

## Hexagonal Bar Stock Needle Valve

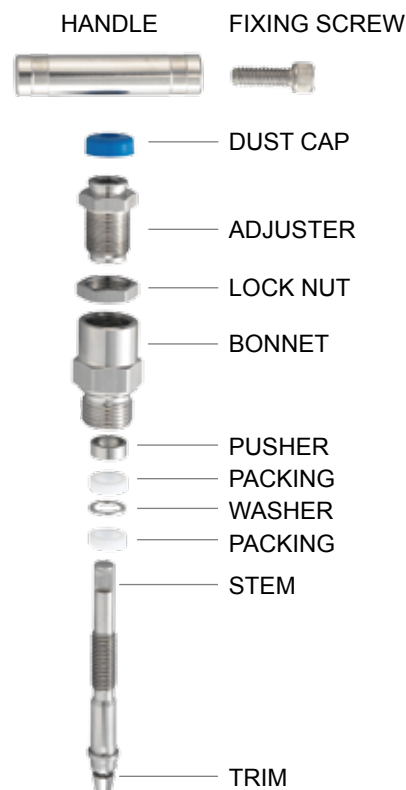
### HBNV Series



#### Features

- Maximum working pressure:  
6000 psi (414bar) at 100°F (38°C)  
10000 psi (690bar) at 100°F (38°C)
- Working temperature:  
-65°F (-54°C) to 464°F (240°C)  
-65°F (-54°C) to 842°F (450°C)
- Teflon® packings can be adjusted to extend the valve life.
- Non rotating stem design to reduce the galling and provide excellent seal on seat.
- Stem threads are rolled and lubricated to prevent galling and reduce operating torque.
- Sealing area below the threads protects from the contaminant by process and prevents lubricant washout.
- Safety back seating seal in fully open position to perform a secondary stem seal.
- Body to bonnet seal creates metal to metal constant and reliable compression.
- Bonnet lock pin prevents accidental removal while in service.
- Optional sour gas service conforms to NACE MR0175.
- Hydro test performed with pure water at 1.5 times of working pressure
- 100% factory test
- Material traceability

#### Material of Construction

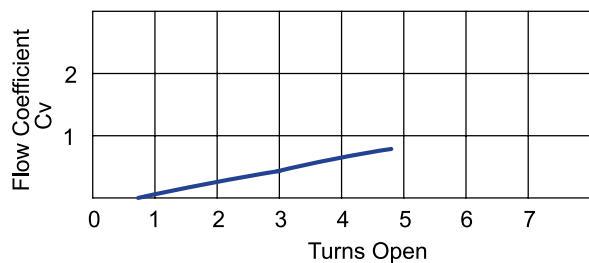


Component	Valve Body Material	
	316 S.S.	Carbon Steel
Body	316 S.S./A479	Carbon Steel/A108
Bonnet	316 S.S./A479	Carbon Steel/A108
Stem	316 S.S./A276	304 S.S./A276
Adjuster	316 S.S./A276	316 S.S. /A276
Lock Nut	316 S.S./A276	Carbon Steel /A108
Handle	303 S.S./A276	Carbon Steel/A108
Fixing Screw	302 S.S.	Zinc plated steel
Packing	Teflon® <sup>1</sup>	Teflon® <sup>1</sup>
Washer	316 S.S./A276	316 S.S./A276
Pusher	316 S.S./A276	316 S.S./A276
Dust Cap	NBR	NBR
Lock Pin	303 S.S./A276	303 S.S./A276
Bleed Screw <sup>2</sup>	316 S.S./A276	316 S.S./A276

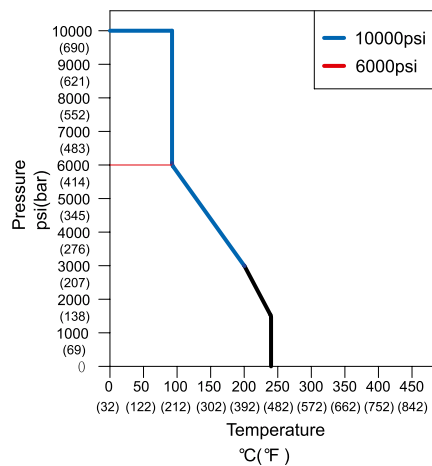
#### Note:

1. Packing is optional with graphite for high temperature to 450°C.
2. Optional with bleed screw

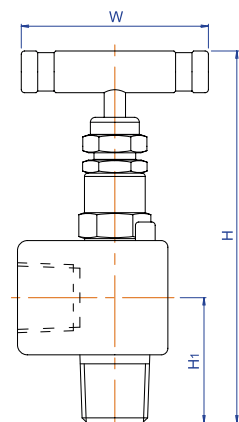
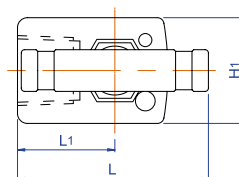
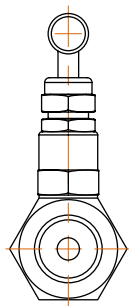
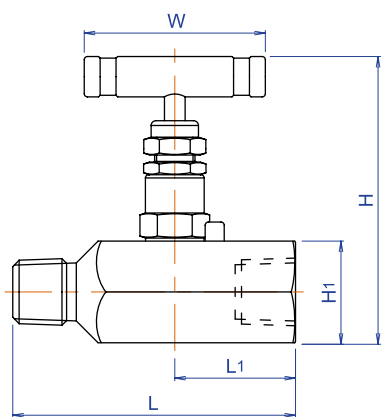
## Flow Characteristics



## Pressure Vs. Temperature



## Dimensions



Ordering No.	End Connection		Orifice (bore)	Dimensions (mm)				
	Inlet	Outlet		L	L1	H	H1	W
HBNV□8MF	1/2"NPT male	1/2"NPT female	6	89	38	90	32	57
HBNV□8FF	1/2"NPT female	1/2"NPT female	6	76	38	90	32	57
HBNV□3412MF	3/4"NPT male	1/2"NPT female	6	89	38	90	32	57
HBNV□12MF	3/4"NPT male	3/4"NPT female	6	89	38	93	35	57
HBNV□12FF	3/4"NPT female	3/4"NPT female	6	76	38	93	35	57
HBNV□16MF	1"NPT male	1"NPT female	6	94	42.5	99	41	57
HBNV□16FF	1"NPT female	1"NPT female	6	85	42.5	99	41	57
HBNV□8MF90	1/2"NPT male	1/2"NPT female	6	-	-	121.3	37.5	57

All dimensions shown are for reference and subject to change without prior notice.

Sizes listed are standard. Other sizes and end types are available upon request. Refer to ordering information.

## Standard Material

Valve	Body	Bonnet	Stem	Packing	Trim
316 SS	316-A479	316-A479	316-A276	Teflon®	316-A276
Carbon Steel	A108	A108	304-A276	Teflon®	304-A276

## Ordering Information

HBNV	S		8		MF		10 B	
Series	Body Material		Size		End Connection		Optional	
HBNV	S	316 S.S.	4	1/4"	M	Male	90	Angle pattern
	C	Carbon Steel	6	3/8"	F	Female	10	10,000 psi
			8	1/2"			B	Bleeding screw
			12	3/4"			G	Graphite
			16	1"			BSPT	BSPT thread

### Note:

1. Viton®, Teflon® and Delrin® are all registered trademarks of DuPont. Refer to chemical resistance guide and choose suitable elastomer for your application.
2. Carbon steel valves are yellow zinc plated to resist corrosion.

## Hexagonal Bar Stock Needle Valve

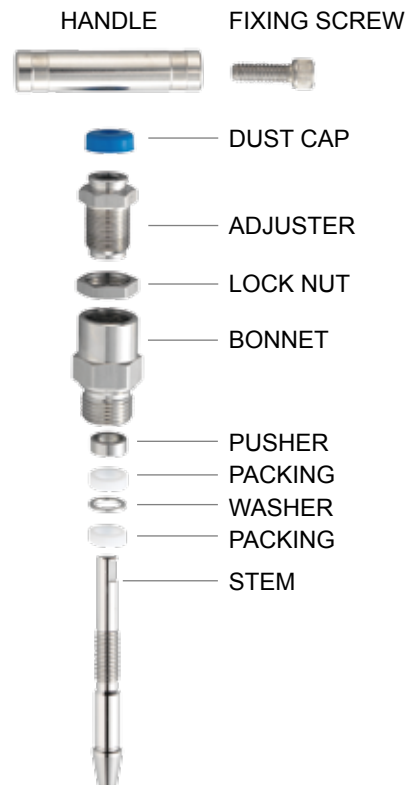
### SNV Series



#### Features

- Maximum working pressure:  
6000 psi (414bar) at 100°F (38°C)
- Working temperature:  
Delrin® Seat: -20°F (-28°C) to 200°F (93°C)  
PEEK Seat: -20°F (-28°C) to 400°F (204°C)
- Straight-through design provides high capacity with bi-directional flow and is roddable for easy cleaning.
- Teflon® packings can be adjusted to extend the valve life.
- Stem threads are rolled and lubricated to prevent galling and reduce operating torque.
- Sealing area below the threads protects from the contaminant by process and prevents lubricant washout.
- Safety back seating seal in fully open position to perform a secondary stem seal.
- Bonnet lock pin prevents accidental removal while in service.
- Optional sour gas service conforms to NACE MR0175.
- Hydro test performed with pure water at 1.5 times of working pressure
- 100% factory test
- Material traceability

#### Material of Construction

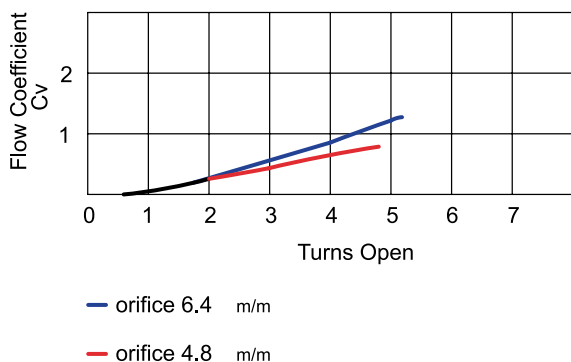


Component	Valve Body Material	
	316 S.S.	Carbon Steel
Body	316 S.S./A479	Carbon Steel/A108
Bonnet	316 S.S./A479	Carbon Steel/A108
Stem	316 S.S./A276	304 S.S./A276
Adjuster	316 S.S./A276	Carbon Steel/A108
Lock Nut	316 S.S./A276	Carbon Steel /A108
Handle	303 S.S./A276	Carbon Steel/A108
Fixing Screw	302 S.S.	Zinc plated steel
Packing	Teflon®	Teflon®
Washer	316 S.S./A276	316 S.S./A276
Pusher	316 S.S./A276	316 S.S./A276
Dust Cap	NBR	NBR
Lock Pin	303 S.S./A276	303 S.S./A276
Seat	Delrin®	Delrin®

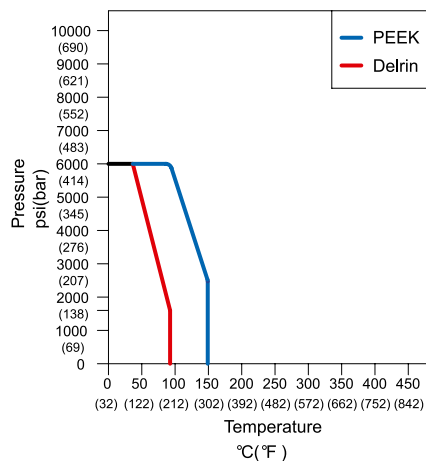
#### Note:

1. Optional PEEK seat is available.

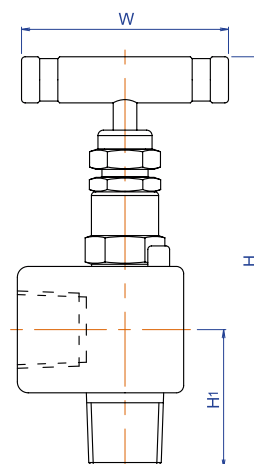
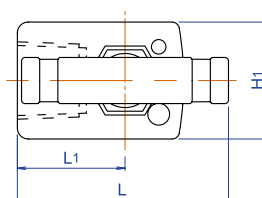
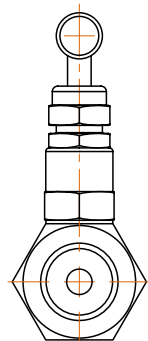
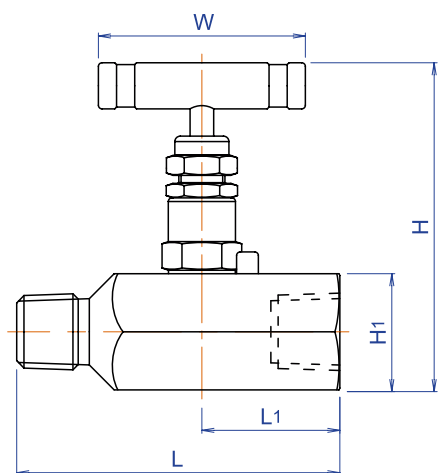
## Flow Characteristics



## Pressure Vs. Temperature



## Dimensions



Ordering No.	End Connection		Orifice (bore)	Dimensions (mm)				
	Inlet	Outlet		L	L1	H	H1	W
SNV□8MF	1/2"NPT male	1/2"NPT female	4.8	89	38	94	32	57
SNV□8FF	1/2"NPT female	1/2"NPT female	4.8	76	38	94	32	57
SNV□12MF	3/4"NPT male	3/4"NPT female	6.4	89	38	96	35	57
SNV□12FF	3/4"NPT female	3/4"NPT female	6.4	76	38	96	35	57
SNV□16MF	1"NPT male	1"NPT female	7	94	42.5	101	41	57
SNV□16FF	1"NPT female	1"NPT female	7	85	42.5	101	41	57
SNV□8MF90	1/2"NPT male	1/2"NPT female	4.8	-	-	121.3	37.5	57

All dimensions shown are for reference and subject to change without prior notice.

Sizes listed are standard. Other sizes and end types are available upon request. Refer to ordering information.

## Standard Material

Valve	Body	Bonnet	Stem	Packing	Seat
316 SS	316-A479	316-A479	316-A276	Teflon® or Viton® Oring with Teflon® backup ring	Delrin®
Carbon Steel	A108	A108	304-A276	Teflon® or Viton® Oring with Teflon® backup ring	Delrin®

## Ordering Information

SNV	S		8		MF		90	
Series	Body Material		Size		End Connection		Optional	
SNV	S	316 S.S.	4	1/4"	M	Male	PK	PEEK seat
	C	Carbon Steel	6	3/8"	F	Female	VT	Viton® O-ring with Teflon® back-up rings
			8	1/2"			90	Angle pattern
			12	3/4"			BSPT	BSPT thread
			16	1"				

### Note:

1. Valves are standard with Delrin® soft seat and Teflon® packings.
2. Viton®, Teflon® and Delrin® are all registered trademarks of DuPont. Refer to chemical resistance guide and choose suitable elastomer for your application.
3. Carbon steel valves are yellow zinc plated to resist corrosion.