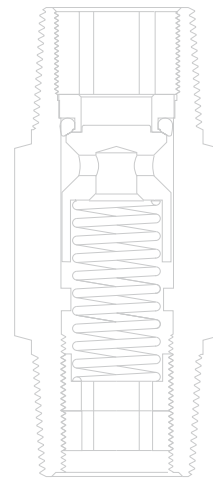
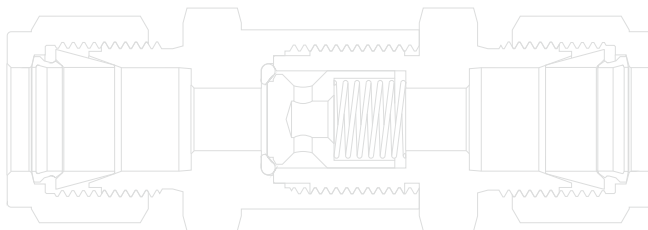


Check Valves



Climate Control
Electromechanical
Filtration
Fluid & Gas Handling
Hydraulics
Process Control
Sealing & Shielding



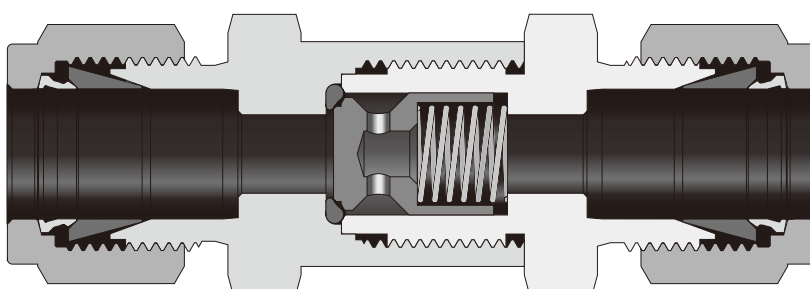
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Check Valves

51 Series



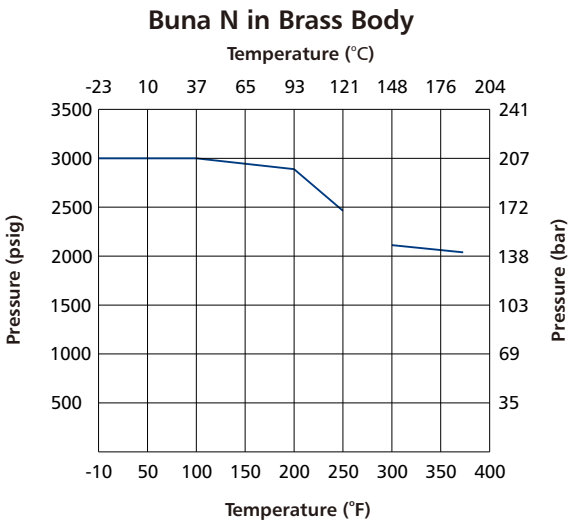
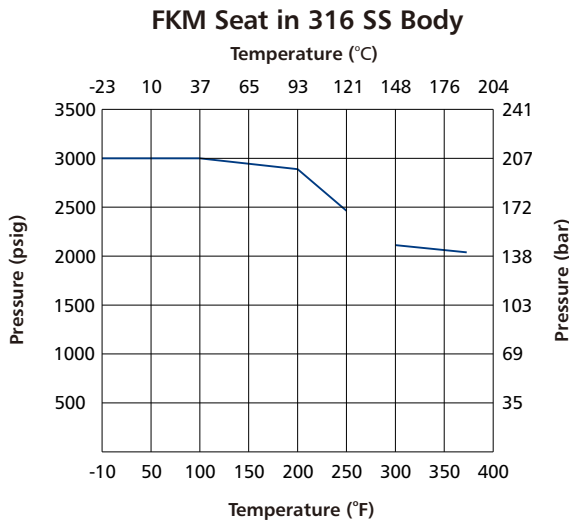
Features

- Resilient O-ring seat design for noise-free closing leakage-free
- Maximum working pressure: 3000 psig (207 bar)
- Working temperature: -10°F to 375°F (-23°C to 190°C)
- Cracking pressure: 1/3 to 25 psig (0.02 to 1.7 bar)
- Variety of end connections and materials available
- Suitable for sour gas service; materials are selected in accordance with NACE MR0175/ISO 15156.
- Every valve is 100% factory tested with nitrogen for leak-tight performance at its maximum working pressure.

Cracking Pressure and Resealing Pressure

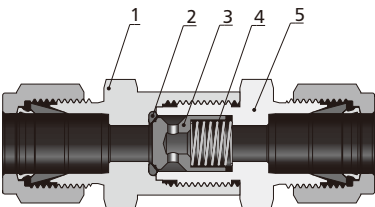
Series	Nominal Cracking Pressure psig (bar)	Cracking Pressure Range psig (bar)	Resealing Pressure Range psig (bar)
51	1/3 (0.02) 1 (0.06) 10 (0.68) 25 (1.7)	0 to 3 (0 to 0.21) 0 to 4 (0 to 0.28) 7 to 15 (0.49 to 1.1) 20 to 30 (1.4 to 2.1)	Up to 6 (0.42) downstream pressure Up to 6 (0.42) downstream pressure 3 (0.21) or higher upstream pressure 17 (1.2) or higher upstream pressure

Pressure vs. Temperature



Standard Materials of Construction

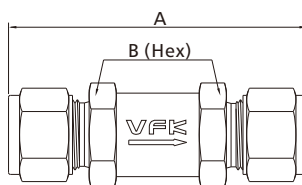
51 Series



Component	Valve Material Grade/ASTM Specification	
	316 SS	Brass
1 Inlet Body	316 SS/A479	Brass 360/B16
2 O-ring	Fluorocarbon FKM	Buna N
3 Poppet	316 SS/A479	Brass 360/B16
4 Spring	302 SS/A313	302 SS/A313
5 Outlet Body	316 SS/A479	Brass 360/B16

Dimensions

51 Series



Basic Ordering Number	Connection Type and Size		CV	Dimension, in. (mm)	
	Inlet	Outlet		A	B
□□51-FX2	1/8" VFK	1/8" VFK	0.16	2.14 (54.3)	5/8 (15.88)
□□51-FX4	1/4" VFK	1/4" VFK	0.47	2.35 (59.7)	
□□51-FX6	3/8" VFK	3/8" VFK	1.47	3.17 (80.5)	7/8 (22.23)
□□51-FX8	1/2" VFK	1/2" VFK	1.68	3.42 (86.9)	
□□51-FX12	3/4" VFK	3/4" VFK	4.48	4.32 (110)	1 1/4 (31.75)
□□51-FX16	1" VFK	1" VFK		4.74 (120)	1 3/8 (34.93)
□□51-MX6	6 mm VFK	6 mm VFK	0.47	2.36 (59.9)	5/8 (15.88)
□□51-MX10	10 mm VFK	10 mm VFK	1.68	3.32 (84.3)	7/8 (22.23)
□□51-MX12	12 mm VFK	12 mm VFK		3.42 (86.9)	
□□51-FN2	1/8 Female NPT	1/8 Female NPT	0.16	1.89 (48.0)	5/8 (15.88)
□□51-FN4	1/4 Female NPT	1/4 Female NPT	0.47	2.15 (54.6)	3/4 (19.05)
□□51-FN6	3/8 Female NPT	3/8 Female NPT	1.47	2.98 (75.7)	7/8 (22.23)
□□51-FN8	1/2 Female NPT	1/2 Female NPT	1.68	3.58 (90.9)	1 1/16 (26.99)
□□51-FN12	3/4 Female NPT	3/4 Female NPT	4.48	4.08 (104)	1 1/4 (31.75)
□□51-FN16	1 Female NPT	1 Female NPT		4.84 (123)	1 5/8 (41.28)
□□51-N2	1/8 Male NPT	1/8 Male NPT	0.16	1.71 (43.4)	5/8 (15.88)
□□51-N4	1/4 Male NPT	1/4 Male NPT	0.47	2.09 (53.1)	
□□51-N6	3/8 Male NPT	3/8 Male NPT	1.47	2.78 (70.6)	7/8 (22.23)
□□51-N8	1/2 Male NPT	1/2 Male NPT	1.68	3.16 (80.3)	
□□51-N12	3/4 Male NPT	3/4 Male NPT	4.48	4.08 (104)	1 1/4 (31.75)
□□51-N16	1 Male NPT	1 Male NPT		4.52 (115)	1 5/8 (41.28)

Flow Data at 70°F (20°C)

51 Series

Air Flow (std L/min) Inlet Pressure (psig)	Cracking Pressure (psig)					
	1	10	25	1	10	25
	Cv = 0.16			Cv = 0.16		
5	10	--	--	114	--	--
10	29	--	--	157	36	--
12.5	38	11	--	176	150	--
15	48	23	--	196	170	--
25	72	62	2	253	--	18
30	78	--	17	279	--	146
35	85	--	34	309	--	330
50	103	--	77	402	--	--
80	144	--	136	580	--	--
100	171	--	160	700	--	--

Water Flow (L/min) Pressure Drop (psig)	Cracking Pressure (psig)					
	1	10	25	1	10	25
	Cv = 0.16			Cv = 0.16		
5	0.3	--	--	2.1	--	--
10	1.2	--	--	6.1	--	--
12.5	1.4	0.3	--	6.5	6.5	--
15	1.6	0.7	--	6.9	6.9	--
20	1.9	1.2	--	7.8	7.8	--
27.5	2.3	1.7	0.2	--	--	1.2
35	2.6	2.3	0.9	--	--	5.0
40	2.8	2.4	1.3	--	--	7.5
70	3.6	3.5	3.3	--	--	--
80	3.8	3.8	3.8	--	--	--

Air Flow (std L/min) Inlet Pressure (psig)	Cracking Pressure (psig)					
	1	10	25	1	10	25
	Cv = 1.47			Cv = 1.68		
5	325	--	--	460	--	--
10	623	--	--	747	--	--
15	832	377	--	916	475	--
25	1146	800	32	1255	939	40
35	1440	1150	509	1594	1347	654
50	1879	1686	1072	2101	1960	1230
80	2761	2756	2087	--	--	2400
100	--	--	2763	--	--	--

Water Flow (L/min) Pressure Drop (psig)	Cracking Pressure (psig)					
	1	10	25	1	10	25
	Cv = 1.47			Cv = 1.68		
2.5	4.6	--	--	7.4	--	--
5	8.3	--	--	13.5	--	--
10	17.5	--	--	22.6	--	--
11	--	3.3	--	--	6.8	--
12.5	--	7.7	--	--	12.9	--
15	--	13.1	--	--	20.0	--
20	--	20.0	--	--	--	--
27.5	--	--	2.2	--	--	7.3
30	--	--	4.4	--	--	12
35	--	--	8.8	--	--	19.5

Air Flow (std L/min) Inlet Pressure (psig)	Cracking Pressure (psig)		
	1	10	25
	Cv = 4.48		
5	468	--	--
10	975	--	--
15	1208	491	--
20	1435	945	--
25	1658	1232	--
35	2122	1826	1059
50	2800	2678	1905
60	--	--	2454

Water Flow (L/min) Pressure Drop (psig)	Cracking Pressure (psig)		
	1	10	25
	Cv = 4.48		
2.5	29.5	--	--
5	45.0	--	--
10	59.3	--	--
12.5	65.8	65.8	--
15	72.3	72.3	--
20	85.4	85.4	--
25.5	--	--	22
26	--	--	48
27	--	--	90

51 Series How to Order

A	B	C	D	E	F	G	H
Body Material	Valve Series	Inlet Type	Inlet Size	Outlet Type	Outlet Size	Seal Material	NACE MR0175
SS	5103	FN	8	MTS	10	B	SG

A	Body Material
SS:	316 SS
6L:	316L SS
S4:	304 SS
4L:	304L SS
TI:	Titanium
A20:	Alloy 20
M:	Alloy 400
INC:	Alloy 600
HC:	Alloy C-276
B:	Brass

B	Valve Series
5113:	1/3 psig cracking pressure
5101:	1 psig cracking pressure
5103:	3 psig cracking pressure
5110:	10 psig cracking pressure
5125:	25 psig cracking pressure

CE	Inlet/Outlet Type
FN	Female NPT
N	Male NPT
FR	Female BSPT
RT	Male BSPT
FM	Female ISO (for MRP)
MS	Male ISO (for MRG)
FP	Female BSPP (for RP)
BP	Male BSPP (for RG)
FX	Fractional Tube Fitting
MX	Metric Tube Fitting

DF	Inlet/Outlet Size
2	1/8"
4	1/4"
6	3/8" or 6 mm
8	1/2" or 8 mm
10	10 mm
12	3/4" or 12 mm
14	14 mm or M14 x 1.5
16	1" or 16 mm
18	18 mm
20	1 1/4" or 20 mm or M20 x 1.5
22	22 mm or M22 x 1.5
24	M24 x 1.5
25	25 mm

G	Seal Material
Standard with FKM Fluorocarb	
B	Buna N
N	Neoprene
E	Ethylene Propylene
Z	Kalrez

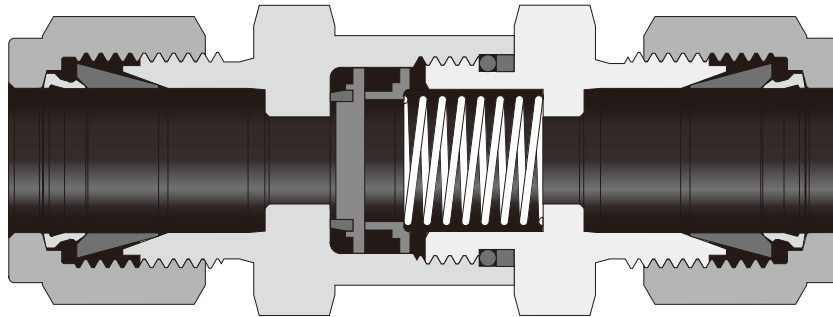
H	NACE MR0175
Standard with no NACE applicable	
SG	With NACE MR0175

Remark:

- Standard thread pitch for metric threads are as follows:
M10 and below: 1 mm
M12 to M24: 1.5 mm
Standard thread pitch should be ignored in the ordering number, others should be specified.

Check Valves

52 Series



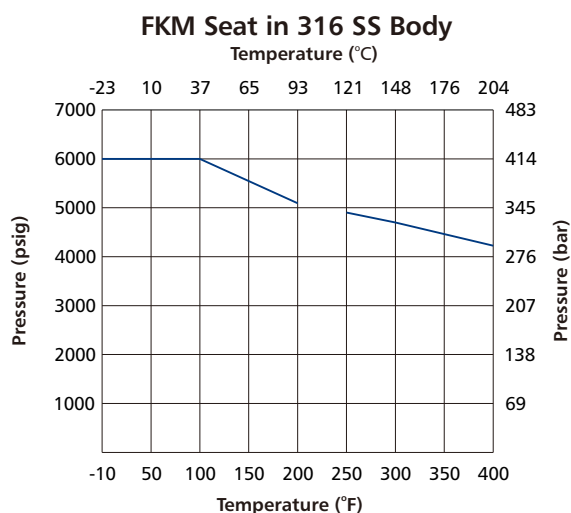
Features

- Seat ring continuously cleaned by media, avoiding secondary pollution
- Maximum working pressure: 6000 psig (414 bar)
- Working temperature: -10°F to 400°F (-23°C to 204°C)
- Cracking pressure: 1/3 to 25 psig (0.02 to 1.7 bar)
- Variety of end connections and materials available
- Suitable for sour gas service; materials are selected in accordance with NACE MR0175/ISO 15156.
- Every valve is 100% factory tested with nitrogen for leak-tight performance at its maximum working pressure.

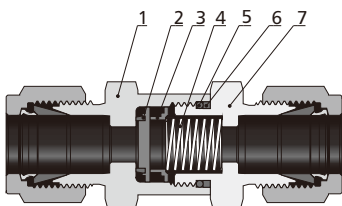
Cracking Pressure and Resealing Pressure

Series	Nominal Cracking Pressure psig (bar)	Cracking Pressure Range psig (bar)	Resealing Pressure Range psig (bar)
52	1/3 (0.02)	0 to 3 (0 to 0.21)	Up to 6 (0.42) back pressure
	1 (0.06)	0 to 4 (0 to 0.28)	Up to 5 (0.35) back pressure
	5 (0.35)	3 to 9 (0.21 to 0.63)	Up to 2 (0.14) back pressure
	10 (0.68)	7 to 15 (0.49 to 1.1)	3 (0.21) or higher upstream pressure
	25 (1.7)	20 to 30 (1.4 to 2.1)	17 (1.2) or higher upstream pressure

Pressure vs. Temperature



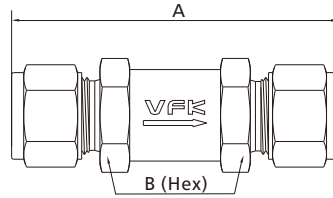
52 Series



Component	Valve Material Grade/ASTM Specification
1 Inlet Body	316 SS/A479
2 Poppet	Fluorocarbon FKM - bonded 316 SS/A479
3 Poppet Stop	316 SS/A240
4 Spring	302 SS/A313
5 O-ring	Fluorocarbon FKM
6 Backup Ring	PTFE/D1710
7 Outlet Body	316 SS/A479

Dimensions

CH Series



Basic Ordering Number	Connection Type and Size		Pressure Rating at 100° F (37° C) psig (bar)	Cv	Dimension, in. (mm)	
	Inlet	Outlet			A	B
□□52-FX2	1/8" VFK	1/8" VFK	6000 (414)	0.67	2.27 (57.7)	11/16 (17.46)
□□52-FX4	1/4" VFK	1/4" VFK		1.8	2.43 (61.7)	
□□52-FX6	3/8" VFK	3/8" VFK			2.75 (69.9)	1 (25.4)
□□52-FX8	1/2" VFK	1/2" VFK			2.96 (75.2)	
□□52-FX12	3/4" VFK	3/4" VFK	5000 (344)	4.7	3.52 (89.4)	1 5/8 (41.28)
□□52-FX16	1" VFK	1" VFK	4700 (323)		3.88 (98.6)	
□□52-MX6	6 mm VFK	6 mm VFK	6000 (414)	0.67	2.43 (61.7)	11/16 (17.46)
□□52-MX8	8 mm VFK	8 mm VFK		1.8	2.70 (68.6)	
□□52-MX10	10 mm VFK	10 mm VFK			2.80 (71.1)	1 (25.4)
□□52-MX12	12 mm VFK	12 mm VFK			2.96 (75.2)	
□□52-MX22	22 mm VFK	22 mm VFK	5000 (344)	4.7	3.48 (88.4)	1 5/8 (41.28)
□□52-MX25	25 mm VFK	25 mm VFK			3.88 (98.6)	
□□52-FN4	1/4 Female NPT	1/4 Female NPT	6000 (414)	0.67	2.13 (54.1)	11/16 (17.46)
□□52-FN6	3/8 Female NPT	3/8 Female NPT	5000 (344)	1.8	2.55 (64.8)	1 (25.4)
□□52-FN8	1/2 Female NPT	1/2 Female NPT	4600 (316)		3.03 (77.0)	1 1/16 (26.99)
□□52-FN12	3/4 Female NPT	3/4 Female NPT	4300 (296)	4.7	3.23 (82.0)	1 5/8 (41.28)
□□52-FN16	1 Female NPT	1 Female NPT	4100 (282)		3.83 (97.3)	
□□52-N2	1/8 Male NPT	1/8 Male NPT	6000 (414)	0.67	1.79 (45.4)	11/16 (17.46)
□□52-N4	1/4 Male NPT	1/4 Male NPT		1.8	2.17 (55.1)	
□□52-N6	3/8 Male NPT	3/8 Male NPT			2.36 (59.9)	1 (25.4)
□□52-N8	1/2 Male NPT	1/2 Male NPT			2.73 (69.3)	
□□52-N12	3/4 Male NPT	3/4 Male NPT	5000 (344)	4.7	3.29 (83.6)	1 5/8 (41.28)
□□52-N16	1 Male NPT	1 Male NPT			3.67 (93.2)	
□□52-FR4	1/4 Female BSPT	1/4 Female BSPT	6000 (414)	0.67	2.28 (57.9)	11/16 (17.46)
□□52-FR8	1/2 Female BSPT	1/2 Female BSPT	4600 (316)	1.8	3.29 (83.6)	1 1/16 (26.99)
□□52-FR12	3/4 Female BSPT	3/4 Female BSPT	4300 (296)	4.7	3.55 (90.2)	1 5/8 (41.28)
□□52-R16	1 Female BSPT	1 Female BSPT	4100 (282)		3.83 (97.3)	
□□52-R4	1/4 Male BSPT	1/4 Male BSPT	6000 (414)	0.67	2.17 (55.1)	11/16 (17.46)
□□52-R8	1/2 Male BSPT	1/2 Male BSPT		1.8	2.73 (69.3)	1 (25.4)
□□52-R12	3/4 Male BSPT	3/4 Male BSPT	5000 (344)	4.7	3.35 (85.1)	1 5/8 (41.28)
□□52-R16	1 Male BSPT	1 Male BSPT			3.67 (93.2)	

Flow Data at 70°F (20°C)

Air Flow (std L/min) Inlet Pressure (psig)	Cracking Pressure (psig)		
	1	10	25
	Cv = 0.67		
5	8	--	--
10	80	--	--
25	160	200	--
40	180	200	--
60	600	390	180
80	900	880	640
95	1200	1060	830
110	--	1240	1020
128	--	1400	1200
140	--	--	1340

Water Flow (L/min) Pressure Drop (psig)	Cracking Pressure (psig)		
	1	10	25
	Cv = 0.67		
1	0.2	--	--
6	1.9	--	--
10	5.7	--	--
12	7.5	0.2	--
20	--	1.4	--
26	--	2.9	--
36	--	7.5	0.9
50	--	--	3.4
60	--	--	5.6
68	--	--	7.5

Air Flow (std L/min) Inlet Pressure (psig)	Cracking Pressure (psig)		
	1	10	25
	Cv = 1.8		
2	--	--	--
10	620	--	--
25	1140	520	--
30	1320	720	190
40	1620	1130	590
50	1940	1520	1000
60	2250	1900	1400
78	2800	2520	2080
86	--	2800	2430
97	--	--	2800

Water Flow (L/min) Pressure Drop (psig)	Cracking Pressure (psig)		
	1	10	25
	Cv = 1.8		
1.5	--	--	--
5.0	14.4	--	--
7.5	20.4	--	--
10.0	22.5	--	--
15	--	2.0	--
20	--	7.0	--
22	--	22.5	--
30	--	--	0.7
40	--	--	2.6
45	--	--	22.5

Air Flow (std L/min) Inlet Pressure (psig)	Cracking Pressure (psig)		
	1	10	25
	Cv = 1.8		
5	520	--	--
10	940	--	--
15	1240	540	--
20	1560	880	--
25	1620	1100	--
30	1800	1325	420
35	2080	1520	720
40	2800	1760	980
50	2280	2240	1800
60	2560	2650	2280

Water Flow (L/min) Pressure Drop (psig)	Cracking Pressure (psig)		
	1	10	25
	Cv = 1.8		
2.5	32	--	--
5.0	48	--	--
7.5	58	--	--
10.0	68	--	--
11.0	75	10	--
12.0	86	75	--
30.0	--	--	8
32.5	--	--	13
35.0	--	--	21
38.0	--	--	86

52 Series How to Order

A	B	C	D	E	F	G	H
Body Material	Valve Series	Inlet Type	Inlet Size	Outlet Type	Outlet Size	Seal Material	NACE MR0175
SS	5203	FN	8	MTS	10	B	SG

A	Body Material
SS:	316 SS
6L:	316L SS
S4:	304 SS
4L:	304L SS
TI:	Titanium
A20:	Alloy 20
M:	Alloy 400
INC:	Alloy 600
HC:	Alloy C-276
B:	Brass

B	Valve Series
5213:	1/3 psig cracking pressure
5201:	1 psig cracking pressure
5203:	3 psig cracking pressure
5210:	10 psig cracking pressure
5225:	25 psig cracking pressure

CE	Inlet/Outlet Type
FN	Female NPT
N	Male NPT
FR	Female BSPT
RT	Male BSPT
FM	Female ISO (for MRP)
MS	Male ISO (for MRG)
FP	Female BSPP (for RP)
BP	Male BSPP (for RG)
FX	Fractional Tube Fitting
MX	Metric Tube Fitting

DF	Inlet/Outlet Size
2	1/8"
4	1/4"
6	3/8" or 6 mm
8	1/2" or 8 mm
10	10 mm
12	3/4" or 12 mm
14	14 mm or M14 x 1.5
16	1" or 16 mm
18	18 mm
20	1 1/4" or 20 mm or M20 x 1.5
22	22 mm or M22 x 1.5
24	M24 x 1.5
25	25 mm

G	Seal Material
Standard with FKM Fluorocarb	
B	Buna N
N	Neoprene
E	Ethylene Propylene
Z	Kalrez

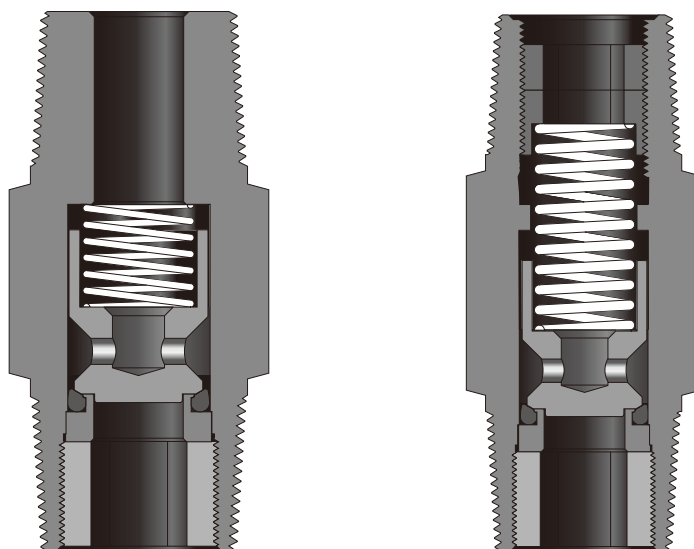
H	NACE MR0175
Standard with no NACE applicable	
SG	With NACE MR0175

Remark:

- 1. Standard thread pitch for metric threads are as follows:
M10 and below: 1 mm
M12 to M20: 1.5 mm
Standard thread pitch should be ignored in the ordering number, others should be specified.

Check Valves

53 and 53A Series



Features

53 Series

- Compact, one piece body
- Maximum working pressure: 3000 psig (207 bar)
- Working temperature: -10°F to 375°F (-23°C to 190°C)
- Cracking pressure: 1/3 to 25 psig (0.02 to 1.7 bar)
- Variety of end connections and materials available
- Suitable for sour gas service; materials are selected in accordance with NACE MR0175/ISO 15156.
- Every valve is 100% factory tested with nitrogen for leak-tight performance at its maximum working pressure.

53A Series

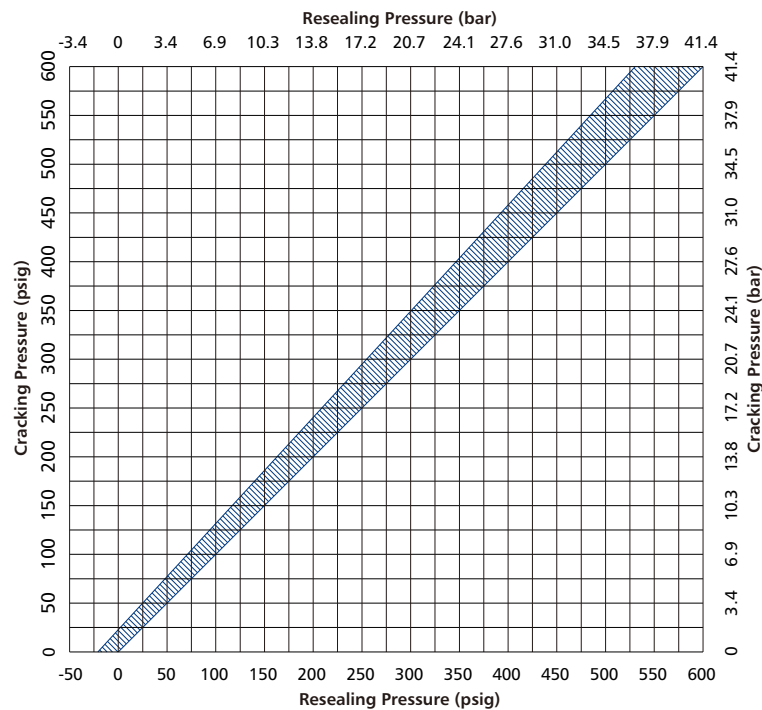
- Maximum working pressure: 3000 psig (207 bar)
- Working temperature: -10°F to 375°F (-23°C to 190°C)
- Cracking pressure: 3 to 600 psig (0.2 to 41.4 bar)
- Variety of end connections and materials available
- Suitable for sour gas service; materials are selected in accordance with NACE MR0175/ISO 15156.
- Every valve is 100% factory tested with nitrogen for leak-tight performance at its maximum working pressure.

Cracking Pressure and Resealing Pressure

Series	Nominal Cracking Pressure psig (bar)	Cracking Pressure Range psig (bar)	Resealing Pressure Range psig (bar)
53	1/3 (0.02) 1 (0.06) 10 (0.68) 25 (1.7)	0 to 3 (0 to 0.21) 0 to 4 (0 to 0.28) 7 to 15 (0.49 to 1.1) 20 to 30 (1.4 to 2.1)	6 to 20 (0.42 to 1.4) downstream pressure 5 to 20 (0.35 to 1.4) downstream pressure 3 to 10 (0.21 to 0.68) downstream pressure 5 (0.35) or higher upstream pressure
53A	3 to 50 (0.21 to 3.4) 50 to 150 (3.4 to 10.3) 150 to 350 (10.3 to 24.1) 350 to 600 (24.1 to 41.3)	—	Refer to the chart below

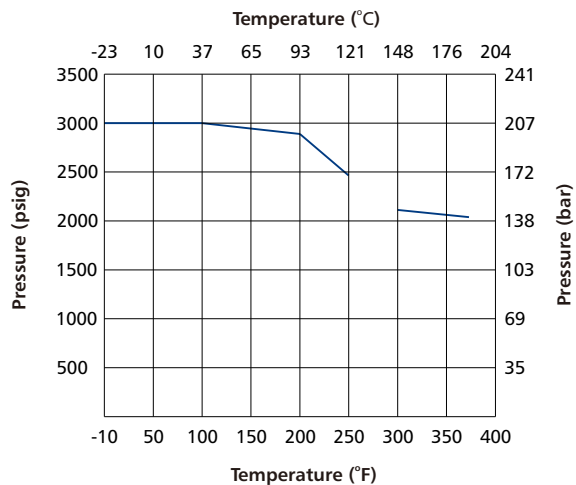
Cracking Pressure and Resealing Pressure

53 and 53A Series

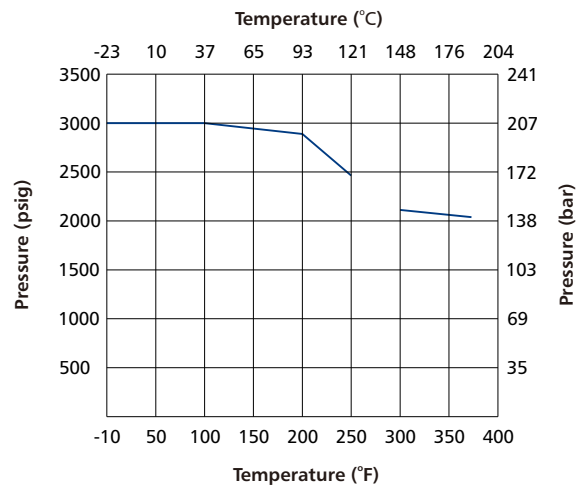


Pressure vs. Temperature

FKM Seat in 316 SS Body

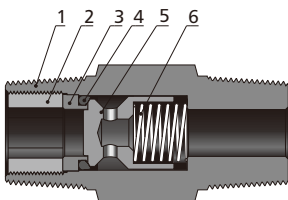


Buna N in Brass Body



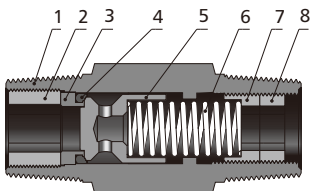
Standard Materials of Construction

53 Series



Component		Valve Material Grade/ASTM Specification	
		316 SS	Brass
1	Body	316 SS/A479	Brass 360/B16
2	Insert Locking Screw	316 SS/A276 or A479	Brass 360/B16
3	Insert	316 SS/A479	Brass 360/B16
4	O-ring	Fluorocarbon FKM	Buna N
5	Poppet	316 SS/A479	Brass 360/B16
6	Spring	302 SS/A313	302 SS/A313

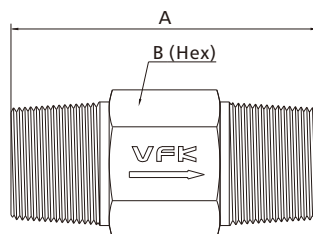
53A Series



Component		Valve Material Grade/ASTM Specification	
		316 SS	Brass
1	Body	316 SS/A479	Brass 360/B16
2	Insert Locking Screw	316 SS/A479	Brass 360/B16
3	Insert	316 SS/A479	Brass 360/B16
4	O-ring	Fluorocarbon FKM	Buna N
5	Poppet	316 SS/A479	Brass 360/B16
6	Spring	302 SS/A313	302 SS/A313
7	Adjusting Screw	316 SS/A276	316 SS/A276
8	Locking Screw	316 SS/A276	316 SS/A276

Dimensions

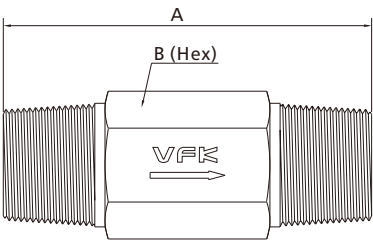
53 Series



Basic Ordering Number	Connection Type and Size		Cv	Dimension, in. (mm)	
	Inlet	Outlet		A	B
□□ 53-FN4	1/4 Female NPT	1/4 Female NPT	0.35	2.41 (61.2)	3/4 (19.05)
□□ 53-FN8	1/2 Female NPT	1/2 Female NPT	1.20	3.71 (94.2)	1 1/16 (26.99)
□□ 53-N4	1/4 Male NPT	1/4 Male NPT	0.35	1.62 (41.1)	9/16 (14.29)
□□ 53-N8	1/2 Male NPT	1/2 Male NPT	1.20	2.28 (57.9)	7/8 (22.23)
□□ 53-FR4	1/4 Female BSPT	1/4 Female BSPT	0.35	2.54 (64.5)	3/4 (19.05)
□□ 53-R4	1/4 Male BSPT	1/4 Male BSPT		1.62 (41.1)	9/16 (14.29)

Dimensions

53A Series



Basic Ordering Number	Connection Type and Size		Cv	Dimension, in. (mm)	
	Inlet	Outlet		A	B
□□ 53A-FN4	1/4 Female NPT	1/4 Female NPT	0.35	2.98 (75.7)	3/4 (19.05)
□□ 53A-N4	1/4 Male NPT	1/4 Male NPT	0.35	1.62 (41.1)	9/16 (14.29)
□□ 53A-N8	1/2 Male NPT	1/2 Male NPT	1.20	2.56 (65.0)	7/8 (22.23)
□□ 53A-R4	1/4 Male BSPT	1/4 Male BSPT	0.35	1.62 (41.1)	9/16 (14.29)
□□ 53A-R8	1/2 Male BSPT	1/2 Male BSPT	1.20	2.56 (65.0)	7/8 (22.23)

Flow Data at 70°F (20°C)

53 Series

Air Flow (std L/min) Inlet Pressure (psig)	Cracking Pressure (psig)		
	1	10	25
	Cv = 0.35		
12.5	85	--	--
25	201	121	--
50	400	327	212
75	600	539	431
100	800	750	653
112.5	--	--	750

Water Flow (L/min) Pressure Drop (psig)	Cracking Pressure (psig)		
	1	10	25
	Cv = 0.35		
7.5	2.6	--	--
15	5.3	0.9	--
22.5	7.7	2.9	--
30	--	5	0.6
60	--	--	3.7
90	--	--	6.7

Air Flow (std L/min) Inlet Pressure (psig)	Cracking Pressure (psig)		
	1	10	25
	Cv = 0.12		
10	366	--	--
20	679	325	--
30	1027	706	237
40	1351	1064	664
50	1692	1433	1122
60	2924	1814	1561

Water Flow (L/min) Pressure Drop (psig)	Cracking Pressure (psig)		
	1	10	25
	Cv = 0.12		
5	10.3	--	--
7.5	14.1	--	--
10	17.3	--	--
15	--	2.3	--
30	--	13.2	1.0
37.5	--	17.8	2.6
75	--	--	9.8

53A Series

Air Flow (std L/min) Inlet Pressure (psig)	Cracking Pressure (psig)			
	3	50	150	350
	Cv = 0.35			
50	323	--	--	--
150	1165	841	--	--
250	2039	1769	615	--
300	2425	2800	890	--
400	--	--	1502	246
500	--	--	2098	726
600	--	--	2692	1207
700	--	--	--	1700

Water Flow (L/min) Pressure Drop (psig)	Cracking Pressure (psig)			
	3	50	150	350
	Cv = 0.35			
12.5	1.5	--	--	--
25	4.1	--	--	--
37.5	6.4	--	--	--
75	--	1.8	--	--
150	--	6.3	--	--
175	--	7.5	1.1	--
250	--	--	4.5	--
350	--	--	8.6	--
400	--	--	--	1.8
500	--	--	--	5.1
550	--	--	--	6.7

Air Flow (std L/min) Inlet Pressure (psig)	Cracking Pressure (psig)			
	3	50	150	350
	Cv = 0.12			
25	498	--	--	--
50	1553	--	--	--
75	2162	615	--	--
125	--	1682	--	--
175	--	2758	763	--
250	--	--	1859	--
300	--	--	2634	--
350	--	--	--	155
400	--	--	--	1665
450	--	--	--	2382

Water Flow (L/min) Pressure Drop (psig)	Cracking Pressure (psig)			
	3	50	150	350
	Cv = 0.12			
12.5	3.0	--	--	--
25	9.3	--	--	--
37.5	15.2	--	--	--
75	--	5.3	--	--
150	--	17.6	--	--
175	--	21.4	2.5	--
250	--	--	10.3	--
350	--	--	20.2	--
400	--	--	--	4.4
500	--	--	--	13.3
550	--	--	--	21.5

53 and 53A Series How to Order

A	B	C	D	E	F	G	H
Body Material	Valve Series	Inlet Type	Inlet Size	Outlet Type	Outlet Size	Seal Material	NACE MR0175
SS	5303	FN	8	MX	10	B	SG

A	Body Material
SS:	316 SS
6L:	316L SS
S4:	304 SS
4L:	304L SS
TI:	Titanium
A20:	Alloy 20
M:	Alloy 400
INC:	Alloy 600
HC:	Alloy C-276
B:	Brass

B	Valve Series
5313:	1/3 psig cracking pressure
5301:	1 psig cracking pressure
5303:	3 psig cracking pressure
5310:	10 psig cracking pressure
5325:	25 psig cracking pressure
53A03:	3 to 50 psig cracking pressure
53A50:	50 to 150 psig cracking pressure
53A15:	150 to 350 psig cracking pressure
53A35:	350 to 600 psig cracking pressure

CE	Inlet/Outlet Type
FN	Female NPT
N	Male NPT
FR	Female BSPT
RT	Male BSPT
FM	Female ISO (for MRP)
MS	Male ISO (for MRG)
FP	Female BSPP (for RP)
BP	Male BSPP (for RG)
FX	Fractional Tube Fitting
MX	Metric Tube Fitting

DF	Inlet/Outlet Size
2	1/8"
4	1/4"
6	3/8" or 6 mm
8	1/2" or 8 mm
10	10 mm
12	3/4" or 12 mm
14	14 mm or M14 x 1.5
16	1" or 16 mm
18	18 mm
20	1 1/4" or 20 mm or M20 x 1.5
22	22 mm or M22 x 1.5
24	M24 x 1.5
25	25 mm

G	Seal Material
Standard with FKM Fluorocarb	
B	Buna N
N	Neoprene
E	Ethylene Propylene
Z	Kalrez

H	NACE MR0175
Standard with no NACE applicable	
SG	With NACE MR0175

Remark:

- 1. Standard thread pitch for metric threads are as follows:
M10 and below: 1 mm
M12 to M20: 1.5 mm
Standard thread pitch should be ignored in the ordering number, others should be specified.



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