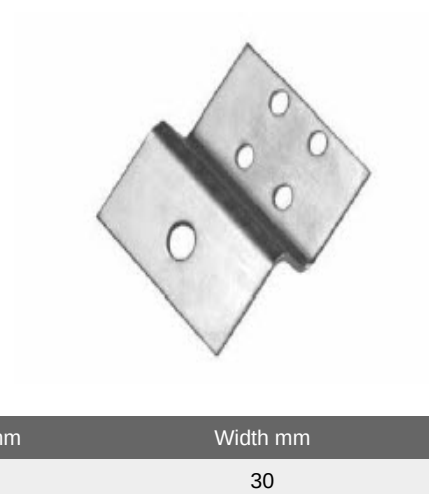
TUBE CLAMP ST-Z D 6 (6X) 512

Part Number	Clamp ID (mm)	Tube Size (mm)	Tube Capacity
02-226-12336-1	6	6	1
02-226-12336-2	12	6	2
02-226-12336-3	18	6	3
02-226-12336-4	24	6	4
02-226-12336-5	30	6	5
02-226-12336-6	36	6	6

COMPONENTS

VALVE BRACKET

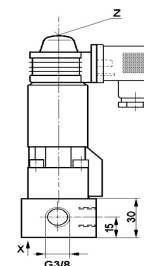
SSV\EOE MOUNTING BRACKET



Part Number	Length mm	Plate Thickness mm	Width mm
02-307-19543-1	80	3	30

VENT VALVE

2 WAY VALVE 1/2 BSPP 24V



Part Number	Height mm	Width mm	Thread	Voltage
02-525-32083-1	162	45	1/2 BSPP	24

RELIEF VALVE

RELIEF VALVE NUT AND OLIVE STYLE



Part Number	Thread 1	Thread 2
02-624-28894-1	1/4 BSPPM	M14 x 1.5

DIVIDER VALVE

LINCOLN SSV 18K DIVIDER VALVE

Part Number	Port OD mm	Closure Plug	Number of Ports
02-619-26474-3	6.4	M11 X 1	6
02-619-28871-1	6.4	M11 X 1	14
02-619-28872-1	6.4	M11 X 1	16
02-619-28863-1	6.4	M11 X 1	16
02-619-28864-1	6.4	M11 X 1	18

ACCESSORIES

LINCOLN GREASE FILTER 1/4BSPPF

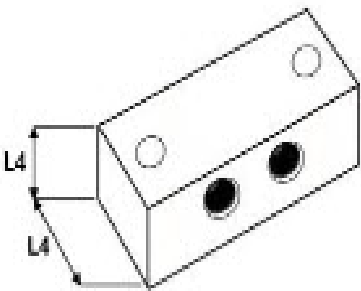


Part Number	Thread 1	Thread 2
02-628-36062-3	1/4 BSPPF	M10 x 1

MANIFOLD BLOCK

MULTI POINT BLOCK

8 PORT MANIFOLD BLOCK



Part Number	Ports
01-01BLOCK-2-P	2
01-01BLOCK-3-P	3
01-01BLOCK-4-P	4
01-01BLOCK-5-P	5
01-01BLOCK-6-P	6
01-01BLOCK-8-P	8

PUMP

PUMP

PRESSURE SWITCH 50-300BAR



Part Number	Type	Reservoir Size (L)	Voltage	Circuit Board
02-644-40599-9	P203	4	24	Y
02-644-40613-2	P203	2	24	N
02-644-40657-3	P203	2	24	Y
02-644-40683-4	P203	8	24	Y
02-644-40753-5	P203	4	24	Y
02-644-40753-6	P203	4	12	Y
02-644-41077-2	P203	2	24	Y
02-644-41077-5	P203	2	24	Y
02-644-46112-1	P203	4	24	Y

PUMP ELEMENT

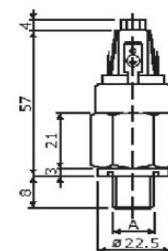
LINCOLN 203CS C7 PUMP ELEMENT



Part Number	Type	Piston OD (mm)	Thread (male)	Thread (female)	Output cm³/min
02-600-26875-2	K5	5	M22 X 1.5	1/4 BSPP	2.0
02-600-26876-2	K6	6	M22 X 1.5	1/4 BSPP	2.8
02-600-26877-2	K7	7	M22 X 1.5	1/4 BSPP	4.0
02-600-28750-1	C7	7	M22 X 1.5	1/4 BSPP	4.0

PRESSURE SWITCH

PRESSURE SWITCH 50-300BAR



Part Number	Pressure (bar)	Height mm	Hex A/F
03-000037-1	50 / 300	57	31

FILLING PUMP

LINCOLN P203 FAST FILL PUMP

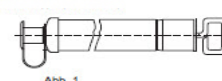


Abb. 1

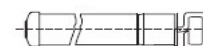


Abb. 2

Part Number	Connection Type
02-638-37549-2	Stub

RESERVOIR LID

LINCOLN 4/8 LITER LID BLACK

Part Number	Suits Reservoir Size (L)	Colour
02-444-70641-1	4/8	Black

RESERVOIR
LINCOLN P203CS 2L RESEVOIR



Part Number	Reservoir Size (L)
02-544-31996-1	2
02-544-31998-1	4
02-544-31999-1	8
02-544-32028-1	2

Industrial Hoses

Section 21



Hydraulink

New Zealand

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Hydraulink is a 100% New Zealand owned business with manufacturing roots dating back more than 65 years. Proudly setting the goal of being the easiest company to deal with, we are the partner of choice for many industry leaders. It is Hydraulink's policy and commitment to treat our employees', customers and suppliers with respect, fairness and honesty. Our team of professionals offer the highest quality customer service and product availability.

Hydraulink is an innovative market leader, is competitively priced and holds an extensive nationwide inventory, certain to meet your every need.

We provide an extensive range of products and services including hydraulic and industrial hose, hose assemblies, pipe fittings, tubing, fasteners, valves and other related industrial supplies. Our customers rely on us to meet their demands for quality products and come from the construction, civil infrastructure, transportation and military markets.

We are accredited to the ISO9001 standard.

Hydraulink products are the preferred choice for transferring water, air, food, fuel, oil, steam, welding gases, abrasive materials, acid and chemicals, compressed gases and many other materials. We stock a variety of hose types with covers resistant to chemicals, abrasion, oil, flame, heat, ozone, ultraviolet light and weathering.

Mobile Response 24/7

Our quick response mobile service vehicles provide emergency repair and we're well equipped to respond to today's increasingly varied and often unique field service demands. You can count on Hydraulink to have the right solution first time, every time. If you are involved in mining, agriculture, transport, forestry, the marine industry – any industry that needs fast, effective and reliable hose and hydraulic services – we can help you get the job done no matter how much pressure you're under, 24/7. Call us on 0800 80 66 66

Plumb Ups and Installations

Our dedicated team of sales and service technicians are experienced in plumb ups and new installations on large plant and equipment. Hydraulink offers a one-stop service shop from start to finish. Many national account customers rely on our sales and service technicians to complete plumb ups on plant and machinery during planned repairs and maintenance. The fact that end users insist on Hydraulink hoses and fittings is a testament to the quality of our products. Mine sites, military applications, OEMs and a host of industrial customers know they can rely on the optimum performance of our product range. Hydraulink designs new hydraulic hose tails and ferrules to provide specialised solutions for OEM customers for both general and more demanding applications.

Lubrication Systems

Hydraulink offers both automatic and manual lubrication systems via the Lincoln Lubrication brand, to all sizes of plant and equipment. These systems ensure continuous lubrication of a machine when running, reducing costly, unplanned downtime. Hydraulink Industrial are the New Zealand agents for high quality Lincoln Lubrication Pumps and components. We offer two main system types: Lincoln Centro-Matic and Lincoln Quicklub. Automated lubrication systems typically dispense small measured amounts of lubricant at frequent intervals while production machines are running. Our systems are commonly used in mining and heavy industrial applications. Wherever you are, whenever a problem hits, we'll fix it so you can get your job done on time.

Fire Suppression

With health and safety procedures top of mind, Hydraulink Fire Suppression provides systems designed and installed on large fixed or mobile plant to protect people, the investment, loss of production and protect the environment.

Our Fire Suppression systems have an automated detection system with the option for manual actuation by the operator in the cabin or at an appropriate external location on the equipment via the remote actuator. Hydraulink's Fire Suppression systems are commonly used in mining, forestry, waste management, transport, construction, railway, agriculture and defence industries. Our network of service vehicles offers an on-site repair, service and replacement of worn or damaged fire suppression systems.

FACTORS

Product Selection

An essential step in ensuring that a hydraulic system is safe and delivers optimum performance and service life is selecting the correct fluid conveying components.

Although a lot of the work undertaken in this industry is the replacement of existing components with a duplicate, it is still good practice to check the product against the application, especially if the service life of the product to be replaced was not acceptable or when fault finding on an existing system.

In some cases a problem with a hose assembly or other fluid conveying products can point to an underlying problem with the system itself or indicate the products have been incorrectly specified originally.

A simple method to assist in remembering the key selection criteria is the word:

FACTORS

F = Fluid
A = Application
C = Connections
T = Temperature
O = Operating Pressures
R = Rate of Flow
S = Size

Fluid

Some applications require specialized oils or chemicals to be conveyed through the system. Hose selection must ensure compatibility of the hose tube, cover, couplings and O-rings with the fluid used.

Additional caution must be exercised in hose selection for gaseous applications where permeation can occur.

Permeation, or effusion, is seepage through the hose resulting in loss of fluid.

This may occur when hose is used with fluids such as (but not limited to):

- liquid and gas fuels
- helium
- natural gas
- refrigerants
- fuel oil

Consider whether there are potential hazardous effects of permeation through the hose, such as explosions, fires, and toxicity.

Refer to applicable standards for specific applications such as fuels and refrigerants.

If gas permeates through the tube, consider pin-perforated covers to prevent gas build-up under the cover.

Also consider the compatibility of the system fluid not only with the tube, but also with the braid, cover, fittings, and other components since permeation may expose the entire hose assembly to the system fluid.

NOTE: Some couplings contain nitrile O-rings, which must be compatible with the fluids being used.

Application

Determine where or how the replacement hose or assembly is to be used. Most often, only a duplicate of the original hose will have to be made, provided the original hose assembly gave acceptable service life.

To fulfil the requirements of the application, additional questions may need to be answered such as:

- Where will the hose be used?
- Working and surge pressures?
- Fluid and/or ambient temperature?
- Environmental conditions?
- Government and industry standards being met?
- Hose construction?
- Permanent or field attachable couplings?
- Minimum bend radius?
- Excessive abrasion?
- Equipment type?
- Suction application?
- Fluid compatibility?
- Routing requirements?
- Unusual mechanical loads?
- Thread end connection type?
- Thread type?
- Non-conductive hose required?
- Expected service life?

FACTORS (Continued)

Connections

When replacing an existing hose assembly match the existing end connections with the new ones.

When a new assembly is being specified consider what interface (thread/sealing face) type would best suit the application. In most cases the type of connection is determined by the exit thread of the adaptor fitted to the port machined into the component to which the assembly is being fitted.

Confirm what style of hose connection is required (or preferred by the customer). Where wire braided hose is being used it is possible to fit either Crimp or Re-usable (field attachable) and in low pressure applications a Push-On. For 90° hose connections check the configuration required e.g. compact or swept bend style.

Rigid lines: Pipe or tube

For pipe the most common connection is the welded type, this can be either a socket or butt weld style.

Of these the butt weld should be preferred for high pressure however the socket style is the most commonly used due to the ease of assembly.

For tube there are three main options:

1. Flareless type
2. Flare type
3. Socket weld

Some accessory products are only available with a limited range of connection options (e.g. BSPP or 'O'-ring boss). This needs to be checked and where necessary a conversion adaptor specified which will allow integration with the existing or proposed thread.

Temperature

Two aspects of temperature must be considered when selecting products:

1. Fluid temperature:

Check capability of product to withstand system fluid temperature, both minimum and maximum.

Hydraulic systems can generate heat but this should not be excessive in well-designed systems.

The most common causes of excessive heat are undersized components or flow restrictions within the system.

2. Ambient temperature:

The exposure to high or low ambient temperatures should also be considered. Generally there are not many issues associated with this. Situations where a problem could occur are;

When an installation requires hose to be run near a hot manifold it may be advisable to use a heat shield or sleeving. Where a hose is subjected to a high ambient temperature in conjunction with an elevated fluid temperature the service life may be reduced. Hose used in a cold environment, such as hoses on a forklift working in a cool store, may exhibit cracking on the cover.

Note:

- The viscosity rating of most hydraulic oils is set at a temperature of 40° Celsius.
- Rubber polymers are affected differently by hot air than hot oil.
- Rubber stores heat.

Operating Pressure

Determine maximum system or circuit pressures, this may vary depending on the circuit function.

Always take into account the possibility of pressure spikes when establishing the maximum pressures that could be generated in a system.

Remember to look at the application or function, as this will help to visualise the possible loadings on the product. For example, the crowd cylinder circuit on an excavator is more likely to be subjected to spike pressure than the slew circuit.

Always ensure that the product is working within a 4:1 safety factor. That is; the maximum pressure the product will be exposed to is less than 25% of the products minimum burst pressure.

Where pressure spikes or impulsing can occur it is good practice, where possible, to specify a product that will be working at 75% of its pressure rating for normal system pressure. This will give a safety buffer to absorb spikes.

Note:

- Any product fitted between the pump and valve will always be exposed to the highest pressures of the system.

FACTORS (Continued)**Rate of Flow**

There are two areas to look at with regards to fluid flow.

Volume:

This is the amount of fluid that will be flowing through the product in a given time. When selecting product it is best to look at the maximum flow that is to be conveyed. Maximum pump output is a good starting point but consideration should also be given to return flow from the piston side of cylinders. This can be high depending on the bore to annulus ratio of the cylinder.

Volume is usually measured in Gallons (imperial) or Litres (metric) per minute.

Velocity:

This is the speed of the fluid through the product and is directly related to the fluid volume and the product size.

Fluid speed is a key factor in determining pressure drops and heat build up in systems.

Velocity is stated as; feet per second (imperial) or metres per second (metric).

Size

The size (flow area) of the product is a key part in ensuring the system functions efficiently. The flow area of the product and the volume of fluid determines the velocity of the fluid in the system.

If the fluid velocity is too high then in some cases excessive pressure drop or heat generation can occur.

The attached Nomograph on the next page is the easiest method of determining fluid velocity for any given volume versus product size.

Note.

- The potential service life of products can be significantly reduced if they are constantly operating at maximum limits.
- Some areas of the selection process are interrelated however the key to correct product selection is the understanding of the application and what is required of the product.

FACTORS (Continued)

Flow Rate Nomograph

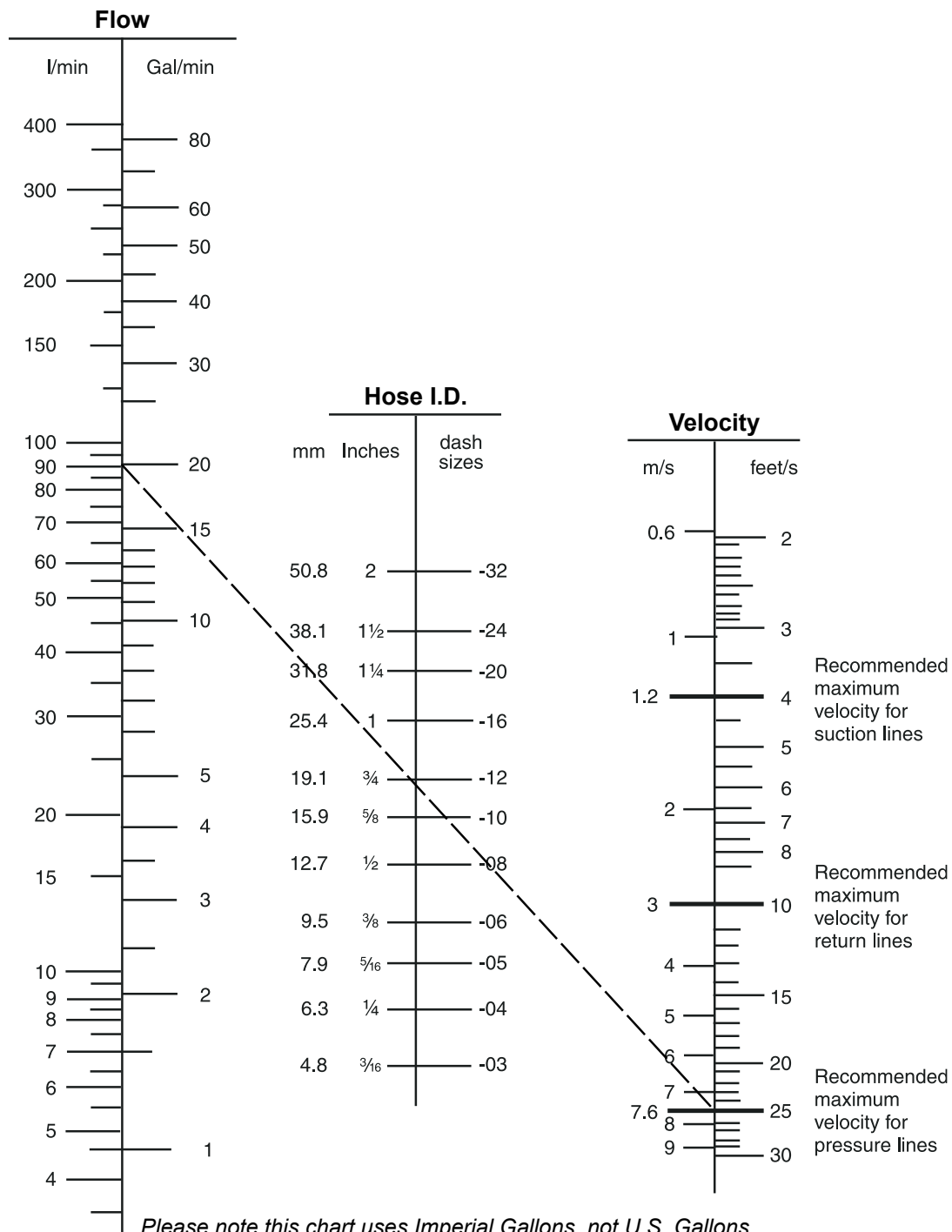
Flow Capacity of Hose Assemblies Recommended Flow Velocities

Use the chart below to determine Hose I.D. based on Flow and Velocity. Conversely, it can be used to determine Velocity, based on Flow and Hose I.D., or Flow based on Velocity and Hose I.D.

Example: To determine the Hose I.D. needed to transport 20 gallons per minute (Gal/min)...

Draw a straight line from 20 Gal/min on the left to recommended maximum velocity for pressure lines on the left.

The line intersects the middle column indicating that a 3/4" I.D. (-12) hose should be the smallest hose used.



Chemical Guide

The chemical guide in this section is offered as a general indication of the compatibility of the various materials used in hose with the chemicals and fluids listed. The basis for the ratings in this guide includes actual service experience, the advice of various polymer suppliers, and the considered opinion of our rubber chemists. When in doubt, a sample of the compound should always be tested with the particular chemical it is to handle. Some of the variables that come into play in the resistance of a compound to chemical attack are:

1. Temperature of the Material Transmitted:

Higher temperatures increase the effect of chemicals on rubber compounds. The increase varies with the polymer and the chemical. A compound quite suitable at room temperature might fail very quickly at higher temperatures.

2. Service Conditions:

A rubber compound usually swells when exposed to a chemical. With a given percent of swell, a hose tube may function satisfactorily if the hose is in a static condition, but fail quickly if the hose is subject to flexing.

3. The Grade or Blend of the Rubber Compound:

Basic rubber polymers are sometimes mixed or blended together to enhance a particular property for a specific service. The reaction to a particular chemical blend of polymers may, therefore, be somewhat different from the reaction to the single ones. When in doubt, a sample of the compound should always be tested with the particular chemical it is to handle.

CHEMICAL RESISTANCE OF HOSE COMPOUNDS

COMMON NAME	ASTM Designation D1418-93	COMPOSITION	GENERAL PROPERTIES
Natural rubber	NR	Isoprene rubber	Excellent physical properties, including abrasion resistance. Not oil resistant.
SBR	SBR	Styrene-butadiene rubber	Good physical properties, including abrasion resistance. Not oil resistant.
Butyl rubber	IIR	Isobutene-isoprene rubber	Very good weathering resistance. Low permeability to air. Good physical properties. Poor resistance to petroleum based fluids.
EPDM	EPDM	Ethylene-propylene-diene-terpolymer	Good general purpose polymer. Excellent heat, ozone and weathering resistance. Not oil resistant.
Cross linked polyethylene	XLPE	Cross linked polyethylene	Excellent resistance to most solvents, oils and chemicals. Do not confuse with chemical properties of standard polyethylene.
Ultra high molecular weight polyethylene	UHMWPE	Ultra high molecular weight polyethylene	Excellent resistance to most solvents, chemicals and hydrocarbons. Excellent abrasion and wear resistance. Inert and suitable for food contact. Do not confuse with chemical properties of standard polyethylene.
Nitrile rubber	NBR	Acrylonitrile-butadiene	Excellent oil resistance. Good physical properties.
Neoprene	CR	Chloroprene rubber	Excellent weathering resistance. Flame retardant. Good oil resistance. Good physical properties.
Hypalon®	CSM	Chloro-sulfonated	Excellent ozone, weathering and acid resistance. Good abrasion and heat resistance. Can be compounded for good oil resistance.

Chemical Resistance Chart

The following data is based on tests and believed to be reliable; however, we emphasise that the tabulation should be used as a guide only, since it does not take into consideration all variables such as elevated temperatures, fluid contamination, concentration, etc. that may be encountered in actual use. All critical applications should be tested.

Note: All data based on 20°C (68°F) unless otherwise noted.

Key: • Blank = No Data • E = Excellent • G = Good • F = Fair • C = Conditional • X = Unsatisfactory

COMPOUND CHEMICAL OR MATERIAL CONVEYED	NR	SBR	IR	EPDM	XLPE	UHMWPE	NBR	CR	CSM
Acetaldehyde	F	X	E	E	E	E	X	C	F
Acetic Acid, Glacial	C	X	G	G	E	E	X	F	C
Acetic Acid, 10%	G	F	G	E	E	E	E	E	E
Acetic Acid, 50%	X	F	G	E	E	E	E	F	E
Acetic Anhydride	F	X	C	G	E	E	X	G	E
Acetic Oxide	F	X	G	G	E	E	X	G	E
Acetone	C	C	E	E	E	E	X	C	X
Acetone Cyanohydrin	F		E	E			X	G	F
Acetonitrile	G		E	E			X	E	G
Acetophenone	G	X	G	E	E	E	X	X	X
Acetyl Acetone	X	X	E	E			X	X	X
Acetyl Chloride	X	X	X	X			X	X	X
Acetyl Oxide	F		G	G	E	E	X	G	E
Acetylene	C	F	E	E	E	E	E	E	C
Acetylene Dichloride	X	X	F	C			X	X	X
Acetylene Tetrachloride	X		X	C			X	C	X
Acrolein	G	F	E	E			F	G	G
Acrylonitrile	C	F	X	E	E	E	X	X	C
Acrylic Acid	X			X			X	X	G
Adipic Acid	E		X	C	E	E	E	E	G
Air, +300 °F	X	X	G	G			G	G	G
Alk-Tri	X		X	X			X	X	X
Allyl Alcohol	E		E	E	E	E	E	E	E
Allyl Bromide	X		X	X			X	X	X
Allyl Chloride	X	E	C	X	E	F	G	X	X
Alum	E		E	G	E	E	C	E	E
Aluminium Acetate	E	X	G	E			C	C	F
Aluminium Chloride	E	E	E	E	E	E	E	E	E
Aluminium Fluoride	E	E	E	E	E	E	E	E	E
Aluminium Formate	X		G	E			X	E	X
Aluminium Hydroxide	E	G	E	E	E	E	E	E	E
Aluminium Nitrate	E	E	E	E			E	E	E
Aluminium Sulfate	E	G	A	E	E	E	E	G	E
Amines-Mixed	C	G		G			X	C	X
Aminobenzene	X	X	E	C	E	E	X	X	C
Aminodimethylbenzene	X		G	C			C	X	F
Aminoethane	C	X	G	E	E	E	C	C	F
Aminoxylenes	X		G	E			C	X	X
Ammonium Carbonate	E	E	E	E			C	E	C
Ammonium Chloride	E	E	E	E	E	E	G	E	E
Ammonium Hydroxide	G	X	G	E	E	E	C	E	E
Ammonium Nitrate	E	E	E	E	E	E	E	E	E
Ammonium Phosphate, Dibasic	E	E	E	E	E	E	E	E	E
Ammonium Sulfate	E	G	E	E	E	E	E	E	E
Ammonium Sulfide	E	G	E	E	E	E	C	E	E
Ammonium Thiosulfate	E		E	E			C	E	E
Amyl Acetate	C	X	G	C	E	E	X	X	X
Amyl Acetone	X		G	G			X	X	X
Amyl Alcohol	C	G	E	E	E	E	C	C	E
Amyl Bromide	X		X	C			X	X	X
Amyl Chloride	X	X	X	X	E	E	X	X	X
Amyl Ether	X		X	X			C	X	F
Amylamine	F		G	X			F	C	F
Anethole	X		X	X			X	X	X
Aniline	X	X	E	C	E	E	X	X	C

COMPOUND CHEMICAL OR MATERIAL CONVEYED	NR	SBR	IR	EPDM	XLPE	UHMWPE	NBR	CR	CSM
Aline Dyes	C	G	G	C	E	E	X	C	G
Aline Oil	X	X	G	C	E	E	X	X	C
Animal Fats	X	X	C	C	E	E	E	C	F
Antimony Pentachloride	X			C	E	E	X	C	X
Aqua Regia	X	X	C	C	X	X	X	X	C
Argon	X	C	C	E			E	G	X
Arsenic Acid	E	E	E	E	E	E	E	E	E
Asphalt	X	X	X	X	E	E	C	C	F
Asim Fuel A	X	X	X	X			E	C	C
Asim Fuel B	X	X	X	X			C	X	X
Asim Fuel C	X	X	X	X			C	X	X
Asim Oil No. 1	X	X	X	X	E	E	E	C	C
Asim Oil No. 2	X	X	X	X	E	E	E	C	X
Asim Oil No. 3	X	X	X	X	E	E	E	C	C
Asim Oil No. 4	X	X	X	X			C	X	X
Automatic Transmission Fluid	X	X	X	X			E	C	C
Banana Oil	X		C	C			X	X	C
Barium Chloride	E	E	E	E	E	E	E	E	E
Barium Hydroxide	E	E	E	E	E	E	E	E	E
Barium Sulphide	E	G	E	E	E	E	E	E	E
Beer	E	E	E	E	E	E	E	E	E
Beet Sugar Liquors	E	E	E	E	E	E	E	C	E
Benzal Chloride			G				X		
Benzaldehyde	X	X	G	E	E	E	X	X	X
Benzene	X	X	X	C	E	F	X	C	C
Benzene Carboxylic Acid	X		E	C			X	E	C
Benzine		X	X	X	E	E	E	C	C
Benzoic Acid	X	X	C	C			X	E	C
Benzol	X	X	X	C	E	F	X	C	C
Benzotrichloride	X			E			X	X	X
Benzyl Acetate	X		E	E			X	E	G
Benzyl Alcohol	X	X	E	C			X	C	C
Benzyl Chloride	X	X	X	X			X	X	X
Benzyl Ether	X	X	G	C			X	X	X
Black Sulfate Liquor	G	G	G	G	E	E	G	G	G
Bleach	C	X	E	E	G	F	X	C	E
Borax Solution	C	G	E	E	E	E	C	E	E
Boric Acid	E	E	E	E	E	E	E	E	E
Brake Fluid (Hd-557) 12 Days	X	E	E	E			C	C	C
Brine	E		E	E	E	E	E	E	E
Bromobenzene	X	X	X	X			X	X	X
Bromochlorometane	X		C	G	F	F	X	X	X
Bromoethane	C	X	X	X	E	E	C	X	X
Bromotoluene	X		X				X		X
Bunker Oil	X	X	X	X			E	G	C
Butadiene	X	X	X	X	E	E	X	X	G
Butane	X	X	X	X	E	E	E	E	C
Butanoic Acid	C		X	C			C	X	C
Butanol	E	E	C	C	E	E	E	E	E
Butanone	X	X	E	E	E	E	X	X	X
Butoxyethanol	X		C	E			C	X	G
Butyl Acetate	X	X	C	C	E	E	X	X	X
Butyl Acrylate	X	X	X	C	E	E	X	X	X
Butyl Alcohol	E	E	C	C	E	E	E	E	E
Butyl Aldehyde	X	X	C	C	E	E	X	X	X

Chemical Resistance Chart (Continued)

COMPOUND CHEMICAL OR MATERIAL CONVEYED	NR	SBR	IIR	EPDM	XLPE	UHMWPE	NBR	CR	CSM
Butyl Benzyl Phthalate	X		E	E	E	E	X	E	X
Butyl Carbitol	X	X	E	E			X	X	C
Butyl Cellosolve	X	X	C	C	E	E	C	X	C
Butyl Chloride	X		F	X			X	X	X
Butyl Ether	X	X	C	C	E	E	X	C	X
Butyl Ether Acetaldehyde	X		G	X			X	X	X
Butyl Ethyl Ether	X		X	F			G	X	C
Botyl Oleate	X	X	C	C			X	X	X
Butyl Phthalate	X	X	G	E	E	E	X	X	X
Butyl Stearate	X	X	C	X	E	E	C	X	X
Butylene	X	X	X	X			C	C	C
Butyraldehyde	X	X	C	C	E	E	X	X	X
Butyric Acid	C	X	X	C	E	E	C	X	C
Butyric Anhydride	F		F	E			C	G	G
Cadmium Acetate	X		E				X		E
Calcium Aluminate	C	G	C	E	E	E	E	E	E
Calcium Bichromate			E	E			C	E	F
Calcium Bisulfide	X	G	X	E			C	E	F
Calcium Chloride	E	E	E	E	E	E	E	E	E
Calcium Hydroxide	E	E	E	E	E	E	E	E	E
Calcium Hypochlorite	C	X	E	E	E	E	C	C	E
Calcium Nitrate	E	E	E	E			E	E	E
Calcium Sulfide	C	X	E	E			E	E	E
Calcium Acetate	E	X	E	E			C	C	C
Caprylic Acid	C		F				F		G
Carbamide	E		E	E	E	E	G	G	E
Carbitol	C	E	C	C	E	E	C	C	C
Carbolic Acid Phenol	C		C						C
Carbon Dioxide	G	G	E	G	E	E	E	G	E
Carbon Disulfide	X		X	X	C	C	X	X	X
Carbon Monoxide	C	G	E	E	E	E	E	C	C
Carbon Tetrachloride	X		X	X	E	E	X	X	X
Carbonic Acid	E	G	E	E	E	E	C	E	E
Castor Oil	E	E	C	C	E	E	E	E	E
Caustic Soda	E	E	E	G	E	E	C	G	E
Cellosolve Acetate	C	X	C	G	E	E	X	X	X
Cellugard	E	E	E	E			E	E	E
Cetylic Acid	C	G	C	C	E	E	E	G	C
China Wood Oil	X	X	C	X	E	E	E	C	C
Chlorinated Solvents	X	X	X	X	E	E	X	X	X
Chloro-2-Propanone	X		C						X
Chloroacetone Acid	X	X	C	C	E	E	X	X	G
Chloroacetone	X	X	C	E	E	E	X	X	X
Chlorobenzene	X	X	X	X	E	E	X	X	X
Chlorobutane	X		F	X			X	X	X
Chlorodane	X	X	X	X			C	C	C
Chloroethyl Benzene	X		X	X			C	X	X
Chloroform	X	X	X	X	F	F	X	X	X
Chloropentane	X		X	X			X	X	X
Chlorosulfonic Acid	X	X	X	X	F	X	X	X	X
Chlorotoluene	X	X	X	X			X	X	X
Chlorox	X	X	C	G			C	C	C
Chrome Plating Solutions	X	X	C	C			X	X	X
Chromic Acid	C	X	C	C	E	E	X	X	E
Chromium Trioxide	X	X	G	C			X	X	E
Cinnamene	X	X	X	X			C	X	X
Cis-9-Octadecenoic Acid	X	X	X	C	E	E	G	C	C
Citric Acid	E	E	E	E	E	E	E	E	E
Coal Tar Oil	X	X	X	X	E	E	E	G	F
Coal Tar	X	X	X	X	E	E	C	C	C
Coal Tar Naphtha	X		X	X	E	E	X	X	X
Coconut Oil	X	X	C	C	E	E	E	C	C
Coke Oven Gas	C	X	C	X	E	E	X	X	C
Coolanol	X	X	X	X			E	C	C
Copper Chloride	E	E	E	E	E	E	E	C	C

COMPOUND CHEMICAL OR MATERIAL CONVEYED	NR	SBR	IIR	EPDM	XLPE	UHMWPE	NBR	CR	CSM
Copper Cyanide	E	E	E	E	E	E	E	E	E
Copper Hydrate	F		E				G		G
Copper Hydroxide	F		E				G		G
Copper Sulfate	C	G	C	E	E	E	E	E	E
Corn Oil	X	X	C	C	E	E	E	C	C
Cottonseed Oil	X	X	C	C	E	E	E	C	C
Creosote	X	X	X	X	E	E	C	C	X
Cresols	X	X	X	X	E	E	X	X	X
Cresylic Acid	X	X	X	X	E	E	X	X	X
Crotonaldehyde	X	F	E	E	E	E	X	X	X
Crude Oil	X	X	X	X	E	E	C	C	C
Cumano	X	X	X	X			X	X	X
Cupric Hydroxide	F		E				G		G
Cupric Nitrate	G		E	C	E	E	C	E	E
Cupric Sulfate	C	C	C	E	E	E	E	E	E
Cutting Oil	C	X	X	X			E	C	C
Cyclohexane	X	X	X	X	E	E	E	X	C
Cyclohexanol	C	X	X	X	E	E	G	C	C
Cyclohexanone	X	X	C	C	E	E	X	X	X
Cyclopentane	X		X	X			G	C	X
Cyclopentanone	X	X					X		X
Cyclopentil Alcohol				C			X	F	
D-Furaldehyde	X		C	E			G	F	C
Ddt In Kerosene	X	X	X	X			E	C	C
Decahydronaphthalene	X	E	X	X	E	E	X	X	X
Decalin	X	E	X	X	E	E	X	X	X
Decyl Alcohol	X		X	X			E	X	C
Decyl Aldehyde	X		F	X			X		X
Decyl Butyl Phthalate	X		E				X		X
Detergent, Water Solution	E	G	E	E	E	E	E	C	C
Developing Fluid	E	G	C	C			E	E	E
Dextron	X	X	X	X			E	C	X
Di (2Ethylhexyl) Adipate	X		E	G	G	G	X	X	X
DI (2Ethylhexyl) Phthalate	X	X	C	C	E	X	X	X	X
Di-iso-Butylene	X	X	X	X	E		C	C	X
Di-iso-Decyl Phthalate	X		E	E			X	X	X
Di-iso-Propanolamine	G		E	E			G	G	F
Di-iso-Propyl Ether	X		X	X	E	E	G	C	C
Di-iso-Propyl Ketone	X	X	E	E	E		X	X	X
Di-P-Mentha-1,8-Diene	X		X	X			C	X	X
Diacetone Alcohol	X	X	E	E	E	E	X	F	C
Diacetylmethane		X	E	E			X	X	X
Diammonium Orthophosphate				E			E	E	
Diamyl Naphthalene	X		E		E	E			X
Diamylamine	G	X	E	E			G	C	C
Diamylene	X		X	X					X
Diamylphenol	X		X		E	E	X		X
Dibenzyl Ether	X	X	C	C			X	X	X
Dibromobenzene	X		X	X			X	X	X
Dibromomethane	X		X	C			X	X	X
Dibutyl Ether	X	X	C	C	E	E	X	C	X
Dibutyl Phthalate	X	X	C	C	E	E	X	X	X
Dibutyl Sebacate	X	X	C	C	E	E	X	X	X
Dibutylamine	X	X	X	F			X	C	C
Diacalcium Phosphate	E		E	E			E	E	E
Dichloroethylene	X		C	C	F	F	X	X	X
Dichloroacetic Acid	X	X	C	X	E	E	X	X	X
Dichlorobenzene	X	X	X	X			X	X	X
Dichlorobutane	X	X	X	X			C	X	X
Dichlorodifluoromethane	C	E	C	C	E	G	C	C	C
Dichloroethane	X	X	C	X	E	E	X	X	X
Dichloroethyl Ether	X		X	X			X	X	X
Dichlorohexane	X		X	X			X	X	X
Dichloromethane	X	X	X	X			X	X	X
Dichloropentane	X	X	X	X			X	X	X

Chemical Resistance Chart (Continued)

COMPOUND CHEMICAL OR MATERIAL CONVEYED	NR	SBR	IR	EPDM	XLPE	UHMWPE	NBR	CR	CSM
Dichloropropane	X		X	X	G	G	F	X	X
Dichloropropene	X		X	X	G	G	C	X	X
Diesel Oil	X	X	X	X	E	F	F	C	C
Diethanol Amino	G	X	E	G			C	G	F
Diethylbenzene	X	X	X						X
Diethyl Ether	X	X	X	X	E	E	X	X	X
Diethyl Ketone	X		G	G	E	E	X	X	X
Diethyl Oxalate	F		X	X			X	X	X
Diethyl Phthalate	X		X	F	E	E	X	X	X
Diethyl Sebacate	X	X	G	F			C	X	F
Diethyl Sulfate	X	E	C	E			X	E	X
Diethyl Amine	C	G	C	C	E	E	C	C	C
Diethylene Glycol	E	E	E	E	E	E	E	E	E
Diethylene Oxide	X		X	E			X	X	X
Diethylenetriamine	G	X	E	E			G	X	F
Dihydroxy Succinic Acid	E		G	G			G	G	E
Dihydroxydiethyl Ether	E		E	E	E	E	E	E	E
Diisobutyl Ketone	X	X	G	E	E	E	X	X	X
Diisodecyl Phthalate	X		E	E	E	E	X	X	X
Diisooctyl Adipate	X		E	E			X	X	X
Diisooctyl Phthalate	X		E	G	E	E	X	X	X
Dimethyl Carbinol	E		E	E	E	E	C	G	E
Dimethyl Ketone	C	F	E	E	E	E	X	C	X
Dimethyl Phthalate	X	X	C	C	E	E	X	X	X
Dimethyl Sulfate	X		G	X	E	E	X	X	X
Dimethyl Sulfide	X		F	X			X	X	X
Dimethylamine	G	X	G	E	E	E	F	X	X
Dimethylaniline	X	X	G	E			X	X	X
Dimethylbenzene	X	X	X	X			X	X	X
Dimethylbutane	X		X						X
Dioxane	X	X	C	C	E	E	X	X	X
Dipentene	X	X	X	X			C	X	X
Dipentylamine	G	X	E	E			G	C	C
Dipropylene Glycol	E		E	E			E	E	E
Disodium Phosphate	E		E	E			E	E	E
Divinyl Benzene	X	X	X	X			X	X	X
Dowthermn, AAnd E	X	X	X	X			X	X	C
Dry Cleaning Fluids	X	X	X	X			C	X	X
Ethanoic Acid		G		C	E	E	C	X	
Ethanol	E	F	E	E	E	E	C	E	E
Ethanolamine	C	X	X	E			C	C	C
Ethers	X	X	X	X	E	E	F	X	X
Ethyl Acetate	X	X	C	C	E	E	X	X	X
Ethyl Acetoacetate	C	F	C	C			X	X	X
Ethyl Acetone	X		G	G			X	X	X
Ethyl Acrylate	X	X	C	C			X	X	X
Ethyl Alcohol	E	E	E	E	E	E	C	E	E
Ethyl Aldehyde	C		E	E	E	E	X	X	F
Ethyl Aluminium Dichloride	X		X				X		X
Ethyl Benzene	X	X	X	X	E	E	X	X	X
Ethyl Bromide	C	X	X	X	E	E	C	X	X
Ethyl Butyl Acetate	X		E				X		G
Ethyl Butyl Alcohol	E		E						E
Ethyl Cellulose	C	G	C	C	E	E	C	C	C
Ethyl Chloride	C	G	E	E	E	E	E	X	C
Ethyl Dichloride	X	X	F	X	E	E	X	X	X
Ethyl Ether	X	X	X	X	E	E	X	X	X
Ethyl Formate	X	X	C	C			X	C	C
Ethyl Iodide	X		F	F	E	E	X	X	X
Ethyl Oxalate	E	X	X	E			X	X	X
Ethyl Phthalate	X		X	F	E	E	X	X	X
Ethyl Silicate	C	G	E	F			E	E	
Ethyl-N-Butyl Ketone	X	G	G				X	X	X
Ethyl-1-Butanol	E		E	E			E	E	E
Ethylamine	C	X	C	E			C	C	F

COMPOUND CHEMICAL OR MATERIAL CONVEYED	NR	SBR	IR	EPDM	XLPE	UHMWPE	NBR	CR	CSM
Ethylene Chlorohydrin	C	G	C	C			X	C	C
Ethylene Diamine	C	G	E	E	E	E	C	E	C
Ethylene Dibromide	X	X	C	C	F	F	X	X	X
Ethylene Dichloride	X	X	C	X	F	F	X	X	X
Ethylene Glycol Monobutyl Ether	X	X	E	E	E	E	F	X	C
Ethylene Glycol Monoethyl Ether	X		C	C	E	E	C	X	X
Ethylene Glycol	E	E	E	E	E	E	E	E	E
Ethylene Oxide	X	X	C	C	E	E	X	X	X
Fatty Acids	X	X	C	X	E	G	C	C	C
Ferric Bromide	E		E				E		E
Ferric Chloride	E	E	E	E			E	E	C
Ferric Nitrate	E	E	E	E			E	E	E
Ferric Sulfate	E	E	E	E			E	E	E
Ferrous Acetate	X		E	G			X	X	X
Ferrous Chloride	E		E	E			E	E	E
Ferrous Sulfate	E	E	E	E			E	E	E
Fluoroboric Acid	E	E	C	E	E	E	E	E	E
Fluorine	X		X	E	G	G	X	X	X
Fluorosilicic Acid	E	G	E	E	E	E	E	E	E
Formaldehyde	C	G	C	C	E	E	C	C	C
Formalin	C	G	C	C	E	E	G	G	C
Formic Acid	C	E	E	E	E	E	C	C	E
Freon 113	C	G	X	X			E	E	C
Freon 12	X	E	X	C	F	G	C	C	E
Freon 22	C	E	C	C	F	E	X	E	E
Fuel A	X		X	X			E	C	C
Fuel B	X		X	X			C	X	X
Fuel Oil	X	X	X	X	E	E	E	C	C
Furan	X	X	X	X	E	E	X	X	X
Furfural	X	X	C	C	E	E	X	X	C
Fuel A (Astm)	X	X	X	X			E	C	X
Fuel B (Astm)	X	X	X	X			C	X	X
Fuel Oil	X	X	X	X	E	E	E	C	C
Furur	X	X	X	X	E	E	X	X	X
Furfural	X	X	C	C	E	E	X	X	X
Furfuran	X	X	X	X	E	E	X	X	X
Furfuryl Alcohol	X	X	C	C	E	E	X	X	X
Gatic Acid	E	G	C	C	E	E	C	C	C
Gallotannic Acid	E		G	E			E		E
Gasoline	C	X	C	X	E	E	E	X	C
Glacial Acrylic Acid	X		X	X			X	X	G
Gluconic Acid	X		F	E			C	E	G
Glucose	E	E	E	E	E	E	E	C	E
Glycerine	E	E	E	E	E	E	E	E	E
Glycerol	E	E	E	E	E	E	E	E	E
Glycogenic Acid	X		F	E			F	E	G
Glycols	E	E	E	E	E	E	E	E	E
Glyconic Acid	X		F	E			F	E	G
Glycyl Alcohol									
Grease	X	X	X	X			E	F	C
Green Sulphate Liquor	C	G	E	E			C	C	G
Helium	E	E	E	E			E	E	E
Heptaldehyde	X	X	C	C			E	C	X
Heptanal	X	X	C	C			E	C	X
Heptane	X	X	X	X			E	E	C
Heptanoic Acid	X		X	X			E	C	C
Hexadecanoic Acid	E	G	G	G	E	E	E	X	X
Hexaldehyde	X	X	C	C	E	E	X	C	C
Hexane	X	X	X	X	E	E	E	C	C
Hexanol	E	E	C	C	E	E	C	C	C
Hexene	X	X	X	X			C	C	C
Hexyl Alcohol	E	E	C	C	E	E	C	C	C
Hexyl Methyl Ketone	X		G	G			X	C	X
Hexylamine	F		G	G			F	G	F
Hexylene Glycol	E		E	F			C	E	E

Chemical Resistance Chart (Continued)

COMPOUND CHEMICAL OR MATERIAL CONVEYED	NR	SBR	IR	EPDM	XLPE	UHMWPE	NBR	CR	CSM
Histowax	X		X						C
Hydraulic & Motor Oil	X	X	C	C	E	E	C	C	C
Hydrazine	C	G	C	E			C	C	C
Hydrobromic Acid	E	X	E	E	E	E	X	C	E
Hydrochloric Acid	C	X	C	C	C	C	C	C	C
Hydrocyanic Acid	C	G	C	E			C	C	E
Hydrofluoric Acid	C	X	C	C	E	E	C	C	E
Hydrofluosilicic Acid	E	G	E	E	E	E	X	C	E
Hydrogen Chloride Anhydrous	X	X	E	E			X	C	E
Hydrogen Dioxide	G		G	G			F	F	C
Hydrogen Gas	C	G	E	E	E	E	E	E	E
Hydrogen Peroxide Over 10%	C	X	C	C	C	F	X	X	C
Hydrogen Peroxide 10%	C	X	G	G	F	F	C	X	X
Hydrogen Sulfide	X	X	E	E	E	E	X	E	G
Hydroxy Benzene	C		C	C			X	X	C
Hydroxyisobutyronitrile	C		E	E			C	G	F
Hydroxytoluene	X	X	C	C			X	C	C
Iminodi-2-Propanol	G		E	E			G	G	F
Iminodiethanol	C	X	C	G			C	G	F
Iodine	X	G	C	C	E	E	C	C	C
Iodine Pentafluoride	X	X	X	X			X	X	X
Iodoform	X		X	E			E	X	X
Iso-Butanal	X	G		G	E	E	X	F	
Iso-Butylamine	F		E	G			X	X	F
Iso-Butylbromide	X		X	X			X	X	X
Iso-Butylcarbinol	X		E	E			E	E	E
Isocyanates	F		G	G	E	E	C	X	F
Isocetane	X	X	X	X	E	E	E	C	C
Isopropyl Acetate	X	X	C	C	E	E	X	X	X
Isopropyl Alcohol	E	E	E	E	E	E	C	C	E
Isopropyl Ether	X	X	X	X	E	E	G	X	C
Jet Fuels	X	X	X	X	F	E	C	C	X
Jp-4 Oil	X	X	X	X			E	X	X
Kerosene	X	X	X	X	E	E	E	C	C
Ketones	C	E	G	E	E	E	C	C	C
Lacquer Solvents	X	X	X	E	E	X	X	X	X
Lactic Acid – Cold	E	G	E	C	G	G	C	C	E
Lactic Acid – Hot	E	X	E	C	G	G	C	C	E
Lard	X	X	C	C	E	E	E	C	C
Lavender Oil	X	X	X	X			C	X	X
Lead Acetate	E	X	E	E	E	E	C	C	X
Lead Nitrate	E	E	E	E			E	E	E
Lead Sulfate	E		E	E	E	E	E	E	E
Lime	E		E	E	E	E	G	G	G
Lime Bleach	C	E	E	E			C	C	E
Lime Sulfur	C	X	E	E	E	E	E	E	E
Limonene	X		X	X			C	X	X
Linoleic Acid	X	X	X	X			C	C	X
Linseed Oil	X	X	C	C	E	E	E	C	C
Liquid Petroleum Gas	X	X	X	X	E	E	E	G	C
Lubricating Oil	X	X	X	X	E	E	C	C	E
Lye Solutions	E	G	E	G			C	G	E
Mek	X	X	E	E	E	E	X	X	X
Magnesium Acetate	X	X	E	G			X	X	E
Magnesium Chloride	E	E	E	E	E	E	E	E	E
Magnesium Hydrate	C	G	E	E	E	E	C	C	E
Magnesium Hydroxyde	C	G	E	E	E	E	C	C	E
Magnesium Sulfate	C	G	E	E	E	E	E	E	E
Maleic Acid	X	X	X	C	E	E	X	X	X
Maleic Anhydride	X	X	C	C			X	X	X
Malic Acid	E	G	X	C	C	C	E	C	C
Manganous Sulfate	G		G	E			E	E	E
Mercury	E	E	E	E	E	E	E	E	E
Mercury Vapors	G	E	E	E			E	G	E
Mesityl Oxide	X	X	F	C			X	X	X

COMPOUND CHEMICAL OR MATERIAL CONVEYED	NR	SBR	IR	EPDM	XLPE	UHMWPE	NBR	CR	CSM
Methallyl Alcohol	E		E	E			E	E	E
Methallyl Chloride	X		X					X	X
Methane Carboxylic Acid (See Acetic Acid)					E	E			
Methanoic Acid	C	E	E	E	E	E	G	E	E
Methanol	E	E	C	E	E	E	C	E	E
Methoxy Ethanol	E		E	E	E	E	C	E	E
Methyl Acetate	C	X	C	C			X	C	X
Methyl Acetoacetate	X	X	C	C			X	X	X
Methyl Acetone	X	X	E	E	E	E	X	X	X
Methyl Allyl Chloride	X			X				X	X
Methyl Amyl Carbinol	G			G	E		E	G	E
Methyl Benzene	X	X	X	X	F	F	X	X	X
Methyl Bromide	X	X	C	X	F	F	C	X	X
Methyl Butane	X		X	X			E	X	X
Methyl Butyl Ketone	X	X	E	E	E	E	X	X	X
Methyl Carbitol				G			F	F	
Methyl Cellosolve	X	X	C	C	E	E	C	C	C
Methyl Chloride	X	X	C	C	F	F	X	X	X
Methyl Cyanide	G		E	E			C	E	G
Methyl Ethyl Ketone	X	X	E	E	E	E	X	X	X
Methyl Hexanol	E		E	E			E	E	E
Methyl Methacrilate	X	X	X	X	E	E	X	X	X
Methyl Normal Amyl Ketone	X			E			C	E	X
Methyl Propyl Ether	X		X	X			X	X	C
Methyl Salicylate	X		C	C	E	E	X	X	X
Methyl Styrene	X		X	X			X	X	X
Methyl Sulfide	X		F	X			X	X	X
Methyl-Iso-Amyl-Ketone	X		G						X
Methyl-2-Butanone	X	X	C	C			X	X	X
Methyl-2-Hexanone	X		G						X
Methyl-2-Pentanol	G		E	E			G	G	E
Methyl-2-Pentanone	X		C	C			X	X	X
Methyl-4-Isopropyl Benzene	X		X	X			X	X	X
Methyl Amyl Acetate	X								X
Methyl Amyl Alcohol	G		E	E			G	G	E
Methylcyclohexane	X		X	X			X	X	C
Methylene Bromide	X		X	X	E	E	C	X	X
Methylene Chloride	X	X	X	C	F	F	X	X	X
Methylethyl Ketone	X	X	E	E			X	X	X
Methyl Hexyl Ketone	X		G	G	E		X	C	X
Methyl Isobutyl Carbinol	G		E	C			X	X	E
Methylisobutyl Ketone	X	X	C	C	E	E	X	X	X
Methylisopropyl Ketone	X	X	C	C			X	X	X
Methylacetonitrile	F		E	E			X	G	F
Methylpropyl Carbinol	E		E				E		E
Methylpropyl Ketone	X		G	G	E	E	X	X	X
Mineral Oil	X	X	C	X	E	E	E	C	C
Mineral Spirits	X	X	X	X			C	C	G
Mobile Hf A	X	X	X	X			E	C	X
Molten Sulfur	G		G	E			G	E	E
Mono-Chloroacetic Acid	C	X	G	G	E	E	X	C	G
Monobutyl Ether	X	X	C	C			G	C	C
Monochlorobenzene	X	X	X	X	F	F	X	X	X
Monochlorodifluoromethane	C	E	C	C	E	E	X	C	E
Monoethanol Amine	C	G	C	C			G	G	C
Monoethyl Amine	C	F	C	E			C	C	F
Morpholine	X		C	C			X	X	X
Motor Oil, 40W	X		X	X			E	C	C
Mtbe			G				X	X	
Muriatic Acid	G	X	C	F			C	C	C
N-Butanal	X	X	C	C	E	E	X	X	X
N-Butylamine	X	X	C	C			C	X	X
N-Butylbenzene	X		X	X			X	X	X
N-Butylbromide	X		X	X			X	X	X
N-Butylbulryate	X	X	E	E			X	X	X

Chemical Resistance Chart (Continued)

COMPOUND CHEMICAL OR MATERIAL CONVEYED	NR	SBR	IIR	EPDM	XLPE	UHMWPE	NBR	CR	CSM
N-Butylcarbinol	E		E	E	E	E	E	E	E
N-Nonyl Alcohol	E		E	E			E	E	E
N-Octane	X	X	X	X	E	E	C	G	X
Naphtha	X	X	X	X	E	E	C	X	C
Naphthalene	X	X	X	X	E	E	X	X	X
Naphthenic Acid	X	X	X	X			C	X	X
Natural Gas	C	F	X	X	E	E	E	E	E
Neohexane	X		X	X			E	G	X
Neon Gas	E	E	E	E			E	E	E
Neu-Tri	X		X				X		X
Nickel Acetate	E	X	E	E			C	G	X
Nickel Chloride	E	E	E	E	E	E	E	C	E
Nickel Nitrate	E		E	E	E	E	E	E	E
Nickel Sulfate	C	G	E	E	E	E	E	E	E
Nitric Acid, Conc	X		X	X			X	X	X
Nitric Acid, Red Fuming	X	X	X	X	X	X	X	X	X
Nitric Acid, 10%	X	X	E	E	E	E	X	G	E
Nitric Acid, 13N	X					X	X		
Nitric Acid, 13N +5%	X					X	X		
Nitric Acid, 20%	X	X	G	E	E	E	X	X	E
Nitric Acid, 30%	X	X	F	F	G	G	X	X	E
Nitric Acid, 30% – 70%	X	X	F	X	F	F	X	X	C
Nitrioltriethanol	C	G	E	E	E	E	F	C	C
Nitrobenzene	X	X	F	C	E	E	X	X	X
Nitroethane	G	G	G	C			X	C	C
Nitrogen	E	E	E	E	E	E	E	E	E
Nitromethane	G	C	G	C			X	C	C
Nitrous Oxide Gas				E			E	G	
Nonanoic Acid	X		E		E	E	E		X
Nonanol	E		E	E			E	E	E
Octanoic Acid	F		F				F		G
Octanol	C	E	C	C			C	C	C
Octyl Acetate	C	X	E	G	E	E	C	C	E
Octyl Alcohol	C	E	C	C			C	C	C
Octyl Aldehyde	X		F		E	E	X		X
Octyl Amine	F		E	G			F	G	F
Octyl Carbinol	E		E	E			E	E	E
Octylene Glycol	E		E	E			E	E	E
Oil-Petroleum		X			G	G			
Oleic Acid	X	X	X	X	E	E	G	F	C
Oleum	X	X	X	X	X	X	X	X	X
Olive Oil	X	X	C	G			E	G	C
Ortho-Dichlorobenzene	X	X	X	X			X	X	X
Ortho-Dichlorobenzol	X	X	X	X			X	X	X
Orthoxylene	X	X	X	X			X	X	X
Oxalic Acid	C	G	E	E	E	E	G	G	E
Ozone	X	X	G	E	E	E	X	F	G
P-Cymene	X		X	X			X	X	X
Paint Thinner	X	X	X	X			X	X	X
Palmitic Acid	C	G	C	C	E	E	E	G	C
Papermakers Alum									
Para-Dichlorobenzene	X	X	X	X			X	X	X
Paraffin Wax	X		X	X			E	G	E
Paraldehyde	F		E	E			C	G	X
Paraxylene	X		X	X			X	X	X
Pelargonic Alcohol	E		E	E	E	E	E	E	E
Pentachloroethane	X		X				X	X	X
Pentamethylene	X		X	X			G	C	X
Pentane	X	X	X	X	E	E	E	E	C
Pentanol	E		E		E	E			E
Pentanone	X		G	G			X	X	X
Pentasol	X	G	E	G	E	E	C	C	E
Pentyl Acetate	C	X	X	C	E	E	X	X	X
Pentyl Acohol	C	C	C	E	E	E	C	C	E
Pentyl Bromide	X		X	C			X	X	X

COMPOUND CHEMICAL OR MATERIAL CONVEYED	NR	SBR	IIR	EPDM	XLPE	UHMWPE	NBR	CR	CSM
Pentyl Chloride	X	X	X	X	E	E	X	X	X
Pentyl Ether	X		X	X			C	X	F
Pentylamine	F		G	X			F	F	F
Perchloric Acid	C	X	C	G	E	E	X	E	C
Perchloroethylene	X	X	X	X	E	E	F	X	X
Perchloromethane	X		X	X			X	X	X
Petroleum Crude	X	X	X	X	E	E	G	G	E
Petroleum Ether	X	X	X	X			E	X	C
Petroleum Oils	X	X	X	X	E	E	X	G	G
Phenol	C	X	C	X	E	E	X	X	C
Phenolsulfonic Acid	C	X	G	E			C	C	C
Phenylamine	X		E	C	E	E	X	X	C
Phenylbromide	X		X						X
Phenylmethane	X		X	X	E	E	X	X	X
Phenylmethanol	X		E	C			X	C	C
Phosphate Esters	X	X	E	E			X	X	X
Phosphoric Acid 10%	E	E	E	E	E	E	E	E	E
Phosphoric Acid 10% – 85%	G	G	E	E	E	E	G	G	E
Phosphorus Trichloride	X	X	E	E	E	E	X	X	X
Picric Acid, H2O Solution	C	G	G	E			E	E	E
Pine Oil	X	X	X	X	E	E	E	X	X
Pinene	X	X	X	X			C	C	X
Polyethylene Glycol E-400	E		E	E			C	G	E
Polyol Ester				X			G	X	
Polypropylene Glycol	E		E		E	E	E	E	E
Potassium Acetate	E	X	E	E			C	E	E
Potassium Bisulfate	E	G	E	E			E	E	E
Potassium Bisulfite	E	G	E	E			E	E	E
Potassium Carbonate	E	E	E	E	E	E	E	E	E
Potassium Chloride	E	E	E	E	E	E	E	E	G
Potassium Chromate	G	G	E	E			G	E	F
Potassium Cyanide	E	E	E	E	E	E	E	E	E
Potassium Dichromate	C	G	E	E	E	E	E	E	G
Potassium Hydrate	C	G	E		E	E			E
Potassium Hydroxide	C	G	E	E	E	E	G	G	E
Potassium Nitrate	E	E	E	E	E	E	E	E	E
Potassium Permanganate, 5%	E	G	E	E	E	E	F	E	G
Potassium Silicate	E	E	E	E			E	E	E
Potassium Sulfate	C	G	E	E	E	E	E	E	E
Potassium Sulfide	G	G	E	E			C	E	E
Potassium Sulfite	C	G	E	E	E	E		E	C
Prestone Antifreeze	E	E	E	E			E	E	E
Producer Gas	X	X	X	X			E	G	C
Propane	X	X	X	X	E	E	E	E	C
Propanediol	E	E	E	E	E	E	E	G	E
Propanetriol	E	E	E	E	E	E	E	E	E
Propanol	E	E	E	E	E	E	E	E	E
Propanone	C	G	E	E	E	E	X	X	C
Propanol	E		E						E
Propanediamine	G		E			G			F
Propene Nitrite	G		X		E	E	X	X	
Propenyl Alcohol	E		E	E	E	E	E	E	E
Propenyl Anisole	X		X		E	E	X		X
Propionic Acid	E	X	E	E			C	C	G
Propionitrite	E		E	C			E	C	
Propyl Acetate	X	X	C	C	E	E	X	X	X
Propyl Alcohol	E	E	E	E	E	E	E	E	E
Propyl Aldehyde	F		G	G			X	X	X
Propyl Benzene	X		X				X	X	
Propyl Chloride	X		F	F			X	F	X
Propyl Nitrate	X	X	C	C			X	X	X
Propylene	X	X	X	X			X	X	X
Propylene Diamine	G		E				G		F
Propylene Glycol	E	E	E	E	E	E	E	E	E
Pydraul, 'E' Series	X	X	C	C			X	X	X

Chemical Resistance Chart (Continued)

COMPOUND CHEMICAL OR MATERIAL CONVEYED	NR	SBR	IR	EPDM	XLPE	UHMWPE	NBR	CR	CSM
Pydraulic 'C'	X	X	X	X			X	X	X
Red Oil	X	X	X	F	E	E	E	F	C
Refrigerant 11	X	X	X		E	E			E
Refrigerant 12	X	E	X		E	E			E
Refrigerant 22	C	E	X		E	E			E
Resorcinol	E	G	E	G			C	A	G
Sae No. 10 Oil	X	X	X	X			E	C	X
Sal Ammoniac	E	E	E	E	E	E	E	E	E
Sea Water	E	E	E	E	E	E	E	E	E
Sewage	G	G	G	G	E	E	E	C	E
Silicate Esters	X	C	X	X			G	E	G
Silicate Of Soda	E	E	E	E			E	E	E
Silicone Grease	E	E	E	E	E	E	E	E	E
Silicone Oil	E	E	E	E	E	E	E	E	E
Silver Nitrate	E	G	E	E	E	E	C	E	E
Skydrol 500 Type 2	X	X	G	E			X	X	X
Skydrol 500B	X	X	G	E			X	X	X
Skydrol 500C	X	X	G	E			X	X	X
Skydrol 700 Typo 2	E	X	E	E			X	X	X
Soap Solutions	F	X	E	E	E	E	E	G	E
Soda Ash	E	X	E	E	E	E	E	E	E
Soda Lime	E		E	E			G	G	G
Soda Niter	G	G	E	E	E	E	E	G	E
Sodium Acetate	F	X	F	E	E	E	G	C	G
Sodium Aluminate	E	G	E	E			E	E	E
Sodium Bicarbonate	E	E	E	E	E	E	E	E	E
Sodium Bisulfate	E	G	E	E	E	E	E	E	E
Sodium Bisulfite	E	G	E	E	E	E	E	E	E
Sodium Borate	E	E	E	E	E	E	E	E	E
Sodium Carbonate	E	E	E	E	E	E	E	E	E
Sodium Chloride	E	E	E	E	E	E	E	E	E
Sodium Cyanide	E	E	E	E	E	E	E	E	E
Sodium Dichromate	X	G	E	E			E	F	G
Sodium Hydrate	E	G	E	E	E	E	X	G	C
Sodium Hydrochlorite	F	G	G	G			F	F	E
Sodium Hydroxide	E	G	E	E	E	E	X	G	C
Sodium Hypochlorite	X	F	C	E	E	E	C	C	G
Sodium Metaphosphate	E	E	G	E	E	E	E	E	C
Sodium Nitrate	G	G	E	E	E	E	C	G	E
Sodium Perborate	G	G	E	E			C	G	E
Sodium Peroxide	C	G	E	E	E	E	C	G	G
Sodium Phosphate	E	E	E	E	E	E	E	G	E
Sodium Silicate	E	E	E	E	E	E	E	E	E
Sodium Sulfate	C	G	E	E	E	E	E	E	E
Sodium Sulfide	G	G	E	E	E	E	E	E	E
Sodium Sulfite	G	G	E	E	E	E	E	E	E
Sodium Thiosulfate	G		E	E	E	E	C	E	E
Soybean Oil	X	X	G	C			E	E	G
Stannic Chloride	E	E	E	E	E	E	E	G	E
Stannic Sulfide	E		E	E			E	E	E
Stannous Chloride	E	E	E	G	E	E	E	E	E
Stannous Sulfide	E		E	E			E	E	E
Steam, Below 350 Deg F	C	X	G	E	X	X	X	X	C
Stearic Acid	C	G	C	G	E	E	G	G	G
Stoddard Solvent	X	X	X	X	E	E	E	G	X
Styrene	X	X	X	X	F	F	X	X	X
Sulfamic Acid	G		E	E			C	G	E
Sulfur	X	X	E	E	E	E	X	E	E
Sulfur Chloride	X	X	X	E			C	E	
Sulfur Dioxide	C	G	C	E		G	X	C	C
Sulfur Trioxide, Dry	C	X	G	E	X	X	X	X	X
Sulfuric Acid 60%	X	X	E	E	X	X	G	X	G
Sulfuric Acid, Conc.	X	X	X	X	F	F	X	X	X
Sulfuric Acid, Fuming	X	X	X	X	X	X	X	X	X
Sulfuric Acid, 25%	E	F	G	E	E	E	C	C	E

COMPOUND CHEMICAL OR MATERIAL CONVEYED	NR	SBR	IR	EPDM	XLPE	UHMWPE	NBR	CR	CSM
Sulfuric Acid, 25%–50%	G	F	G	E	E	E	C	X	G
Sulfuric Acid, 25%–96%	C	X	C	X	G	G	X	X	C
Sulfurous Acid, 10%	G	G	E	E	E	E	E	C	E
Sulfurous Acid, 10%–75%	G	G	E	E	E	E	F	C	E
T-Butyl Amine	X		C	C			C	X	X
Tall Oil	X	X	X	X			E	C	F
Tallow	X	X	X	E	E	E	E	G	F
Tannic Acid	E	G	E	E	E	E	E	E	E
Tar	X	X	X	X	X	F	X	X	
Tar Bituminous	X	X	X	X			G	C	X
Tartaric Acid	E	G	G	G	E	E	E	E	E
Tellone 2	C								
Tertiary Butyl Alcohol	C	G	C	C			C	C	C
Terpineol	X	X	C						X
Tertiary Butyl Amine	X		C	C			C	X	X
Tertiary Butyl Mercaptan	X	X	X	X			X	X	X
Tetrachlorobenzene	X		X	X			X	X	X
Tetrachloroethane	X	X	X	X	F	F	X	X	X
Tetrachloroethylene	X	X	X	X	F	F	C	X	X
Tetrachloromethane	X		X	X	E	E	X	X	X
Tetracloronaphthalene	X		X	X	E	E	X	X	X
Tetraethylene Glycol	E		E	E			E	E	E
Tetraethylorthosilicate	X		E	E			E	E	
Tetrahydrofuran	X	X	C	X			X	X	X
Tin Chloride	E		E	E	E	E	C	C	C
Titanium Tetrachloride	X	X	X	X			C	C	X
Toluene	X	X	X	X	E	E	X	X	X
Toluidine	X		X	X	E	F	C	X	X
Toluol	X	X	X	X	E	E	X	X	X
Transformer Oil	X	X	X	X	E	E	C	C	C
Transmission 'A' Oil	X		X	X			E	C	C
Tri-Amine	C		E	E			G	C	C
Tributyl Phosphate	C	X	G	C			F		X
Tributylamine	G		E				G		F
Trichloroacetic Acid	C	X	C	C			C	C	X
Trichlorobenzene	X	X	X	X	F	F	C	X	X
Trichloroethane	X	X	X	X			X	X	X
Trichloroethylene	X	X	X	X	F	F	X	X	X
Trichloromethane	X	X	X	X	F	F	X	X	X
Trichlorotoluene	X			E			X	X	X
Tricresyl Phosphate	X	X	E	E			X	X	X
Triethanolamine	C	G	E	E	E	E	C	C	C
Triethylamine	G	X	G	E			E	G	E
Triethylene Glycol	E		E	E	E	E	C	E	E
Trihydroxybenzoic Acid	E		C	C			C	C	G
Trimethyl Pentane	X	X	X	X			E	G	C
Trimethylamine	E		E	C			C	E	E
Trisodium Phosphate	E	E	E	E	E	E	E	E	E
Tritoyl Phosphate	X	X	E	E	X	C	C		
Tung Oil	X	X	C	X	E	E	E	C	C
Tung Oil	X	X	C	X	E	E	E	C	C
Turpentine	X	X	X	X	E	E	E	X	X
Unsymetrical Dimethyl Hydrazine	E	X	E	E			C	C	E
Undecyl Alcohol	E		E	E			E	E	E
Urea	E		E	E	E	E	G	G	E
Uric Acid	E		E	E			C	E	E
Varnish	X	X	X	X	E	E	G	X	X
Vegetable Oils	X	X	C	F	F	E	E	C	C
Versilube F44	E	E	E	E			E	E	E
Versilube F55	F	F	F	X			E	E	E
Vinegar	G	G	E	E	E	E	G	G	E
Vlnegar Acid	G		E		E	E			E
Vinyl Acetate	X	X	E	G	E	E	C	C	F
Vinyl Benzene	X	X	X	X	F	F	C	X	X
Vinyl Chloride	X	X	C	E	E	E	X	X	C

Chemical Resistance Chart (Continued)

COMPOUND CHEMICAL OR MATERIAL CONVEYED	NR	SBR	IIR	EPDM	XLPE	UHMWPE	NBR	CR	CSM
Vinyl Cyanide	G	F	X	X	E	E	X	X	G
Vinyl Ether	X		X				G		G
Vinyl Toluene	X		X	X			X	X	X
Vinyl Trichloride	X		X	X			X	X	X
Vm & Naphtha	X	X	X	X			G	F	X
Water	E	C	E	E	E	E	E	G	E
Water, Boiling	E		E	F			G	G	E
Water, Soda					E	E			
Wemco C	X	X	X	X			E	C	X
Whiskey	E	E	E	E	E	E	E	E	E
White Oil	X	X	X	X	E	E	E	G	C
White Pine Oil	X	X	X	X			C	X	X
Wines	E	E	E	E	E	E	E	E	E
Wood Alcohol	E	E	C	E	E	E	C	E	E
Wood Oil	X	X	C	X	E	E	E	C	C
Xenon	E	E	E	E			E	E	E
Xylene, Xylon	X	X	X	X	F	F	X	X	X
Xylidine	X	X	G	G			C	X	X
Zeolites	E	E	E	E			E	E	E
Zinc Acetate	E	X	E	E			G	C	
Zinc Carbonate	E		E	E			E	E	E
Zinc Chloride	E	E	E	E	E	E	E	E	E
Zinc Chromate	E		E	E			C	E	G
Zinc Sulfate	E	G	E	E	E	E	E	E	E
0-Aminotoluene	X		C	C			X	X	X
1 Undecanol	E	E	E	E	E	G	E	E	E
1-Amino-2-Propanol	G		E	E			C	E	F
1-Aminobutane	X	X	C	C			C	X	X
1-Aminopentane	F		G	X			F	C	F
1-Bromo-2-Methyl Propane	X		X	X			X	X	X
1-Bromo-3-Methyl Butane	X		X	X			X	X	X
1-Bromobutane	X		X	X			X	X	X
1-Chloro-2-Methyl Propane	X		X	X			X	X	X
1-Chloro-3-Methyl Butane	X		X	X			X	X	X
1-Decanol	X		X	X	E	E	E	X	C
1-Hendecanol	E		E	E			E	E	E
1,4-Dioxane	X		C	C	E		X	X	X
2(2Aminoethylamino) Ethanol	G		E						G
2(2Ethoxyethoxy) Ethanol	C	G	C	C			C	C	C
2(2Ethoxyethoxy) Ethyl Acetate	X	X	G	X			X	X	G
2-Aminoethano	C	F	C	E			C	C	C
2-Chloro-1-Hydroxy-Benzene	X		X	X			X	X	X
2-Chlorophenol	X	X	X	X			X	X	X
2-Chloropropane	X	X	X	X			X	X	X
2-Ethoxyethanol	X	X	C	C	E	E	C	X	X
2-Ethoxyethyl Acetate	C		C	G	E	E	X	X	X
2-Ethyl	X		G				X		X
2-Ethyl-1-Hexanol	G	G	C	C	E	E	C	C	C
2-Ethylhexanoic Acid	F		F				F		G
2-Ethylhexyl Acetate	X		E	C	C		X		G
2-Octanone	X		G	G			X	C	
3-Bromopropene	X		X	X			X	X	X
3-Chloropropene	X	E	C	X	F	G	C	X	X
3-Coal Oil	X		X	X			E	G	F
4-Hydroxy-4-Methyl-2-Pentanone	X	X	E	E	E	E	X	F	C

HAND PROTECTION

HYFLEX OIL REPELLENT LIGHT DUTY

- Features: The first light weight HyFlex® glove to combine a 3/4 dip geometry, oil repellence and oil grip in a single flexible glove.
- The HyFlex® 11-926 features a durable coating for secure grip in oily environments. The liner is made with one of the finest gauge nylon fiber dipped in a 3/4 design to ensure full back of finger protection.



Part Number	Size
HHP-11-926-L	L
HHP-11-926-M	M
HHP-11-926-XL	XL

HYFLEX GENERAL PURPOSE LIGHT DUTY

- Features: Tough 1.1 mm FORTIX® nitrile foam coating (patent pending) offers EN Abrasion Level 4 protection, with up to two times the abrasion performance of other lightweight, knit-dipped gloves
- The FORTIX® coating is 20% more breathable than earlier formulations, for cooler, drier hands and less sweat
- Matching the natural contours of the hand, the snug, second-skin liner is tailored to create a more comfortable wearing experience: at the base of the little finger (added comfort), across the fingertips (superior tactility), and through the palm (greater dexterity)
- With its balance of robust abrasion performance, enhanced comfort and high dexterity the HyFlex® 11-840 is an ideal solution for workers who move between tasks
- Silicone-free material means no transfer of silicone contaminants to metal parts prior to painting



Part Number	Size
HHP-11-840-L	L
HHP-11-840-M	M
HHP-11-840-XL	XL

ALPHATEC CHEMICAL GL WITH GRIP PERFORMANCE

- Features: AlphaTec® 58-535 gloves incorporate ANSELL GRIP™ Technology™ to enable users to handle wet or oily objects with less grip force. A perfect combination of chemical resistance with grip and flexibility allows for more controlled, confident and safer handling. This helps to reduce stress and hand fatigue while improving productivity.



Part Number	Size
HHP-58-535-L	L
HHP-58-535-M	M
HHP-58-535-XL	XL

HYFLEX CUT RESIST OI MEDIUM DUTY

- Features: The first HyFlex® glove to combine advanced cut resistance, oil repellence and oil grip in a single flexible glove. Ideal for handling sharp metal components coated in oil or lubricant
- Patented Ansell Grip™ technology uses microscopic channels to wick away oil & moisture from part surfaces and tools, providing industry-leading wet and oil grip for added safety and efficiency
- The design combines a 3/4 nitrile dip with grip. This ensures EN Level 4 abrasion protection and long-lasting EN Level 3 cut resistance
- The 3/4 dip geometry means extra protection against oil exposure and knuckle abrasion
- A new former shape offers superior fit. Together with a highly flexible polymer and a wide range of sizes, this enables more agility in medium-duty applications
- Greys and blacks mask dirt in oily, grimy and gritty environments



Part Number	Size
HHP-11-927-L	L
HHP-11-927-M	M
HHP-11-927-XL	XL

HEIGHT SAFETY

11mm STATIC ROPE 25MTR COIL

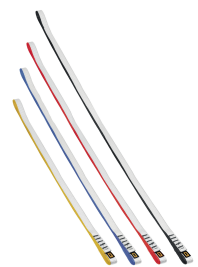


- Features: Type A rope - low stretch kernmantel rope designed for general use in rope access (including all kinds of work positioning and restraint), in rescue and in caving
- Meets requirements that the rescuers, firemen, specialists in working at height and other professionals require when working every day
- Rope-braiding technology ROUTE 44
- Ultrasonic ending

Part Number	Length (m)
HHS-ROPE 11	25

SLING

SLING FOR AN ANCHOR POINT VARIOUS LENGTHS



- Material: Polyamide
- Strength: 22 kN
- Width: 16mm
- Lengths: 600mm, 800mm, 1500mm
- Features: Light and strong
- Sewn sling - much stronger than an ordinary tying with knot
- Climbers use slings straps for resting at belay stations and as protection under many different circumstances

Part Number	Length (mm)
HHS-SLING 1500	1500
HHS-SLING 600	600
HHS-SLING 800	800

HARNESS

FULL BODY

FULLY ADJUSTABLE

- Features: SPEED buckles on the leg loops for easy putting the harness on
- Two fall arrest attachment points (EN 361)
- Compact and lightweight
- Intended for working in places with the risk of fall
- Two gear loops with max. load 5 kg
- Shoulder and leg loops webbings are color distinguished for easy manipulation



Part Number	Size
HHS-HARNESS M/L	M/L

HELMET

IMPACT & PENETRATION PROTECTION

MEETS & EXCEEDS AS/NZS 1801 & EN397

- Conforming Standards: AS/NZS 1801 & EN397
- Features: Size adjustment system and up-n-down adjustment system for perfect fit
- 10 air intakes, vents mesh covered to prevent debris entry
- Inner lining fully detachable and washable
- Head lamp holder clips
- Impact tested to crown: 100 joules
- Impact tested to sides, front, rear: 90 joules
- Dimensions 51 - 62cm
- Weight 410gm
- Application: Designed to mountaineering impact certification, for industrial use, with a collation of the best design features for an industrial quality helmet for work at height and general site safety. Quality construction ensures the helmet is built to last and has provision for all the standard accessory types are needed on the job.



Part Number
HHS-HELM

SCAF HOOK

ALUMINIUM ALLOY

- Material: Aluminium Alloy
- Strength major axis: 28kN
- Features: Double trigger automatic locking
- Large gate opening
- Intended as a rope terminal which forms a flexible anchoring line
- Application: Intended as a rope terminal which forms a flexible anchoring line
- Suitable for metal constructions, girders, poles and the suchlike



Part Number
HHS-SCAF HOOK

GEAR BAG

35L
100% WATERPROOF

- Features: 100% waterproof heat welded seams
- Padded adjustable shoulder straps with adjustable chest straps
- Large waterproof zipper pocket
- Lightweight reinforced PVC fabric



Part Number
HHS-BAG 35

ROPE GRAB



Part Number
HHS-ROPE GRAB

CARABINER

ZINC PLATED STEEL

- Material: Steel (Zinc plated)
- Strength major axis: 30kN
- Strength minor axis: 9kN
- Strength open gate: 8kN
- Features: Triple lock gate
- Keylock
- Oval shape
- Designed especially for industrial use
- Ideal for pulleys, tackles, ascenders or descenders



Part Number

HHS-CARABINER

SPILL RESPONSE

35L VEHICLE SPILL KI

FOR OIL - ALSO SUITABLE FOR PETROL AND DIESEL

- Contains specially treated polypropylene absorbents that repel water but absorb hydrocarbon based liquids including oil, petrol and diesel. Absorbs up to 35L.
- Kit components: 10 x SpillTech® Oil Pads 400gsm
- 1 x SpillTech® Oil Sock 3m
- 1 x SpillFix Bag 15L
- 2 x SpillTech® Waste Disposal Bags
- 2 x Pair Nitrile Gloves XL
- 1 x Nitrile Drain Mat 0.6 x 0.8m
- 2 x Cable Ties
- 1 x SpillTech® Instruction Card



Part Number	Size (L)
SKO-35LVK	35

135L VEHICLE SPILL K

FOR OIL - ALSO SUITABLE FOR PETROL AND DIESEL

- Contains specially treated polypropylene absorbents that repel water but absorb hydrocarbon based liquids including oil, petrol and diesel. Absorbs up to 135L.
- Kit components: 50 x SpillTech® Oil Pads 400gsm
- 2 x SpillTech® Oil Socks 1.2m
- 2 x SpillTech® Oil Socks 3m
- 1 x SpillFix Bag 50L
- 2 x SpillTech® Waste Disposal Bags
- 2 x Pair Nitrile Gloves XL
- 1 x Nitrile Drain Mat 0.6 x 0.8m
- 2 x Cable Ties
- 1 x SpillTech® Instruction Card



Part Number	Size (L)
SKO-135LWK	135

ABSORBENT SOCK

OIL ONLY

- Description: Polypropylene oil socks are designed to stop hydrocarbon spills from spreading
- Features: Specially treated polypropylene absorbent socks are designed for use with hydrocarbon spills such as oil, petrol and diesel
- Socks can be used to ring a spill to keep it contained
- 3m sock absorbs up to 15L
- 1.2m sock absorbs up to 6L



Part Number	Length (M)
SKO-SOCK3M	3
SKO-SOCK1.2M	1.2

ORGANIC ABSORBENT

100% RENEWABLE COIR PEAT

15L & 50L

- Description: Industrial absorbent made from 100% renewable Coir peat.
- Features: Absorbs spills immediately and completely
- Provides safe and non hazardous work site
- No carcinogens or dust
- Landfill and incinerator safe
- Requires less product
- 50L bag absorbs up to 26L of spilled material
- Suitable for hazardous spills including: oils, fuels, lubricants, paints and most chemicals and mild corrosives
- No floor or equipment damage



Part Number	Size (L)
SK-OA15L	15
SK-OA50L	50

PLUG & DIKE

LEAK SEALER

650G

- Description: Plug n Dike is a Non-toxic, non-flammable Epoxy blend forms an immediate seal when applied
- Features: Seals and sticks to dirty and crumpled surfaces even with liquid flowing from them
- No surface preparation is required
- Apply Plug n Dike paste directly over leaks, punctures and holes to form an immediate seal



Part Number	Size (G)
SK-PND	650

MINERAL SPONGE

ZEOLITE

22L

- Description: Mineral Sponge is a tried and tested industrial absorbent that can be used for oils, fuels, paints and a wide range of chemicals
- Features: Mineral Sponge is made from Zeolite a naturally occurring volcanic mineral that has a 3D-lattice structure giving it a large internal surface area
- Mineral Sponge will absorb up to 75% of its own weight of liquid
- Fumes and odours are also suppressed by Mineral Sponge
- Non-toxic
- Non-hazardous
- 22L bag weighs approximately 15Kg and will absorb up to 16L of spilled material



Part Number	Size (L)
SK-MIN22L	22

ABSORBENT PAD

OIL ONLY

400GSM



- Description: Polypropylene pads specifically treated to absorb hydrocarbons such as oil, petrol, and diesel while repelling water.
- Features: Thermally bonded with dimpled surface to allow fast wicking and easy clean up
- Each pad absorbs up to 1.4L
- Bulk cartons have a perforated opening that allows cartons to be quickly turned into a deck top dispenser
- Dimensions: 40cm x 50cm, 400GSM

Part Number	Width (cm)	Length (cm)
SKO-PAD100H	40	50
SKO-PAD10H	40	50

DRAIN MAT

NITRILE

60 X 80cm



- Description: Nitrile drain mat to temporarily seal stormwater drains in the event of a spill
- Features: Constructed of 1.5mm thick nitrile rubber that is suitable for use with a wide range of chemical and hydrocarbon spills
- Fits standard stormwater drains
- Recommended use with a gravel bag or sand bag to weigh nitrile mat down and create a better seal
- Nitrile drain mat can quickly be placed over stormwater drain to temporarily stop or slow liquid spills from entering stormwater
- Dimensions: 60cm x 80cm

Part Number	Width (cm)	Length (cm)
SK-DRAIN	60	80

WASTE BAG

CLEAR

60 X 120cm 70MU

- Description: SpillTech® Clear Waste Bag
- Dimensions: 60cm x 120cm x 70mu



Part Number	Width (cm)	Length (cm)
SK-WASTE BAG	60	120

ABSORBENT PILLOW

OIL ONLY

- Description: Polypropylene pillow for use absorbing hydrocarbon spills or placing under leaking machinery
- Features: Polypropylene absorbent pillow absorbs hydrocarbons such as oil, petrol and diesel
- Absorbs up to 9L
- Dimension: 50cm x 40cm

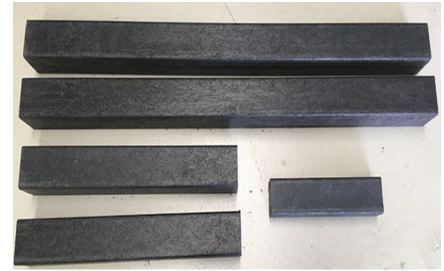


Part Number	Width (cm)	Length (cm)
SKO-PILLOW	50	40

FORKLIFT SAFETY

MAST BLOCKS

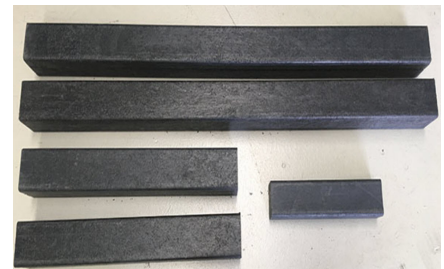
- Description: dura crib® cribbing blocks optimise safety when stabilising heavy loads after they have been lifted for maintenance and access
- Features: dura crib® plastic blocking systems offer more stable, longer lasting and easily cleaned alternates to wood blocks. They have a smooth slip resistant surface for stable cribbing, chocking, bracing and shoring.
- dura crib® products have been tested under the guidance of AS1170.0.2002 and AS2498.3.19998 to obtain the Working Load Limits(WLL) capabilities.



Part Number	Height (mm)	Width (mm)	Length (mm)
HFS-MB1220	100	100	1220
HFS-MB560	100	100	560

REACH BLOCKS

- Description: dura crib® cribbing blocks optimise safety when stabilising heavy loads after they have been lifted for maintenance and access
- Features: dura crib® plastic blocking systems offer more stable, longer lasting and easily cleaned alternates to wood blocks. They have a smooth slip resistant surface for stable cribbing, chocking, bracing and shoring.
- dura crib® products have been tested under the guidance of AS1170.0.2002 and AS2498.3.19998 to obtain the Working Load Limits(WLL) capabilities.



Part Number	Height (mm)	Width (mm)	Length (mm)
HFS-RB330	63	89	330

TAKE 5

TAKE 5
HEALTH & SAFETY BOOKLET

- Description: Our Take 5 booklet is designed to assist workers assess hazardous tasks prior to undertaking them. They will be able to do a quick fire risk assessment, complete a Job Safety Analysis (task analysis) and complete a near-miss report for a minor incident. It is small enough to fit in a pocket and as part of your tool-kit it is an essential part of the health and safety for the workplace.



Part Number
TAKE 5 BOOKLET

LOCK-OUT TAG

LOCK-OUT TAG



Part Number
LOCK-OUT TAGS