

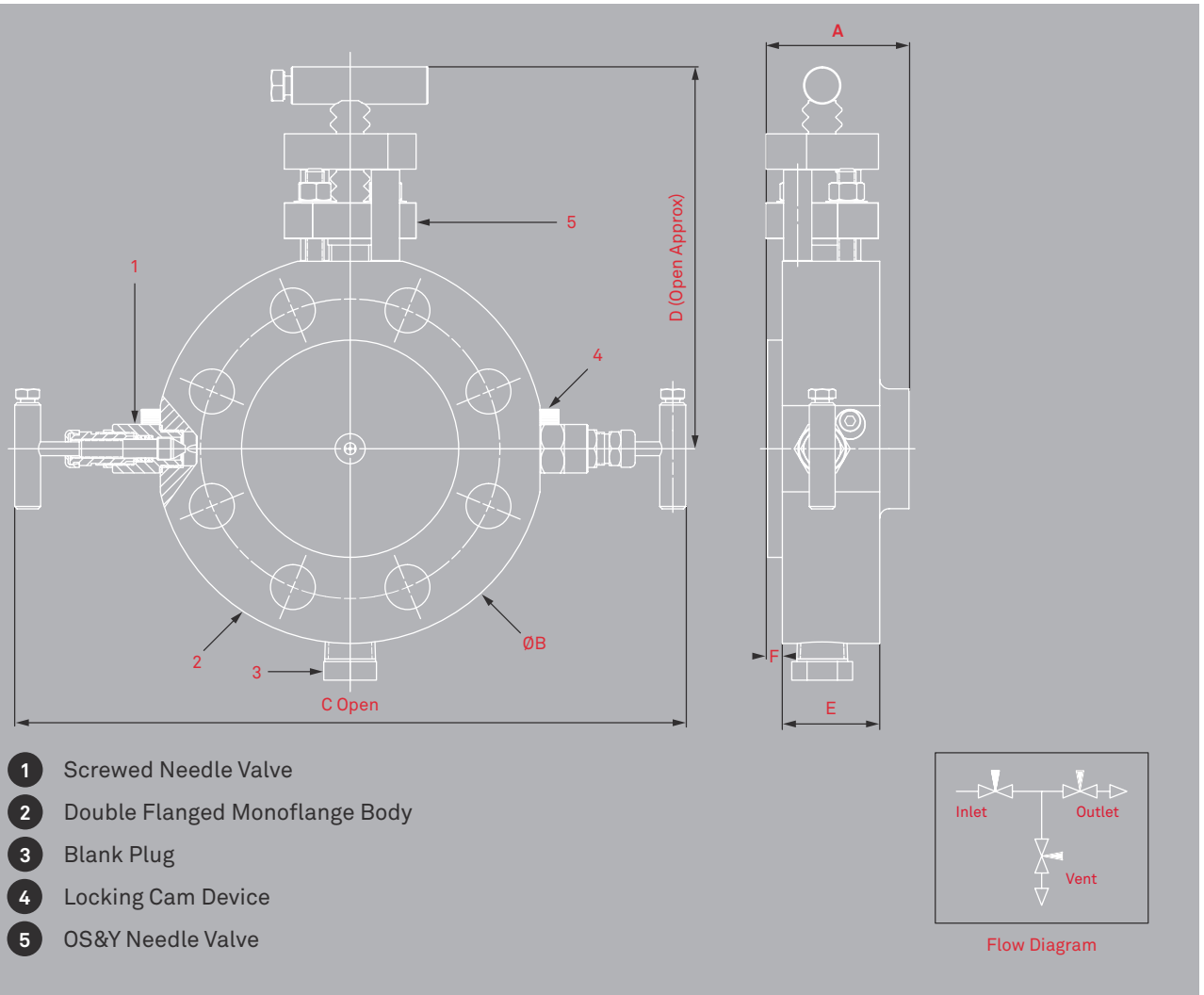
# Ø5mm Bore SMF Monoflange Flange x Screw

Technical Spec

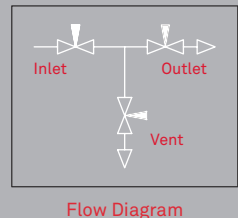
Double block and bleed monoflange valve manifold with flanged inlet, with threaded outlet and vent connections utilising metal to metal seat and bonnet to body connection for superior, bubble tight sealing capabilities at both extreme pressures and temperatures.

The SMF type valve offers a Needle, Needle, Needle configuration as well as an OS&Y Needle, Needle, Needle configuration to suit all needs. Anti-tamper needle valves are also available to prevent unauthorised operation. This series offers working pressures of up to ASME class 2500 with a maximum working temperature of 472°C.

Valve Construction



- 1 Screwed Needle Valve
- 2 Double Flanged Monoflange Body
- 3 Blank Plug
- 4 Locking Cam Device
- 5 OS&Y Needle Valve



Flow Diagram

Options

Flange/Inlet †	Outlet †	Vented Port Thread †	Vent Port †	Needle Valve
Raised Face	NPT	NPT	Plugged	Standard Needle
Flat Face	BSPP	BSPP	Unplugged	Anti-Tamper Needle
Ring Type Joint	BSPT	BSPT	Safety Vent Plug	OS&Y Needle
				Lockable OS&Y Needle

† Other options can be supplied upon request.



**Temp. Range**  
-46°C > 472°C†



**Pressure Rating**  
ASME Class 150 - 2500



**Flange Sizes**  
ASME B16.5 1/2" - 2"†



**Compliance**  
NACE MR - 01 - 75

† Actual maximum working temperature is dependent on valve service conditions; please contact for more information.

Design Features

- ASME B16.5 ½” to 2” NB Flange sizes - Larger sizes are available
- Different needle combinations/types available including OS&Y and Anti-Tamper
- Designed to ASME B16.34 Class 150 to 2500 pressure rated and API 6A up to 10,000psi
- Materials available; ASTM A182 F316 Stainless Steel, ASTM A182 F51/55 Duplex & Super Duplex, and ASTM B564 UNS N06625 Inconel
- ASME B1.20.1 ½” – 14 NPT Outlet Size – Standard
- Various trim materials available
- ASME B1.20.1 ½” – 14 NPT Vent Size – Standard
- Standard Designs are fire safe
- Other Outlet/Vent Sizes and Thread types are available
- Sample Probes/Injection Quills can be added to flanged face

Pressure Testing

All our Valves are tested thoroughly. We offer a wide range of testing options due to our variety of in-house testing equipment. Standard Hydro-body, Hydro-seat and Gas seat testing is carried out to API 598 and API 6A, with permissible leakage to ISO 5208. However other standards can be adhered to should it be required, including but not limited to PR2, ISO 15848, MESC SPE 77/300 and MESC SPE 77/312. Please speak to our Sales team with regards to your testing requirements and we will be happy to advise.

**Non-Destructive Testing/Examination Options**

- DPI
- MPI
- Ultrasonic
- Hardness Testing
- Radiography

Data Table

For further information regarding this range, please see the Ø5mm Bore SMF Monoflange Flange x Screw product data table at the back of this brochure.

# Ø5SMF Monoflange Product Type

## 5MM BORE, NEEDLE, NEEDLE, NEEDLE RF MONOFLANGE, FLANGE X SCREW

	Size	Rating	Valve Part No.	A (mm)	ØB (mm)	C (mm)	D (mm)	E (mm)	F (mm)	Nominal weight
Metric / mm	1/2"	150	SMF-NNN-4N#-4AR	60	95	212	104	38.1	1.6	2
	1/2"	300	SMF-NNN-4N#-4BR	60	95	212	104	38.1	1.6	2
	1/2"	600	SMF-NNN-4N#-4CR	60	95	212	104	38.1	6.3	2
	1/2"	900/1500	SMF-NNN-4N#-4ER	55	121	240	117	33.8	6.6	3
	1/2"	2500	SMF-NNN-4N#-4FR	60	133	253	124	33.8	6.3	4
	3/4"	150	SMF-NNN-4N#-6AR	60	98	217	107	38.1	1.6	2
	3/4"	300	SMF-NNN-4N#-6BR	60	118	238	117	38.1	1.6	3
	3/4"	600	SMF-NNN-4N#-6CR	60	118	238	117	38.1	6.3	3
	3/4"	900/1500	SMF-NNN-4N#-6ER	57	130	250	122	35.8	6.3	4
	3/4"	2500	SMF-NNN-4N#-6FR	60	140	259	127	38.8	6.3	5
	1"	150	SMF-NNN-4N#-8AR	60	108	227	112	38.1	1.6	3
	1"	300	SMF-NNN-4N#-8BR	60	124	243	120	38.1	1.6	4
	1"	600	SMF-NNN-4N#-8CR	60	124	243	120	38.1	6.3	4
	1"	900/1500	SMF-NNN-4N#-8ER	57	149	270	132	35.8	6.3	5
	1"	2500	SMF-NNN-4N#-8FR	60	159	279	137	38.8	6.3	6
	1 1/2"	150	SMF-NNN-4N#-12AR	67	128	247	122	38.1	1.6	4
	1 1/2"	300	SMF-NNN-4N#-12BR	67	156	277	137	38.1	1.6	6
	1 1/2"	600	SMF-NNN-4N#-12CR	67	156	277	137	38.1	6.3	6
	1 1/2"	900/1500	SMF-NNN-4N#-12ER	60	178	299	148	38.8	6.3	8
	1 1/2"	2500	SMF-NNN-4N#-12FR	66	203	324	160	44.8	6.3	11
2"	150	SMF-NNN-4N#-16AR	60	152	273	136	38.1	1.6	6	
2"	300	SMF-NNN-4N#-16BR	60	165	286	142	38.1	1.6	6	
2"	600	SMF-NNN-4N#-16CR	60	165	286	142	41.3	6.3	6	
2"	900/1500	SMF-NNN-4N#-16ER	62	216	337	168	40.8	6.3	11	
2"	2500	SMF-NNN-4N#-16FR	73	235	356	174	51.3	6.3	16	

# Ø5SMF Monoflange Product Type (cont'd)

## 5MM BORE, OSY NEEDLE, NEEDLE, NEEDLE RF MONOFLANGE, FLANGE X SCREW

Size	Rating	Valve Part No.	A (mm)	ØB (mm)	C (mm)	D (mm)	E (mm)	F (mm)	Nominal weight
1/2"	150	SMF-ONN-4N#-4AR	60	95	214	126	38.1	1.6	3
1/2"	300	SMF-ONN-4N#-4BR	60	95	214	126	38.1	1.6	3
1/2"	600	SMF-ONN-4N#-4CR	60	95	214	126	38.1	6.3	3
1/2"	900/1500	SMF-ONN-4N#-4ER	55	121	240	138	33.8	6.6	4
1/2"	2500	SMF-ONN-4N#-4FR	60	133	253	145	33.8	6.3	5
3/4"	150	SMF-ONN-4N#-6AR	60	98	217	128	38.1	1.6	3
3/4"	300	SMF-ONN-4N#-6BR	60	118	238	138	38.1	1.6	4
3/4"	600	SMF-ONN-4N#-6CR	60	118	237	138	38.1	6.3	4
3/4"	900/1500	SMF-ONN-4N#-6ER	57	130	250	144	35.8	6.3	4
3/4"	2500	SMF-ONN-4N#-6FR	60	140	259	149	38.8	6.3	5
1"	150	SMF-ONN-4N#-8AR	60	108	227	133	38.1	1.6	3
1"	300	SMF-ONN-4N#-8BR	60	124	243	141	38.1	1.6	4
1"	600	SMF-ONN-4N#-8CR	60	124	243	141	38.1	6.3	4
1"	900/1500	SMF-ONN-4N#-8ER	57	149	270	152	35.8	6.3	5
1"	2500	SMF-ONN-4N#-8FR	60	159	279	159	38.8	6.3	7
1 1/2"	150	SMF-ONN-4N#-12AR	67	128	247	143	38.1	1.6	5
1 1/2"	300	SMF-ONN-4N#-12BR	67	156	277	158	38.1	1.6	6
1 1/2"	600	SMF-ONN-4N#-12CR	67	156	277	158	38.1	6.3	6
1 1/2"	900/1500	SMF-ONN-4N#-12ER	60	178	299	170	38.8	6.3	8
1 1/2"	2500	SMF-ONN-4N#-12FR	66	203	324	182	44.8	6.3	12
2"	150	SMF-ONN-4N#-16AR	60	152	273	157	38.1	1.6	6
2"	300	SMF-ONN-4N#-16BR	60	165	286	163	38.1	1.6	7
2"	600	SMF-ONN-4N#-16CR	60	165	286	163	41.3	6.3	7
2"	900/1500	SMF-ONN-4N#-16ER	62	216	337	189	40.8	6.3	12
2"	2500	SMF-ONN-4N#-16FR	73	235	356	198	51.3	6.3	17

Metric / mm

# Ø5SMF Monoflange Product Type (cont'd)

## 5MM BORE, NEEDLE, NEEDLE, NEEDLE RTJ MONOFLANGE, FLANGE X SCREW

	Size	Rating	Valve Part No.	A (mm)	ØB (mm)	C (mm)	D (mm)	E (mm)	F (mm)	Nominal weight
Metric / mm	1/2"	300	SMF-NNN-4N#-4BRJ	55	65	214	104	34.5	5.56	2
	1/2"	600	SMF-NNN-4N#-4CRJ	55	65	214	104	34.5	5.56	2
	1/2"	900/1500	SMF-NNN-4N#-4ERJ	55	121	240	117	33.8	6.30	3
	1/2"	2500	SMF-NNN-4N#-4FRJ	60	133	253	124	38.8	6.30	5
	3/4"	300	SMF-NNN-4N#-6BRJ	55	118	237	117	33.8	6.30	3
	3/4"	600	SMF-NNN-4N#-6CRJ	55	118	237	117	33.8	6.30	3
	3/4"	900/1500	SMF-NNN-4N#-6ERJ	57	130	250	122	35.8	6.30	4
	3/4"	2500	SMF-NNN-4N#-6FRJ	60	140	259	127	38.8	6.30	5
	1"	150	SMF-NNN-4N#-8ARJ	55	108	227	112	33.8	6.30	3
	1"	300	SMF-NNN-4N#-8BRJ	55	124	243	120	33.8	6.30	4
	1"	600	SMF-NNN-4N#-8CRJ	55	124	243	120	33.8	6.30	4
	1"	900/1500	SMF-NNN-4N#-8ERJ	57	149	270	132	35.8	6.30	5
	1"	2500	SMF-NNN-4N#-8FRJ	60	159	279	137	38.8	6.30	6
	1 1/2"	150	SMF-NNN-4N#-12ARJ	55	127	247	122	33.8	6.30	4
	1 1/2"	300	SMF-NNN-4N#-12BRJ	57	156	277	137	35.8	6.30	6
	1 1/2"	600	SMF-NNN-4N#-12CRJ	57	156	277	137	35.8	6.30	6
	1 1/2"	900/1500	SMF-NNN-4N#-12ERJ	60	178	299	148	38.8	6.30	8
	1 1/2"	2500	SMF-NNN-4N#-12FRJ	68	203	324	160	45.2	7.92	J
	2"	150	SMF-NNN-4N#-16ARJ	57	152	273	136	35.8	6.30	6
	2"	300	SMF-NNN-4N#-16BRJ	60	165	286	142	37.2	7.92	6
2"	600	SMF-NNN-4N#-16CRJ	60	165	286	142	37.2	7.92	6	
2"	900/1500	SMF-NNN-4N#-16ERJ	65	216	337	168	42.2	7.92	J	
2"	2500	SMF-NNN-4N#-16FRJ	74	235	356	174	51.2	7.92	17	

# Ø5SMF Monoflange Product Type (cont'd)

## 5MM BORE, OSY NEEDLE, NEEDLE, NEEDLE RTJ MONOFLANGE, FLANGE X SCREW

	Size	Rating	Valve Part No.	A (mm)	ØB (mm)	C (mm)	D (mm)	E (mm)	F (mm)	Nominal weight
Metric / mm	1/2"	300	SMF-NNN-4N#-4BR	55	95	214	126	34.5	5.56	3
	1/2"	600	SMF-NNN-4N#-4CR	55	95	214	126	34.5	5.56	3
	1/2"	900/1500	SMF-NNN-4N#-4ER	55	121	240	138	33.8	6.30	4
	1/2"	2500	SMF-NNN-4N#-4FR	60	133	253	145	38.8	6.30	5
	3/4"	300	SMF-NNN-4N#-6BR	55	118	237	138	33.8	6.30	4
	3/4"	600	SMF-NNN-4N#-6CR	55	118	237	138	33.8	6.30	4
	3/4"	900/1500	SMF-NNN-4N#-6ER	57	130	250	144	35.8	6.30	4
	3/4"	2500	SMF-NNN-4N#-6FR	60	140	259	149	38.8	6.30	5
	1"	150	SMF-NNN-4N#-8AR	55	108	227	133	33.8	6.30	3
	1"	300	SMF-NNN-4N#-8BR	55	124	243	141	33.8	6.30	4
	1"	600	SMF-NNN-4N#-8CR	55	124	243	141	33.8	6.30	4
	1"	900/1500	SMF-NNN-4N#-8ER	57	149	270	152	35.8	6.30	6
	1"	2500	SMF-NNN-4N#-8FR	60	159	279	159	38.8	6.30	7
	1 1/2"	150	SMF-NNN-4N#-12AR	55	128	247	143	33.8	6.30	5
	1 1/2"	300	SMF-NNN-4N#-12BR	57	156	277	158	35.8	6.30	6
	1 1/2"	600	SMF-NNN-4N#-12CR	57	156	277	158	35.8	6.30	6
	1 1/2"	900/1500	SMF-NNN-4N#-12ER	60	178	299	170	38.8	6.30	8
	1 1/2"	2500	SMF-NNN-4N#-12FR	68	203	324	182	45.2	7.92	10
	2"	150	SMF-NNN-4N#-16AR	57	152	273	157	35.8	6.30	6
	2"	300	SMF-NNN-4N#-16BR	60	165	286	163	37.2	7.92	7
2"	600	SMF-NNN-4N#-16CR	60	165	286	163	37.2	7.92	7	
2"	900/1500	SMF-NNN-4N#-16ER	65	216	337	189	42.2	7.92	12	
2"	2500	SMF-NNN-4N#-16FR	74	235	356	198	51.2	7.92	17	