



MULTI-COUPLING SYSTEM

MEDIUM PRESSURE FITTINGS UP TO 1400 bar





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MULTI-COUPLING SYSTEM S.r.l. designs and manufactures oil-hydraulic and hydrodynamic groups and plants for the most varied industrial sectors and for specific applications.

The company was established in Legnano (MI), but soon the development of the activity imposed a transfer of the operational headquarters to Canegrate, and later to Villa Cortese in a larger production plant.

Established in 1992, thanks to the experience gained in high and very high-pressure systems (5000 bar and above), Multi-Coupling System designs and supplies power and distribution units, test benches, quality control equipment, subsea applications, standard or special components and pipes on specific requests of its customers.

The special components are manufactured directly in-house by processing semi-finished stainless-steel products. The company has also purchased equipment allowing it to modernize its production cycles, thus obtaining a qualitative improvement of the finished product intended for large, medium and small industry, both of manufacturers and users, at national level, which require, in the production process, of a special fluidic technology.

The nature of the products manufactured and the extreme flexibility of the company, in fact, make it possible to meet the needs of all the customers who over the years have demonstrated a loyalty to the same. In 2002 Multi-coupling created the HIGH PRESSURE brand, that is a production line for high pressure components and equipment. MATERIALS



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MATERIALS

All the adapter are made of EN 1.4404 / AISI 316L stainless steel cold worked
Glands are made of EN 1.4404 / AISI 316L stainless steel cold worked
Gauge connector seats 1600 bar series are made of 303 stainless steel or copper.
Other materials are available on request.

CONNECTION TYPES

Available size are 1/4", 3/8", 9/16", 3/4" and 1"

SAFETY ADVICE

Operation and installation of the component parts may only be performed by trained persons.

USE

MCS® Fittings may only be used for pressure-sealed conveyance of liquids and gases.
The fittings must not be subjected to any modifications (e.g.: mechanical alterations, welding, soldering, etc.).
Operating Temperatures from -200° C to 200° C.
Operating Pressures up to 1400 bar (20,305 psi)

ASSEMBLY

Dissimilar angles between the body and the tube cone provide metal to metal seal along the perimeter of a contact circle. The sealing contact area is therefore, maintained at its practical minimum for the given tube size and a reliable seal is produced due to high sealing stresses that occur at low sealing loads.

Positive backup support occurs with the collar threaded (left-handed) directly onto the tubing to form a positive integral retaining surface. This allows for a consistent connection make up that is required at higher pressures and temperatures. When the gland nut is threaded into the connection, the tubing is locked securely in place and the possibility for the ejection of the tubing from a properly assembled and used connection is extremely remote

Tightening moment MP 1400

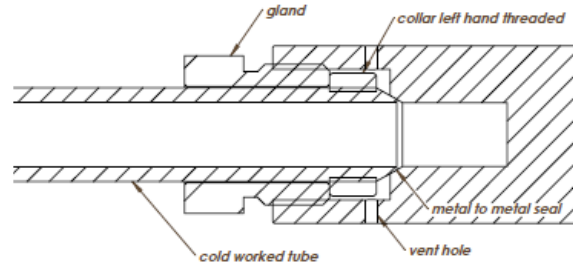
Pipe 1/4" MP 25 - 30 Nm

Pipe 3/8" MP 40 - 45 Nm (ex. 17 mm)

Pipe 9/16" MP 75 - 80 Nm (ex. 22 mm)

Pipe 3/4" MP 120 - 125 Nm (ex. 32 mm)

Pipe 1" MP 270 - 275 Nm (ex.36 mm)





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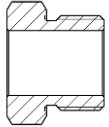
Code generation table

R	-	A (adapter)	X	M/F	-	X	M/F	-	Y	
FITTING		G (elbow)					M=MALE		Y=	PRESSURE RATING
MP/HP/NPT/BSP VS BSP/NPT/HP		T (tee)					F=FEMALE		07	690 bar
		C (cross)	X=	(TUBE SIZE)					10	1000 bar
		I (straight coupling)	118U	9/16 HP					14	1400 bar
		M (gauge connector)	34U	3/8 HP					21	2100 bar
		DA (gland)	916U	1/4" HP					26	2650 bar
		P (glang plug)	1N	1" NPT					42	4200 bar
		PP (plug)	34N	3/4"NPT						
		PA (bulkhead coupling)	12N	1/2" NPT						
		F(five port manifold)	12G	1/2" GAS						
			38N	3/8" NPT						
			38G	3/8" GAS						
			14N	1/4" NPT						
			14G	1/4" GAS						
			14MU	1/4"MP						
			38MU	3/8" MP						
			13MU	9/16" MP						
			34MU	3/4" MP						
			1MU	1" MP						



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GLAND



COLLAR

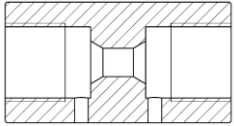
DESCRIPTION	CODE	THREAD
MEDIUM PRESSURE GLAND 1/4"	RM-DA14	7/16" - 20 UNF
MEDIUM PRESSURE GLAND 3/8"	RM-DA38	9/16" - 18 UNF
MEDIUM PRESSURE GLAND 9/16"	RM-DA13	13/16" - 16 UNF
MEDIUM PRESSURE GLAND 3/4"	RM-DA34	1" 1/8 - 12 UNF
MEDIUM PRESSURE GLAND 1"	RM-DA1	1" 3/8 - 12 UNF

DESCRIPTION	CODE	THREAD
MEDIUM PRESSURE COLLAR 1/4"	RM-OGT14	1/4" - 28 UNF LH
MEDIUM PRESSURE COLLAR 3/8"	RM-OGT38	3/8" - 20 UNF LH
MEDIUM PRESSURE COLLAR 9/16"	RM-OGT13	9/16" - 18 UNF LH
MEDIUM PRESSURE COLLAR 3/4"	RM-OGT34	3/4" - 16 UNF LH
MEDIUM PRESSURE COLLAR 1"	RM-OGT1	1" - 14 UNF LH



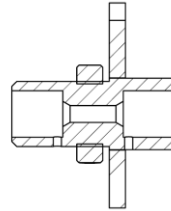
PLUG

DESCRIPTION	CODE
MEDIUM PRESSURE PLUG 1/4"	RM-PP14-14
MEDIUM PRESSURE PLUG 3/8"	RM-PP38-14
MEDIUM PRESSURE PLUG 9/16"	RM-PP916-14
MEDIUM PRESSURE PLUG 3/4"	RM-PP34-14
MEDIUM PRESSURE PLUG 1"	RM-PP1-14



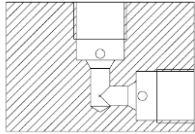
STRAIGHT UNION

DESCRIPTION	CODE	MA.W.P (bar)	ORIFICE
2 X 1/4" MP FEMALE	R-I14MU-14	1400	3 mm
2 X 3/8" MP FEMALE	R-I38MU-14	1400	5.2 mm
2 X 9/16" MP FEMALE	R-I13MU-14	1400	8 mm
2 X 3/4" MP FEMALE	R-I34MU-14	1400	11.5 mm
2 X 1" MP FEMALE	R-I1MU-14	1400	14.3 mm
2 X 3/4" MP FEMALE	R-I34MU-10	1050	13 mm
2 X 1" MP FEMALE	R-I1MU-07	700	17.5 mm



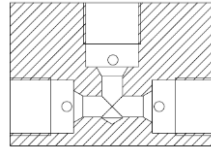
BULKHEAD

DESCRIPTION	CODE	MA.W.P (bar)	ORIFICE
2 X 1/4" MP FEMALE	R-PA14MU-14	1400	3 mm
2 X 3/8" MP FEMALE	R-PA38MU-14	1400	5.2 mm
2 X 9/16" MP FEMALE	R-PA13MU-14	1400	8 mm
2 X 3/4" MP FEMALE	R-PA34MU-14	1400	11.5 mm
2 X 1" MP FEMALE	R-PA1MU-14	1400	14.3 mm
2 X 3/4" MP FEMALE	R-PA34MU-10	1050	13 mm
2 X 1" MP FEMALE	R-PA1MU-07	700	17.5 mm



ELBOW

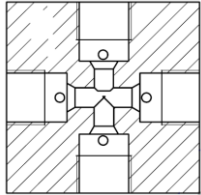
DESCRIPTION	CODE	MA.W.P (bar)	ORIFICE
2 X 1/4" MP FEMALE	R-G14MU-14	1400	3 mm
2 X 3/8" MP FEMALE	R-G38MU-14	1400	5.2 mm
2 X 9/16" MP FEMALE	R-G13MU-14	1400	8 mm
2 X 3/4" MP FEMALE	R-G34MU-14	1400	11.5 mm
2 X 1" MP FEMALE	R-G1MU-14	1400	14.3 mm
2 X 3/4" MP FEMALE	R-G34MU-10	1050	13 mm
2 X 1" MP FEMALE	R-G1MU-07	700	17.5 mm



TEE

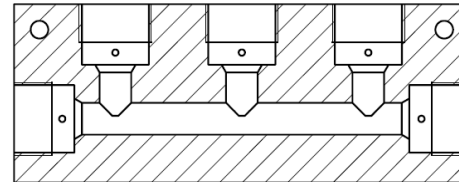
DESCRIPTION	CODE	MA.W.P (bar)	ORIFICE
3 X 1/4" MP FEMALE	R-T14MU-14	1400	3 mm
3 X 3/8" MP FEMALE	R-T38MU-14	1400	5.2 mm
3 X 9/16" MP FEMALE	R-T13MU-14	1400	8 mm
3 X 3/4" MP FEMALE	R-T34MU-14	1400	11.5 mm
3 X 1" MP FEMALE	R-T1MU-14	1400	14.3 mm
3 X 3/4" MP FEMALE	R-T34MU-10	1050	13 mm
3 X 1" MP FEMALE	R-T1MU-07	700	17.5 mm

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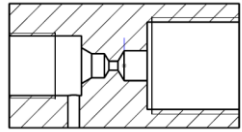
CROSS

DESCRIPTION	CODE	MA.W.P (bar)	ORIFICE
4 X 1/4" MP FEMALE	R-C14MU-14	1400	3 mm
4 X 3/8" MP FEMALE	R-C38MU-14	1400	5.2 mm
4 X 9/16" MP FEMALE	R-C13MU-14	1400	8 mm
4 X 1" MP FEMALE	R-C1MU-14	1400	14.3 mm

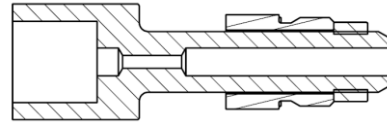


5 PORT MANIFOLD

DESCRIPTION	CODE	MA.W.P (bar)	ORIFICE
5 X 3/8" MP FEMALE	R-38MU-14	1400	5.2 mm
5 X 9/16" MP FEMALE	R-T13MU-14	1400	8 mm
5 X 3/4" MP FEMALE	R-T34MU-14	1400	11.5 mm



GAUGE CONNECTOR



SWIVEL GAUGE CONNECTOR

DESCRIPTION	CODE	MA.W.P (bar)	ORIFICE
1/4" MP FEMALE X 1/2" GAS	R-M14MU-12G-14	1400	3 mm
3/8" MP FEMALE X 1/2" GAS	R-M38MU-12G-14	1400	5.2 mm
9/16" MP FEMALE X 1/2" GAS	R-M13MU-12G-14	1400	6.5 mm
1/4" MP FEMALE X 1/4" GAS	R-M14MU-14G-14	1400	3 mm
3/8" MP FEMALE X 1/4" GAS	R-M38MU-14G-14	1400	5.2 mm

DESCRIPTION	CODE	MA.W.P (bar)	ORIFICE
3/8" MP MALE SWIVEL X 1/2" GAS	R-M38MUG-12G-14	1400	5.2 mm
9/16" MP MALE SWIVEL X 1/2" GAS	R-M13MUG-12G-14	1400	6 mm
3/4" MP MALE SWIVEL X 1/2" GAS	R-M34MUG-12G-14	1400	6 mm
3/8" MP MALE SWIVEL X 1/4" GAS	R-M38MUG-14G-14	1400	5.2 mm



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MEDIUM PRESSURE TUBE

DESCRIPTION	CODE	MA.W.P (bar)	I.D.X O.D.
1/4" MP TUBE	TRM-14-14	1400	3 mm X 6,35 mm
3/8" MP TUBE	TRM-38-14	1400	5.2 mm x 9,52
9/16" MP TUBE	TR-916-20	2000	7,8 mm X 14,28 mm
3/4" MP TUBE	TRM-34-10	1000	13 mm X 19,05
	TRM-34-14	1400	11 mm X 19,05
1" MP TUBE	TRM-1-07	700	17,5 mm X 25,4
	TRM-1-14	1400	14,3 mm X 25,4



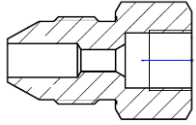
MATERIALS

All the tube are made of EN 1.4404 /AISI 316L stainless steel cold worked
To maintain material specification integrity it is recommended that the bending radius is at least 6 times the outer diameter of the tube
Coning and threading service for length up to 6 meter for 1/4 - 3/8 - 9/16 tube .For 3/4" - 1" tube length up to 2,5 meters



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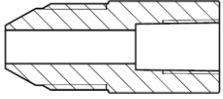
MEDIUM PRESSURE FITTINGS UP TO 1400 bar



MEDIUM PRESSURE MALE - MEDIUM PRESSURE FEMALE

DESCRIPTION	CODE	MA.W.P (bar)	ORIFICE
1/4" MP MALE X 3/8" MP FEMALE	R-A14MUM-38MUF-14	1400 bar	3 mm
1/4" MP MALE X 9/16" MP FEMALE	R-A14MUM-13MUF-14	1400 bar	3 mm
3/8" MP MALE X 1/4" MP FEMALE	R-A38MUM-14MUF-14	1400 bar	3 mm
3/8" MP MALE X 9/16" MP FEMALE	R-A38MUM-13MUF-14	1400 bar	5.2 mm
9/16" MP MALE X 1/4" MP FEMALE	R-A13MUM-14MUF-14	1400 bar	3 mm
9/16" MP MALE X 3/8" MP FEMALE	R-A13MUM-38MUF-14	1400 bar	5.2 mm
9/16" MP MALE X 3/4" MP FEMALE	R-A13MUM-34MUF-14	1400 bar	8 mm
9/16" MP MALE X 1" MP FEMALE	R-A13MUM-14MUF-14	1400 bar	8 mm
3/4" MP MALE X 1/4" MP FEMALE	R-A34MUM-14MUF-14	1400 bar	3 mm
3/4" MP MALE X 3/8" MP FEMALE	R-A34MUM-38MUF-14	1400 bar	5.2 mm
3/4" MP MALE X 9/16" MP FEMALE	R-A34MUM-13MUF-14	1400 bar	8 mm
3/4" MP MALE X 1" MP FEMALE	R-A34MUM-1MUF-14	1400 bar	11.5 mm
1" MP MALE X 1/4" MP FEMALE	R-A1MUM-14MUF-14	1400 bar	3 mm
1" MP MALE X 3/8" MP FEMALE	R-A1MUM-38MUF-14	1400 bar	5.2 mm
1" MP MALE X 9/16" MP FEMALE	R-A1MUM-13MUF-14	1400 bar	8 mm
1" MP MALE X 3/4" MP FEMALE	R-A1MUM-34MUF-14	1400 bar	11.5 mm

MEDIUM PRESSURE FITTINGS 1400 bar - 1000 bar



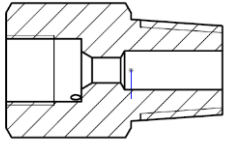
MEDIUM PRESSURE MALE - NPT FEMALE (N) / GAS (G)

DESCRIPTION	CODE	MA.W.P (bar)	ORIFICE
1/4" MP MALE X 1/4" NPT FEMALE	R-A14MUM-14NF-10	1035 bar	3 mm
1/4" MP MALE X 3/8" NPT FEMALE	R-A14MUM-38NF-10	1035 bar	3 mm
1/4" MP MALE X 1/2" NPT FEMALE	R-A14MUM-12NF-10	1035 bar	3 mm
3/8" MP MALE X 1/4" NPT FEMALE	R-A38MUM-14NF-10	1035 bar	5.2 mm
3/8" MP MALE X 3/8" NPT FEMALE	R-A38MUM-38NF-10	1035 bar	5.2 mm
3/8" MP MALE X 1/2" NPT FEMALE	R-A38MUM-12NF-10	1035 bar	5.2 mm
9/16" MP MALE X 1/4" NPT FEMALE	R-A13MUM-14NF-10	1035 bar	8 mm
9/16" MP MALE X 3/8" NPT FEMALE	R-A13MUM-38NF-10	1035 bar	8 mm
9/16" MP MALE X 1/2" NPT FEMALE	R-A13MUM-12NF-10	1035 bar	8 mm
3/4" MP MALE X 1/4" NPT FEMALE	R-A34MUM-14NF-10	1035 bar	11 mm
3/4" MP MALE X 3/8" NPT FEMALE	R-A34MUM-38NF-10	1035 bar	13 mm
3/4" MP MALE X 1/2" NPT FEMALE	R-A34MUM-12NF-10	1035 bar	13 mm
3/4" MP MALE X 3/4" NPT FEMALE	R-A34MUM-34NF-07	690 bar	13 mm
1" MP MALE X 1/4" NPT FEMALE	R-A1MUM-14NF-10	1035 bar	11 mm
1" MP MALE X 3/8" NPT FEMALE	R-A1MUM-38NF-10	1035 bar	15 mm
1" MP MALE X 1/2" NPT FEMALE	R-A1MUM-12NF-10	1035 bar	17.5 mm
1" MP MALE X 3/4" NPT FEMALE	R-A1MUM-34NF-07	690 bar	17.5 mm
1" MP MALE X 1" NPT FEMALE	R-A1MUM-1NF-07	690 bar	17.5 mm



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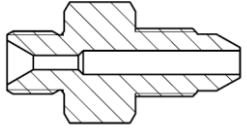
MEDIUM PRESSURE FEMALE - NPT MALE(N) /GAS(G)

DESCRIPTION	CODE	MA.W.P (bar)	ORIFICE
1/4" MP FEMALE X 1/4" NPT MALE	R-A14MUF-14NM-10	1035 bar	3 mm
1/4" MP FEMALE X 3/8" NPT MALE	R-A14MUF-38NM-10	1035 bar	3 mm
1/4" MP FEMALE X 1/2" NPT MALE	R-A14MUF-12NM-10	1035 bar	3 mm
3/8" MP FEMALE X 1/4" NPT MALE	R-A38MUF-14NM-10	1035 bar	5 mm
3/8" MP FEMALE X 3/8" NPT MALE	R-A38MUF-38NM-10	1035 bar	5.2 mm
3/8" MP FEMALE X 1/2" NPT MALE	R-A38MUF-12NM-10	1035 bar	5.2 mm
9/16" MP FEMALE X 1/4" NPT MALE	R-A13MUF-14NM-10	1035 bar	5 mm
9/16" MP FEMALE X 3/8" NPT MALE	R-A13MUF-38NM-10	1035 bar	6 mm
9/16" MP FEMALE X 1/2" NPT MALE	R-A13MUF-12NM-10	1035 bar	8 mm
3/4" MP FEMALE X 1/4" NPT MALE	R-A34MUF-14NM-10	1035 bar	5 mm
3/4" MP FEMALE X 3/8" NPT MALE	R-A34MUF-38NM-10	1035 bar	6 mm
3/4" MP FEMALE X 1/2" NPT MALE	R-A34MUF-12NM-10	1035 bar	8 mm
3/4" MP FEMALE X 3/4" NPT MALE	R-A34MUF-34NM-07	690 bar	13 mm
1" MP FEMALE X 1/4" NPT MALE	R-A1MUF-14NM-10	1035 bar	5 mm
1" MP FEMALE X 3/8" NPT MALE	R-A1MUF-38NM-10	1035 bar	6 mm
1" MP FEMALE X 1/2" NPT MALE	R-A1MUF-12NM-10	1035 bar	8 mm
1" MP FEMALE X 3/4" NPT MALE	R-A1MUF-34NM-07	690 bar	13 mm
1" MP FEMALE X 1" NPT MALE	R-A1MUF-1NM-07	690 bar	17.5 mm



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MEDIUM PRESSURE MALE - GAS MALE FLARED(GMS)

DESCRIPTION	CODE	MA.W.P (bar)	ORIFICE
1/4" MP FEMALE X 1/4" BSP MALE	R-A14MUM-14GMS-10	1000 bar*	3 mm
1/4" MP FEMALE X 3/8" BSP MALE	R-A14MUM-38GMS-10	1000 bar*	3.2 mm
3/8" MP FEMALE X 1/4" BSP MALE	R-A38MUM-14GMS-10	1000 bar*	3 mm
3/8" MP FEMALE X 3/8" BSP MALE	R-A38MUM-38GMS-10	1000 bar*	5.2 mm
3/8" MP FEMALE X 1/2" BSP MALE	R-A38MUM-12GMS-07	700 bar*	5.2 mm
9/16" MP FEMALE X 1/4" BSP MALE	R-A13MUM-14GMS-10	1000 bar*	3 mm
9/16" MP FEMALE X 3/8" BSP MALE	R-A13MUM-38GMS-10	1000 bar*	6 mm
9/16" MP FEMALE X 1/2" BSP MALE	R-A13MUM-12GMS-07	700 bar*	8 mm
3/4" MP FEMALE X 1/2" BSP MALE	R-A34MUF-12GMS-07	700 bar*	8 mm
1" MP FEMALE X 1/2" BSP MALE	R-A1MUF-12GMS-07	700 bar*	8 mm

*Ma.W.P with hose 60° connection 1400 bar - 1000 or 700 bar with high resistant bondeed



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INTERNAL EQUIPMENT

- 3 CNC lathe 4 axes
- 2 CNC machine center 4 Axis
- 1 CNC lathe 3 axes
- 1 CNC mill 3 Axes
- 2 Automatic Warehouse
- Laser labelling machine
- Ultrasonic cleaning
- Vacuum packaging
- Impulse testing up to 4000 bar
- Hydrostatic testing up to 7000 bar
- Nitrogen testing up to 1500 bar



STOCK

We have in stock a wide range of standard fitting and adapter types; do not hesitate to contact us if you need fittings and adapters of a different design. Thank to our new generation CNC working machine we will be able to satisfy any request in a very short time



All technical and dimensional information subject to change

All general terms and conditions of sale, including limitations of our liability, apply to all products and services sold.