

Hydraulic & Offshore Supplies



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Stainless Steel & Multi-Core Tube Catalogue



"We have set out to be the best specialist supplier of hydraulic tube, fittings, instrumentation and pipeline materials you will ever want to deal with."

Alan Wills · Managing Director



Introduction of Products



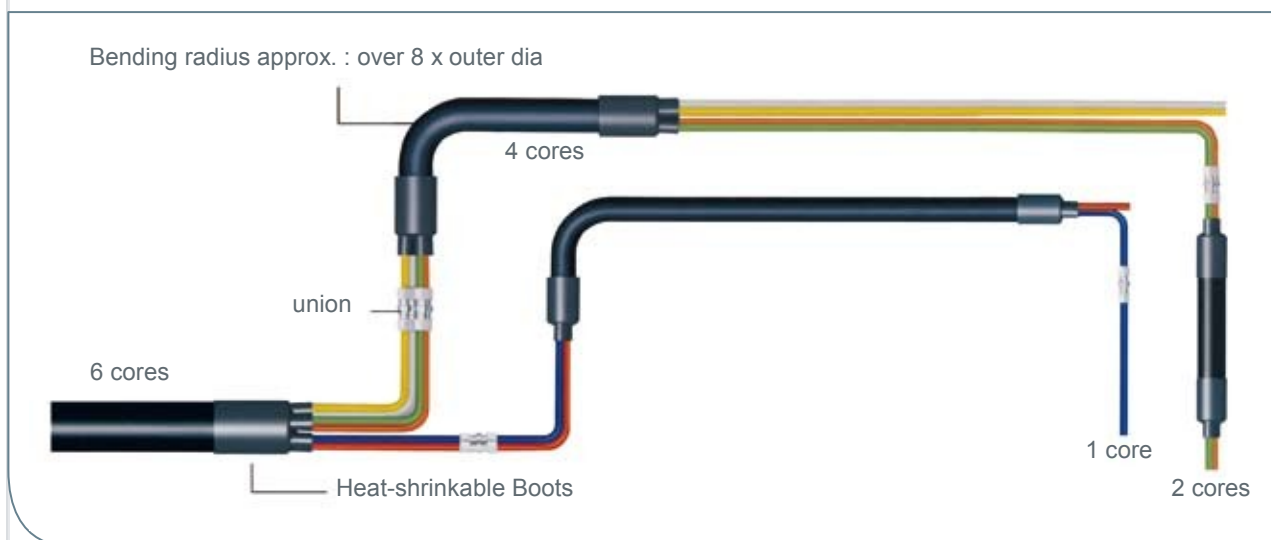
Multi Core Tubes are protected by PVC Jacket from environmental damage, physical stress, electric spark and welding flame. This tubing is specifically designed for demanding of pneumatic and hydraulic applications where high temperature, high pressure (steam, water, hydraulic) and corrosion are of primary concern.

To guarantee the high precision workability of the tube connection using of unions, connectors, elbows or tees, the tolerance of tubing diameter minimizes less than normal tolerance limits.

Also to prevent cracking and shrivel of tubing on bending process, the strength of tube has been improved by special heat treatment.

For easier identification and protecting the tube on installation, individual tubes are sheathed by PVC material of different colour Multi Core Tubes are continuously marked at every one meter throughout the entire length **for easy installation.**

CONNECTION EXAMPLE



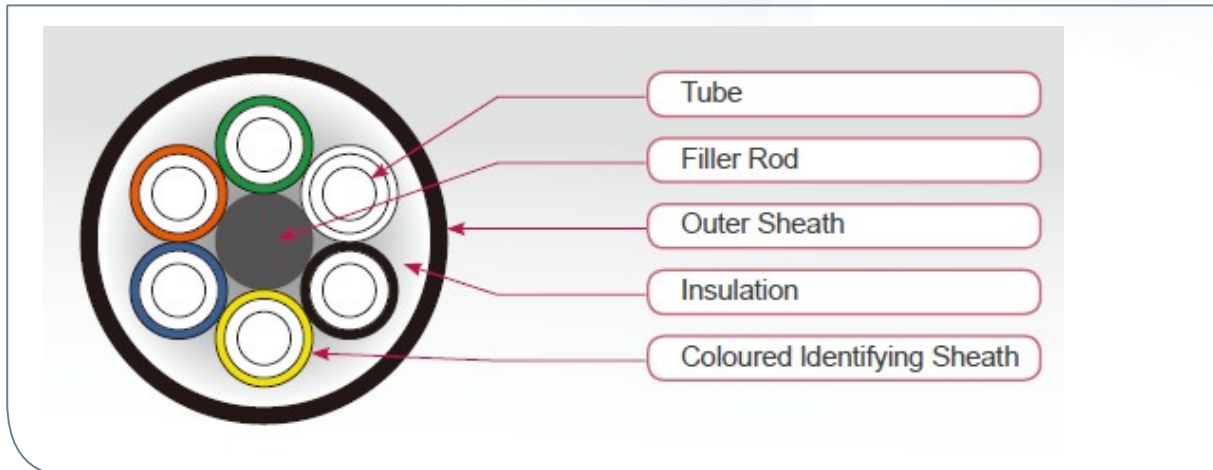


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A company continuously creating customer's value and whose ability and quality is acknowledged worldwide



CROSS SECTION VIEW



SPECIFICATIONS

Material of Tube	SuS304, 316, 316L
Out Diameter of Tube	O.D. 6mm ~ 15.8mm
Wall Thickness of Tube	0.5mm ~ 2.0mm
Outer Sheath	Flame Retardant PVC
Number of core (Tube) of M.C.T.	1core ~ 6cores
Standard Length	Max. 800M/drum

* Other specifications on special order are available.



Hydraulic & Offshore Supplies

Manufacturing Process

Customer Satisfaction is our top priority !

We are preparing to become an ever-growing company with a complete quality control system and future technology development





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Manufacturing Process

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Welding



N.D.T. (Eddy Current Test)



Cold Drawing & Sizing



Single Sheath Coating



Hydraulic Test & Inspection



Heat Treatment



Multi Core Tube – Stainless Steel

RECOMMENDED INSTALLATION

Multi Core Tube for thin wall thickness and flexible stainless steel tube are ideal for delivery as a coil on wooden drum. They can be uncoiled like electric cable and installed directly on the supports by simple tools. Elbow and fittings can be used to minimize the bending radius. The followings are recommended.

- To be more than eight times of outer diameter of M.C.T. for the permissible bending radius of them.
- To eliminate the crack of scratch on the bending portion of the tube.
- To avoid the repeated bending at the same point in order to prevent of the tube breakages.

Where there is a possibility of expansion and/or contraction along the line, proper provisions should be made for loop and curves along the tube line.

USE

- Hydraulic Remote Valve Operation and Tank Gauging System in Ship
- Hydraulic Control & Monitoring System
- Oil Platform upright Control System

ADVANTAGE

- Strong Corrosion Resistance
- High Impact Resistance
- Heavy Durability
- Protected by Heat, Vibration Atmospheric Shock
- Corrosive Attack caused by Gases and Chemicals
- Low Heat Conductivity
- ultra Ductility
- Sea Water Resistance

AUSTENITIC STAINLESS STEEL PIPE OF SPECIFICATION

Product	Available Size		
	Diameter	Thickness	Length
Straight Pipe (tube)	6mm~15.8mm	0.6mm~2.0mm	6m
Coiled Tube	6mm~15.8mm	0.6mm~2.0mm	up to 800m

WORKING PRESSURE

Thickness (mm)	Material	Recommendable Working Pressure at 75°C(Kg/cm ²)			
		OD 6mm	OD 8mm	OD 10mm	OD 12mm
0.8	304/316	262	197	157	131
	304L/316L	253	189	152	126
1.0	304/316	328	246	197	164
	304L/316L	316	237	190	158
1.2	304/316	-	295	236	197
	304L/316L	-	284	228	190





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Products

DIMENSION AND WEIGHT

Tube Size/ Core (O.D x Thickness x Core)	Overall Diameter (approx.mm)	Sheath Thickness (mm)	Bundle Weight (kg/m)
6 x 0.5 x 1	9	1.5	0.15
6 x 0.5 x 2	20	2.0	0.60
6 x 0.5 x 3	21	2.0	0.75
6 x 0.5 x 4	23	2.0	0.82
6 x 0.5 x 5	25	2.0	0.90
6 x 0.5 x 6	27	2.0	1.04
8 x 0.5 x 1	11	1.5	0.20
8 x 0.5 x 2	24	1.8	0.73
8 x 0.5 x 3	26	2.0	0.85
8 x 0.5 x 4	28	2.0	1.00
8 x 0.5 x 5	31	2.0	1.30
8 x 0.5 x 6	34	2.0	1.50
8 x 0.8 x 1	11	1.5	0.25
8 x 0.8 x 2	24	1.8	0.83
8 x 0.8 x 3	26	2.0	1.02
8 x 0.8 x 4	28	2.0	1.20
8 x 0.8 x 5	31	2.0	1.52
8 x 0.8 x 6	34	2.0	1.82
8 x 1.0 x 1	11	1.5	0.28
8 x 1.0 x 2	24	1.8	0.89
8 x 1.0 x 3	26	2.0	1.12
8 x 1.0 x 4	28	2.0	1.33
8 x 1.0 x 5	31	2.0	1.67
8 x 1.0 x 6	34	2.0	2.00
10 x 0.8 x 1	13	1.5	0.30
10 x 0.8 x 2	28	1.8	1.10
10 x 0.8 x 3	31	2.0	1.50
10 x 0.8 x 4	34	2.0	1.80
10 x 0.8 x 5	37	2.0	2.00
10 x 0.8 x 6	40	2.0	2.15
10 x 1.0 x 1	13	1.5	0.34
10 x 1.0 x 2	28	1.8	1.18
10 x 1.0 x 3	31	2.0	1.60
10 x 1.0 x 4	34	2.0	1.97
10 x 1.0 x 5	37	2.0	2.20
10 x 1.0 x 6	40	2.0	2.40
12 x 0.8 x 1	15	1.5	0.36
12 x 0.8 x 2	34	2.0	1.25
12 x 0.8 x 3	36	2.0	1.81
12 x 0.8 x 4	39	2.0	2.13
12 x 0.8 x 5	43	2.0	2.44
12 x 0.8 x 6	47	2.0	2.70
12 x 1.0 x 1	15	1.5	0.41
12 x 1.0 x 2	34	2.0	1.38
12 x 1.0 x 3	36	2.0	1.96
12 x 1.0 x 4	39	2.0	2.37
12 x 1.0 x 5	43	2.0	2.70
12 x 1.0 x 6	47	2.0	3.00



* Other specifications on special order are available.



Multi Core Tube – Copper

Multi Core Tubes (Copper) are recommended for chemical plants, power plants and ships as it is resistive against fire, weather and ultraviolet light.

ADVANTAGE

- **Chemical resistance**

Overall thermoelastic PVC jacket protects copper tubing from fire, welding flame, electric spark and corrosive conditions of Chemicals.

It is also suitable for direct burial.

- **Heat resistance**

Non-flammable tape laid between outer jacket and inner jacket keep heat resistance and maintain safety of operation until plant shut-down in case of firing.

- **Tube identification**

Each tube is identified by insulated jacket of different colours on multi-core tube.

If colour id single as black on all cores.

SPECIFICATION

Material of Tube	Copper(C1220T)
Out Diameter of Tube	O.D.6mm~12mm
Wall Thickness of Tube	0.5mm~1.6mmT(Copper)
Outer Sheath	Flame Retardant PVC
Number of Core(Tube)of M.C.T	1core~6cores
Standard Length	up to 500M (* Longer length is available on special request.)

USE (For Low Working Pressure)

- Measuring System
- Monitoring System
- Control System





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Products

DIMENSION AND WEIGHT

Tube Size/ Core (O.D x Thickness x Core)	Overall Diameter (approx.mm)	Sheath Thickness (mm)	Bundle Weight (kg/m)
6 x 0.8 x 1	8	1.0	0.20
6 x 0.8 x 2	20	2.0	0.70
6 x 0.8 x 4	23	2.0	1.10
6 x 0.8 x 6	27	2.0	1.34
8 x 1.0 x 1	10	1.0	0.31
8 x 1.0 x 2	24	1.8	0.94
8 x 1.0 x 4	28	2.0	1.43
8 x 1.0 x 6	34	2.0	2.15
10 x 1.0 x 1	13	1.0	0.37
10 x 1.0 x 2	28	1.8	1.24
10 x 1.0 x 4	34	2.0	2.09
10 x 1.0 x 6	40	2.0	2.57



CHEMICAL COMPOSITION

Standard	Material Symbol		
	KS	C1201	C1220
JIS	C1201	C1220	C7060
ASTM	C12000	C12200	C70600
DIN	1787 SW-Cu	1787 SF-Cu	17664CuNi10Fe

RECOMMENDABLE WORKING PRESSURE AT 75°C

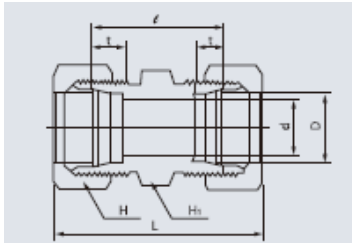
Tube Size/Core (O.D X Thickness)	Working Pressure at (bar) Copper	Tube Specification: Seamless Tube Standard Length: upto 500M
6 x 1.0	160	
8 x 1.0	116	
10 x 1.0	90	



ACCESSORIES

BITE TYPE TUBE FITTINGS

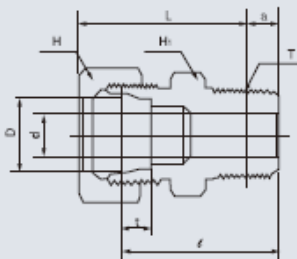
• BU Straight Union



Type	Tube O.D D	d	Width across flat		t	ℓ	Approx L
			H1	H			
Bu-06	6	4	14	14	7	30	51
Bu-08	8	6	17	17	7	31	52
Bu-10	10	8	17	19	7	31	54
Bu-12	12	10	19	22	7	31	54
Bu-15	15	12	24	27	7.5	36	61

※ All dimensions are millimetres Dimensions are for reference only. subject to change.

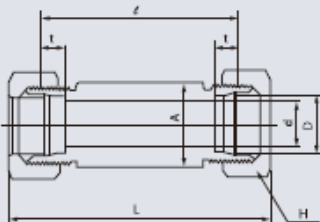
• BMC-R Male connector



Type	Tube O.D (PT) D	T	E	Basic Gauge length a	Width across flat		t	ℓ	Approx L
					H1	H			
BMC06-01R	6	1/8	4	3.97	14	14	7	28	34.5
BMC06-02R	6	1/4	4	6.01	17	14	7	33	37.5
BMC08-01R	8	1/8	4	3.97	17	17	7	29	35.5
BMC08-02R	8	1/4	6	6.01	17	17	7	33	37.5
BMC08-03R	8	3/8	6	6.35	17	19	7	34	38.5
BMC10-02R	10	1/4	7	6.01	17	19	7	33	38.5
BMC10-03R	10	3/8	8	6.35	19	19	7	34	39
BMC10-04R	10	1/2	8	8.16	22	19	7	39	42.5
BMC12-02R	12	1/4	7	6.01	19	22	7	33	38.5
BMC12-03R	12	3/8	9	6.35	19	22	7	34	39
BMC12-04R	12	1/2	10	8.16	24	22	7	39	42.5

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• BBuW Welding bulkhead union



Type	Tube O.D D	d	A	Width across flat	t	ℓ	Approx L
				H1			
BBuW-06	6	4	16	14	7	74	95
BBuW-08	8	6	16	17	7	74	95
BBuW-10	10	8	19	19	7	74	97
BBuW-12	12	10	20	22	7	74	97
BBuW-15	15	12	25	27	7.5	78	103

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ACCESSORIES

HEAT SHRINKABLE PRODUCTS

Heat-shrink moulded parts

Type SHE2~SHE6 | Spreader cap | 2~6cores with adhesive



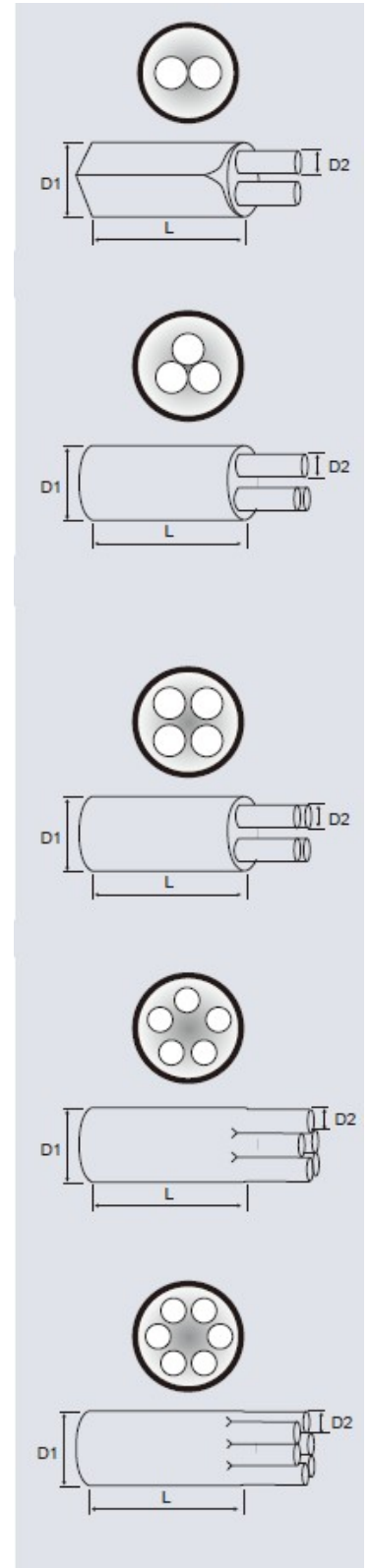
Type	D1 mm	D1* mm	L m	L*±10% mm	D2 mm	D2* mm	W* mm
SHE2 30-8	30	8	65	90	12	3	2.7
SHE2 60-23	60	23	125	160	25	8	3.5

Type	D1 mm	D1* mm	L m	L*±10% mm	D2 mm	D2* mm	W* mm
SHE3 25-10	25	10	50	70	9	2.0	2.5
SHE3 35-15	35	15	85	125	12	2.5	3.0
SHE3 55-25	55	25	130	175	22	5.5	3.5
SHE3 75-30	75	30	170	215	29	8.0	3.5

Type	D1 mm	D1* mm	L m	L*±10% mm	D2 mm	D2* mm	W* mm
SHE4 28-12	28	12	55	70	9.0	1.8	2.7
SHE4 35-15	35	15	85	110	13.5	2.5	3.0
SHE4 50-19	50	19	130	170	20.0	5.0	3.5
SHE4 60-25	60	25	130	170	25.0	5.5	3.5
SHE4 75-30	75	30	170	220	29.0	8.0	4.0

Type	D1 mm	D1* mm	L m	L*±10% mm	D2 mm	D2* mm	W* mm
SHE5 68-36	68	36	125	178	30 11	12 4	3.8 3.8
SHE5 78-36	78	36	125	178	37 12	12 4	3.8 3.8

Type	D1 mm	D1* mm	L m	L*±10% mm	D2 mm	D2* mm	W* mm
SHE6 35-16	35	16	75	178	30 11	12 4	3.0 3.0
SHE6 61-37	61	37	152	178	21 12	8.9 4	3.8 3.8



D Diameter **L** Length **W** Wall thickness
 * After complete shrinkage other lengths upon request



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ACCESSORIES

SUPPORT KIT

PART NAME		TUBINGS(Ø)			DIMENSIONS(mm)										WEIGHT																						
series	size	A	Inch.	mm	L1	b1	t1	L2	b2	t2	h	E	e	BOLT	(KG)																						
H30	01	6	1/8	6	55	30	8	73	32	9	25	2	33	M10×45	0.3																						
				8																																	
				10.5																																	
	02	8	1/4	12																																	
				13.8																																	
				15																																	
03	10	3/8	16																																		
			17.3																																		
			20																																		
H40	04	15	1/2	21.7	70	30	8	85	32	9	33	2	45	M10×60	0.5																						
				25																																	
				27.2																																	
06	20	3/4	30																																		
			32																																		
			34.0																																		
H60	08	25	1	35	85	30	8	100	32	9	38	2	60	M10×75	0.6																						
				38																																	
				40																																	
				42.7																																	
				45																																	
010	32	1¼	48.6																																		
H90	021	40	1½	50	115	45	10	150	50	12	58	3	90	M12×110	1.5																						
				55																																	
				60.5																																	
				65																																	
H120	020	65	2½	70												150	60	10	200	65	12	72	3	122	M16×140	3.0											
				73																																	
				76.3																																	
				80																																	
024	80	3	89.1																																		
H160	028	90	3¼	101.6	205	80	16	270	90	16	101	3	168	M20×190	7.3																						
	032	100	4	114.3																																	
H200	040	125	5	139.8												250	90	16	310	100	16	115	4	205	M24×230	9.5											
	048	150	6	165.2																																	
H260	064	200	8	216.4																							320	122	25	380	130	25	160	4	265	M30×310	23
H390	080	250	10	267.4																							466	160	30	520	170	30	235	10	395	M33×460	52
	096	300	12	318.5																																	
H530		350	14	355.6	630	180	36	680	190	36	301	30	535	M36×580	108																						

TOOLS

Heat shrinkable provides complete water sealing, and abrasion and corrosion protection under most adverse environmental conditions. Multi core tubings can be connected by welding, soldering. We encourage bite type tube fittings for high pressure use.



Tube Cutter



Bending Tool



Bite Type Fitting



Tube Deburring Tool



Plastic Pipe Clamp



Heat Shrinkable Products