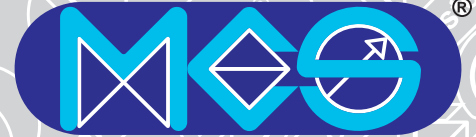


multi-coupling system



multi-coupling system

**Plant, components and devices
for very high and high pressures
(7000 bar and over)**



VALVES AND FITTINGS UP TO 1035 BAR



ISO 9001

MATERIALS

All fittings are manufactured from EN 1.4404 / AISI 316L stainless steel cold worked. Other materials are available on request.

CONNECTION TYPES

Available size are 1/4"- 3/8"- 1/2"- 3/4"- 1".

SAFETY ADVICE

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

WARRANTY

We grant for High pressure® Fittings a warranty of twelve (12) months on material quality and workmanship, commencing with the fitting shipment date. Any deficiencies that are due to improper handling, use of inadmissible media or exceeding of maximum operating pressures are not subject to our warranty obligation.

DISPOSAL

Fittings are to be disposed of in compliance with national regulations upon the end of their useful lives.

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.

USE

High pressure® 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 1035 bar (15,000 psi).

NOTE:

NPT threads must be sealed using a high quality PTFE tape and/or paste product. Refer to thread sealant manufacturer's instructions on how to apply thread sealant.

- Sealing performance may vary based on many factors such as pressure, temperature, media, thread quality, thread material, proper thread engagement and proper use of thread sealant.

- Customer should limit the number of times an NPT fitting is assembled and disassembled because thread deformation during assembly will result in deteriorating seal quality over time. When using only PTFE tape, consider using thread lubrication to prevent galling of mating parts.

Recommended tightening moment

1/4" NPT 30 – 35 Nm

3/8" NPT 40 – 45 Nm

1/2" NPT 50 – 55 Nm

3/4" NPT 75 – 80 Nm



CODE GENERATION TABLE

R = Fitting (Type: MP / HP / NPT / BSP VS BSP / NPT / HP)

A = Adapter X = Tube Size M/F = Connection* Y = Pressure Rating

Code Adapter Model	
G*	ELBOW
T*	TEE
C*	CROSS
I*	STRAIGHT COUPLING
IS*	UNION COUPLING
M	GAUGE CONNECTOR
P	GLAND PLUG
PA	BULKHEAD COUPLING

* Indicate only X (Code size) and Y (Tube size)

X (Code size)	Tube Size
118U	9/16" HP
34U	3/8" HP
916U	1/4" HP
1N	1" NPT
34N	3/4" NPT
12N	1/2" NPT
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

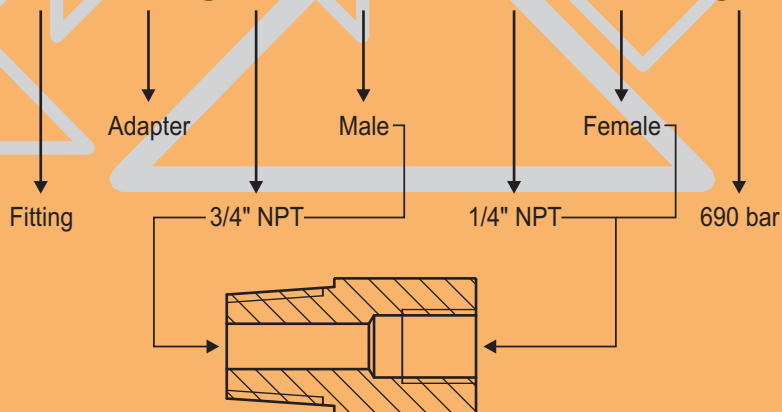
Connection Code	Connection Type
M	MALE
F	FEMALE

Y (Code pressure)	Pressure Rating
07	690 bar
10	1000 bar
14	1400 bar
21	2100 bar
26	2650 bar
42	4200 bar

Example:

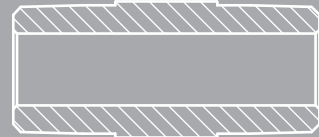
CODE	DESCRIPTION	MA.W.P.	MIN. OPEN
R-A34NM-14NF-07	3/4" NPT MALE X 1/4" NPT FEMALE	690 bar	11 mm

R - A 34N M - 14N F - 07



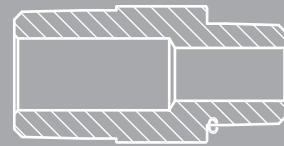
NPT FITTINGS

NPT NIPPLES



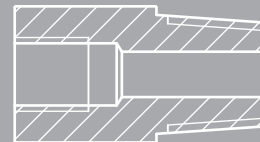
CODE	DESCRIPTION	MA.W.P.	MIN. OPEN
R-A14NM-14NM-10	1/4" NPT MALE X 1/4" NPT MALE	1035 bar	5 mm
R-A38NM-38NM-10	3/8" NPT MALE X 3/8" NPT MALE	1035 bar	6 mm
R-A12NM-12NM-10	1/2" NPT MALE X 1/2" NPT MALE	690 bar	8 mm
R-A34NM-34NM-07	3/4" NPT MALE X 3/4" NPT MALE	690 bar	14 mm
R-A1NM-1NM-07	1" NPT MALE X 1" NPT MALE	690 bar	19 mm

NNPT REDUCER NIPPLES



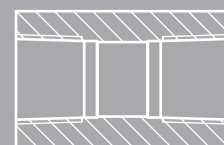
CODE	DESCRIPTION	MA.W.P.	MIN. OPEN
R-A38NM-14NM-10	3/8" NPT MALE X 1/4" NPT MALE	1035 bar	5 mm
R-A12NM-14NM-10	1/2" NPT MALE X 1/4" NPT MALE	1035 bar	5 mm
R-A12NM-38NM-10	1/2" NPT MALE X 3/8" NPT MALE	1035 bar	6 mm
R-A34NM-12NM-07	3/4" NPT MALE X 1/2" NPT MALE	690 bar	8 mm
R-A1NM-12NM-07	1" NPT MALE X 1/2" NPT MALE	690 bar	8 mm
R-A1NM-34NM-07	1" NPT MALE X 3/4" NPT MALE	690 bar	14 mm

NPT REDUCER M-F





CODE	DESCRIPTION	MA.W.P.	MIN. OPEN
R-A38NM-14NF-10	3/8" NPT MALE X 1/4" NPT FEMALE	1035 bar	6 mm
R-A12NM-14NF-10	1/2" NPT MALE X 1/4" NPT FEMALE	1035 bar	8 mm
R-A34NM-14NF-07	3/4" NPT MALE X 1/4" NPT FEMALE	690 bar	11 mm
R-A1NM-14NF-07	1" NPT MALE X 1/4" NPT FEMALE	690 bar	11 mm
R-A34NM-12NF-07	3/4" NPT MALE X 1/2" NPT FEMALE	690 bar	18 mm
R-A1NM-12NF-07	1" NPT MALE X 1/2" NPT FEMALE	690 bar	18 mm

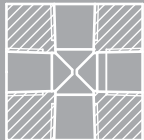
NPT COUPLING

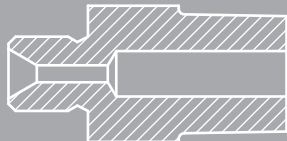


CODE	DESCRIPTION	MA.W.P.	MIN. OPEN
R-I14N-10	1/4" NPT FEMALE X 1/4" NPT FEMALE	1035 bar	11 mm
R-I38N-10	3/8" NPT FEMALE X 3/8" NPT FEMALE	1035 bar	15 mm
R-I12N-10	1/2" NPT FEMALE X 1/2" NPT FEMALE	1035 bar	18 mm
R-I34N-07	3/4" NPT FEMALE X 3/4" NPT FEMALE	690 bar	22 mm
R-I1N-07	1" NPT FEMALE X 1" NPT FEMALE	690 bar	29 mm

NPT ELBOW			
CODE	DESCRIPTION	MA.W.P.	MIN. OPEN
R-G14N-10	1/4" NPT FEMALE X 1/4" NPT FEMALE	1035 bar	11 mm
R-G38N-10	3/8" NPT FEMALE X 3/8" NPT FEMALE	1035 bar	15 mm
R-G12N-10	1/2" NPT FEMALE X 1/2" NPT FEMALE	1035 bar	18 mm

NPT TEE			
CODE	DESCRIPTION	MA.W.P.	MIN. OPEN
R-T14N-10	3 X 1/4" NPT FEMALE	1035 bar	11 mm
R-T38N-10	3 X 3/8" NPT FEMALE	1035 bar	15 mm
R-T12N-10	3 X 1/2" NPT FEMALE	1035 bar	18 mm

NPT CROSS			
CODE	DESCRIPTION	MA.W.P.	MIN. OPEN
R-C14N-10	4 X 1/4" NPT FEMALE	1035 bar	11 mm
R-C38N-10	4 X 3/8" NPT FEMALE	1035 bar	15 mm
R-C12N-10	4 X 1/2" NPT FEMALE	1035 bar	18 mm

NPT MALE – BSP MALE			
CODE	DESCRIPTION	MA.W.P.	MIN. OPEN
R-A12NM-12GM-07	1/2" NPT MALE X 1/2" BSP MALE	700 bar *	8 mm
R-A38NM-38GM-10	3/8" NPT MALE X 3/8" BSP MALE	1000 bar	6 mm
R-A14NM-14GM-10	1/4" NPT MALE X 1/4" BSP MALE	1000 bar	3 mm
R-A12NM-38GM-10	1/2" NPT MALE X 3/8" BSP MALE	1000 bar	6 mm
R-A12NM-14GM-10	1/2" NPT MALE X 1/4" BSP MALE	1000 bar	3 mm
R-A38NM-12GM-07	3/8" NPT MALE X 1/2" BSP MALE	700 bar *	6 mm
R-A38NM-14GM-10	3/8" BSP MALE X 1/4" BSP MALE	1000 bar	3 mm
R-A14NM-12GM-07	1/4" NPT MALE X 1/2" BSP MALE	700 bar *	5 mm

* Ma.W.P with hose 60° connection – 1000 bar with metal connection

NPT NEEDLE VALVES

Multi-coupling system Npt high pressure valves are designed for liquid and gas flow control.

Stem sleeve and packing gland materials have been selected to achieve extended thread cycles and reduced handle torque.

The pressure on the stem and the seal are distributed with a special body design.

Each valve can be actuated with an air operated cylinder. To order an air actuated high pressure valve add CX ___ to the manual operated valve code.

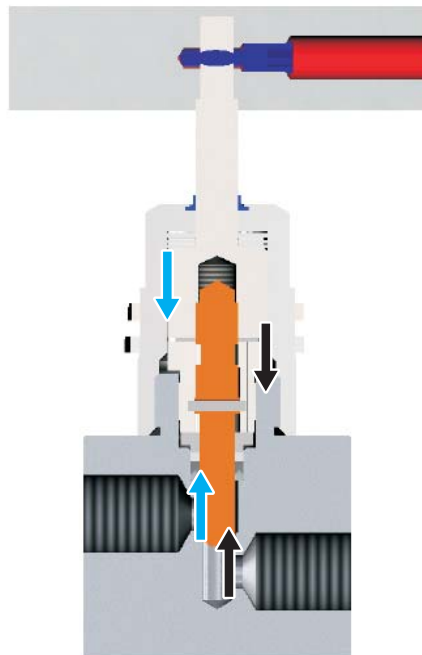
For example VS-12N-L-10 + CX 160 DE, needle valve 1/2" Npt line version with air actuator CX 160 double effect.

Available in a variety of body styles, the valves are suitable for manual operation in temperature ranging from -4°F to 176°F (-20°C to 80°C).

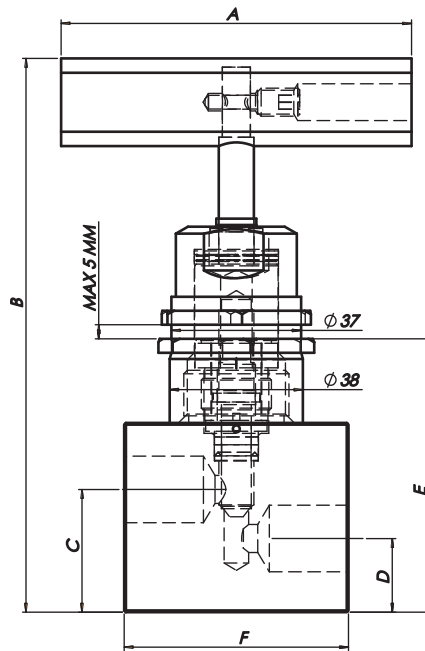
Connections from 1/4 " to 1/2 " npt female.

Non rotating stem prevents galling and scoring.

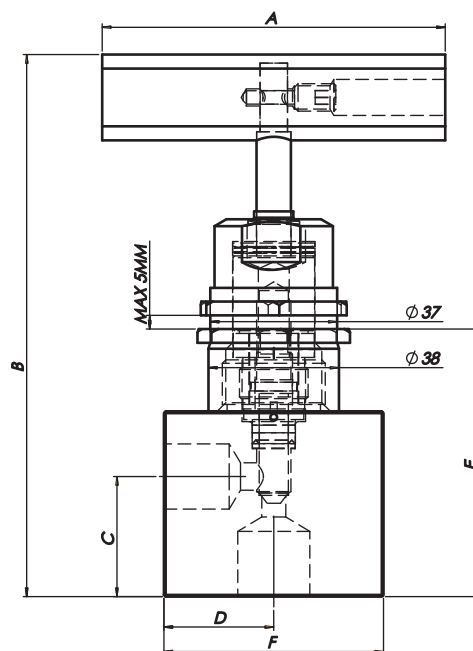
Standard materials of construction include 316 L cold-worked stainless steel and glass-filled+MOS PTFE.



Pressure Stem reaction force and seal reaction force.



NPT	Ma.W.P.	ORIFICE (mm)	CONNECTION	A (mm)	B (mm)	C (mm)	D (mm)	E (mm)	F (mm)
VS-14N-L-10	1035 bar	5	2 x 1/4" NPT female	75	149	29	18	69	51
VS-38N-L-10	1035 bar	5	2 x 3/8" NPT female	75	149	29	18	69	51
VS-12N-L-10	1035 bar	7	2 x 1/2" NPT female	100	158	35	21	78	64
VS-12N-LD-10	1035 bar	6.5	2 x 1/2" in line NPT female	100	158	28	28	78	67

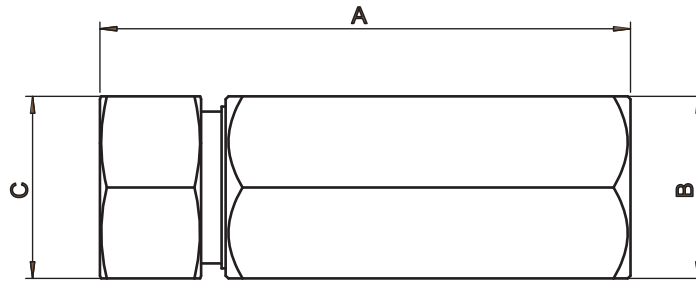


NPT	Ma.W.P.	ORIFICE (mm)	CONNECTION	A (mm)	B (mm)	C (mm)	D (mm)	E (mm)	F (mm)
VS-14N-A-10	1035 bar	5	2 x 1/4" NPT female	75	149	29	25.5	69	51
VS-38N-A-10	1035 bar	5	2 x 3/8" NPT female	75	149	29	25.5	69	51
VS-12N-A-10	1035 bar	7	2 x 1/2" NPT female	100	158	35	32	78	64

NPT CHECK VALVES

Multi-coupling system npt soft cartridge check valves reliably prevent backflow where leak-tight shutoff for liquids or gases is required.

Standard materials of construction are 316 stainless steel with Buna-N o-ring and 300 series stainless steel spring. Cracking pressure: 0.5 bar approximate.



CODE	Ma.W.P.	ORIFICE (mm)	SEAT	SIZE CONNECTION	A (mm)	B (mm)	C (mm)
VR-14N-10-SC	1035 bar	5	NBR	2 x 1/4" NPT female	79	27	27
VR-38N-10-SC	1035 bar	6	NBR	2 x 3/8" NPT female	79	27	27
VR-12N-10-HF-SC	1035 bar	10	NBR	2 x 1/2" NPT female	111	36	36

COMPANY PROFILE

MULTI-COUPLING SYSTEM S.r.l. plans and produces hydrodynamic and hydraulic units and plants for the most various industrial fields and for specific applications.

The factory was born in Legnano but because of its development it was necessary its transferring in Canegrate and following in Villa Cortese in a bigger productive plant.

Multi-Coupling System was born in 1992 and thanks to the experience made in the very high and high pressures (5000 bar and over), it plans and supplies distribution and power supply plants, test benches, devices for quality controls, submarine applications, standard or special pipes and components according to the customers' requests.

The special components are produced directly of its own through stainless steel semi-finished products workings.

Therefore, with new devices, the factory has been able to modern the production cycles getting a better finished product for the national small, medium and big industry, both of builder than users which require a special fluidic technology in the productive process.

In fact, its products and flexibility allow to satisfy all the customers' requirements.

In 2002 Multi-Coupling makes HIGH PRESSURE mark, that is a production line of high pressure devices and components.



VALVES AND FITTINGS UP TO 1035 BAR



COMPONENTS



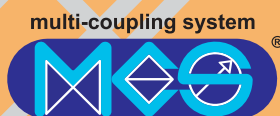
PRESSURE GENERATORS



TEST BENCHES



OEM SYSTEMS



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