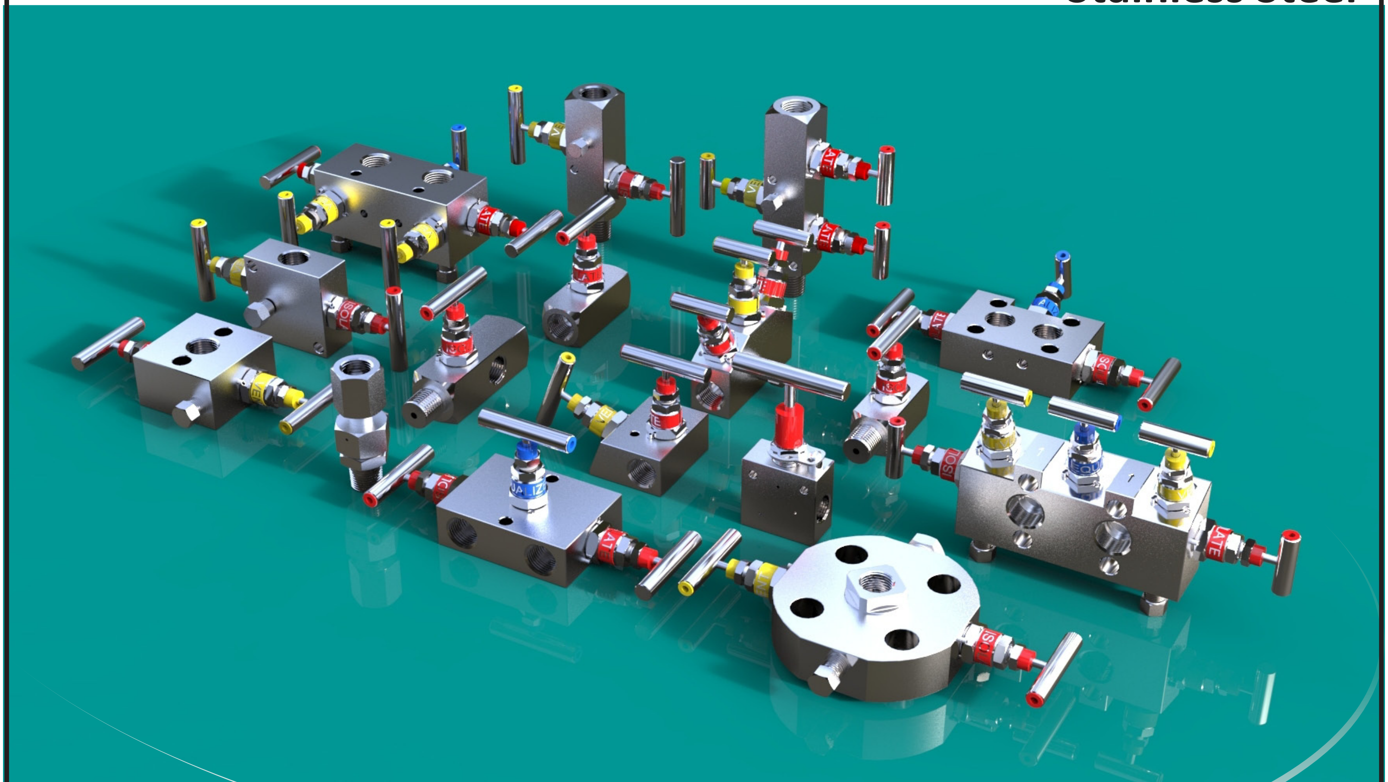
Needle Valves & Manifolds

Stainless Steel



Precision Engineered Valves & Manifolds

NEEDLE VALVES & MANIFOLDS
HOW TO ORDER

XX - XXX - XXX - XX - XX

- Model No (Block 1)
- Inlet (Block 2)
- Outlet (Block 3)
- Material (Block 4)
- Optional Extras (Block 5)

Code Numbers:

Inlet & Outlet (Blocks 2 & 3)

M =Male Thread
F =Female Thread
02M or **F**=G⅛" BSP
03M or **F**=¼" NPT
04M or **F**=G¼" BSP
05M or **F**=⅜" NPT
06M or **F**=G⅜" BSP
07M or **F**=½" NPT
08M or **F**=G½" BSP
09M or **F**=¾" NPT
10M or **F**=G¾" BSP
11M or **F**=1" NPT
12M or **F**=G1" BSP
13M or **F**=R¼" BSPT
14M or **F**=R⅜" BSPT
15M or **F**=R½" BSPT
16M or **F**=R¾" BSPT
17M or **F**=R1" BSPT
18M or **F**=R⅛" BSPT

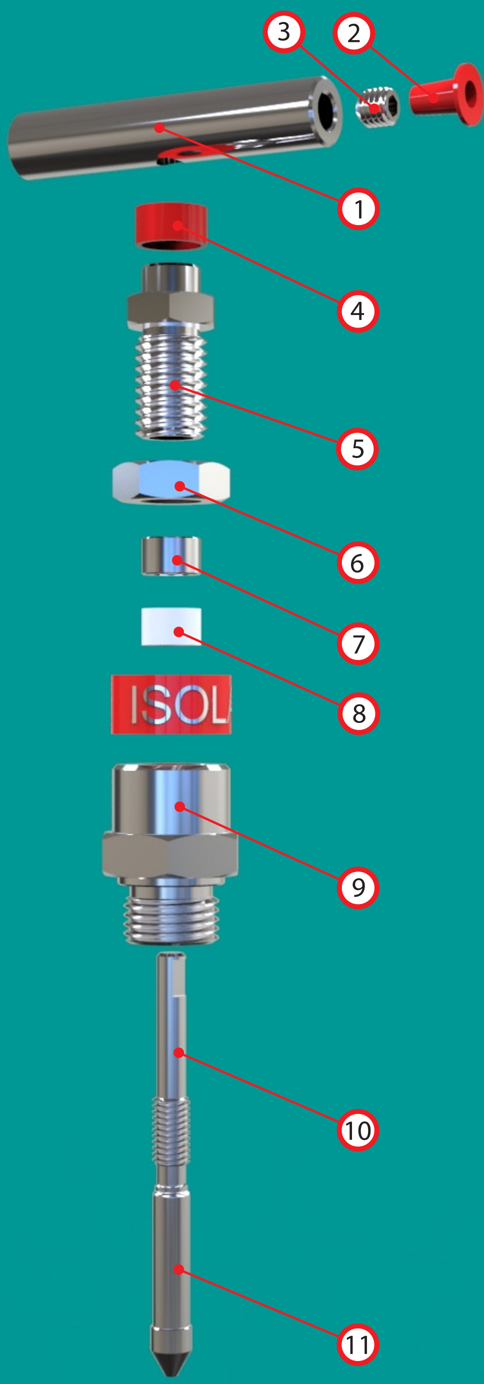
Direct Mount Outlet
DMA =IEC Type A
DIR =IEC Type B

Optional Extras (Block 5)

AA =Black Hand Wheel
AB =Anti Tamper Bonnet with Key
AC =Panel Mount Nut on Bonnet
AD =Lockable Handle With Padlock
AE =Captive Bleed Valve
AF =Surface Mount Tapped Holes
AG =Lockable Handle Without Padlock
AH =Captive Bleed Nut
AJ =Metering Tip
AK =Rated 700 bar / 10,000 psi (Dimensions available on requets)
AL =To Nace MR-01-75 Latest Revision
AM =Degreased to Oxygen Standard
AN =KEL-F Soft Tip
AO =Graphoil Packing
AP =Complete with 56mm Hole Centres (Outlet)
AQ =Complete with Yoke Mounting Bracket for 2 inch N.B (60.3 mm) dia Stand Pipe
AR =Complete with Vent Plugs
AS =Complete with 65 mm Hole Centres (Outlet)
AT =Complete with M10 x 1.5 pitch x 55mm Long Stainless Steel Bolts
AU =Complete with 58.7 mm Hole Centres (Outlet)
AV =Degreased
AW =Complete with M12 x 1.75 pitch x 55mm Long Stainless Steel Bolts
AX =Fire Safe
AY =Rising Plug Type Tip
AZ =Steam Tracing Port 1/4 inch NPT
*Please note that all options are not available on all models.

Material (Block 4)

AI =316 SS
MO =MONEL
HA =HASTELLOY C-276
IL =INCONEL 625
IN =INCOLOY 825
TI =TITANIUM Gr.2
DU =DUPLEX UNS S31803
SD =SUPER DUPLEX S32760
HC =HASTELLOY C-22
SA =SUPER AUSTENITIC ST.ST 6% MO



Description	Material
1/ T Bar Handle	316L SST
2/ Colour Coded Dust Plug	Polyethylene (LDPE)
3/ Locking screw	316L SST
4/ Colour Coded Dust Cap	Polyethylene (LDPE)
5/ Gland Adjuster	316L SST
6/ Safety Locknut	316L SST
7/ Compression Ring	316L SST
8/ Packing	PTFE / Graphoil
9/ Valve Bonnet	316L SST
10/ Stem Rotating	316L SST
11/ Stem Non Rotating	316L SST

FEATURES

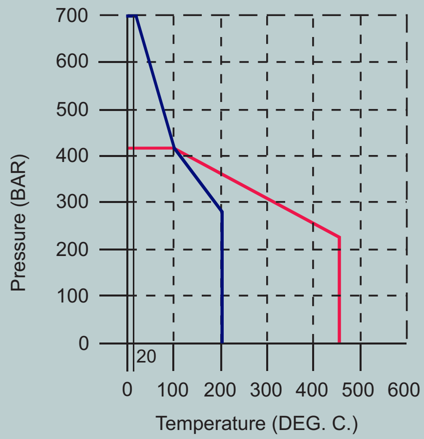
- Gland adjuster packing seal can be externally adjusted in service
- Safety locknut
- Dead stem thru packing giving ease of operation & less packing wear
- Stem has back seat for added anti-blow out security
- Standard hard stem tip for effective shut-off (KEL-F Soft Stem Tip also available)
- Removable T-bar handle
- Colour coded dust cap on stem prevents ingress of contamination & protects actuating threads
- Stem has rolled threads for smooth action, strength, & long life
- Stem threads above packing, no process contamination or lube washout
- One piece non rotating stem tip joint, located above packing, cannot work free
- Ø 4.76 Standard thru bore (CV = 0.4) Fully open
- Metal to metal bonnet seal suitable for high pressure/temperature applications

OTHER FEATURES

- Valves can be supplied to NACE MR-01-75 specification and degreased for oxygen service
- Needle valve & and block and bleed valve available in right angled form
- Hydrostatically tested to 1.5 times maximum working pressure
- Wide variety of process connections available by arrangement
- Bleed & blind plugs are available
- Isolating trim as standard, metering trim available on request
- Panel mounting valve available on request
- PCTFE Soft tip option available for special application (Max working temperature = 120◦ C)
- All valves and manifolds are individually boxed for protection and storage
- Factory designed and fitted instrument protection systems available
- Valves have trace code on body with original mill certificates available all to EN 10204-3.1
- Bonnet locking pin safely locks the bonnet to body

P.T.F.E-PACKING
maximum pressure 689 bar (10,000 psi) at 20 C
maximum pressure 275 bar (4,000 psi) at 200 C
P.T.F.E. Packing must not be used at temperatures in excess of 200 C

GRAPHOIL-PACKING
maximum pressure 413 bar (6,000 psi) at 20 C
maximum pressure 230 bar (3,300 psi) at 450 C

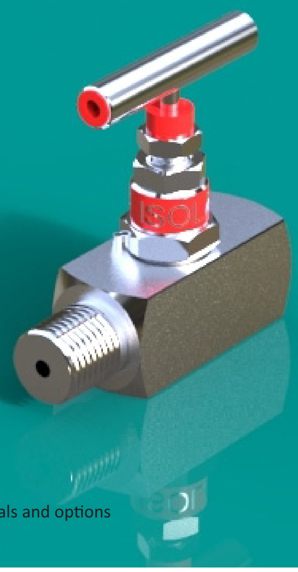


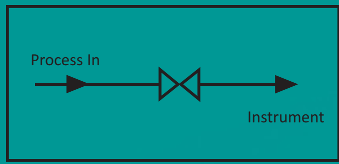
MODEL A1

In Line
Male / Female
Needle Valve
PN. 413 bar / 6000 psi

Valve Colour Coding
ISOLATE
VENT
EQUALIZE
Weight = 0,5 kg

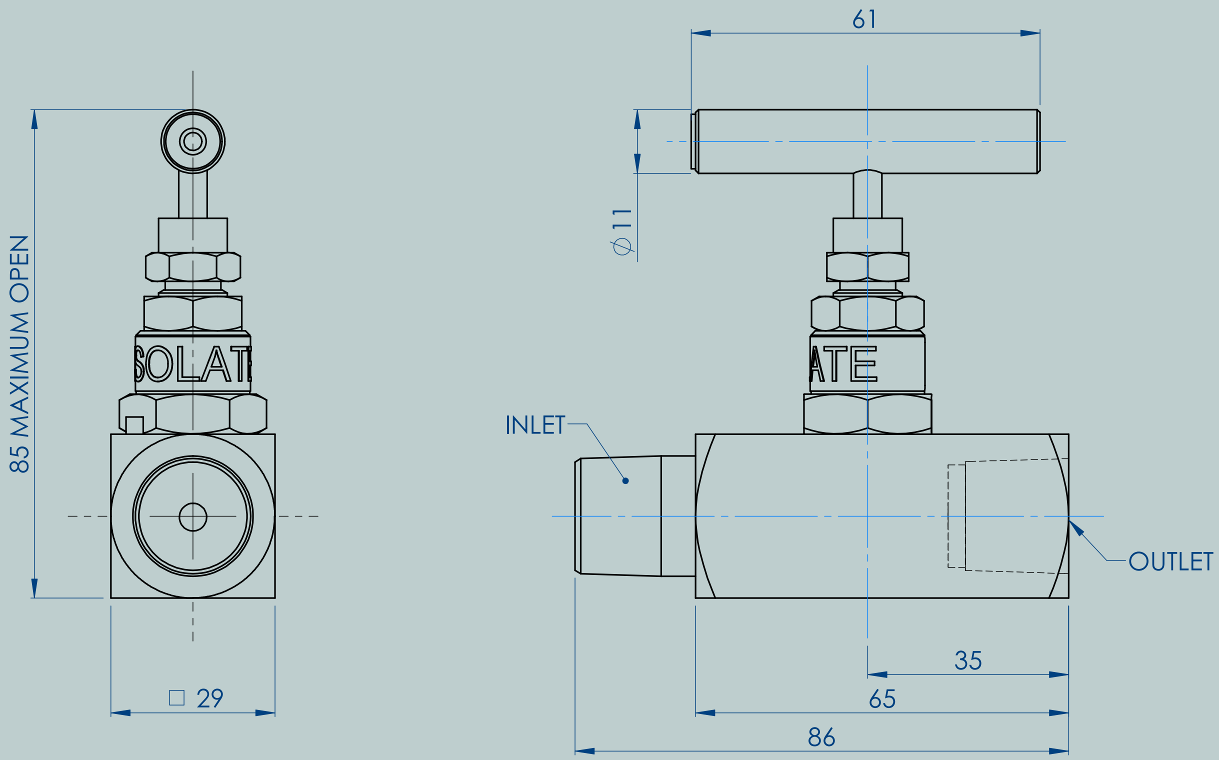
Needle Valves & Manifolds
Stainless Steel





Also available rated 700 bar / 10000 psi and in a range of other materials and options
(See HOW TO ORDER Data Sheet).

Note: Valve shown with ½ NPT Instrument & Process Connections



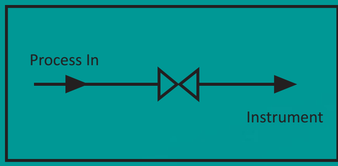
Dimensions for 6K shown in millimetres are for reference only and are subject to change

Precision Engineered Valves & Manifolds

MODEL A1
In Line
Female / Female
Needle Valve
PN. 413 bar / 6000 psi

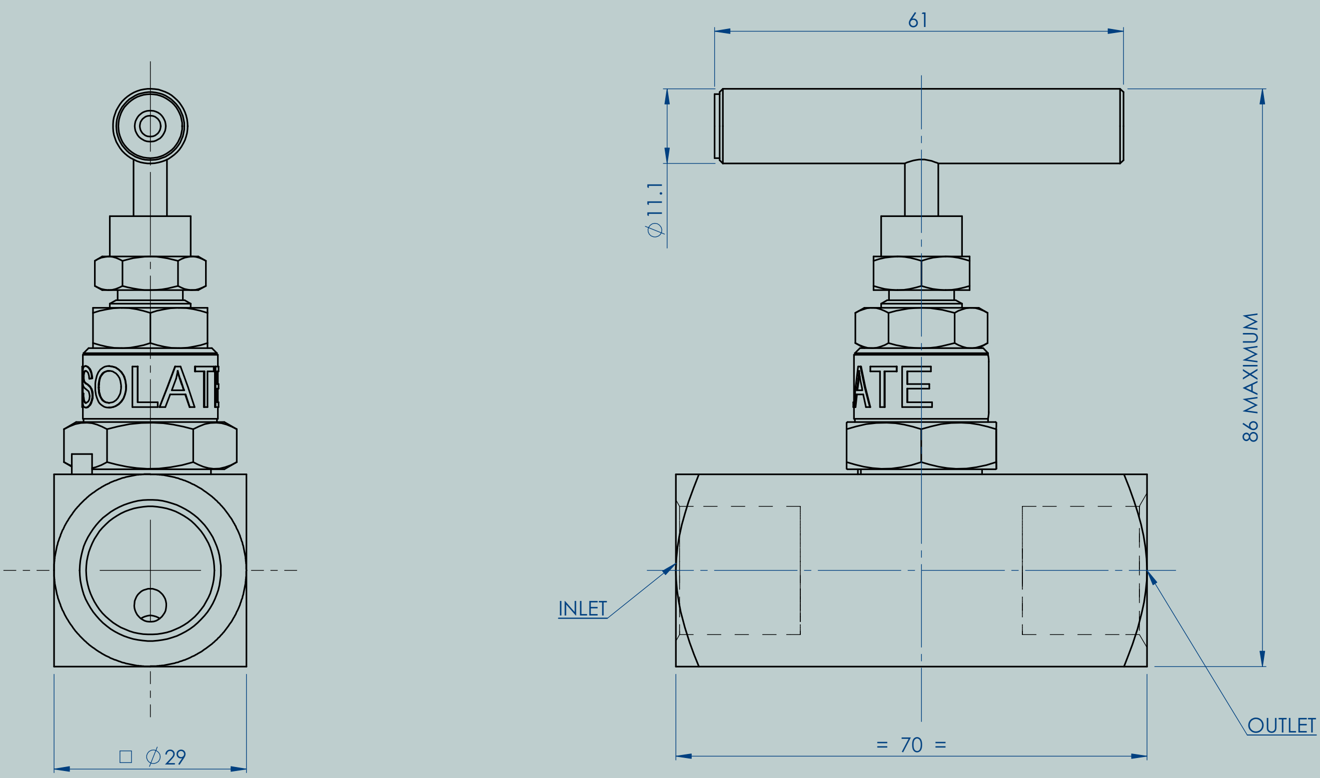
Valve Colour Coding
ISOLATE
VENT
EQUALIZE
Weight = 0,5 kg

Needle Valves & Manifolds
Stainless Steel



Also available rated 700 bar / 10000 psi and in a range of other materials and options
(See HOW TO ORDER Data Sheet).

Note: Valve shown with ½ NPT Instrument & Process Connections



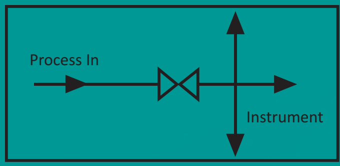
Dimensions for 6K shown in millimetres are for reference only and are subject to change

Precision Engineered Valves & Manifolds

MODEL H1

In Line Gauge Multiport
Needle Valve
PN. 413 bar / 6000 psi

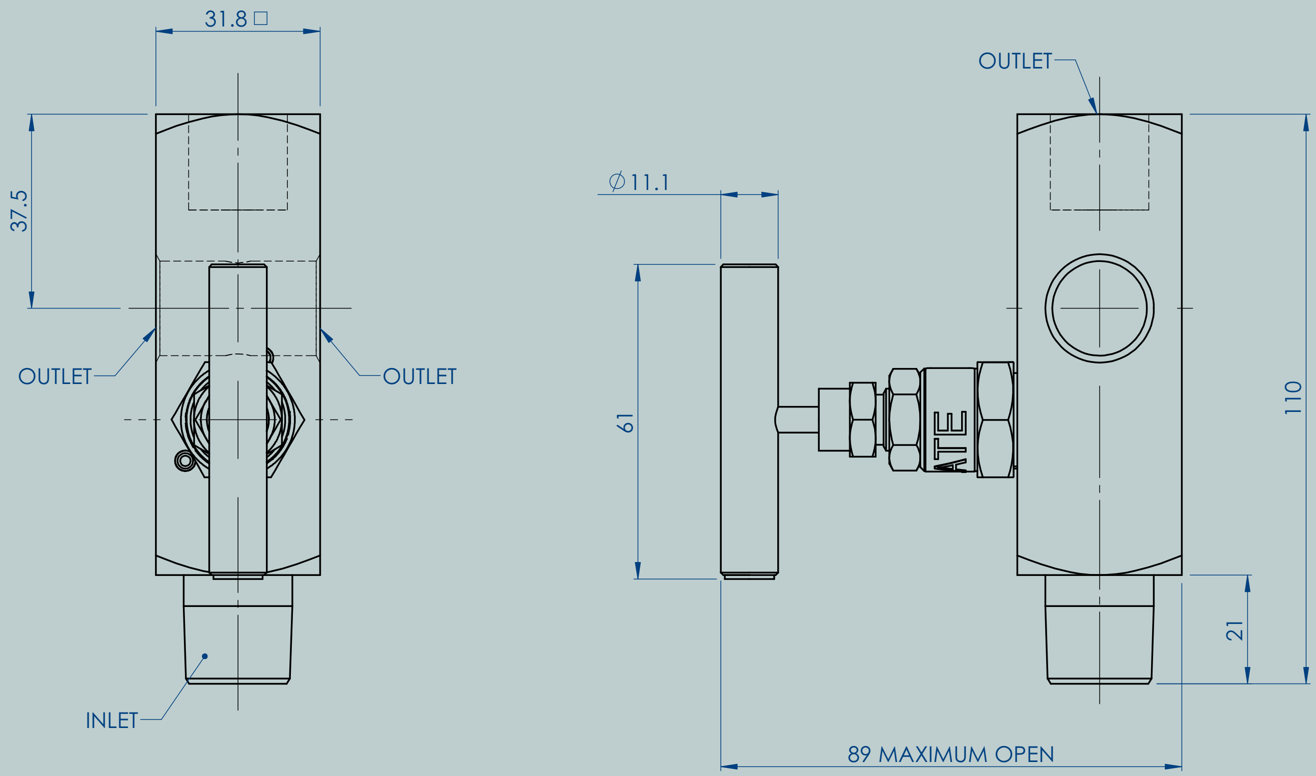
Needle Valves & Manifolds
Stainless Steel



Valve Colour Coding
ISOLATE
VENT
EQUALIZE
Weight = 0,8 kg

Also available rated 700 bar / 10000 psi and in a range of other materials and options (See HOW TO ORDER Data Sheet).

Note: Valve shown with ½ NPT Instrument & Process Connections



Dimensions for 6K shown in millimetres are for reference only and are subject to change

MODEL J1

In Line

Female / Female

High Pressure Needle Valve

PN. 2000 bar / 30000 psi

Valve Colour Coding

ISOLATE

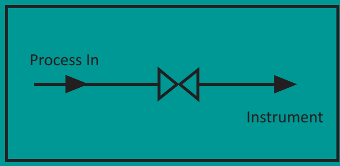
VENT

EQUALIZE

Weight = 0,5 kg

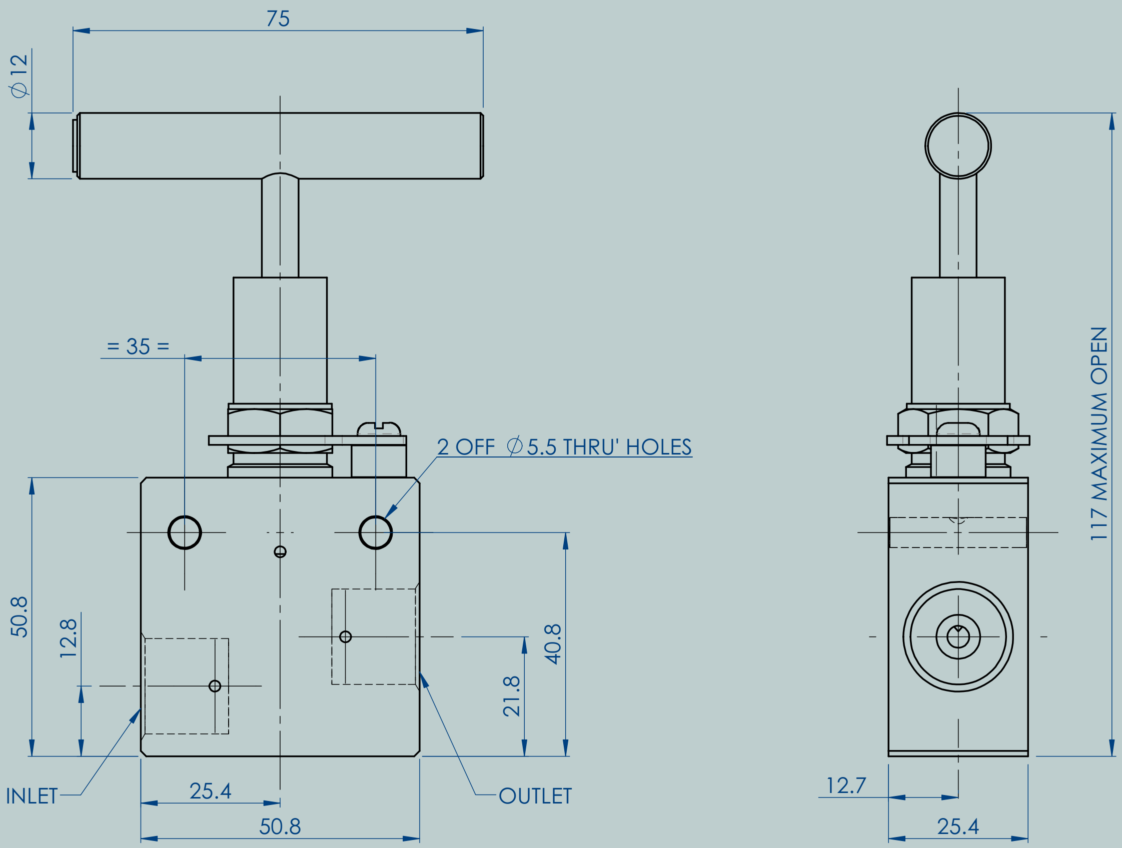
Needle Valves & Manifolds

Stainless Steel



Also available in a range of other materials and options
(See HOW TO ORDER Data Sheet).

Note: Valve shown with High Pressure Instrument & Process Connections



Dimensions for 6K shown in millimetres are for reference only and are subject to

MODEL J2
Remote Mount
Female / Female
2 Valve Manifold
PN. 413 bar / 6000 psi

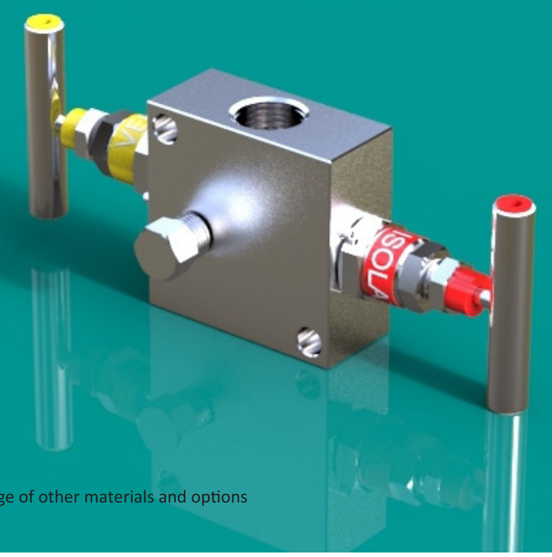
Valve Colour Coding

ISOLATE

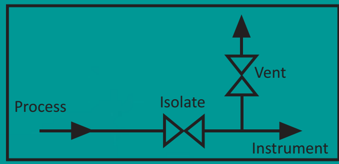
VENT

EQUALIZE

Weight = 1,0 kg

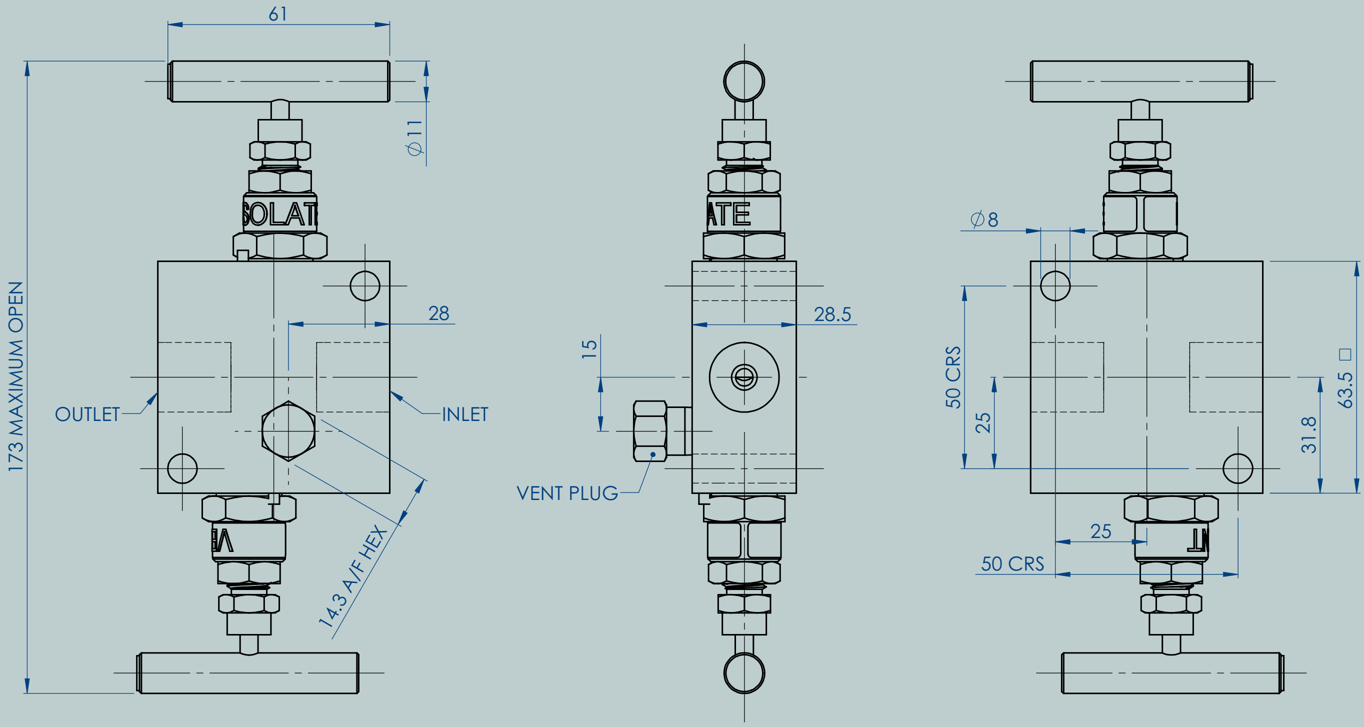


Needle Valves & Manifolds
Stainless Steel



Also available rated 700 bar / 10000 psi and in a range of other materials and options
(See HOW TO ORDER Data Sheet).

Note: Manifold shown with ½ NPT Instrument & Process Connections & ¼ NPT Vent Plug

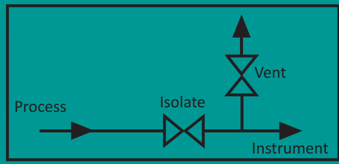


Dimensions for 6K shown in millimetres are for reference only and are subject to change

Precision Engineered Valves & Manifolds

MODEL K2
Remote Mount
Angled Bonnet
2 Valve Manifold
PN. 413 bar / 6000 psi

Needle Valves & Manifolds
Stainless Steel



Valve Colour Coding

ISOLATE

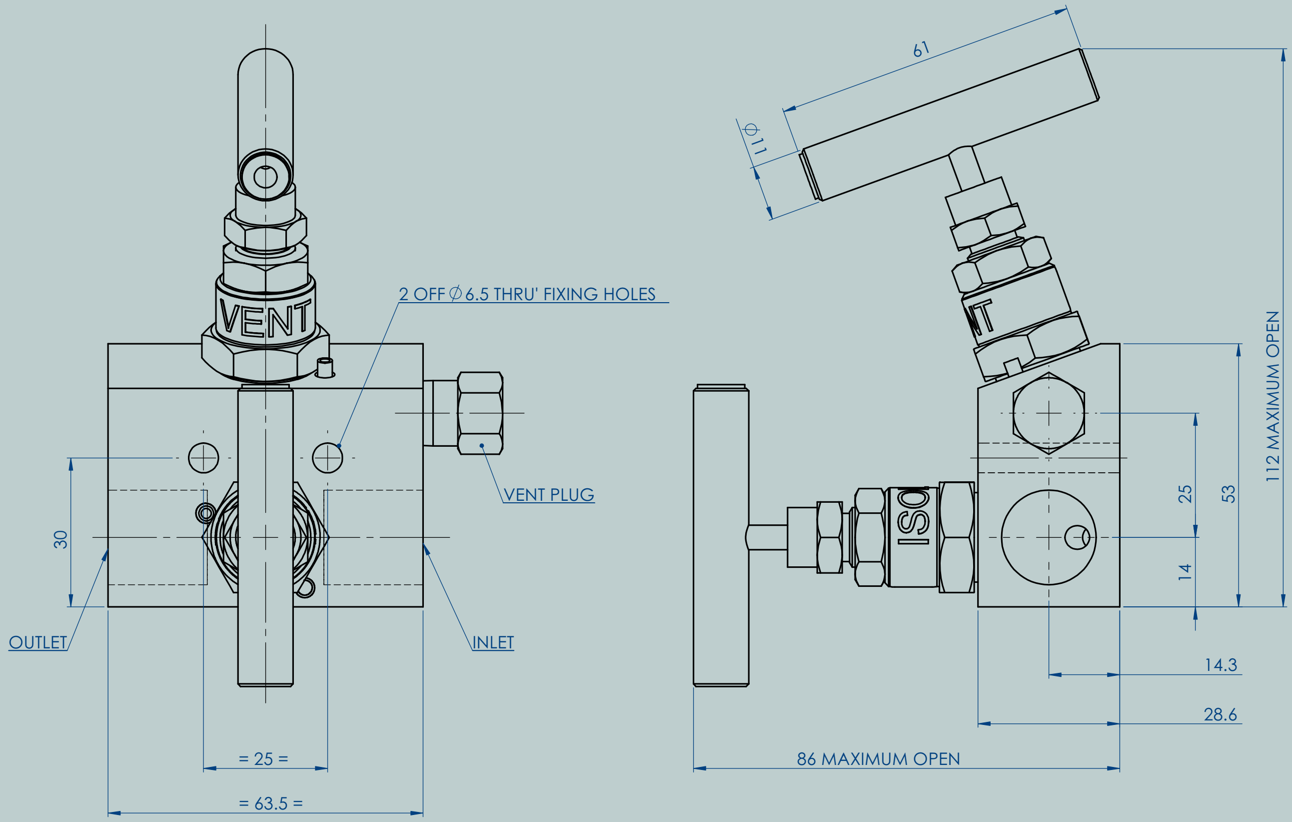
VENT

EQUALIZE

Weight = 0,9 kg

Also available rated 700 bar / 10000 psi and in a range of other materials and options
(See HOW TO ORDER Data Sheet).

Note: Manifold shown with ½ NPT Instrument & Process Connections & ¼ NPT Vent Plug



Dimensions for 6K shown in millimetres are for reference only and are subject to change

Precision Engineered Valves & Manifolds

MODEL L2

Remote Mount Male / Female 2 Valve Manifold PN. 413 bar / 6000 psi

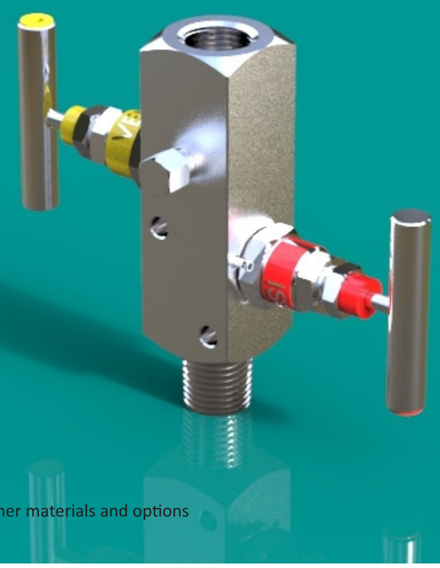
Valve Colour Coding

ISOLATE

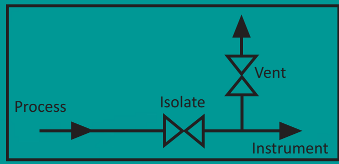
VENT

EQUALIZE

Weight = 1,0 kg

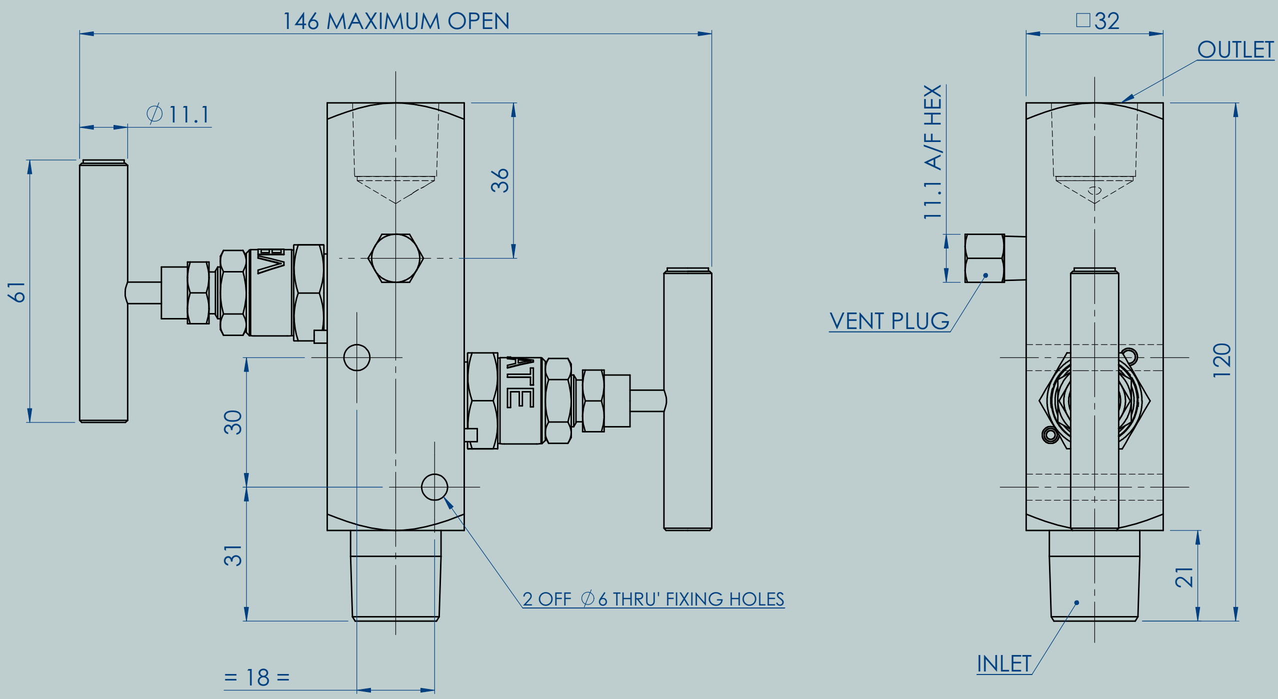


Needle Valves & Manifolds Stainless Steel



Also available rated 700 bar / 10000 psi and in a range of other materials and options (See HOW TO ORDER Data Sheet).

Note: Manifold shown with ½ NPT Instrument & Process Connections & ⅛ NPT Vent Plug



Dimensions for 6K shown in millimetres are for reference only and are subject to change

Precision Engineered Valves & Manifolds

MODEL M2

Direct Mount
Pipe to Flange
2 Valve Manifold
PN. 413 bar / 6000 psi

Valve Colour Coding

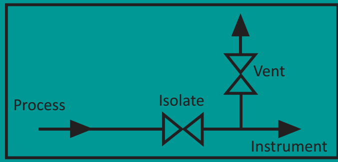
ISOLATE

VENT

EQUALIZE

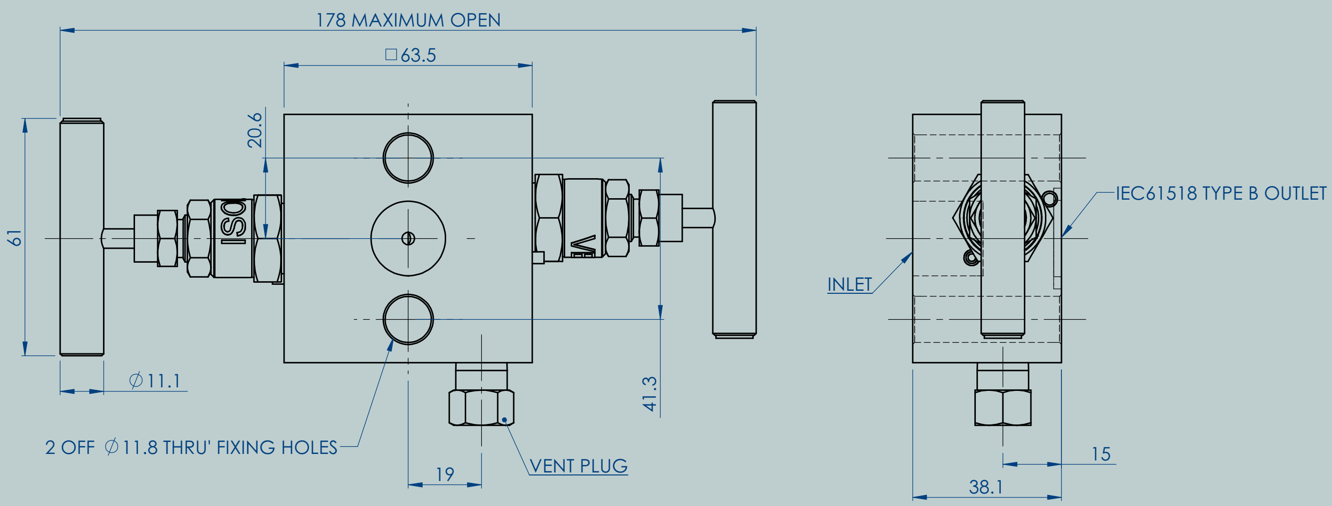
Weight = 1,4 kg

Needle Valves & Manifolds
Stainless Steel



Also available rated 700 bar / 10000 psi and in a range of other materials and options
(See HOW TO ORDER Data Sheet).

Note: Manifold shown with ½ NPT Inlet & ¼ NPT Vent Plug



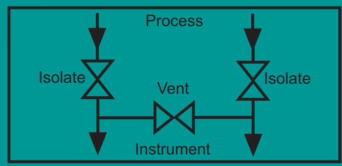
Dimensions for 6K shown in millimetres are for reference only and are subject to change

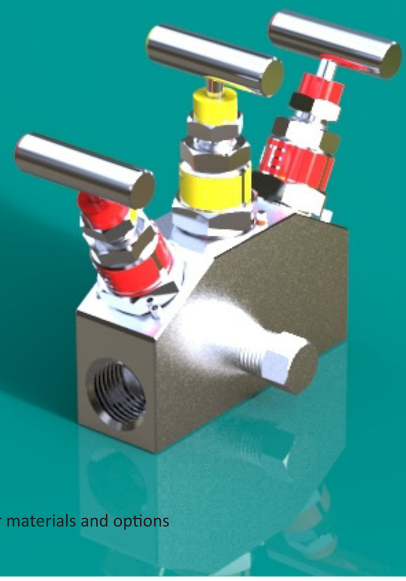
MODEL K3

Double Block & Bleed
Angled Bonnet
3 Valve Manifold
PN. 413 bar / 6000 psi

Valve Colour Coding
ISOLATE
VENT
EQUALIZE
Weight = 1,3 kg

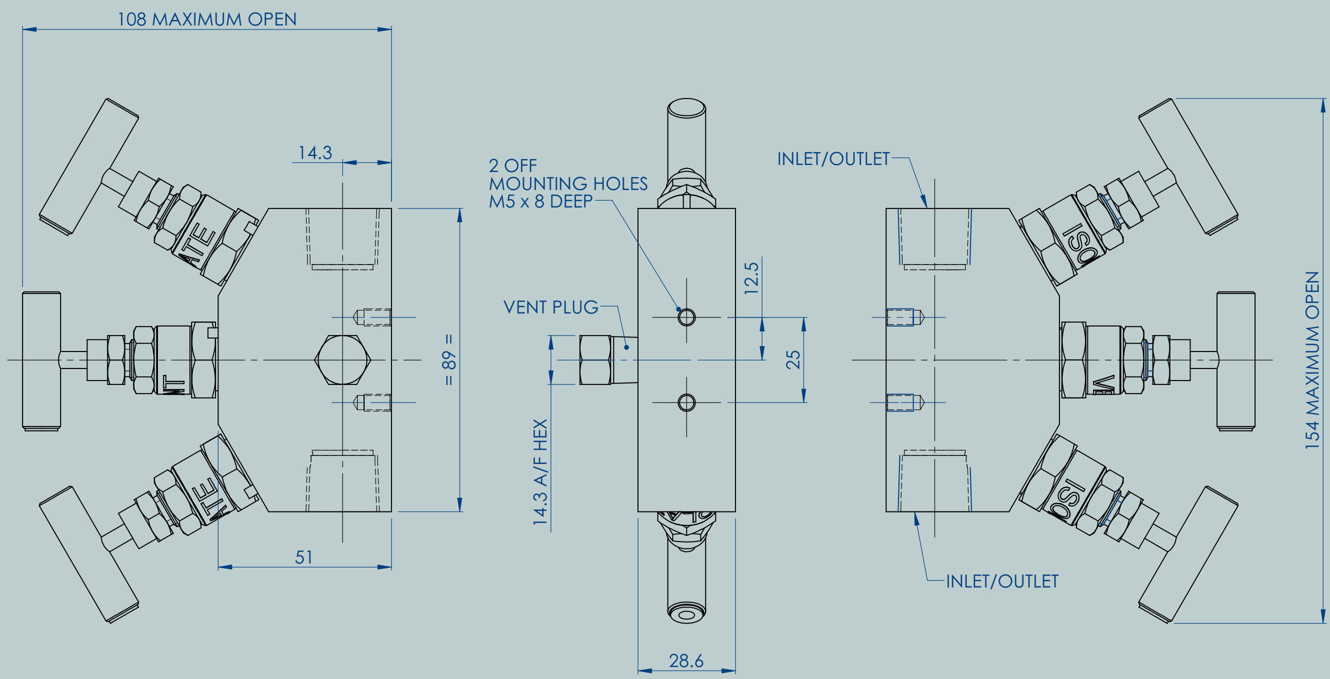
Needle Valves & Manifolds
Stainless Steel





Also available rated 700 bar / 10000 psi and in a range of other materials and options
(See HOW TO ORDER Data Sheet).

Note: Manifold shown with ½ NPT Instrument & Process Connections & ¼ NPT Vent Plug

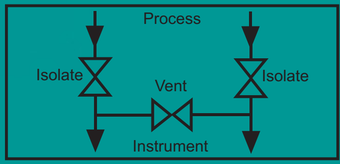


Dimensions for 6K shown in millimetres are for reference only and are subject to change

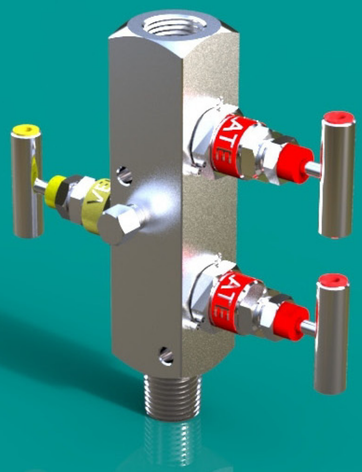
Precision Engineered Valves & Manifolds

MODEL L3
Double Block & Bleed Valve
Male / Female
3 Valve Manifold
PN. 413 bar / 6000 psi

Needle Valves & Manifolds
Stainless Steel

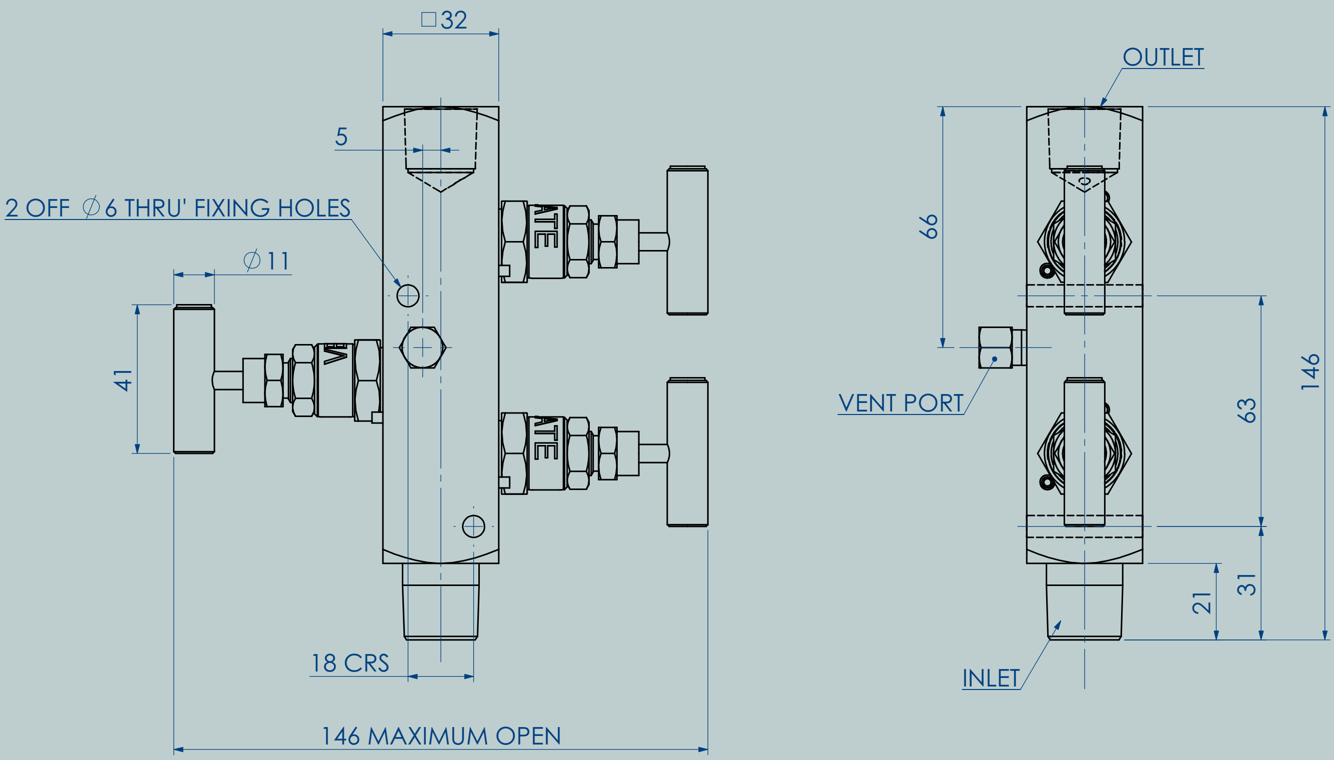


Valve Colour Coding
ISOLATE
VENT
EQUALIZE
Weight = 1,3 kg



Also available rated 700 bar / 10000 psi and in a range of other materials and options
(See HOW TO ORDER Data Sheet).

Note: Manifold shown with ½ NPT Instrument & Process Connections & ¼ NPT Vent Plug



Dimensions for 6K shown in millimetres are for reference only and are subject to change

Precision Engineered Valves & Manifolds

MODEL P3
Remote Mount
Pipe to Pipe
3 Valve Manifold
PN. 413 bar / 6000 psi

Valve Colour Coding

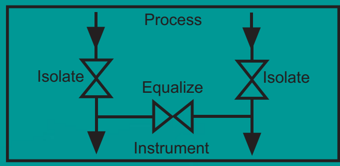
ISOLATE

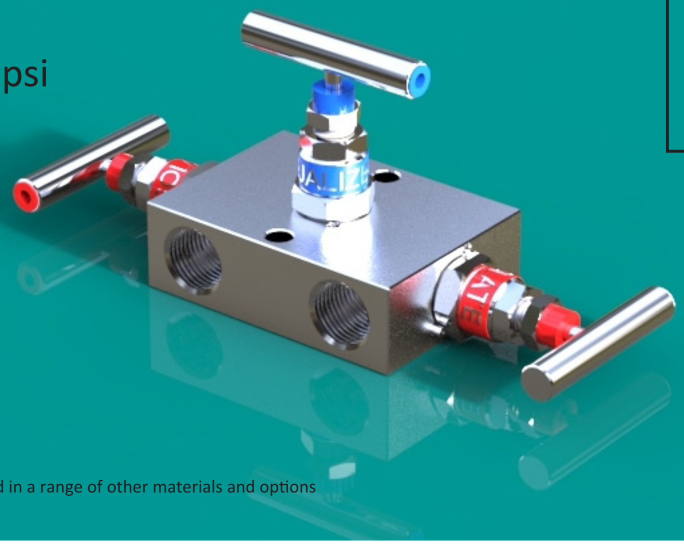
VENT

EQUALIZE

Weight = 1,4 kg

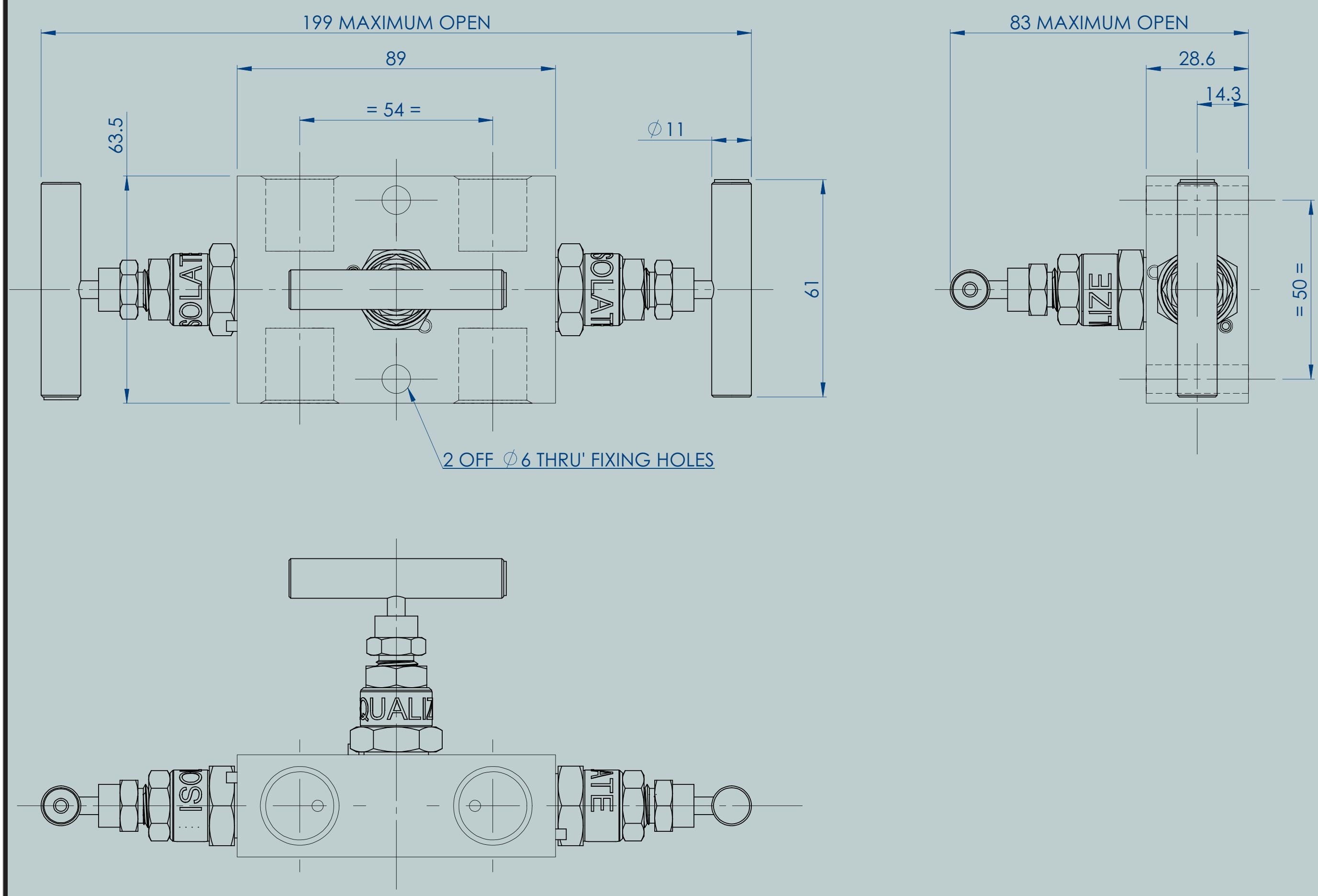
Needle Valves & Manifolds
Stainless Steel





Also available rated 700 bar / 10000 psi and in a range of other materials and options
(See HOW TO ORDER Data Sheet).

Note: Manifold shown with ½ NPT Instrument & Process Connections

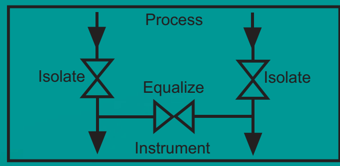


Dimensions for 6K shown in millimetres are for reference only and are subject to change

Precision Engineered Valves & Manifolds

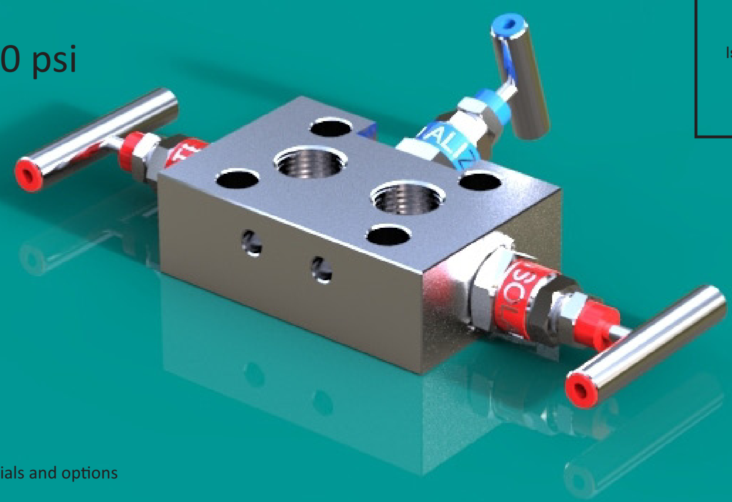
MODEL Q3
Direct Mount
Pipe to Flange with Angled Bonnet
3 Valve Manifold
PN. 413 bar / 6000 psi

Needle Valves & Manifolds
Stainless Steel



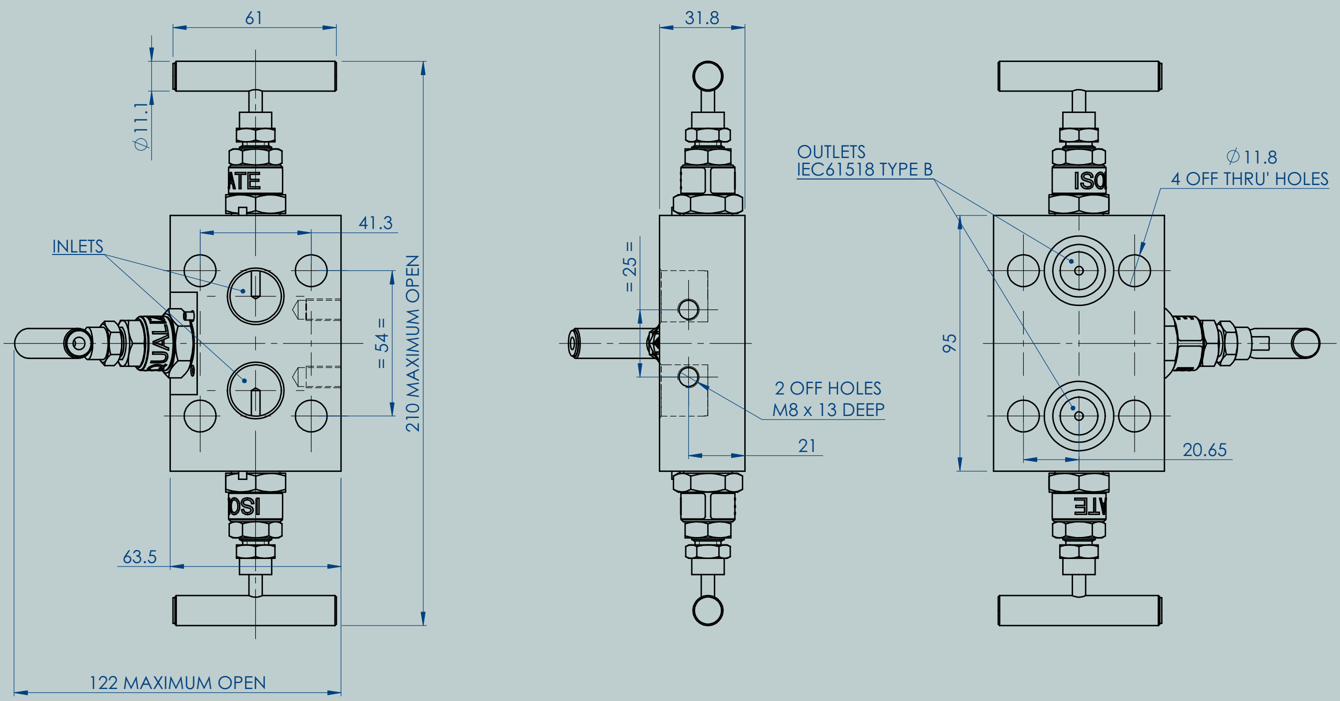
Valve Colour Coding
- ***ISOLATE***
- ***VENT***
- ***EQUALIZE***

Weight = 1,6 kg



Also available in a range of other materials and options
(See HOW TO ORDER Data Sheet).

Note: Manifold shown with ½ NPT Inlet

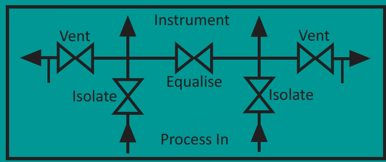


Dimensions for 6K shown in millimetres are for reference only and are subject to change

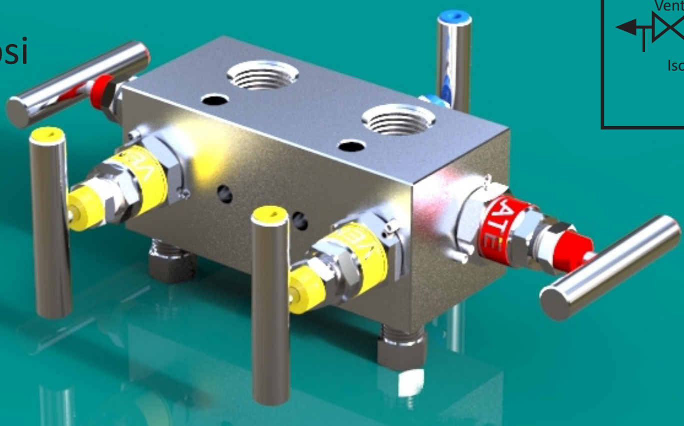
Precision Engineered Valves & Manifolds

MODEL T5
Remote Mount
Pipe to Pipe
5 Valve Manifold
PN. 413 bar / 6000 psi

Needle Valves & Manifolds
Stainless Steel

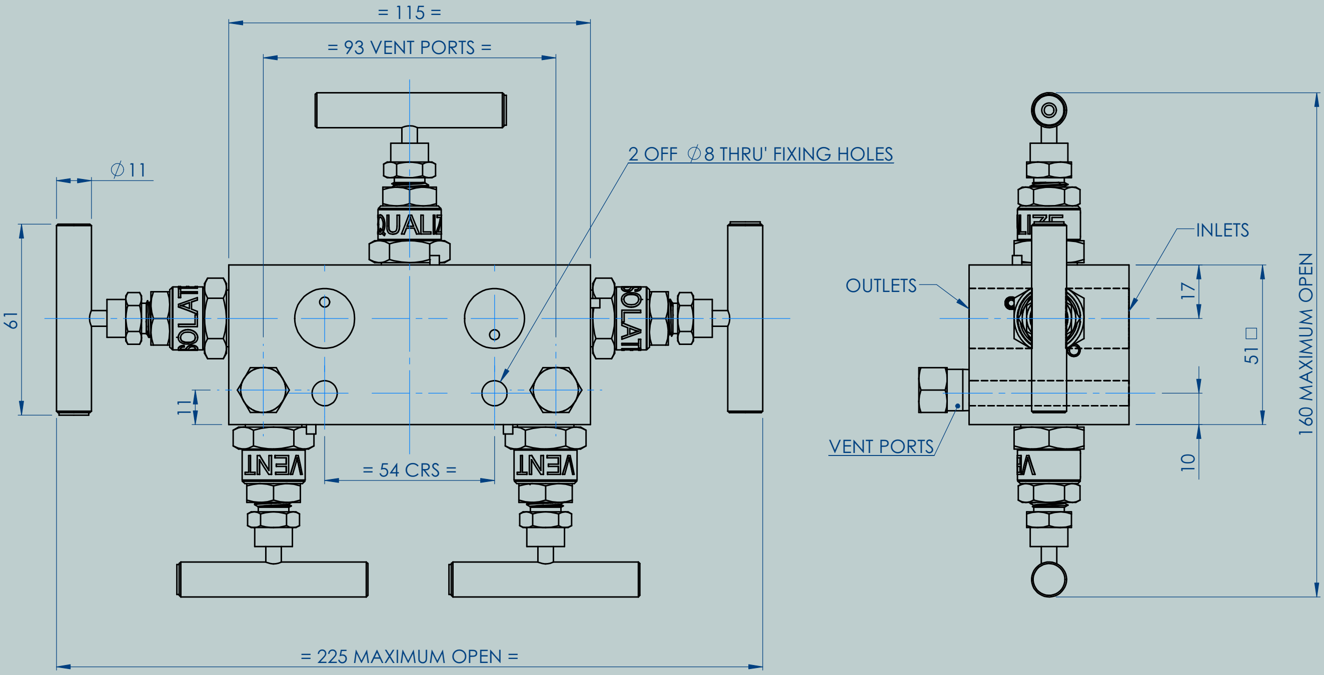


Valve Colour Coding
ISOLATE
VENT
EQUALIZE
Weight = 2,7 kg



Also available rated 700 bar / 10000 psi and in a range of other materials and options
(See HOW TO ORDER Data Sheet).

Note: Manifold shown with ½ NPT Instrument & Process Connections & ¼ NPT Vent Plugs



Dimensions for 6K shown in millimetres are for reference only and are subject to change

MODEL Y5

Direct Mount
Pipe to Flange
5 Valve Manifold
PN. 413 bar / 6000 psi

Valve Colour Coding

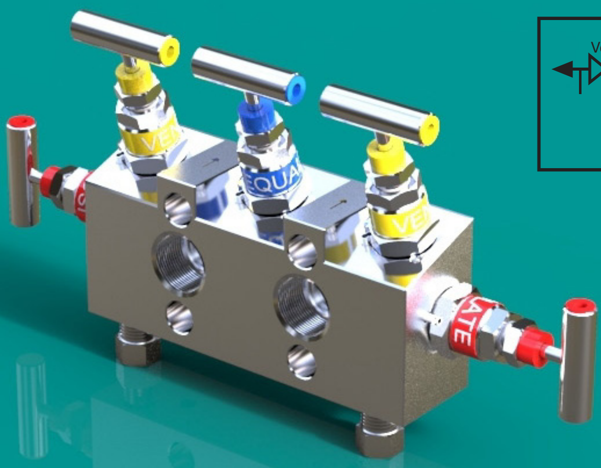
ISOLATE

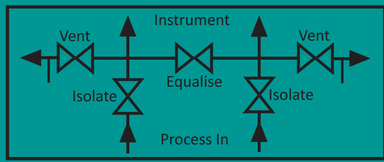
VENT

EQUALIZE

Weight = 2,8 kg

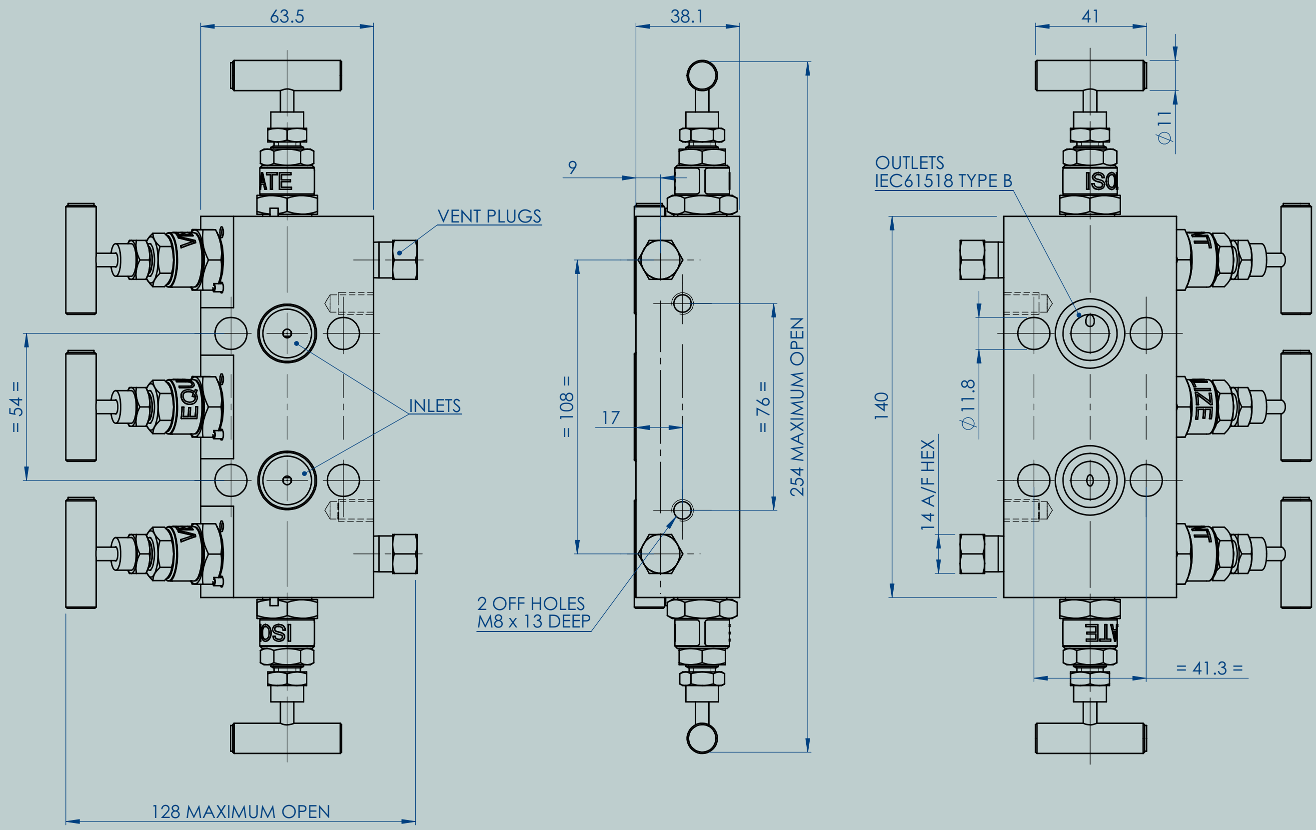
Needle Valves & Manifolds
Stainless Steel





Also available rated 700 bar / 10000 psi and in a range of other materials and options
(See HOW TO ORDER Data Sheet).

Note: Manifold shown with ½ NPT Inlet & ¼ NPT Vent Plugs



Dimensions for 6K shown in millimetres are for reference only and are subject to change

Precision Engineered Valves & Manifolds

MODEL SW-1

Swivadapt Mark-1 Gauge Adaptor
PN. 700 bar / 10000 psi

Weight=0,25 kg

Also available in a Male / Male configuration and a range of other materials
(See HOW TO ORDER Data Sheet).

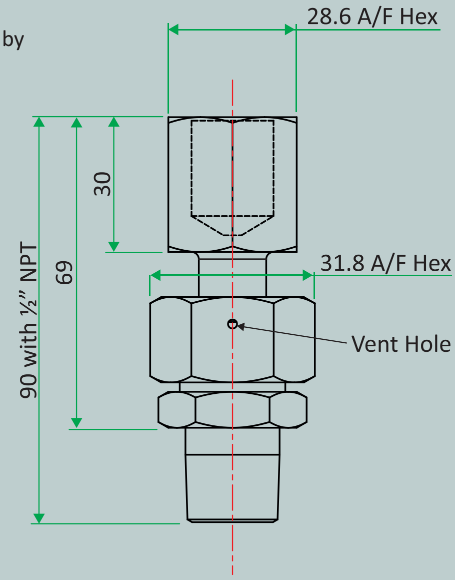
Note: Adaptor shown with ½ NPT Instrument & Process Connection

CLOSE COUPLE SYSTEM

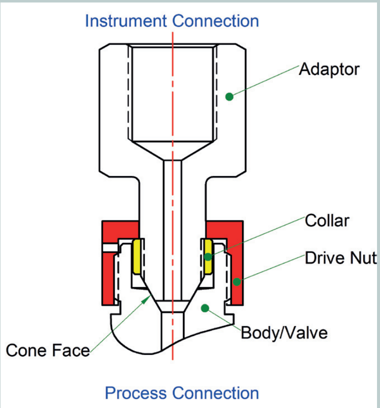
Helping the oil and gas industry, power stations and process plants to reduce leak paths, there by reducing potential fugitive emissions,
in accordance with the EU's IPPC Directive 2008/1/EC.

Unique integral SWIVEMAS® joint allows close coupling of virtually any of our range of valves, pressure gauges and accessories.

- A crevice free pressure tight metal-to-metal seal without the use of tape which also allows the gauge to be locked in any 360 Degree orientation.
- Pressure joint can be made, broken then remade and still retain full pressure seal integrity.
- Reduces the number of gauge-to-valve joints to only one thereby helping to meet environmental concerns by preventing fugitive emissions.
- Suitable for high pressure/temperature applications.
- Maximum working pressure 700 bar (10000 psi) higher pressures available on request.
- Hydrostatically tested to 1.5 times maximum working pressure.
- Has trace code on body with material certificates available for all wetted parts on request.
- Available in a variety of materials, stainless steel, monel, hastalloy, inconel etc.
- Can be supplied to NACE MR-01-75 latest edition.
- Bleed hole facility gives warning of incorrect mating of cone faces whilst mechanical integrity is still maintained.
- Infinite Valve/Gauge/Accessory combinations gives significant weight and space savings.



All Dimensions in mm

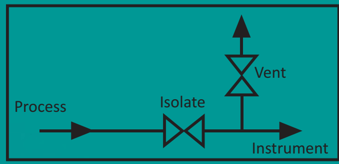


FITTING INSTRUCTIONS

1. Unscrew Drive Nut and separate Body from Adaptor.
2. Connect instrument to Adaptor.
3. Make process connection to Body.
4. Ensure that the Collar (left hand thread) is tight against shoulder.
5. Assemble Adaptor to Body using Drive Nut (hand tight)
   Note: Ensure that the cone faces are free from contamination.
6. Orientate instrument into position and fully tighten Drive

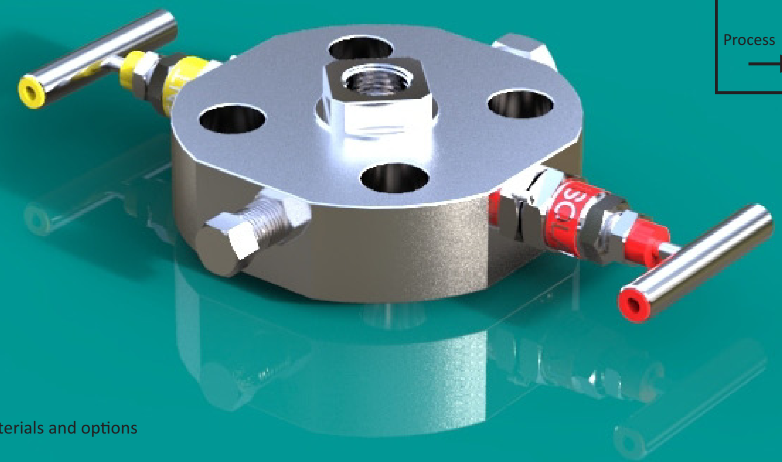
MONO FLANGE

Needle Valves & Manifolds
Stainless Steel



Also Auxiliary Instrument
Port for Horizontal Mounting

Valve Colour Coding
ISOLATE
VENT
EQUALIZE



Also available in a range of other materials and options
(See HOW TO ORDER Data Sheet).

Note: Mono Flange shown with ½ NPT Instrument & Process Connections & ⅛ NPT Vent Plug

Lightweight Monoflange isolation valve that has Needle Valves for the Isolation and Vent

The compact one piece design not only ensures that potential leakage paths are kept to an absolute minimum but offers significant weight and component cost savings when compared to other conventional installation solutions.
Installations in accordance with ASME/ANSI standards that features all metal sealing and metal to metal body / bonnet connections. Monoflanges are manufactured in a full range of materials, flange types and ratings as well as having a choice of flange outlets. (Threaded, Flanged or Integral SWIVEMAS® connection or (OS&Y Monoseal))

Construction
Manufactured from a single piece body that incorporates two Valve Head and outlet connections.
Has trace code on body with material certificates available for all wetted parts on request.

Configuration
Block - Isolation and Vent - Bleed Valve.

Inlet
The flanged process connection can be made to suit any International size or rating including, but not restricted to:* ANSI B16.5 & EN1092-1 Flanges from 1/2" to 2" in ratings from 150 to 2500 lbs in RF, and RTJ flange face styles.
* API Flanges up to 2.1/16", 3000, 5000 & 10,000 lbs

Vent
1/4" NPT female vent as standard, others available upon request.

Outlet
Screwed female connections (1/2" NPT standard)
Alternatively in the Flange by Flange variants the outlet flange is identical to the inlet process flange.
Integral SWIVEMAS® connections to Stewarts Pressure Gauge or
Integrated connections to Stewarts Diaphram Seal Gauge (OS&Y Monoseal)

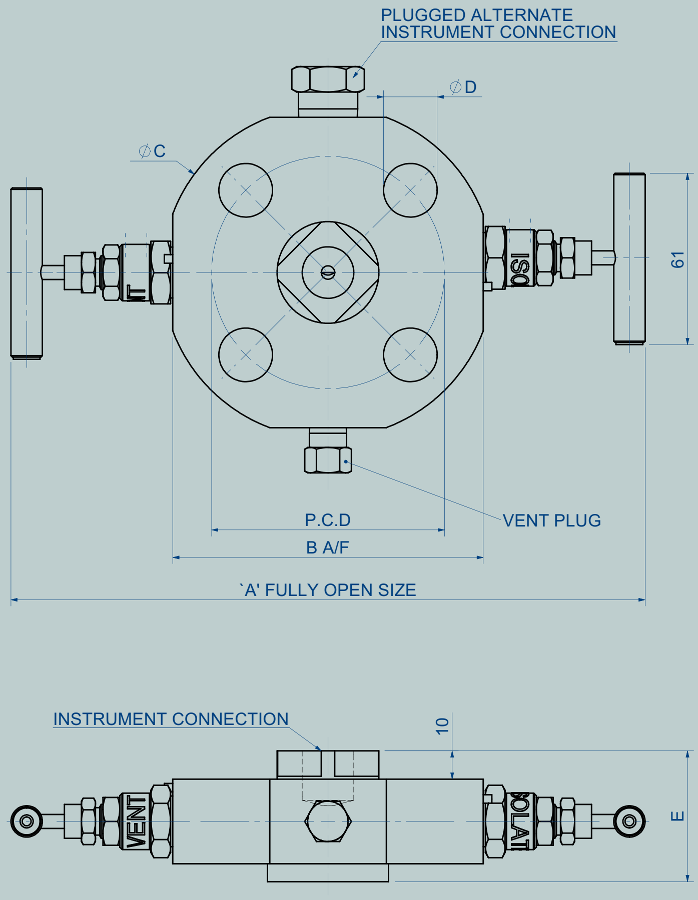
NACE (Optional)
All body & wetted parts materials comply with the requirements of NACE MR 0175 / ISO15156
dependent upon the environmental or application requirement.

Fire safe (Optional)
Fire safe to BS 6755 Pt 2. (Max 6000 psi)

Note:-SWIVEMAS® connection conforms to ISO14000 / 14001

Typical dimensions

Flange Size	A	B	C	D	E	No of Holes	Holes P.C.D
1/2" ANSI 150lbs Raised Face	196.0	80.0	89.0	16.0	41.0	4	60.3
1/2" ANSI 300lbs Raised Face	202.0	86.0	95.2	15.9	41.0	4	66.7
1/2" ANSI 600lbs Raised Face	202.0	86.0	95.2	15.9	46.0	4	66.7
1/2" ANSI 900lbs Raised Face	228.0	110.0	120.0	22.2	46.0	4	82.5
3/4" ANSI 150lbs Raised Face	204.0	86.0	98.4	15.9	41.0	4	69.8
3/4" ANSI 300lbs Raised Face	223.0	105.0	117.0	19.0	41.0	4	82.5
3/4" ANSI 600lbs Raised Face	228.0	110.0	117.0	19.0	46.0	4	82.5
1" ANSI 150lbs Raised Face	216.0	100.0	108.0	15.9	41.0	4	79.4
1" ANSI 300lbs Raised Face	232.0	116.0	123.9	19.0	41.0	4	88.9
1" ANSI 600lbs Raised Face	232.0	116.0	124.0	19.0	46.0	4	88.9
1" ANSI 900 lbs Raised Face	254.0	136.0	149.0	25.4	46.0	4	101.6
1.5" ANSI 150lbs Raised Face	234.0	116.0	127.0	15.0	41.0	4	98.4
1.5" ANSI 300lbs Raised Face	254.0	136.0	155.6	22.2	41.0	4	114.3
1.5" ANSI 600lbs Raised Face	254.0	136.0	155.6	22.2	46.0	4	114.3
2" ANSI 150lbs Raised Face	252.0	136.0	152.4	19.0	41.0	4	120.6
2" ANSI 300lbs Raised Face	274.0	156.0	165.1	19.0	41.0	8	127.0
2" ANSI 600lbs Raised Face	274.0	156.0	165.1	19.0	46.0	8	127.0
2" ANSI 900lbs Raised Face	321.0	205.0	215.9	25.4	61.4	4	165.1



MONO FLANGE
How To Order

MONO-XX - XXX - XXX - XX - XX

Inlet Size + Rating (Block 1)
Outlet (Block 2)
Flange Type (Block 3)
Material (Block 4)
Optional Extras (Block 5)

Add AL at end of Part No when ISO15156 / NACE MR0175 is reqd.
Sample Part No = MONO-1C-07F-RF-AI-AL

Code Numbers:

Inlet Size & Rating (Block 1)

Inlet Size

1	=½"	(DN15)
2	=¾"	(DN20)
3	=1"	(DN25)
4	=1.5"	(DN40)
5	=2"	(DN50)
6	=2.5"	(DN65)
7	=3"	(DN80)
8	=4"	(DN100)

Rating

A	=150	CLASS
B	=300	CLASS
C	=600	CLASS
D	=900	CLASS
E	=1500	CLASS
F	=2500	CLASS
G	=PN2.5	Bar
H	=PN6	Bar
J	=PN10	Bar
K	=PN16	Bar
L	=PN25	Bar
M	=PN40	Bar
N	=PN63	Bar

Outlet Size (Block 2)

03F	=¼"	NPT
05F	=⅜"	NPT
07F	=½"	NPT
04F	=¼"	BSPP
06F	=⅜"	BSPP
08F	=½"	BSPP
13F	=¼"	BSPTaper
14F	=⅜"	BSPTaper
15F	=½"	BSPTaper

Flange Type (Block 3)

RF	= Raised Face
RTJ	= Ring Type Joint

Material (Block 4)

AI	=316 SS
MO	=MONEL
HA	=HASTELLOY C-276
IL	=INCONEL 625
IN	=INCOLOY 825
TI	=TITANIUM Gr.2
DU	=DUPLEX UNS S31803
SD	=SUPER DUPLEX S32760
HC	=HASTELLOY C-22
SA	=SUPER AUSTENITIC ST.ST 6% MO

Optional Extras (Block 5)

See: How to Order Needle Valves & Manifolds