

Colson X-Cel Ltd have extensive knowledge and experience in small bore needle and manifold valve technology. The instrument range of needle valves and manifolds have an extensive reference list in a multitude of applications having served an array of industries worldwide for the over 25 years. Colson X-Cel Ltd design, machine, assemble, test and quality assure all products in house at the Advanced Manufacturing Park in the UK.

The range is a quality engineered and high pressure valve rated up to 10,000 psi. The needle valve and manifold range is designed with a heavy-duty screwed needle valve which achieves a metal to metal, bubble tight seal. The range is manufactured in bar stock materials certified to NACE. Available in sizes from 1/4" to 1/2" and with screwed NPT threads as standard.

TECHNICAL DATA

Materials:

316 Stainless Steel—A479 UNS S31600

Inlet Connection:

1/4" - 1" NPT Female

Outlet Connection:

1/4" - 1" NPT Female

Pressure Rating:

6,000psi (As Std)

Operating Temperature Range:

-46°C to 200°C (-51°F to 392°F)

Bore Sizes:

5mm

DESIGN FEATURES

High Pressure design rated to 10,000psi

Designed to MSS-SP-99

Tested to API 598—Leakage Rate A

Full material traceability

Panel Mount

Female NPT connections (1/4" - 1")

Low operating torque

Internally loaded blowout proof stem

Lockable available*

Other connection types available*

Exotic materials available*

*Contact Sales Department

Colson X-Cel Ltd
 R-evolution @ the AMP
 Unit 3 Brindley Way
 Rotherham
 S60 5FS

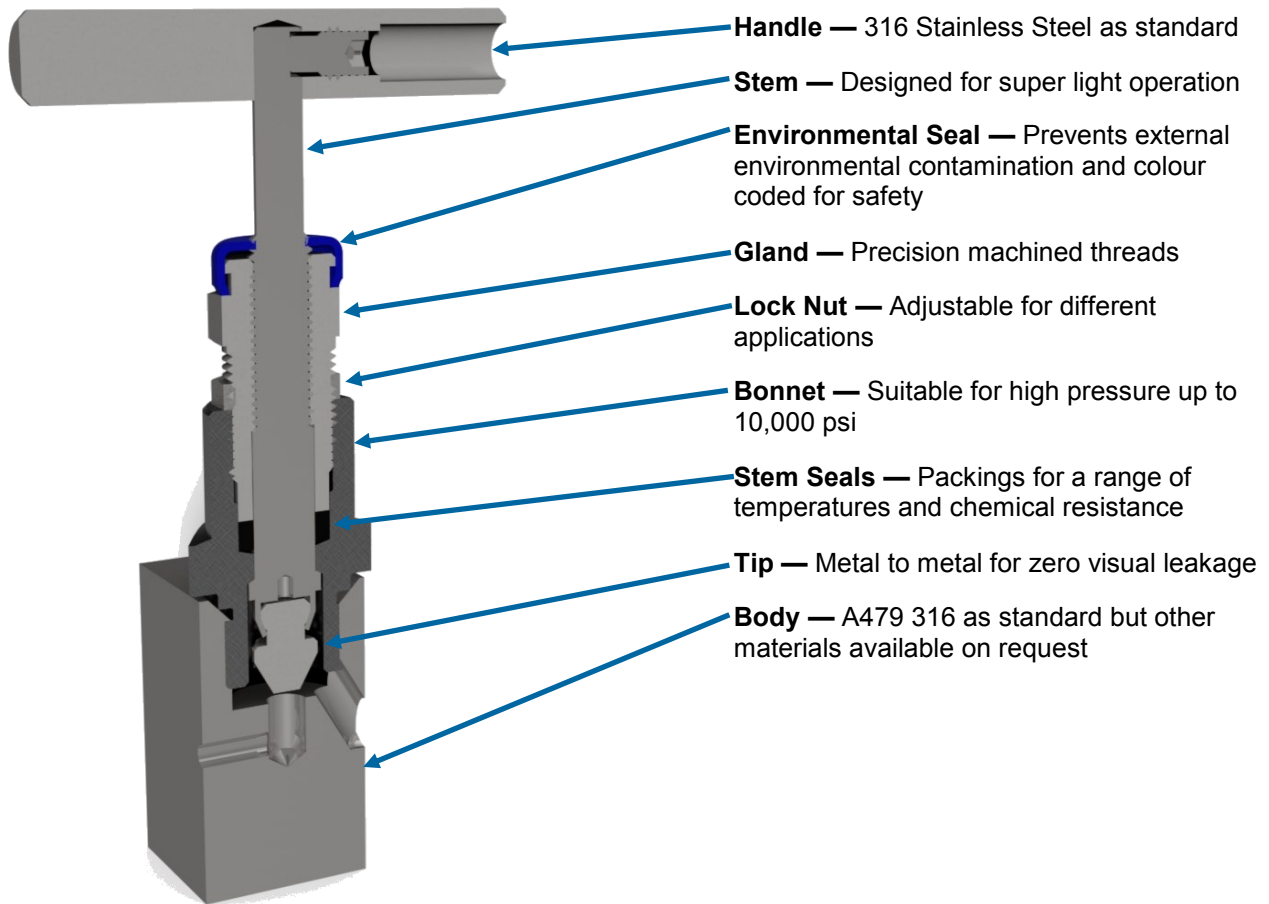
Phone: +44 (0) 114 243 2898

*E-mail: sales@colson.co.uk

Colson X-Cel Needle Design

High Pressure 5mm Needle Valve

The 5mm bore high pressure needle valve can be supplied to suit a whole range of applications. A low operating torque is achieved using a super finished stem and bonnet packed with low friction PTFE and graphite seals that provide a leak tight seal.



- Handle** — 316 Stainless Steel as standard
- Stem** — Designed for super light operation
- Environmental Seal** — Prevents external environmental contamination and colour coded for safety
- Gland** — Precision machined threads
- Lock Nut** — Adjustable for different applications
- Bonnet** — Suitable for high pressure up to 10,000 psi
- Stem Seals** — Packings for a range of temperatures and chemical resistance
- Tip** — Metal to metal for zero visual leakage
- Body** — A479 316 as standard but other materials available on request

Needle Valve Components

Item	Description	Material
1	Handle	UNS S31600
2	Bonnet	A479 - UNS S31600
3	Gland	A479 - UNS S31600
4	Gland Follower	A479 - UNS S31600
5	Seal	PTFE
6	Locknut	UNS S31600
7	Stem/Tip	A479 - UNS S31600
8	Dust Cap	PVC
9	Grub Screw	UNS S31600

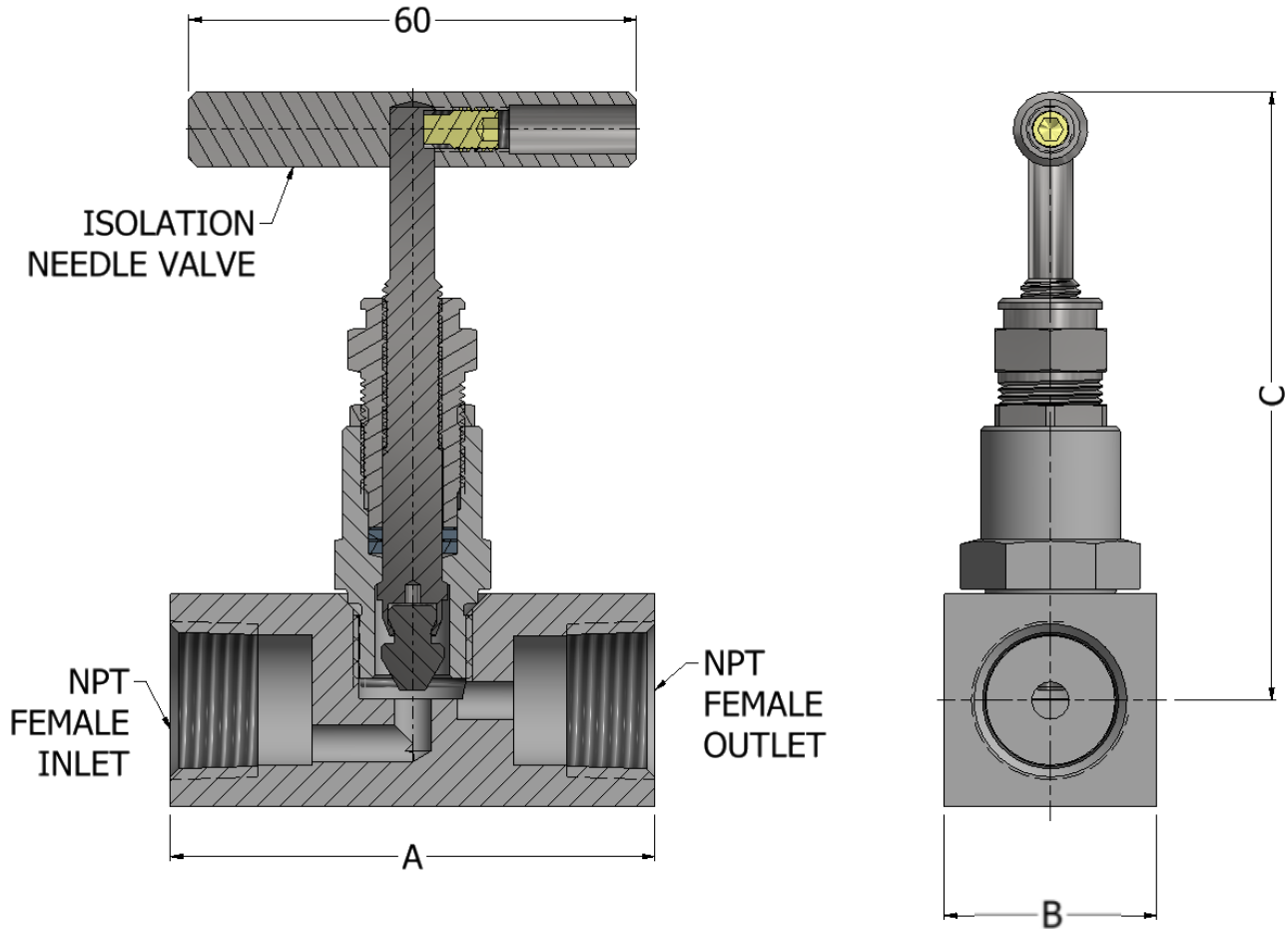
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N Series Female x Female High Pressure Needle Valves

N Series Weights and Dimensions

The N series single needle valve has a heavy duty screwed bonnet and a two piece stem to ensure super light torque



N Series Range

Part Number	Connection Size (NPT)	Bore	Face to Face (A)	Body Size (B)	Handle Height (C)	Handle Length	Weight	Pressure
N08NFS	1/4"	5mm	52mm	25.4mm	80mm	60mm	0.4kg	10,000psi
N10NFS	3/8"	5mm	50mm	25.4mm	80mm	60mm	0.3kg	10,000psi
N15NFS	1/2"	5mm	60mm	28.5mm	80mm	60mm	0.4kg	10,000psi
N20NFS	3/4"	5mm	70mm	38.1mm	80mm	60mm	0.9kg	6,000psi [^]
N25NFS	1"	8mm	75mm	44.5mm	80mm	60mm	1.2kg	6,000psi [^]

[^] Pressure down-rated due to connection threads

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Rotherham
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APPLICATIONS

- Gauge Isolation
- Lube Oil Systems
- Methanol Injection Packages

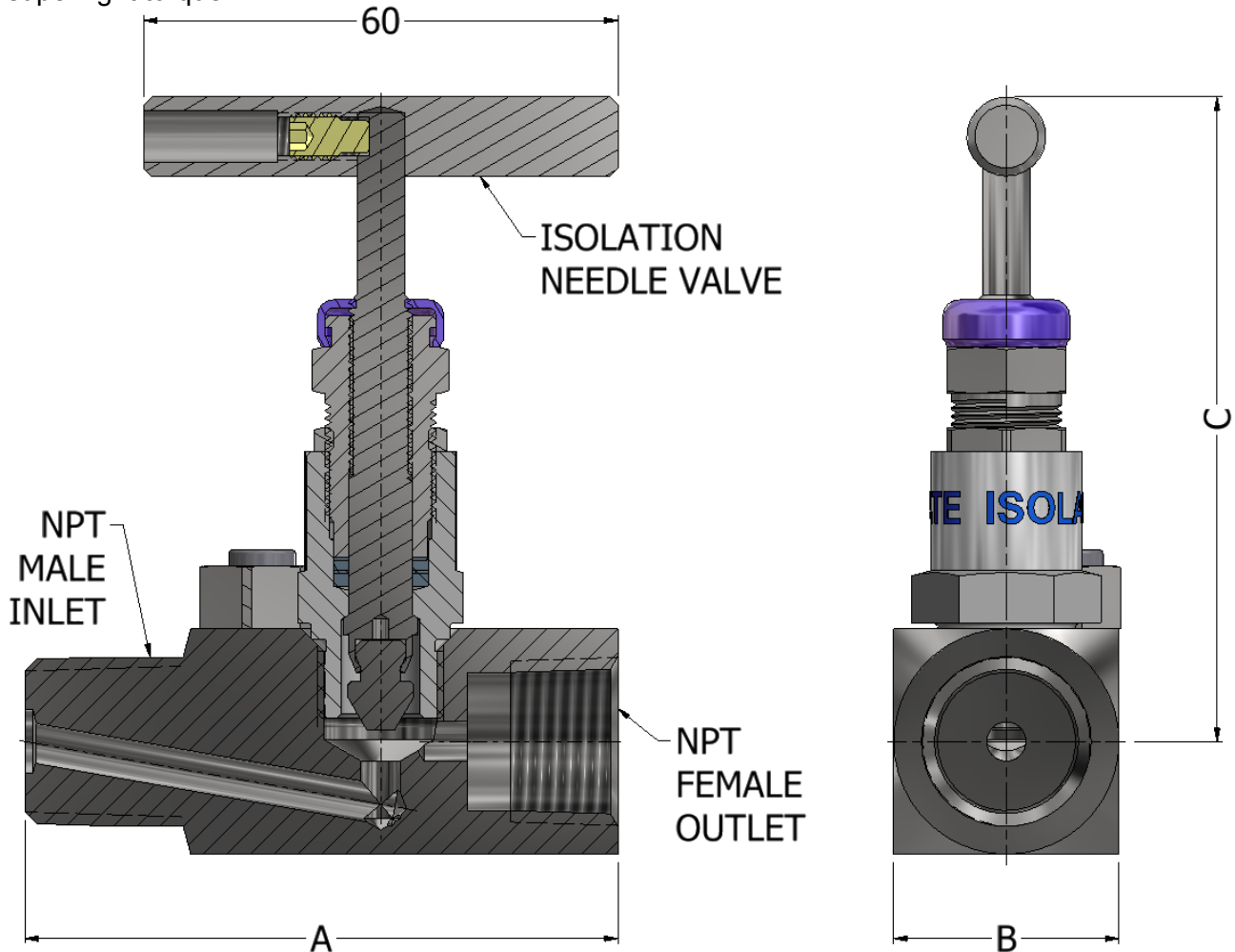
APPLICATIONS

- Waste Water Treatment Systems
- Oil, Water and Sand Separation Systems
- Produced Water Treatment Packages
- Pump Packages

N Series Male x Female High Pressure Needle Valves

NM Series Weights and Dimensions

The NS series needle valve has a heavy duty screwed bonnet and a two piece stem to ensure super light torque



NM Series Range

Part Number	Connection Size (NPT)	Bore	Face to Face (A)	Body Size (B)	Handle Height (C)	Handle Length	Weight	Pressure
N08NM08NFS	1/4"	5mm	60mm	25.4mm	80mm	60mm	0.32kg	10,000psi
N15NM15NFS	1/2"	5mm	75mm	28.5mm	82mm	60mm	0.50kg	10,000psi

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Rotherham
S60 5FS

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APPLICATIONS

- Gauge Isolation
- Lube Oil Systems
- Methanol Injection Packages
- Chemical Distribution Panels

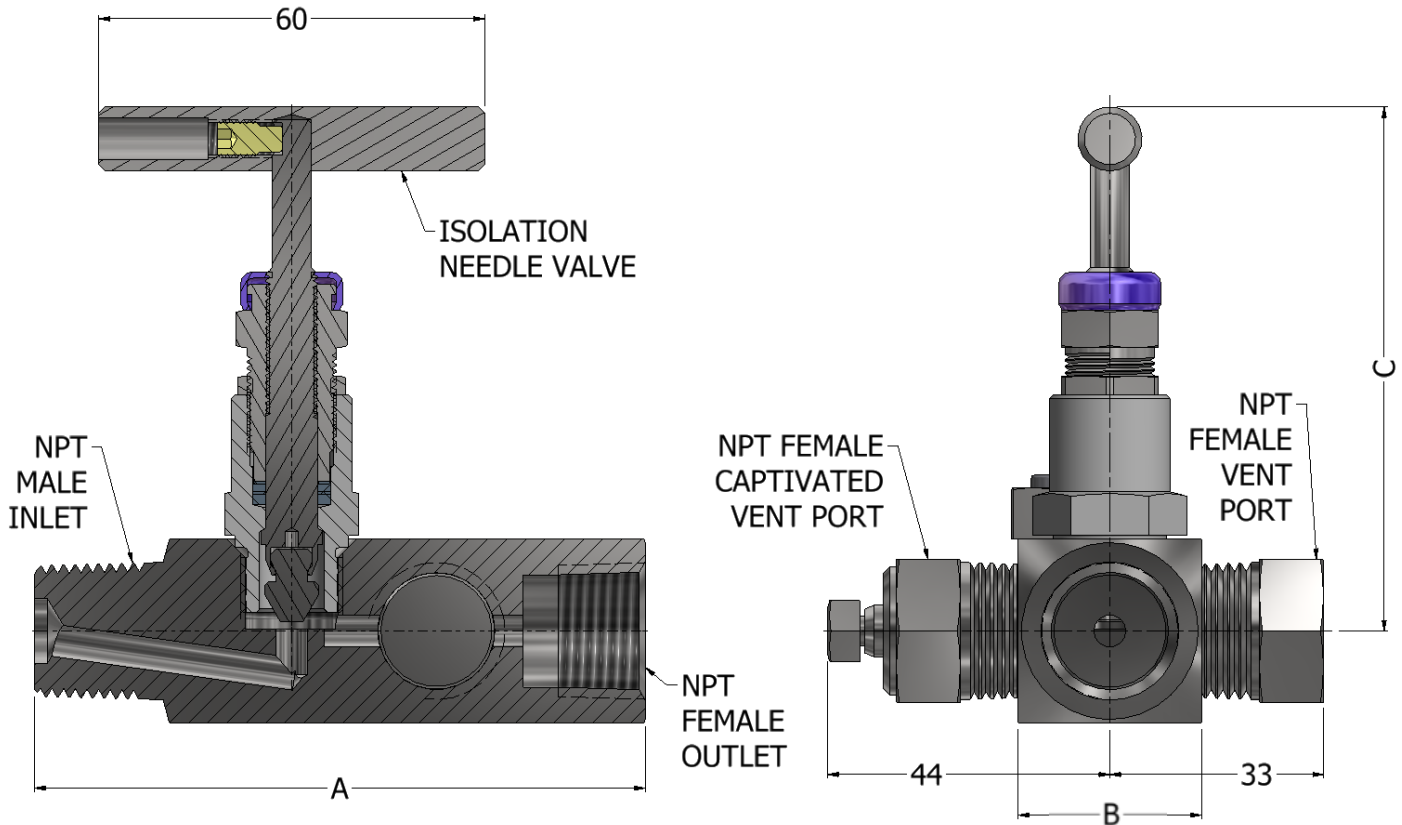
APPLICATIONS

- Waste Water Treatment Systems
- Oil, Water and Sand Separation Systems
- Produced Water Treatment Packages
- Pump Packages

G Series High Pressure Gauge Valve

G Series Weights and Dimensions

The G series multiport gauge valve is suitable for mounting pressure gauges or transmitters



G Series Range

Part Number	Connection Size (NPT)	Bore	Face to Face (A)	Body Size (B)	Handle Height (C)	Handle Length	Weight	Pressure
G15NM15NFS	1/2"	5mm	95mm	28.5mm	82mm	60mm	0.7kg	10,000psi

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Rotherham
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APPLICATIONS

- Gauge Isolation
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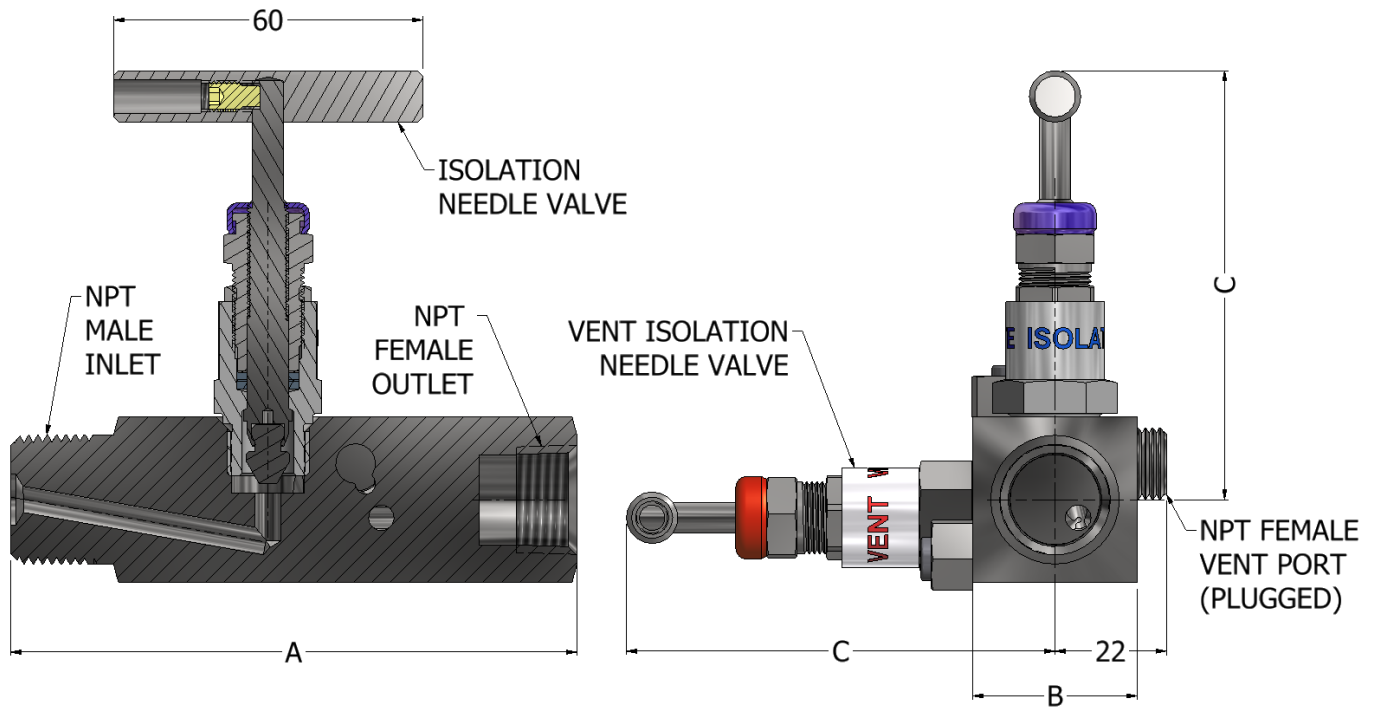
APPLICATIONS

- Waste Water Treatment Systems
- Oil, Water and Sand Separation Systems
- Produced Water Treatment Packages
- Pump Packages

2I Inline Series High Pressure 2 Valve Manifold

2I Series Weights and Dimensions

The 2I series manifold is a single process isolation and controlled vent for safe working conditions when calibrating a gauge or transmitter



2I Series Range

Part Number	Connection Size (NPT)	Bore	Face to Face (A)	Body Size (B)	Handle Height (C)	Handle Length	Weight	Pressure
2I15NM15NFS	1/2"	5mm	110mm	32mm	83mm	60mm	0.9kg	10,000psi

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APPLICATIONS

- Gauge Isolation
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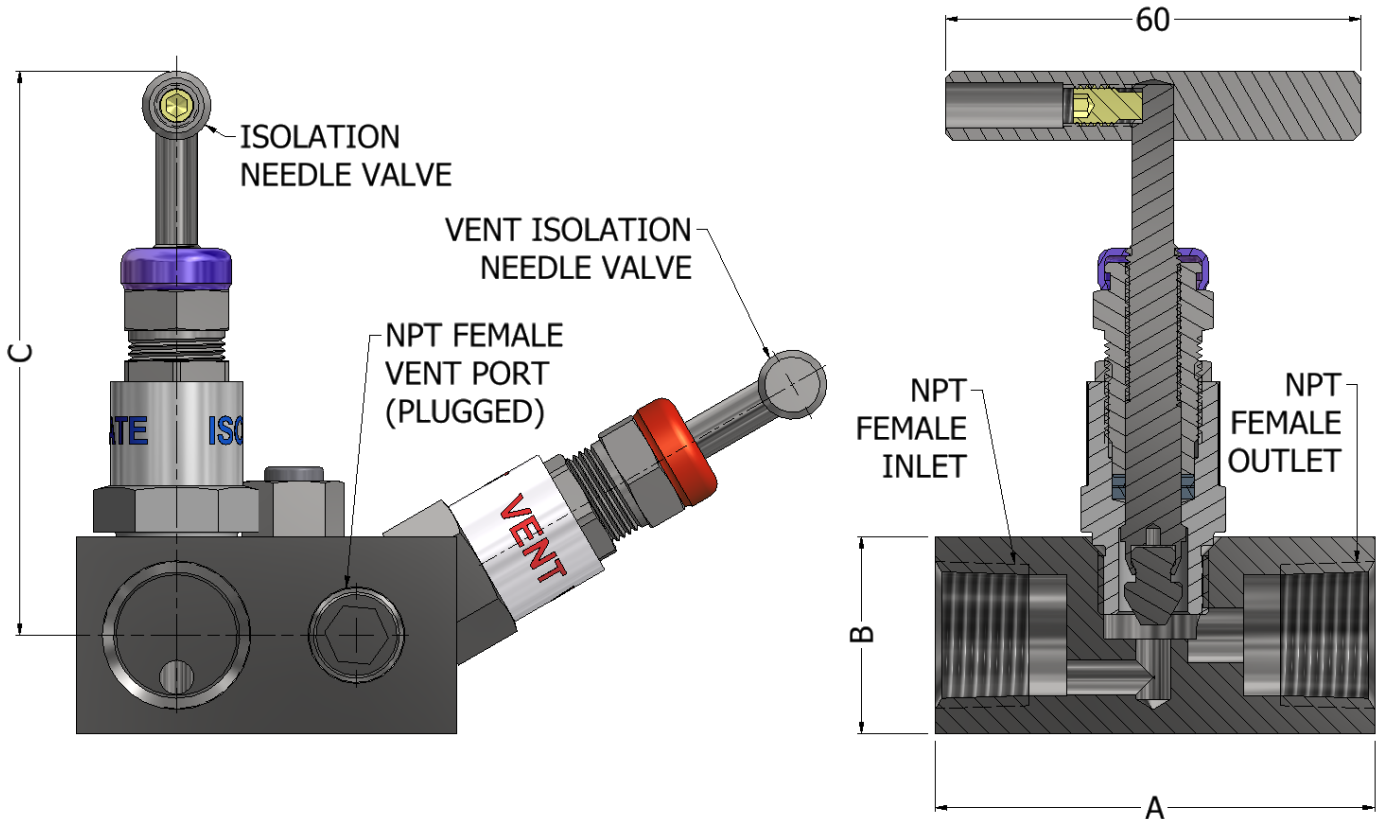
APPLICATIONS

- Waste Water Treatment Systems
- Oil, Water and Sand Separation Systems
- Produced Water Treatment Packages
- Pump Packages

2R Remote Series High Pressure 2 Valve Manifold

2R Series Weights and Dimensions

The 2R series manifold is a single process isolation and controlled vent for safe working conditions when calibrating a gauge or transmitter



2R Series Range

Part Number	Connection Size (NPT)	Bore	Face to Face (A)	Body Size (B)	Handle Height (C)	Handle Length	Weight	Pressure
2R15NFS	1/2"	5mm	63.5mm	28.5mm	81mm	60mm	0.8kg	10,000psi

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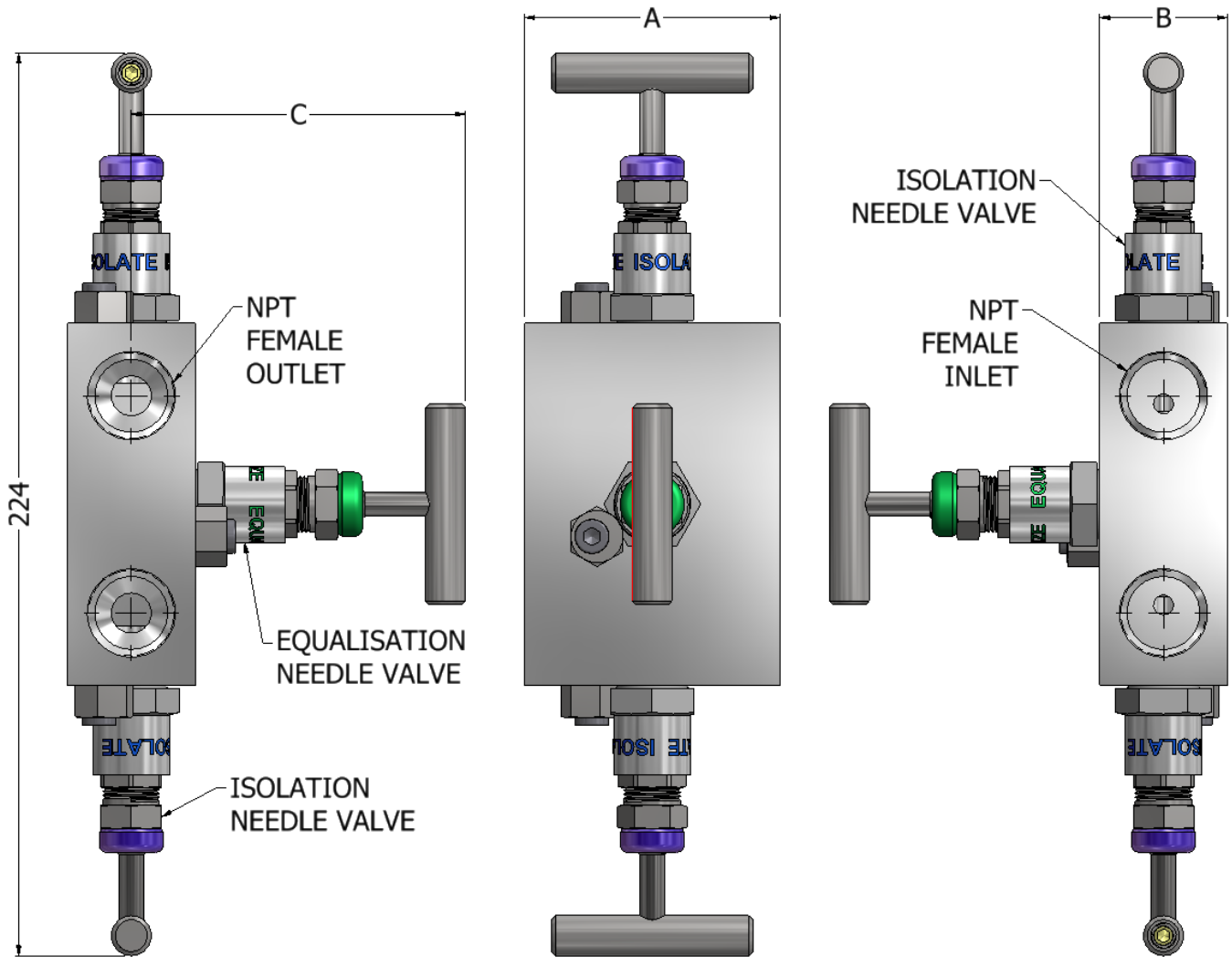
APPLICATIONS

- Waste Water Treatment Systems
- Oil, Water and Sand Separation Systems
- Produced Water Treatment Packages
- Pump Packages

3R Series High Pressure Needle Valves

3R Series Weights and Dimensions

The 3R series is a remote mount manifold suitable for pressure transmitters and static instrument isolation. The 3R series has two process isolations and one equalisation.



3R Series Range

Part Number	Connection Size (NPT)	Bore	Face to Face (A)	Body Size (B)	Handle Height (C)	Handle Length	Weight	Pressure
3R15NFS	1/2"	5mm	63.5mm	32mm	83mm	60mm	0.9kg	6,000psi

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APPLICATIONS

- Lube Oil Systems
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- Chemical Distribution Panels

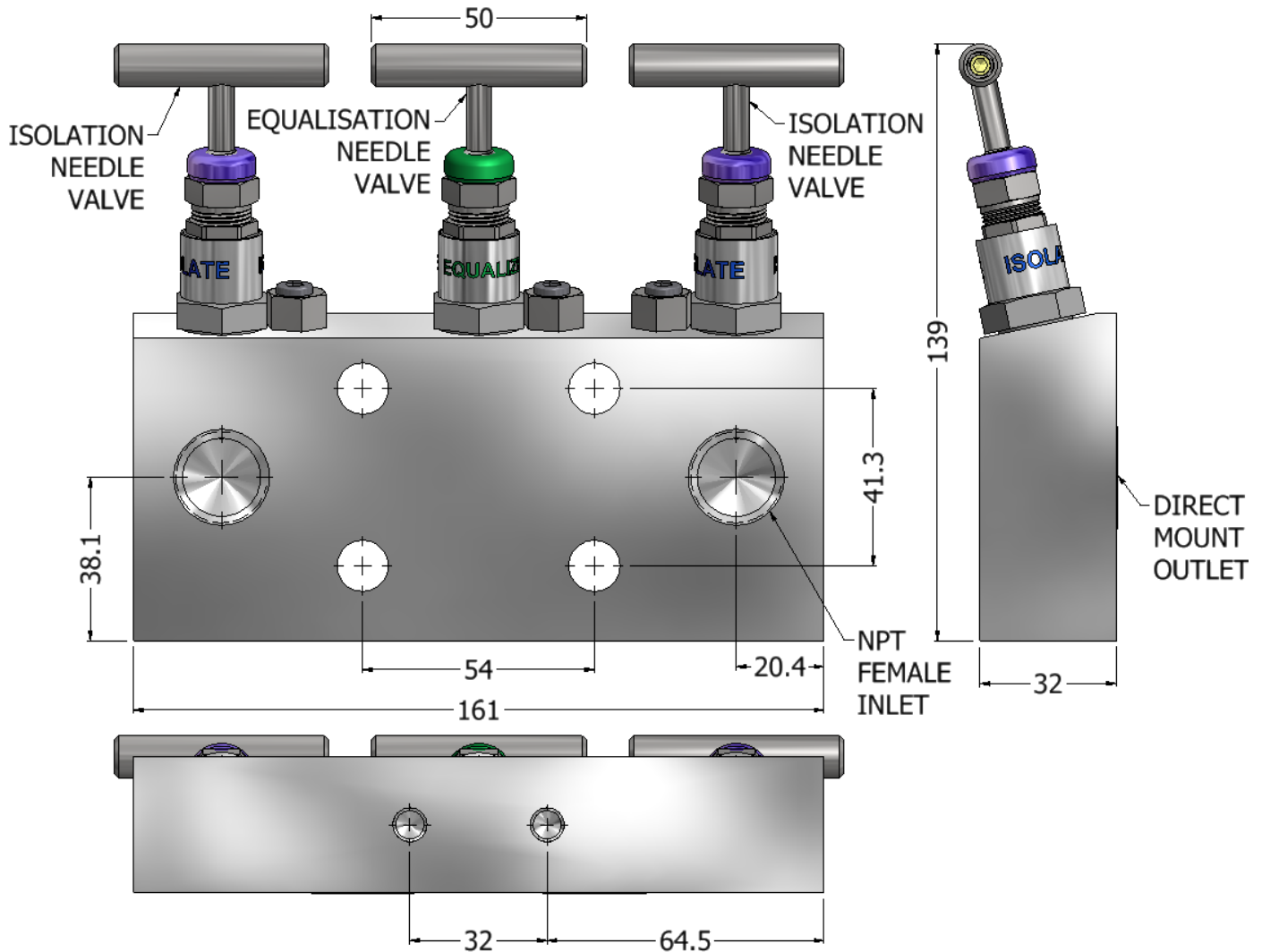
APPLICATIONS

- Waste Water Treatment Systems
- Oil, Water and Sand Separation Systems
- Produced Water Treatment Packages
- Pump Packages

3D Series High Pressure Needle Valves

3D Series Weights and Dimensions

The 3D series is a direct mount manifold suitable for pressure transmitters and static instrument isolation. The 3D series has two process isolations and one equalisation.



3D Series Range

Part Number	Connection Size (NPT)	Bore	Face to Face (A)	Body Size (B)	Handle Height (C)	Handle Length	Weight	Pressure
3D15NFS	1/2"	5mm	32mm	161mm	139mm	50mm	0.9kg	6,000psi

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Rotherham
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APPLICATIONS

- Lube Oil Systems
- Methanol Injection Packages
- Chemical Distribution Panels

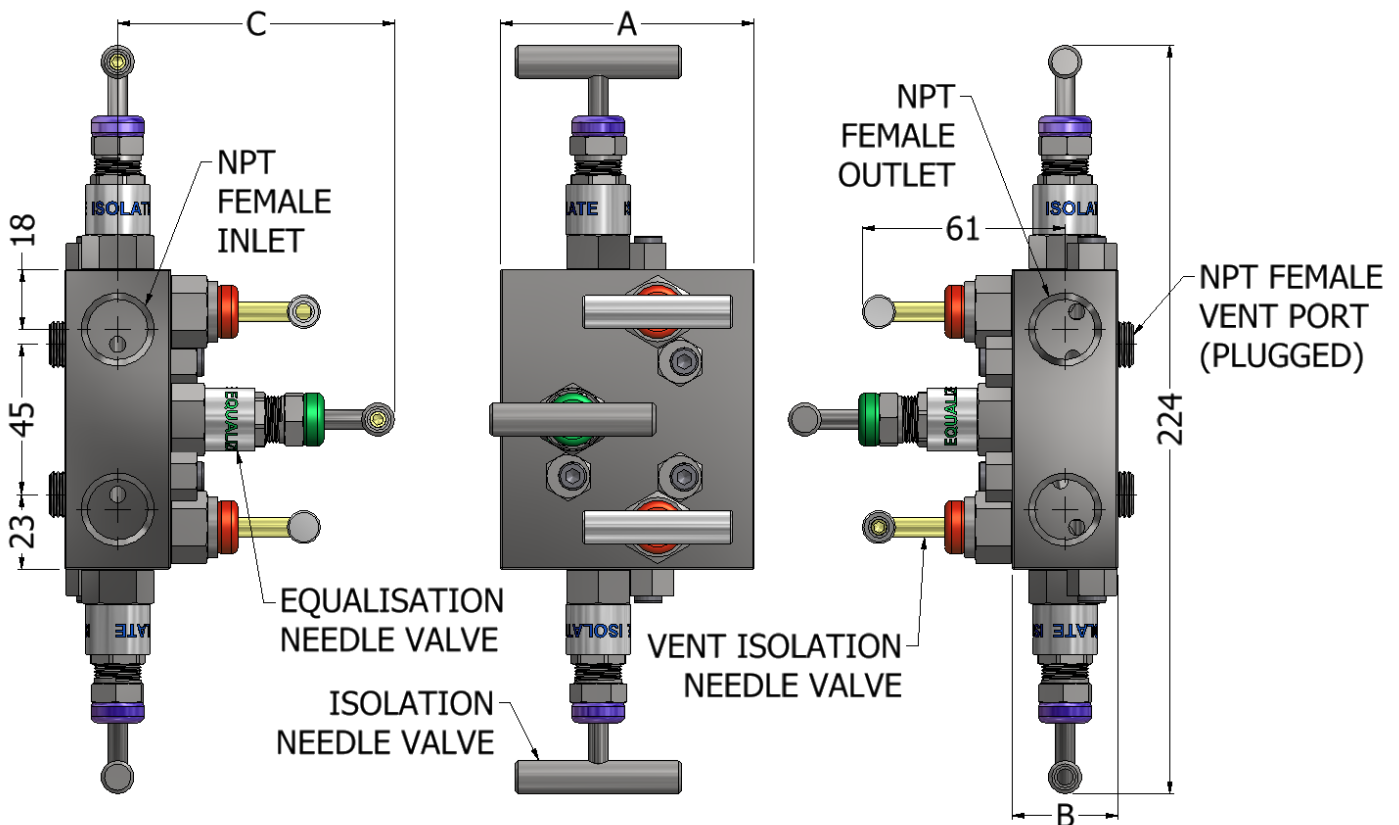
APPLICATIONS

- Waste Water Treatment Systems
- Oil, Water and Sand Separation Systems
- Produced Water Treatment Packages
- Pump Packages

5R Series High Pressure Needle Valves

5R Series Weights and Dimensions

The 5R series is a remote mount manifold suitable for pressure transmitters and static instrument isolation. The 5R series has two process isolations, two vents and one equalise.



5R Series Range

Part Number	Connection Size (NPT)	Bore	Face to Face (A)	Body Size (B)	Handle Height (C)	Handle Length	Weight	Pressure
5R15NFS	1/2"	5mm	76.2mm	32mm	83mm	60mm	0.9kg	6,000psi

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- Lube Oil Systems
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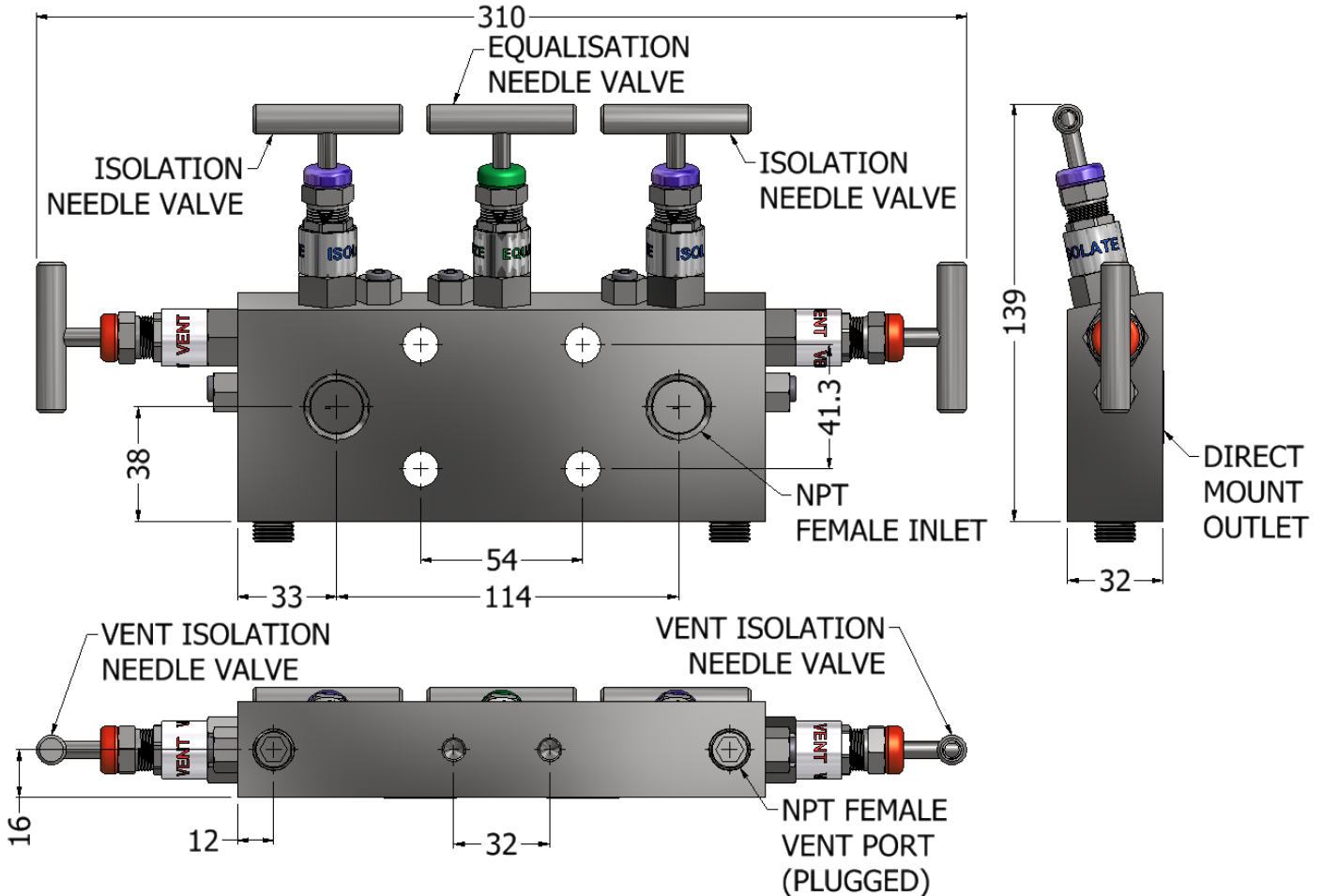
APPLICATIONS

- Waste Water Treatment Systems
- Oil, Water and Sand Separation Systems
- Produced Water Treatment Packages
- Pump Packages

5D Series High Pressure Needle Valves

5D Series Weights and Dimensions

The 5D series is a direct mount manifold suitable for pressure transmitters and static instrument isolation. The 5D series has two process isolations, two vents and one equalisation.



5D Series Range

Part Number	Connection Size (NPT)	Bore	Face to Face (A)	Body Size (B)	Handle Height (C)	Handle Length	Weight	Pressure
5D15NFS	1/2"	5mm	32mm	180mm	139mm	60mm	0.9kg	6,000psi

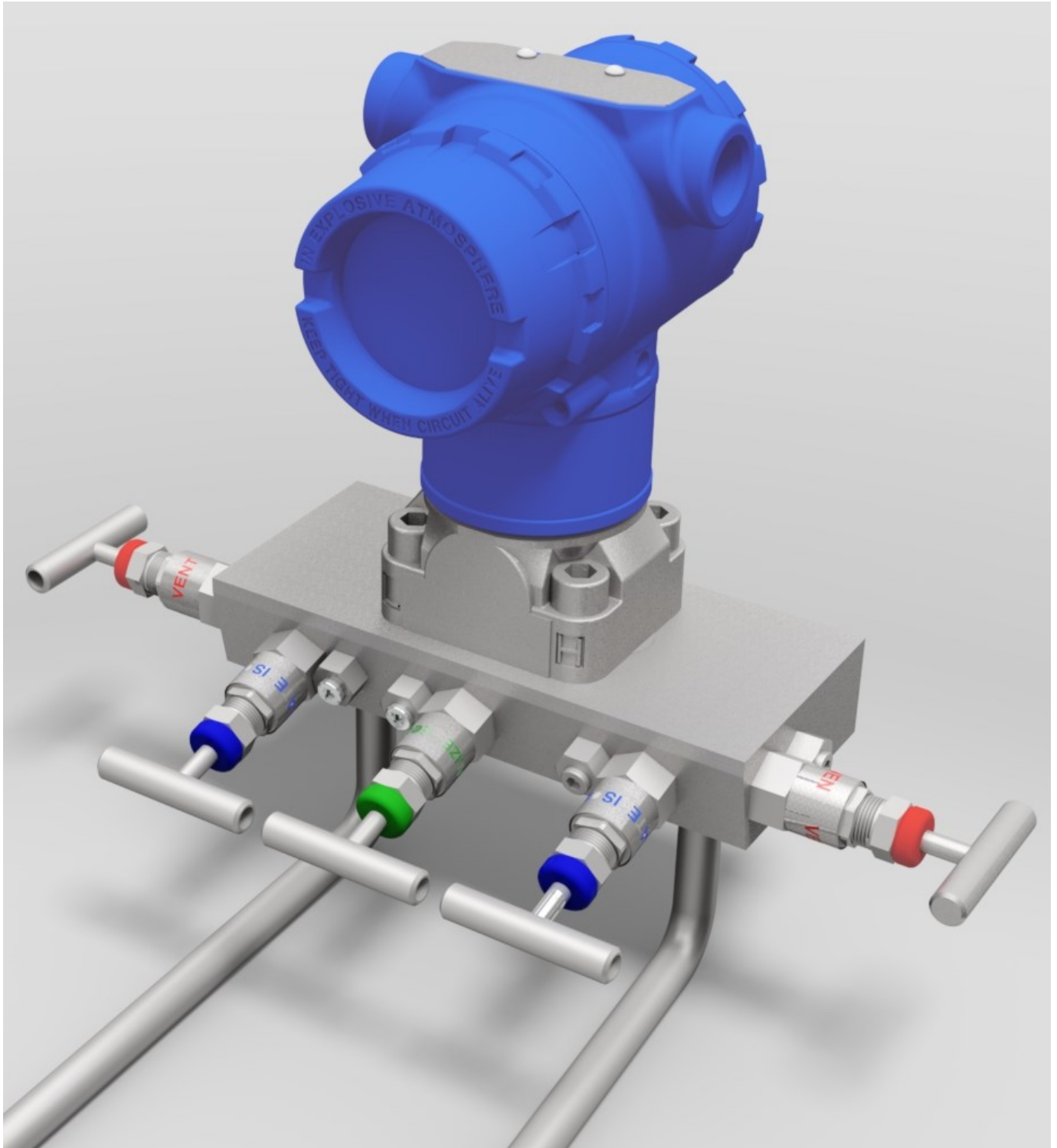
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