

### Description & Features:

- Excellent flow regulation and leak tight
- The one-piece body construction (no welding) provides strength, safety and corrosion resistance
- "Slow opening" prevents sudden pressure surge and instrument damage
- Materials include carbon steel, carbon steel NACE, stainless steel, stainless steel NACE
- Available in Hard Seat (6,000 and 10,000 psi)
- ASME B1.20.1 compliant
- CRN registered
- 5 year warranty

### Applications:

- Highly reliable throttle and block valve for gas or liquid service in severe duty oil and gas installations including refineries and processing plants as well as water treatment plants, power plants and hydraulic applications

### Straight Body Order Codes (products in bold are normally stock in North America)

NPT Connection	Material	Max. Pressure	Code
1/4" Female x 1/4" Female	Carbon Steel	6,000 psi	NVA5020
1/4" Male x 1/4" Female		10,000 psi	<b>NVA6020</b>
1/4" Male x 1/4" Male		6,000 psi	<b>NVA5000</b>
1/4" Female x 3/8" Female		10,000 psi	<b>NVA6000</b>
3/8" Female x 3/8" Female		6,000 psi	NVA5024
3/8" Male x 3/8" Female		10,000 psi	NVA6024
3/8" Female x 3/8" Male		6,000 psi	NVA5004
3/8" Female x 3/8" Female		10,000 psi	NVA6004
1/2" Female x 1/2" Female		6,000 psi	NVA5021
1/2" Male x 1/2" Female		10,000 psi	<b>NVA6021</b>
1/2" Female x 1/2" Male		6,000 psi	<b>NVA5001</b>
1/2" Female x 3/4" Female		10,000 psi	<b>NVA6001</b>
3/4" Female x 1/2" Female		6,000 psi	NVA5022
1/2" Female x 3/4" Male		10,000 psi	NVA6022
3/4" Male x 1/2" Female		6,000 psi	NVA5002
1/2" Female x 3/4" Female		10,000 psi	NVA6002
3/4" Female x 3/4" Female		6,000 psi	NVA5025
3/4" Female x 3/4" Female		10,000 psi	NVA6025
3/4" Male x 3/4" Female		6,000 psi	NVA5005
3/4" Female x 1" Female		10,000 psi	NVA6005
1" Female x 1" Female		6,000 psi	NVA5023
1" Female x 1" Female		10,000 psi	NVA6023
1" Male x 1" Female		6,000 psi	NVA5003
1" Female x 1" Female		10,000 psi	NVA6003
1/4" Female x 1/4" Female	Stainless Steel	6,000 psi	NVA2020
1/4" Male x 1/4" Female		10,000 psi	<b>NVA3020</b>
1/4" Male x 1/4" Male		6,000 psi	<b>NVA2000</b>
1/4" Female x 3/8" Female		10,000 psi	<b>NVA3000</b>
3/8" Female x 3/8" Female		6,000 psi	NVA2024
3/8" Male x 3/8" Female		10,000 psi	NVA3024
3/8" Female x 3/8" Male		6,000 psi	NVA2004
3/8" Female x 1/2" Female		10,000 psi	NVA3004
1/2" Female x 1/2" Female		6,000 psi	<b>NVA2021</b>
1/2" Male x 1/2" Female		10,000 psi	<b>NVA3021</b>
1/2" Female x 1/2" Male		6,000 psi	<b>NVA2001</b>
1/2" Female x 3/4" Female		10,000 psi	<b>NVA3001</b>
3/4" Female x 1/2" Female		6,000 psi	NVA2022
1/2" Female x 3/4" Male		10,000 psi	NVA3022
3/4" Male x 1/2" Female		6,000 psi	NVA2002
1/2" Female x 3/4" Female		10,000 psi	NVA3002
3/4" Female x 3/4" Female		6,000 psi	NVA2025
3/4" Female x 3/4" Female		10,000 psi	NVA3025
3/4" Male x 3/4" Female		6,000 psi	NVA2005
3/4" Female x 1" Female		10,000 psi	NVA3005
1" Female x 1" Female		6,000 psi	NVA2023
1" Female x 1" Female		10,000 psi	NVA3023
1" Male x 1" Female		6,000 psi	NVA2003
1" Female x 1" Female		10,000 psi	NVA3003

### Straight Body NACE Order Codes

NPT Connection	Material	Max. Pressure	Code
1/4" Female x 1/4" Female	Carbon Steel (NACE Tip)	6,000 psi	NVA5020N
1/4" Male x 1/4" Female		10,000 psi	NVA6020N
1/4" Male x 1/4" Male		6,000 psi	NVA5000N
1/4" Female x 3/8" Female		10,000 psi	NVA6000N
3/8" Female x 3/8" Female		6,000 psi	NVA5024N
3/8" Male x 3/8" Female		10,000 psi	NVA6024N
3/8" Female x 3/8" Male		6,000 psi	NVA5004N
3/8" Female x 3/8" Female		10,000 psi	NVA6004N
1/2" Female x 1/2" Female		6,000 psi	NVA5021N
1/2" Male x 1/2" Female		10,000 psi	NVA6021N
1/2" Female x 1/2" Male		6,000 psi	NVA5001N
1/2" Female x 3/4" Female		10,000 psi	NVA6001N
3/4" Female x 1/2" Female		6,000 psi	NVA5022N
1/2" Female x 3/4" Male		10,000 psi	NVA6022N
3/4" Male x 1/2" Female		6,000 psi	NVA5002N
1/2" Female x 3/4" Female		10,000 psi	NVA6002N
3/4" Female x 3/4" Female		6,000 psi	NVA5025N
3/4" Female x 3/4" Female		10,000 psi	NVA6025N
3/4" Male x 3/4" Female		6,000 psi	NVA5005N
3/4" Female x 1" Female		10,000 psi	NVA6005N
1" Female x 1" Female		6,000 psi	NVA5023N
1" Female x 1" Female		10,000 psi	NVA6023N
1" Male x 1" Female		6,000 psi	NVA5003N
1" Female x 1" Female		10,000 psi	NVA6003N
1/4" Female x 1/4" Female	Stainless Steel NACE	6,000 psi	NVA2020N
1/4" Male x 1/4" Female		10,000 psi	NVA3020N
1/4" Male x 1/4" Male		6,000 psi	NVA2000N
1/4" Female x 3/8" Female		10,000 psi	NVA3000N
3/8" Female x 3/8" Female		6,000 psi	NVA2024N
3/8" Male x 3/8" Female		10,000 psi	NVA3024N
3/8" Female x 3/8" Male		6,000 psi	NVA2004N
3/8" Female x 1/2" Female		10,000 psi	NVA3004N
1/2" Female x 1/2" Female		6,000 psi	NVA2021N
1/2" Male x 1/2" Female		10,000 psi	NVA3021N
1/2" Female x 1/2" Male		6,000 psi	NVA2001N
1/2" Female x 3/4" Female		10,000 psi	NVA3001N
3/4" Female x 1/2" Female		6,000 psi	NVA2022N
1/2" Female x 3/4" Male		10,000 psi	NVA3022N
3/4" Male x 1/2" Female		6,000 psi	NVA2002N
1/2" Female x 3/4" Female		10,000 psi	NVA3002N
3/4" Female x 3/4" Female		6,000 psi	NVA2025N
3/4" Female x 3/4" Female		10,000 psi	NVA3025N
3/4" Male x 3/4" Female		6,000 psi	NVA2005N
3/4" Female x 1" Female		10,000 psi	NVA3005N
1" Female x 1" Female		6,000 psi	NVA2023N
1" Female x 1" Female		10,000 psi	NVA3023N
1" Male x 1" Female		6,000 psi	NVA2003N
1" Female x 1" Female		10,000 psi	NVA3003N

### Option suffix:

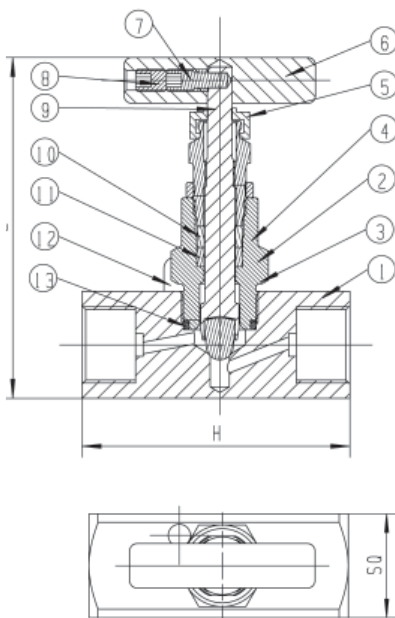
CPM = Carbon steel panel mount kit

SPM = Stainless steel panel mount kit

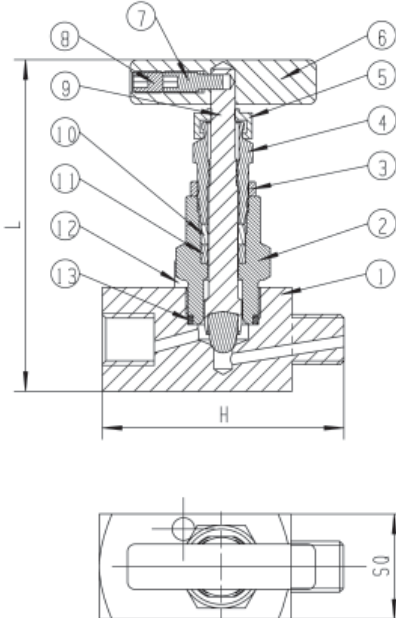
## Material

Description	Component Number	Carbon Steel	Carbon Steel NACE	Stainless Steel	Stainless Steel NACE
Body	1	Carbon Steel	Carbon Steel	316 SS	316 SS NACE
Bonnet	2	Carbon Steel	Carbon Steel	316 SS	316 SS NACE
Adapter Locknut	3	Carbon Steel	Carbon Steel	304 SS	304 SS
Adapter	4	316 SS	316 SS NACE	316 SS	316 SS NACE
Dustcap	5	Nylon	Nylon	Nylon	Nylon
Handle	6	Carbon Steel	Carbon Steel	304 SS	304 SS
Screw	7	304 SS	304 SS	304 SS	304 SS
Fastening Screw	8	304 SS	304 SS	304 SS	304 SS
Needle / Needle Tip	9	316 SS	316 SS NACE	316 SS	316 SS NACE
Gland Washer	10	Carbon Steel	Carbon Steel	304 SS	304 SS
Gland Packing	11	PTFE/Graphite	PTFE/Graphite	PTFE/Graphite	PTFE/Graphite
Dwell Pin	12	Carbon Steel	Carbon Steel	304 SS	304 SS
Gland Packing	13	PTFE/Graphite	PTFE/Graphite	PTFE/Graphite	PTFE/Graphite

## Female x Female



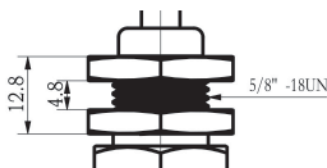
## Male x Female



## Dimensions

Size	H	L	SQ
1/4" Female x 1/4" Female	2.56" (65mm)	3.50" (89mm)	1.10" (28mm)
1/4" Male x 1/4" Female	2.56" (65mm)	3.50" (89mm)	1.10" (28mm)
3/8" Female x 3/8" Female	2.56" (65mm)	3.50" (89mm)	1.10" (28mm)
3/8" Male x 3/8" Female	2.56" (65mm)	3.50" (89mm)	1.10" (28mm)
1/2" Female x 1/2" Female	2.76" (70mm)	3.50" (89mm)	1.10" (28mm)
1/2" Male x 1/2" Female	2.76" (70mm)	3.50" (89mm)	1.10" (28mm)
3/4" Female x 1/2" Female	2.83" (72mm)	3.66" (93mm)	1.26" (32mm)
3/4" Male x 1/2" Female	2.83" (72mm)	3.50" (89mm)	1.10" (28mm)
3/4" Female x 3/4" Female	2.83" (72mm)	3.66" (93mm)	1.26" (32mm)
3/4" Male x 3/4" Female	2.83" (72mm)	3.66" (93mm)	1.26" (32mm)
1" Female x 1" Female	3.23" (82mm)	3.98" (101mm)	1.58" (40mm)
1" Male x 1" Female	3.23" (82mm)	3.98" (101mm)	1.58" (40mm)

## Panel Mont Kit (CPM/SPM)





### Description & Features:

- Excellent flow regulation and leak tight
- The one-piece body construction (no welding) provides strength, safety and corrosion resistance
- “Slow opening” prevents sudden pressure surge and instrument damage
- Material includes stainless steel and stainless steel NACE
- Available in Hard Seat (6,000 and 10,000 psi)
- ASME B1.20.1 compliant
- CRN registered
- 5 year warranty

### Applications:

- Ideally suited for severe duty oil and gas installations including refineries and processing plants as well as water treatment plants, power plants and hydraulic applications

### Angle Body Order Codes (products in bold are normally stock in North America)

NPT Connection	Material	Max. Pressure	Code
1/4" Female x 1/4" Female	Stainless Steel	6,000 psi	NVA8020
		10,000 psi	NVA9020
1/4" Male x 1/4" Female		6,000 psi	NVA8000
		10,000 psi	NVA9000
3/8" Female x 3/8" Female		6,000 psi	NVA8024
		10,000 psi	NVA9024
3/8" Male x 3/8" Female		6,000 psi	NVA8004
		10,000 psi	NVA9004
1/2" Female x 1/2" Female		6,000 psi	NVA8021
		10,000 psi	NVA9021
1/2" Male x 1/2" Female		6,000 psi	NVA8001
		10,000 psi	NVA9001
3/4" Female x 1/2" Female		6,000 psi	NVA8022
		10,000 psi	NVA9022
3/4" Male x 1/2" Female		6,000 psi	NVA8002
		10,000 psi	NVA9002
3/4" Female x 3/4" Female		6,000 psi	NVA8025
		10,000 psi	NVA9025
3/4" Male x 3/4" Female		6,000 psi	NVA8005
		10,000 psi	NVA9005
1" Female x 1" Female	6,000 psi	NVA8023	
	10,000 psi	NVA9023	
1" Male x 1" Female	6,000 psi	NVA8003	
	10,000 psi	NVA9003	

### Angle Body NACE Order Codes

NPT Connection	Material	Max. Pressure	Code
1/4" Female x 1/4" Female	Stainless Steel NACE	6,000 psi	NVA8020N
		10,000 psi	NVA9020N
1/4" Male x 1/4" Female		6,000 psi	NVA8000N
		10,000 psi	NVA9000N
3/8" Female x 3/8" Female		6,000 psi	NVA8024N
		10,000 psi	NVA9024N
3/8" Male x 3/8" Female		6,000 psi	NVA8004N
		10,000 psi	NVA9004N
1/2" Female x 1/2" Female		6,000 psi	NVA8021N
		10,000 psi	NVA9021N
1/2" Male x 1/2" Female		6,000 psi	NVA8001N
		10,000 psi	NVA9001N
3/4" Female x 1/2" Female		6,000 psi	NVA8022N
		10,000 psi	NVA9022N
3/4" Male x 1/2" Female		6,000 psi	NVA8002N
		10,000 psi	NVA9002N
3/4" Female x 3/4" Female		6,000 psi	NVA8025N
		10,000 psi	NVA9025N
3/4" Male x 3/4" Female		6,000 psi	NVA8005N
		10,000 psi	NVA9005N
1" Female x 1" Female	6,000 psi	NVA8023N	
	10,000 psi	NVA9023N	
1" Male x 1" Female	6,000 psi	NVA8003N	
	10,000 psi	NVA9003N	

### Option suffix:

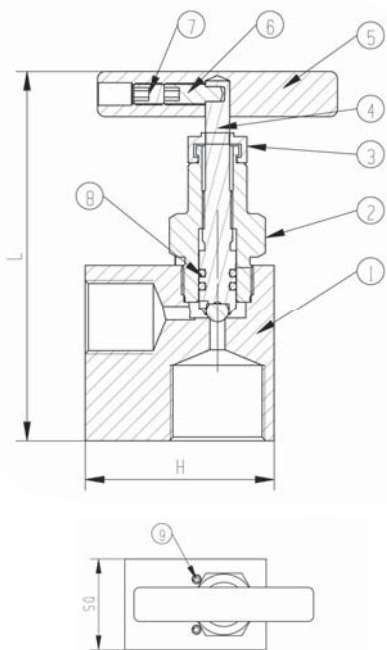
CPM = Carbon steel panel mount kit

SPM = Stainless steel panel mount kit

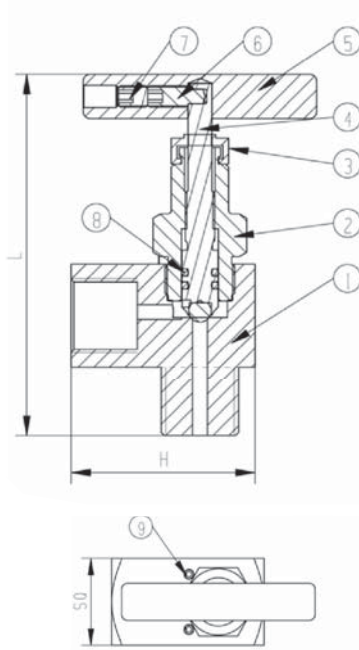
## Material

Description	Component Number	Stainless Steel	Stainless Steel NACE
Body	1	316 SS	316 SS NACE
Bonnet	2	316 SS	316 SS NACE
Dustcap	3	Nylon	Nylon
Needle / Needle Tip	4	316 SS	316 SS NACE
Handle	5	304 SS	304 SS
Screw	6	304 SS	304 SS
Fastening Screws	7	304 SS	304 SS
O-ring	8	FKM	FKM
Dwell Pin	9	304 SS	304 SS

## Female x Female



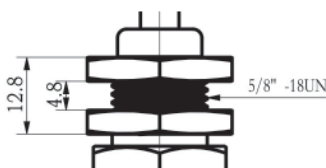
## Male x Female



## Dimensions

Size	H	L	SQ
1/4" Female x 1/4" Female	1.81" (46mm)	3.66" (93mm)	1.10" (28mm)
1/4" Male x 1/4" Female	1.77" (45mm)	3.58" (91mm)	1.10" (28mm)
3/8" Female x 3/8" Female	1.81" (46mm)	3.66" (93mm)	1.10" (28mm)
3/8" Male x 3/8" Female	1.77" (45mm)	3.82" (97mm)	1.10" (28mm)
1/2" Female x 1/2" Female	1.97" (50mm)	3.82" (97mm)	1.10" (28mm)
1/2" Male x 1/2" Female	1.97" (50mm)	3.82" (97mm)	1.10" (28mm)
3/4" Female x 1/2" Female	1.97" (50mm)	3.82" (97mm)	1.26" (32mm)
3/4" Male x 1/2" Female	1.97" (50mm)	3.86" (98mm)	1.10" (28mm)
3/4" Female x 3/4" Female	1.97" (50mm)	3.82" (97mm)	1.26" (32mm)
3/4" Male x 3/4" Female	1.97" (50mm)	3.86" (98mm)	1.26" (32mm)
1" Female x 1" Female	2.48" (63mm)	4.41" (112mm)	1.58" (40mm)
1" Male x 1" Female	2.48" (63mm)	4.41" (112mm)	1.58" (40mm)

## Panel Mont Kit (CPM/SPM)





### Description & Features:

- Excellent flow regulation and leak tight
- The one-piece body construction (no welding) provides strength, safety and corrosion resistance
- "Slow opening" prevents sudden pressure surge and instrument damage
- Materials include carbon steel and stainless steel
- Available in Soft Seat (6,000 psi, Delrin seat)
- ASME B1.20.1 compliant
- CRN registered
- 5 year warranty

### Applications:

- Ideally suited for severe duty oil and gas installations including refineries and processing plants, water treatment plants, power plants and hydraulic applications

### Straight Body Order Codes (products in bold are normally stock in North America)

NPT Connection	Material	Code
1/4" Female x 1/4" Female	Carbon Steel	NVA4020
1/4" Male x 1/4" Female		NVA4000
3/8" Female x 3/8" Female		NVA4024
3/8" Male x 3/8" Female		NVA4004
1/2" Female x 1/2" Female		NVA4021
1/2" Male x 1/2" Female		NVA4001
3/4" Female x 1/2" Female		NVA4022
3/4" Male x 1/2" Female		NVA4002
3/4" Female x 3/4" Female		NVA4025
3/4" Male x 3/4" Female		NVA4005
1" Female x 1" Female		NVA4023
1" Male x 1" Female		NVA4003
1/4" Female x 1/4" Female	Stainless Steel	NVA1020
1/4" Male x 1/4" Female		NVA1000
3/8" Female x 3/8" Female		NVA1024
3/8" Male x 3/8" Female		NVA1004
1/2" Female x 1/2" Female		NVA1021
1/2" Male x 1/2" Female		NVA1001
3/4" Female x 1/2" Female		NVA1022
3/4" Male x 1/2" Female		NVA1002
3/4" Female x 3/4" Female		NVA1025
3/4" Male x 3/4" Female		NVA1005
1" Female x 1" Female		NVA1023
1" Male x 1" Female		NVA1003

### Dimensions

Size	H	L	SQ
1/4" Female x 1/4" Female	2.56" (65mm)	2.65" (67mm)	1.10" (28mm)
1/4" Male x 1/4" Female	2.56" (65mm)	2.65" (67mm)	1.10" (28mm)
3/8" Female x 3/8" Female	2.56" (65mm)	2.65" (67mm)	1.10" (28mm)
3/8" Male x 3/8" Female	2.56" (65mm)	2.65" (67mm)	1.10" (28mm)
1/2" Female x 1/2" Female	2.76" (70mm)	2.65" (67mm)	1.10" (28mm)
1/2" Male x 1/2" Female	2.76" (70mm)	2.65" (67mm)	1.10" (28mm)
3/4" Female x 1/2" Female	2.84" (72mm)	2.80" (71mm)	1.26" (32mm)
3/4" Male x 1/2" Female	2.84" (72mm)	2.65" (67mm)	1.10" (28mm)
3/4" Female x 3/4" Female	2.84" (72mm)	2.80" (71mm)	1.26" (32mm)
3/4" Male x 3/4" Female	2.84" (72mm)	2.80" (71mm)	1.26" (32mm)
1" Female x 1" Female	3.23" (82mm)	3.12" (79mm)	1.58" (40mm)
1" Male x 1" Female	3.23" (82mm)	3.12" (79mm)	1.58" (40mm)

### Option suffix:

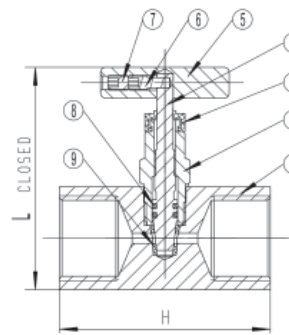
CPM = Carbon steel panel mount kit

SPM = Stainless steel panel mount kit

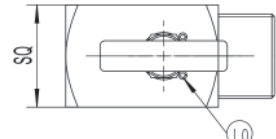
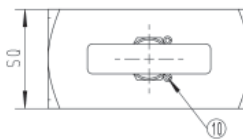
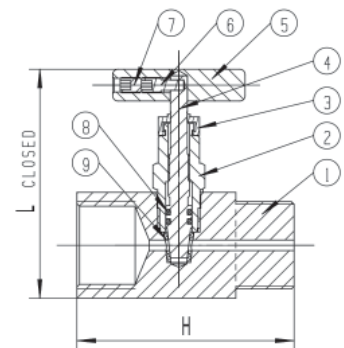
### Material

Description	Component Number	Carbon Steel	Stainless Steel
Body	1	Carbon Steel	316 SS
Bonnet	2	Carbon Steel	316 SS
Dustcap	3	Nylon	Nylon
Needle / Needle Tip	4	316 SS	316 SS
Handle	5	Carbon Steel	304 SS
Screw	6	304 SS	304 SS
Fastening Screw	7	304 SS	304 SS
O-ring	8	FKM	FKM
Seat	9	Delrin	Delrin
Slotted Spring Pin	10	304 SS	304 SS

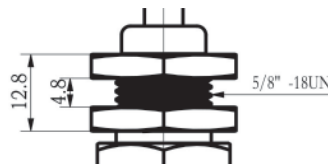
### Female x Female



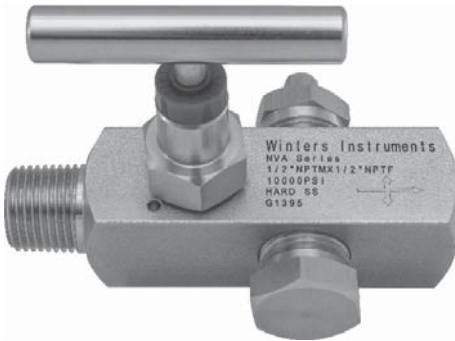
### Male x Female



### Panel Mont Kit (CPM/SPM)





**Description & Features:**

- Multiport design reduces the number of gauge and other instrument connections to permanent piping installations, decreasing possible leak paths
- Optional bleed plugs further allow pressure to be bled off without disturbing the permanent piping installation
- 10,000 psi pressure rating @ 200°F
- All stems are 316 stainless steel
- CRN registered
- 5 year warranty

**Applications:**

- Ideally suited for severe duty oil and gas installations including refineries and processing plants as well as water treatment plants, power plants and hydraulic applications

**Multiport Order Codes**

NPT Connection	Material	Seat	Max. Pressure	Code
1/2" Male x 1/2" Female	Carbon Steel	Soft Seat	6,000 psi	NVA4201
3/4" Male x 1/2" Female	Steel			NVA4202
1/2" Male x 1/2" Female	Stainless Steel			NVA1201
3/4" Male x 1/2" Female	Steel			NVA1202
1/2" Male x 1/2" Female	Carbon Steel	Hard Seat	10,000 psi	NVA6201
3/4" Male x 1/2" Female	Steel			NVA6202
1/2" Male x 1/2" Female	Stainless Steel			NVA3201
3/4" Male x 1/2" Female	Steel			NVA3202

**Multiport NACE Order Codes**

NPT Connection	Material	Seat	Max. Pressure	Code
1/2" Male x 1/2" Female	Stainless Steel	Hard Seat	10,000 psi	NVA3201N
3/4" Male x 1/2" Female	Steel NACE			NVA3202N

**Multiport Optional Bleed Screw and Plug Order Codes**

Plug or Screw	Carbon Steel	Stainless Steel	Stainless Steel NACE
M8 Bleed Screw	NVAPLUG02	NVAPLUG01	NVAPLUG01N
1/2" NPT Plug	NVAPLUG06	NVAPLUG05	NVAPLUG05N
1/2" NPT Plug w/Bleed Screw	NVAPLUG08	NVAPLUG07	NVAPLUG07N

Note: Bleed screw and plugs not included

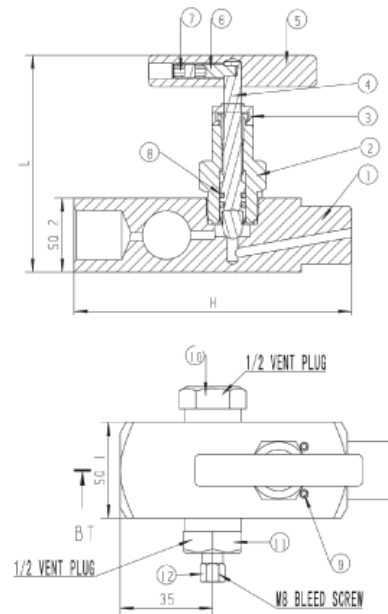
### Hard Seat Material

Description	Component Number	Carbon Steel Hard Seat	Stainless Steel Hard Seat	Stainless Steel NACE Hard Seat
Body	1	Carbon Steel	316 SS	316 SS NACE
Bonnet	2	Carbon Steel	316 SS	316 SS NACE
Dustcap	3	Nylon	Nylon	Nylon
Needle / Needle Tip	4	316 SS	316 SS	316 SS NACE
Handle	5	Carbon Steel	304 SS	304 SS
Screw	6	304 SS	304 SS	304 SS
Fastening Screw	7	304 SS	304 SS	304 SS
O-ring	8	FKM	FKM	FKM
Dwell Pin	9	304 SS	304 SS	304 SS
Vent Plug	10	Carbon Steel	316 SS	316 SS NACE
Bleed Screw	11	Carbon Steel	316 SS	316 SS NACE
Vent Plug	12	Carbon Steel	316 SS	316 SS NACE

### Hard Seat Dimensions

Size	H	L	SQ1	SQ2
1/2" Male x 1/2" Female	4.13 (105mm)	3.2 (81mm)	1.42 (36mm)	1.10 (28mm)
3/4" Male x 1/2" Female	4.29 (109mm)	3.2 (81mm)	1.42 (36mm)	1.10 (28mm)

### Male x Female



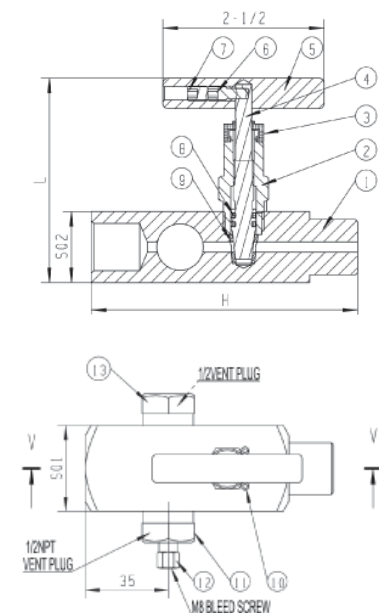
### Soft Seat Material

Description	Component Number	Carbon Steel Soft Seat	Stainless Steel Soft Seat
Body	1	Carbon Steel	316 SS
Bonnet	2	Carbon Steel	316 SS
Dustcap	3	Nylon	Nylon
Needle / Needle Tip	4	316 SS	316 SS
Handle	5	Carbon Steel	304 SS
Screw	6	304 SS	304 SS
Fastening Screw	7	304 SS	304 SS
O-ring	8	FKM	FKM
Seat	9	Delrin	Delrin
Dwell Pin	10	304 SS	304 SS
Vent Plug	11	Carbon Steel	316 SS
Bleed Screw	12	Carbon Steel	316 SS
Vent Plug	13	Carbon Steel	316 SS

### Soft Seat Dimensions

Size	H	L	SQ1	SQ2
1/2" Male x 1/2" Female	4.13 (105mm)	3.20" (81mm)	1.42 (36mm)	1.10 (28mm)
3/4" Male x 1/2" Female	4.29 (109mm)	3.20" (81mm)	1.42 (36mm)	1.10 (28mm)

### Male x Female





### Description & Features:

- Block & bleed design allows pressure to be bled off without disturbing the permanent piping installation, allowing quick and easy removal or replacement of instruments
- Available in Soft Seat (6,000 psi) and Hard Seat (10,000 psi)
- All stems are 316 stainless steel
- CRN registered
- 5 year warranty

### Applications:

- Ideally suited for severe duty oil and gas installations including refineries and processing plants as well as water treatment plants, power plants and hydraulic applications where venting of media is required

### Single Handle Order Codes

NPT Connection	Material	Seat	Max. Pressure	Code
1/4" Female x 1/4" Female	Carbon Steel	Soft Seat	6,000 psi	BBV4020
1/4" Male x 1/4" Female				BBV4000
1/2" Female x 1/2" Female				BBV4021
1/2" Male x 1/2" Female				BBV4001
1/4" Female x 1/4" Female	Stainless Steel			BBV1020
1/4" Male x 1/4" Female				BBV1000
1/2" Female x 1/2" Female				BBV1021
1/2" Male x 1/2" Female				BBV1001
1/4" Female x 1/4" Female	Carbon Steel	Hard Seat	10,000 psi	BBV6020
1/4" Male x 1/4" Female				BBV6000
1/2" Female x 1/2" Female				BBV6021
1/2" Male x 1/2" Female				BBV6001
1/4" Female x 1/4" Female	Stainless Steel			BBV3020
1/4" Male x 1/4" Female				BBV3000
1/2" Female x 1/2" Female				BBV3021
1/2" Male x 1/2" Female				BBV3001

### Single Handle NACE Order Codes

NPT Connection	Material	Seat	Max. Pressure	Code
1/4" Female x 1/4" Female	Stainless Steel NACE	Hard Seat	10,000 psi	BBV3020N
1/4" Male x 1/4" Female				BBV3000N
1/2" Female x 1/2" Female				BBV3021N
1/2" Male x 1/2" Female				BBV3001N

### Replacement Bleed Screw Order Codes

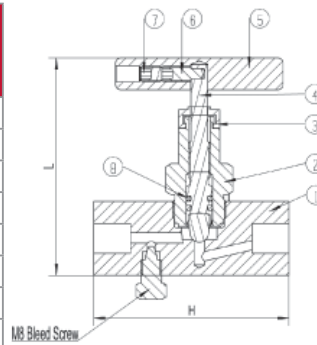
Plug or Screw	Carbon Steel	Stainless Steel	Stainless Steel NACE
M8 Bleed Screw	NVAPLUG02	NVAPLUG01	NVAPLUG01N



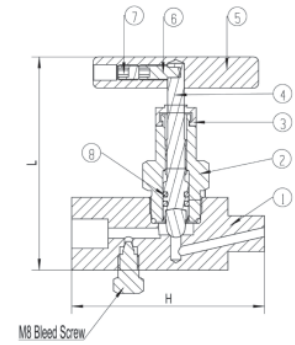
### Hard Seat Material

Description	Component Number	Carbon Steel Hard Seat	Stainless Steel Hard Seat	Stainless Steel NACE Hard Seat
Body	1	Carbon Steel	316 SS	316 SS NACE
Bonnet	2	Carbon Steel	316 SS	316 SS NACE
Dustcap	3	Nylon	Nylon	Nylon
Needle / Needle Tip	4	316 SS	316 SS	316 SS NACE
Handle	5	Carbon Steel	304 SS	304 SS
Screw	6	304 SS	304 SS	304 SS
Fastening Screw	7	304 SS	304 SS	304 SS
O-ring	8	FKM	FKM	FKM
Dwell Pin	9	304 SS	304 SS	304 SS
Bleed Screw	10	Carbon Steel	316 SS	316 SS NACE

### Female x Female

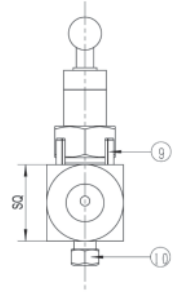
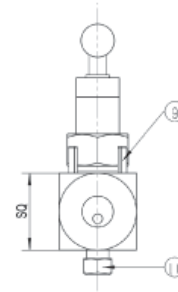


### Male x Female



### Hard Seat Dimensions

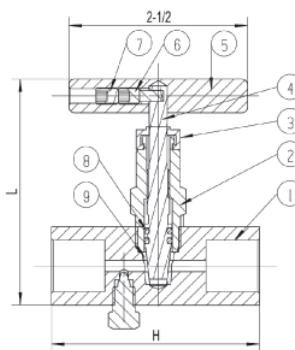
Size	H	L	SQ
1/4" Female x 1/4" Female	2.91" (74mm)	3.25" (83mm)	1.10" (28mm)
1/4" Male x 1/4" Female	2.91" (74mm)	3.25" (83mm)	1.10" (28mm)
1/2" Female x 1/2" Female	2.91" (74mm)	3.25" (83mm)	1.10" (28mm)
1/2" Male x 1/2" Female	2.91" (74mm)	3.25" (83mm)	1.10" (28mm)



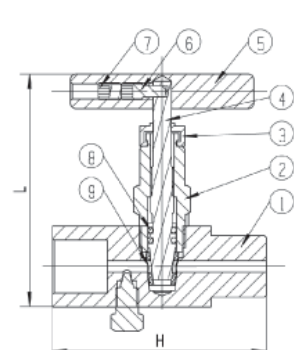
### Soft Seat Material

Description	Component Number	Carbon Steel Soft Seat	Stainless Steel Soft Seat
Body	1	Carbon Steel	316 SS
Bonnet	2	Carbon Steel	316 SS
Dustcap	3	Nylon	Nylon
Needle / Needle Tip	4	316 SS	316 SS
Handle	5	Carbon Steel	304 SS
Screw	6	304 SS	304 SS
Fastening Screw	7	304 SS	304 SS
O-ring	8	FKM	FKM
Seat	9	Delrin	Delrin
Dwell Pin	10	304 SS	304 SS
Bleed Screw	11	Carbon Steel	316 SS

### Female x Female

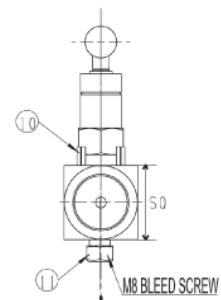
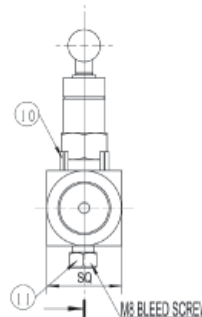


### Male x Female



### Soft Seat Dimensions

Size	H	L	SQ
1/4" Female x 1/4" Female	2.91" (74mm)	3.20" (81mm)	1.10" (28mm)
1/4" Male x 1/4" Female	2.91" (74mm)	3.20" (81mm)	1.10" (28mm)
1/2" Female x 1/2" Female	2.91" (74mm)	3.20" (81mm)	1.10" (28mm)
1/2" Male x 1/2" Female	2.91" (74mm)	3.20" (81mm)	1.10" (28mm)





### Description & Features:

- The one-piece body construction (no welding) provides strength and corrosion resistance
- Block & bleed design allows pressure to be bled off without disturbing the permanent piping installation, allowing quick and easy removal or replacement of instruments
- Available in Soft Seat (6,000 psi) and Hard Seat (10,000 psi)
- All stems are 316 stainless steel
- CRN registered
- 5 year warranty

### Applications:

- Ideally suited for severe duty oil and gas installations including refineries and processing plants as well as water treatment plants, power plants and hydraulic applications where controlled venting of media is required

### Block & Bleed Two Handle Order Codes

NPT Connection	Material	Seat	Max. Pressure	Code
1/4" Female x 1/4" Female	Carbon Steel	Soft Seat	6,000 psi	BBV4220
1/4" Male x 1/4" Female				BBV4200
1/2" Female x 1/2" Female				BBV4221
1/2" Male x 1/2" Female				BBV4201
3/4" Female x 1/2" Female				BBV4251
3/4" Male x 1/2" Female				BBV4241
1/4" Female x 1/4" Female	Stainless Steel	Soft Seat	6,000 psi	BBV1220
1/4" Male x 1/4" Female				BBV1200
1/2" Female x 1/2" Female				BBV1221
1/2" Male x 1/2" Female				BBV1201
3/4" Female x 1/2" Female				BBV1251
3/4" Male x 1/2" Female				BBV1241
1/4" Female x 1/4" Female	Carbon Steel	Hard Seat	10,000 psi	BBV6220
1/4" Male x 1/4" Female				BBV6200
1/2" Female x 1/2" Female				BBV6221
1/2" Male x 1/2" Female				BBV6201
3/4" Female x 1/2" Female				BBV6251
3/4" Male x 1/2" Female				BBV6241
3/4" Female x 3/4" Female	Stainless Steel	Hard Seat	10,000 psi	BBV6261
3/4" Male x 3/4" Female				BBV6271
1/4" Female x 1/4" Female				BBV3220
1/4" Male x 1/4" Female				BBV3200
1/2" Female x 1/2" Female				BBV3221
1/2" Male x 1/2" Female				BBV3201
3/4" Female x 1/2" Female	BBV3251			
3/4" Male x 1/2" Female	BBV3241			
3/4" Female x 3/4" Female	BBV3261			
3/4" Male x 3/4" Female	BBV3271			

### Block & Bleed Two Handle NACE Order Codes

NPT Connection	Material	Seat	Max. Pressure	Code
1/4" Female x 1/4" Female	Stainless Steel NACE	Hard Seat	10,000 psi	BBV3220N
1/4" Male x 1/4" Female				BBV3200N
1/2" Female x 1/2" Female				BBV3221N
1/2" Male x 1/2" Female				BBV3201N
3/4" Female x 1/2" Female				BBV3251N
3/4" Male x 1/2" Female				BBV3241N

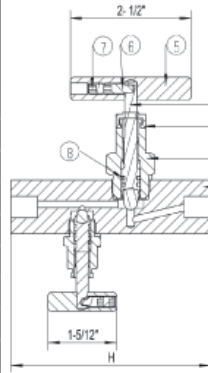
### Replacement Plug Order Codes

Plug or Screw	Carbon Steel	Stainless Steel	Stainless Steel NACE
1/4" NPT Plug	NVAPLUG04	NVAPLUG03	NVAPLUG03N

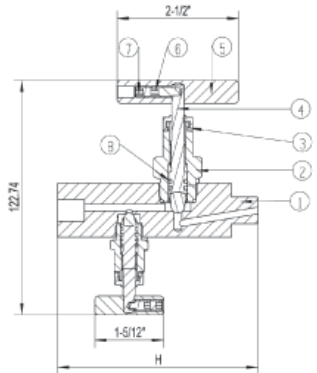
### Hard Seat Material

Description	Component Number	Carbon Steel Hard Seat	Stainless Steel Hard Seat	Stainless Steel NACE Hard Seat
Body	1	Carbon Steel	316 SS	316 SS NACE
Bonnet	2	Carbon Steel	316 SS	316 SS NACE
Dustcap	3	Nylon	Nylon	Nylon
Needle / Needle Tip	4	316 SS	316 SS	316 SS NACE
Handle	5	Carbon Steel	304 SS	304 SS
Screw	6	304 SS	304 SS	304 SS
Fastening Screw	7	304 SS	304 SS	304 SS
O-rings	8	FKM	FKM	FKM
Dwell Pin	9	304 SS	304 SS	304 SS
Vent Plug	10	Carbon Steel	316 SS	316 SS NACE

Female x Female

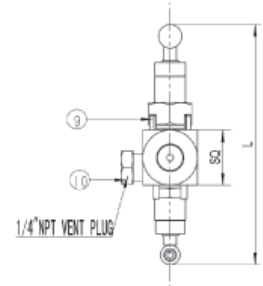
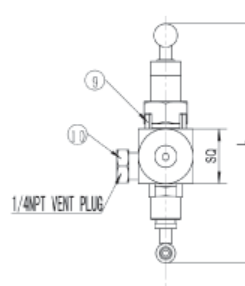


Male x Female



### Hard Seat Dimensions

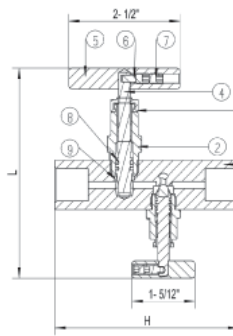
Size	H	L	SQ
1/4" Female x 1/4" Female	4.13" (105mm)	4.83" (123mm)	1.10" (28mm)
1/4" Male x 1/4" Female	4.13" (105mm)	4.83" (123mm)	1.10" (28mm)
1/2" Female x 1/2" Female	4.13" (105mm)	4.83" (123mm)	1.10" (28mm)
1/2" Male x 1/2" Female	4.13" (105mm)	4.83" (123mm)	1.10" (28mm)
3/4" Female x 1/2" Female	4.13" (105mm)	4.99" (127mm)	1.26" (32mm)
3/4" Male x 1/2" Female	4.29" (109mm)	4.83" (123mm)	1.10" (28mm)



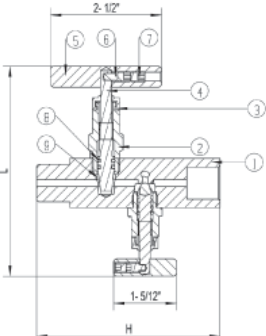
### Soft Seat Material

Description	Component Number	Carbon Steel Soft Seat	Stainless Steel Soft Seat
Body	1	Carbon Steel	316 SS
Bonnet	2	Carbon Steel	316 SS
Dustcap	3	Nylon	Nylon
Needle / Needle Tip	4	316 SS	316 SS
Handle	5	Carbon Steel	304 SS
Screw	6	304 SS	304 SS
Fastening Screw	7	304 SS	304 SS
O-rings	8	FKM	FKM
Seat	9	Delrin	Delrin
Dwell Pin	10	304 SS	304 SS
Vent Plug	11	Carbon Steel	316 SS

Female x Female

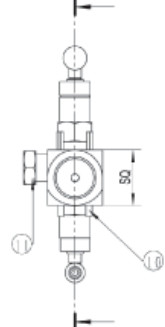
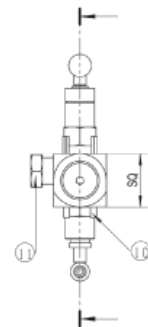


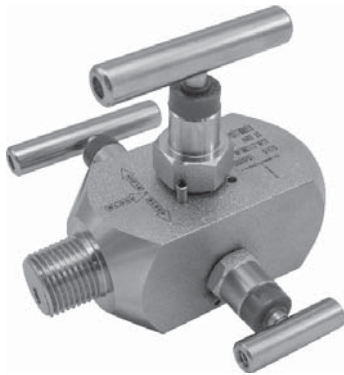
Male x Female



### Soft Seat Dimensions

Size	H	L	SQ
1/4" Female x 1/4" Female	4.13" (105mm)	4.72" (120mm)	1.10" (28mm)
1/4" Male x 1/4" Female	4.13" (105mm)	4.72" (120mm)	1.10" (28mm)
1/2" Female x 1/2" Female	4.13" (105mm)	4.72" (120mm)	1.10" (28mm)
1/2" Male x 1/2" Female	4.13" (105mm)	4.72" (120mm)	1.10" (28mm)
3/4" Female x 1/2" Female	4.29" (109mm)	4.88" (124mm)	1.26" (32mm)
3/4" Male x 1/2" Female	4.29" (109mm)	4.68" (119mm)	1.10" (28mm)





### Description & Features:

- Combines isolating and venting in a single valve, eliminating the need for tubing and fittings
- Block valve isolates the downstream process fluids, and the bleed valve exhausts upstream fluids enabling instruments to be removed without disturbing the permanent piping installation on the bottom
- The 1/4" NPT vent plug is located 90° to the left and may be removed and replaced with exhaust piping to direct the fluids to a safe location
- Available in Hard Seat (10,000 psi)
- All stems are 316 stainless steel
- CRN registered
- 5 year warranty

### Applications:

- Ideally suited for severe duty oil and gas installations including refineries and processing plants as well as water treatment plants, power plants and hydraulic applications where additional safety for shut-down and media venting is required

### Double Block & Bleed Order Codes

NPT Connection	Material	Seat	Max. Pressure	Code
1/4" Female x 1/4" Female	Stainless Steel	Hard Seat	10,000 psi	BBV3420
1/4" Male x 1/4" Female				BBV3400
1/2" Female x 1/2" Female				BBV3421
1/2" Male x 1/2" Female				BBV3401
3/4" Female x 1/2" Female				BBV3422
3/4" Male x 1/2" Female				BBV3402

### Double Block & Bleed NACE Order Codes

NPT Connection	Material	Seat	Max. Pressure	Code
1/4" Female x 1/4" Female	Stainless Steel NACE	Hard Seat	10,000 psi	BBV3420N
1/4" Male x 1/4" Female				BBV3400N
1/2" Female x 1/2" Female				BBV3421N
1/2" Male x 1/2" Female				BBV3401N
3/4" Female x 1/2" Female				BBV3422N
3/4" Male x 1/2" Female				BBV3402N

### Replacement Plug Order Codes

Plug or Screw	Stainless Steel	Stainless Steel NACE
1/4" NPT Plug	NVAPLUG03	NVAPLUG03N

## Material

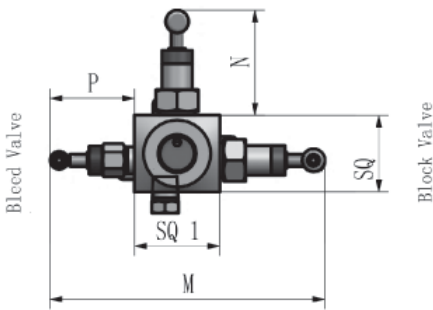
Description	Component Number	Stainless Steel	Stainless Steel NACE
Body	1	316 SS	316 SS NACE
Bonnet	2	316 SS	316 SS NACE
Dust Cap	3	Nylon	Nylon
Needle / Needle Tip	4	316 SS	316 SS NACE
Handle	5	304 SS	304 SS
Screw	6	304 SS	304 SS
Fastening Screw	7	304 SS	304 SS
O-Rings	8	FKM	FKM
Dwell Pin	9	304 SS	304 SS
Plug	10	316 SS	316 SS NACE

## Dimensions

Size	H	L	SQ	SQ1	M	N	P
1/4" Female x 1/4" Female	3.70" (94mm)	3.72" (95mm)	1.57" (40mm)	1.75" (44.5mm)	5.50" (140mm)	2.15" (55mm)	1.62" (41mm)
1/4" Male x 1/4" Female	4.00" (102mm)	3.72" (95mm)	1.57" (40mm)	1.75" (44.5mm)	6.10" (155mm)	2.15" (55mm)	1.60" (41mm)
1/2" Female x 1/2" Female	3.70" (94mm)	3.72" (95mm)	1.57" (40mm)	1.75" (44.5mm)	5.50" (140mm)	2.15" (55mm)	1.62" (41mm)
1/2" Male x 1/2" Female	4.00" (102mm)	3.72" (95mm)	1.57" (40mm)	1.75" (44.5mm)	6.10" (155mm)	2.15" (55mm)	1.60" (41mm)
3/4" Female x 1/2" Female	3.70" (94mm)	3.72" (95mm)	1.57" (40mm)	1.75" (44.5mm)	5.50" (140mm)	2.15" (55mm)	1.62" (41mm)
3/4" Male x 1/2" Female	4.00" (102mm)	3.72" (95mm)	1.57" (40mm)	1.75" (44.5mm)	6.10" (155mm)	2.15" (55mm)	1.60" (41mm)

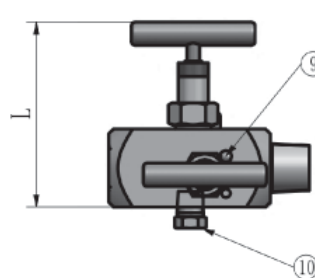
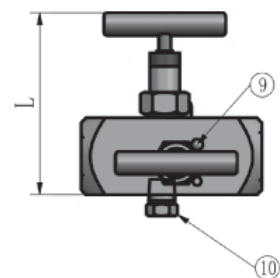
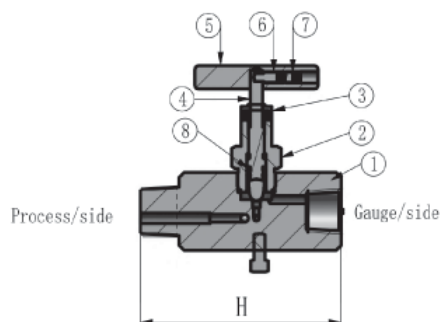
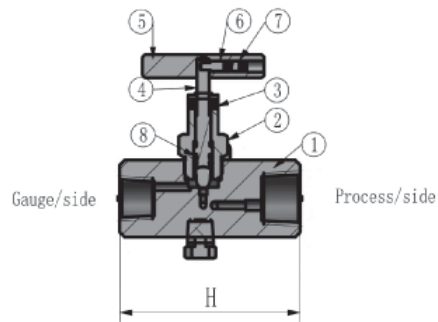
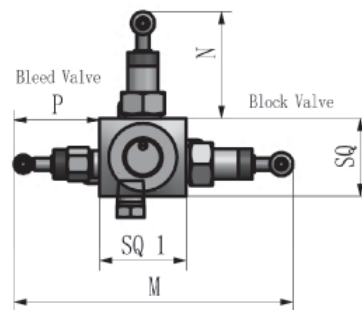
### Female x Female

Block Valve



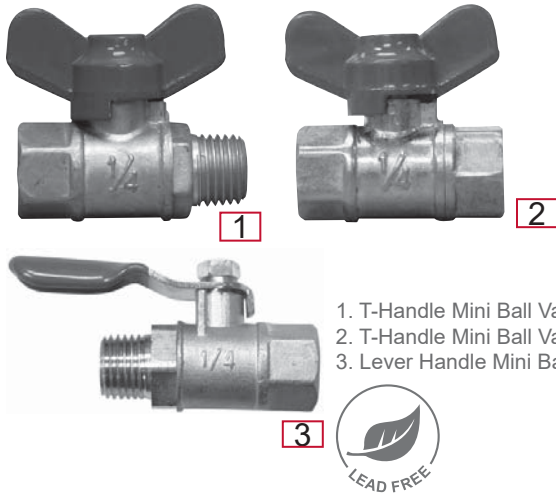
### Male x Female

Block Valve



# Mini Ball Valve, Lead Free Mini Ball Valve

# SMV, SMV-LF



1. T-Handle Mini Ball Valve (F x M)
2. T-Handle Mini Ball Valve (F x F)
3. Lever Handle Mini Ball Valve (MXF)


### Description & Features:

- An economical isolation valve for pressure gauges and transmitters
- Brass or lead free brass wetted parts
- ASME B1.20.1 compliant
- CRN registered
- 5 year warranty

### Applications:

- Provides flow control for non-corrosive applications
- Lead free version for potable water systems

### Specifications

<b>Body</b>	SMV: #59-1 forged brass SMV-LF: Lead free forged brass
<b>Ball</b>	SS
<b>Gaskets</b>	PTFE
<b>Handle</b>	Steel, plated, plastic covered
<b>Process Temperature</b>	-9°F to 212°F (-23°C to 100°C)
<b>Maximum Operating Pressure</b>	400 psi (2,758 kPa)
<b>Connection</b>	1/4" NPTF x 1/4" NPTM 1/4" NPTF x 1/4" NPTF
<b>Warning</b>	 <b>WARNING:</b> This product can expose you to chemicals including lead, which is known to the State of California to cause cancer and birth defects or other reproductive harm. For more information go to <a href="http://www.P65Warnings.ca.gov">www.P65Warnings.ca.gov</a> .

### SMV Order Codes (products in bold are normally stock in North America)

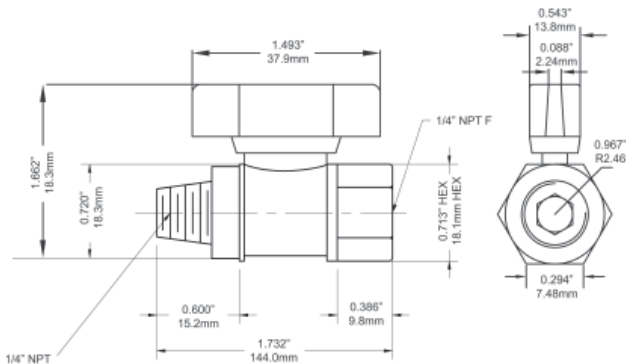
Connection	T-Handle	Lever Handle
F x M	<b>SMV532</b>	<b>SMV500</b>
F x F	<b>SMV533</b>	-

### SMV-LF Order Codes (products in bold are normally stock in North America)

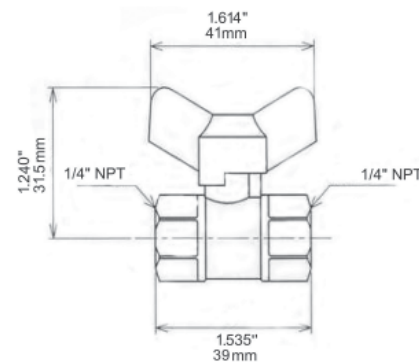
Connection	T-Handle	Lever Handle
F x M	<b>SMV532LF</b>	<b>SMV500LF</b>
F x F	<b>SMV533LF</b>	-

Other sizes and materials available upon request.

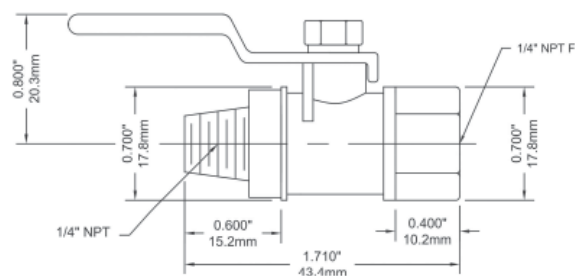
### T-Handle Mini Ball Valve (M x F)



### T-Handle Mini Ball Valve (F x F)



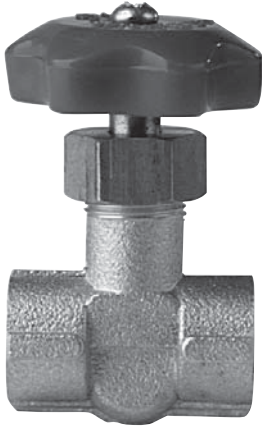
### Lever Handle Mini Ball Valve (M x F)





# SNV, SNV-LF

# Needle Valve, Lead Free Needle Valve




### Description & Features:

- An isolation valve for pressure gauges and transmitters
- For mild applications, this valve can be used to throttle pulsation. Please see NVA Stainless Steel Needle Valve for more demanding applications
- Brass or lead free brass wetted parts
- ASME B1.20.1 compliant
- CRN registered
- 5 year warranty

### Applications:

- Provides precision flow control for any non-corrosive application up to 400 psi (2,758 kPa)
- Lead free version for potable water systems

### Specifications

<b>Body</b>	SMV: #59-1 forged brass SMV-LF: Lead free forged brass
<b>Handle</b>	ABS plastic, dyed red
<b>O-ring</b>	Rubber
<b>Shaft</b>	SNV: #59-1 brass SNV-LF: Lead free brass
<b>Nut</b>	SNV: #59-1 brass SNV-LF: Lead free brass
<b>Ambient/Process Temperature</b>	-9°F to 212°F (-23°C to 100°C)
<b>Maximum Operating Pressure</b>	400 psi (2,758 kPa)
<b>Connection</b>	1/4" NPTF
<b>Warning</b>	 <b>WARNING:</b> This product can expose you to chemicals including lead, which is known to the State of California to cause cancer and birth defects or other reproductive harm. For more information go to <a href="http://www.P65Warnings.ca.gov">www.P65Warnings.ca.gov</a> .

### SNV Order Codes (products in bold are normally stock in North America)

Code
SNV510

### SNV-LF Order Codes (products in bold are normally stock in North America)

Code
SNV510LF

Other sizes and materials available upon request.

