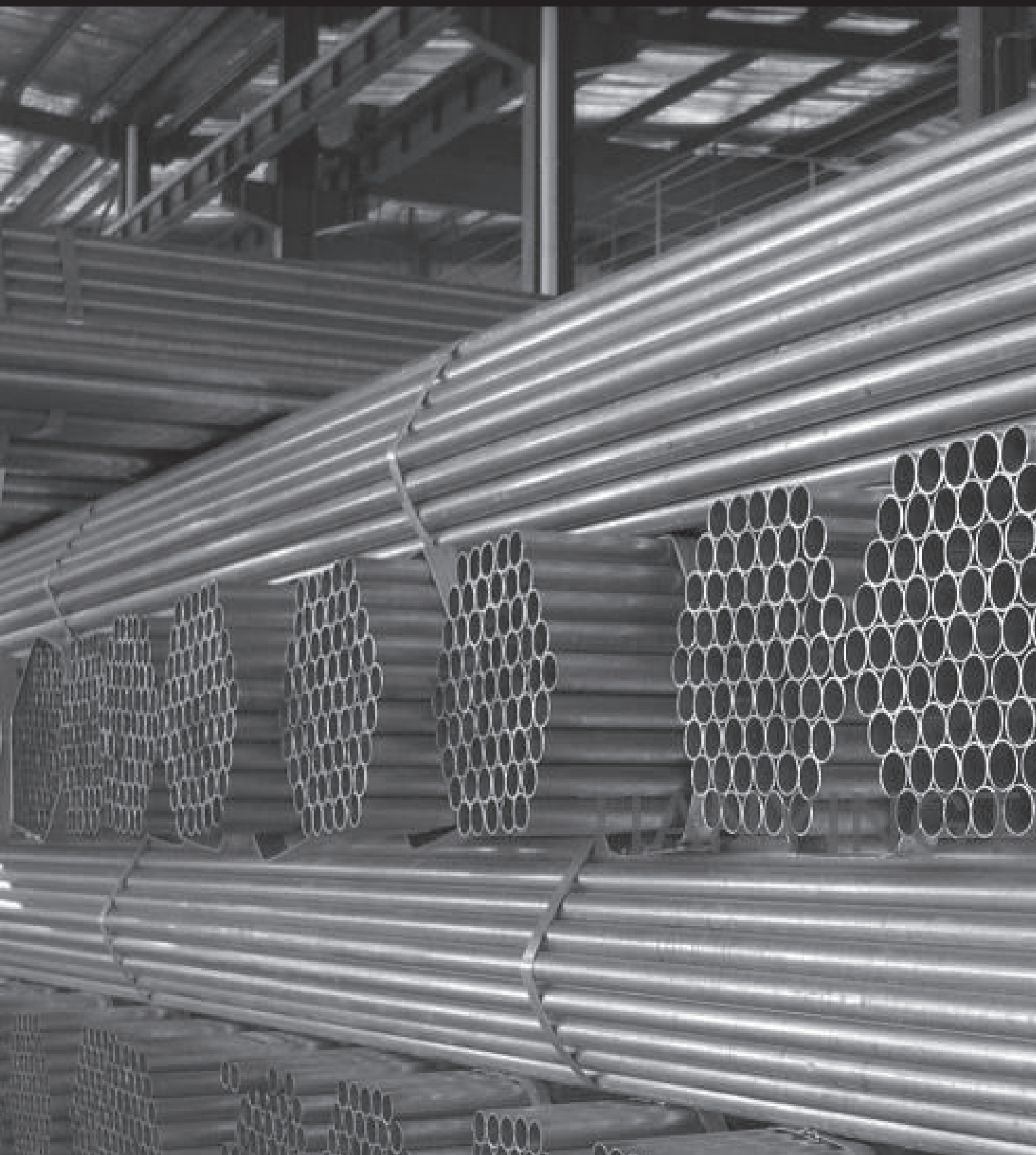


Steel Pipe and Tube

Section 13



GENERAL INFORMATION

Rigid hydraulic tubing offers intrinsic benefits when installing fluid transfer lines in both fixed and mobile plant applications. Hydraulic tube and schedule pipe have a low I.D. to O.D. ratio, have a compact minimum bend radius, can be easily bent to required shapes, are easily clamped (even in multiple runs) and, provided adequate protection is applied, have a long service life.

Imperial or metric hydraulic tube supplied by Hydraulink is a cold drawn seamless annealed tube in carbon steel or AISI 316 stainless steel qualified to the appropriate standards. Hydraulink can also supply pre-formed tube bends (45° and 90° as standard; other angles by request) in standard and long-leg versions. The standard leg version is also available in heavy wall tube for heavy duty applications.

Pressure ratings

Pressures in the table are based on tubing with a tensile strength of 340MPa and were calculated in accordance with the formulae stated in the ISO 10763/SAE J1065 standards.

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 - HYDRAULIC TUBE

The Hydraulink part numbering system is a concise product description in coded form. The part number consists of a minimum of two modules as follows:

Module 1. Code letters ST denoting carbon steel or SST denoting stainless steel tube. STP denotes trivalent plated Carbon Steel tube.

Module 2: Number denoting the size of outside diameter, expressed as follows:

Imperial tube: expressed in 1/16th inch increments denoting the outside diameter. For example: 08 = 8/16 = 1/2" O.D and 20 = 20/16 = 1 1/4" O.D.

Metric tube: expressed in millimetres with prefix M, denoting the outside diameter. For example: M16 = 16mm O.D.

Module 3: Number denoting the wall thickness of the steel tube

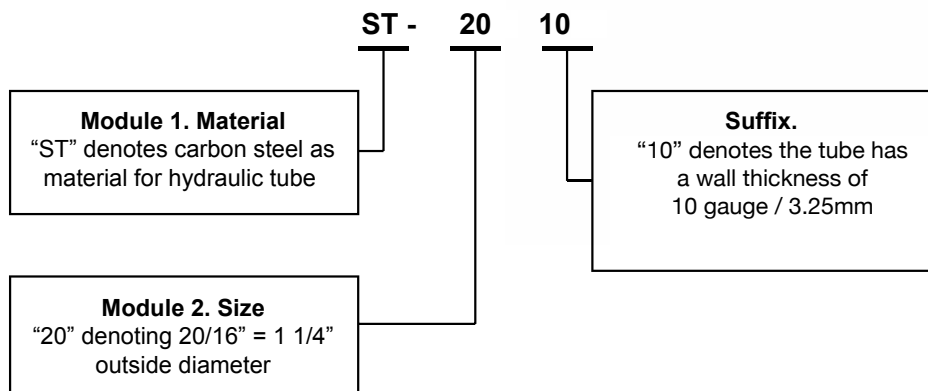
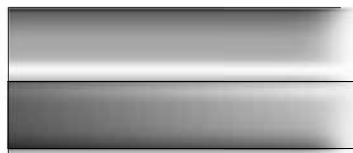
Imperial tube: expressed in wall thickness gauge. For example: 14 = 14 gauge = 2.03mm

Metric tube: expressed in millimetres (with the decimal point missing). For example: 15 = 1.5mm wall thickness

PART NUMBERING SYSTEM - EXAMPLE

Part number: ST-2010

Complete description: 1 1/4" outside diameter carbon steel hydraulic line tube, with 10 gauge (3.25mm) wall thickness.



PART NUMBERING SYSTEM - PRE-FORMED TUBE BENDS

The Hydraulink part numbering system is a concise product description in coded form. For pre-formed tube bends, the part number consists of a minimum of three modules as follows:

Module 1. Code letters TB denoting standard wall or TBH denoting heavy wall tube.

Module 2. Number denoting tube bend angle (configuration); typically 45° or 90°.

Module 3. Number denoting the size of outside diameter, expressed as follows;

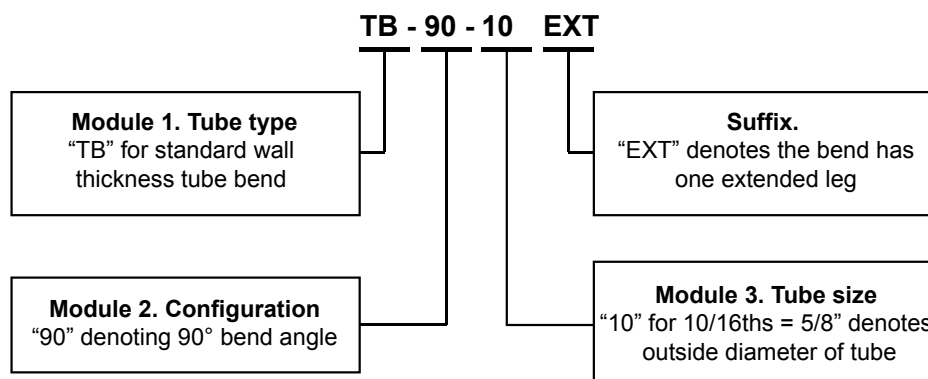
Imperial tube; expressed in 1/16th inch increments denoting the outside diameter. For example; 08 = 8/16 = 1/2" O.D and 20 = 20/16 = 1 1/4" O.D.

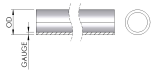
The suffix EXT is added to the part number to describe a long leg (extended leg) bend.

PART NUMBERING SYSTEM - EXAMPLE

Part number: TB-90-10EXT

Complete description: 90° tube bend, 5/8" outside diameter, standard wall thickness, with one extended leg.

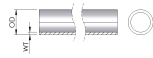


HYDRAULIC TUBE


IMPERIAL HYDRAULIC
TUBE - UNPLATED

ST

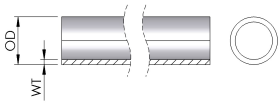
Page 13 - 5



METRIC HYDRAULIC
TUBE - PLATED

ST-M

Page 13 - 6

HYDRAULIC PIPE


HYDRAULIC PIPE
PIPE SC

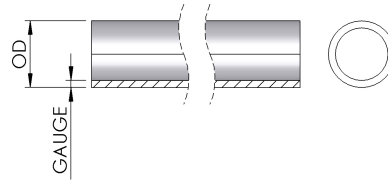
Page 13 - 6

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.



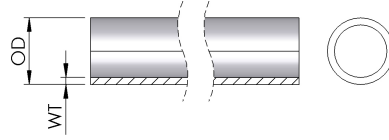
Part Number	O.D - inches	O.D - mm	Wall thickness - Gauge	Wall thickness - mm	Weight - kg/m	Working Pressure - bar	Working Pressure - psi	Flow - l/min
STP-0618	3/8	9.5	18	1.22	0.25	252	3660	14.4
ST-0816	1/2	12.7	16	1.63	0.45	252	3660	25.4
STP-0816	1/2	12.7	16	1.63	0.45	252	3660	25.4
ST-1016	5/8	15.9	16	1.63	0.57	195	2830	45.4
STP-1016	5/8	15.9	16	1.63	0.57	195	2830	45.4
ST-1214	3/4	19.1	14	2.03	0.85	202	2930	65
STP-1214	3/4	19.1	14	2.03	0.85	202	2930	65
ST-1610	1	25.4	10	3.25	1.48	250	3625	102
STP-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
STP-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
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

HYDRAULIC TUBE

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.

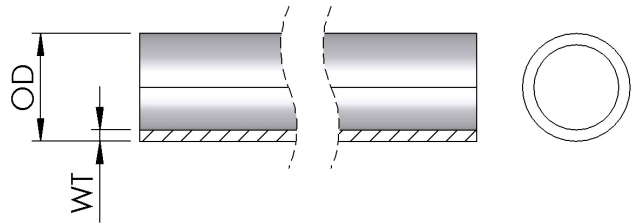


Part Number	O.D - mm	Wall thickness - mm	Weight - kg/m	Working Pressure - bar	Working Pressure - psi	Flow - l/min
STP-M810	8	1.0	0.24	245	3550	8.6
STP-M1015	10	1.5	0.31	303	4390	16.7
STP-M1025	10	2.5		590	8550	7.2
STP-M1215	12	1.5	0.39	244	3540	21.8
STP-M1420	14	2.0	0.59	286	4150	34.2
STP-M1515	15	1.5	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

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	Flow - l/min
PIPE SC 80 1†	1	1.32	33.53	0.96	24.3	0.18	4.6101	125	1815	169
PIPE SC 80 1 1/4†	1.1/4	1.66	42.16	1.28	32.5	0.19	4.826	105	1526	302
PIPE SC 80 1/2†	1/2	0.84	21.34	0.55	14.0	0.15	3.683	159	2302	55.7
PIPE SC 80 3/4†	3/4	1.05	26.67	0.74	18.8	0.16	3.937	136	1968	101

