

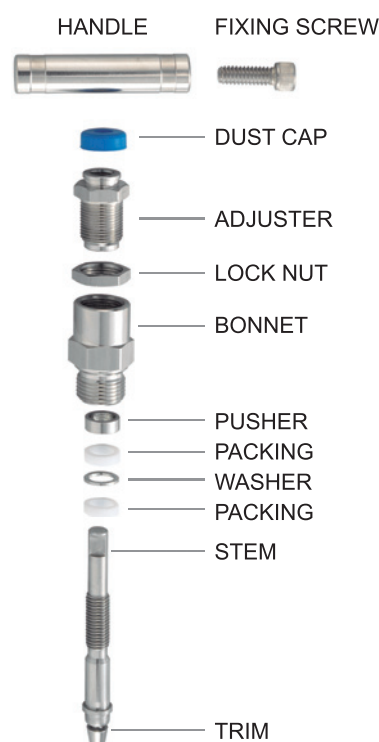
## Hexagonal Bar Stock Needle Valve HBNV Series



### 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<sup>®</sup> 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

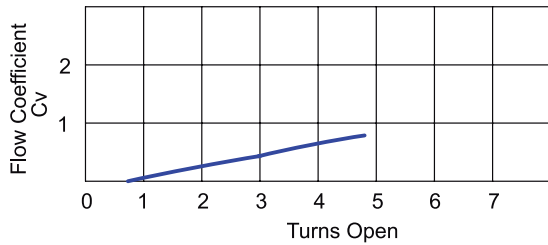


Component	Valve Body Material	
	316L S.S.	Carbon Steel
Body	316L S.S./A479	Carbon Steel /A108
Bonnet	316L S.S./A479	Carbon Steel /A108
Stem	316L S.S./A276	304 S.S./A276
Adjuster	316L S.S./A276	Carbon Steel /A108
Lock Nut	316L S.S./A276	Carbon Steel /A108
Handle	303 S.S./A276	Carbon Steel /A108
Fixing 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

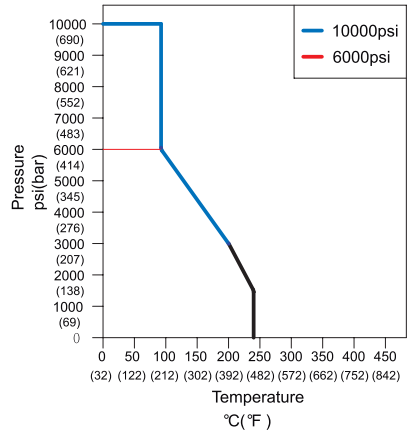
### Note:

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

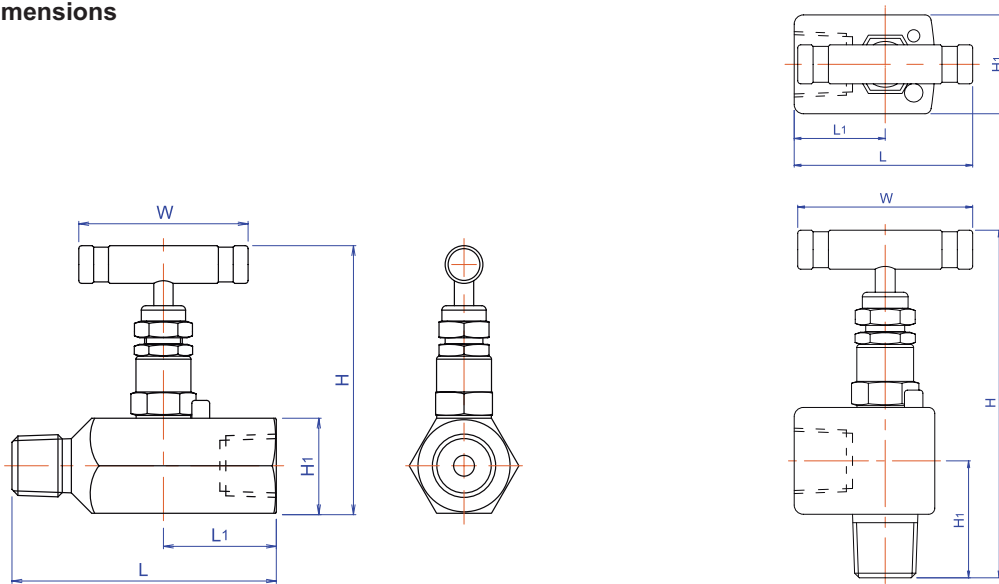
**Flow Characteristics**



**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
316L SS	316-A479	316-A479	316-A276	Teflon <sup>®</sup>	316-A276
Carbon Steel	A108	A108	304-A276	Teflon <sup>®</sup>	304-A276

### Ordering Information

HBNV	S		8		MF		10 B	
Series	Body Material		Size		End Connection		Optional	
HBNV	S	316L 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<sup>®</sup>, Teflon<sup>®</sup> and Delrin<sup>®</sup> 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.