## **HB Series**



## IB Series





# Needle Valves





Mini Series



**Needle Valves - HB Series** 

#### HB Series - Needle Valves

Sync-Lok HB Series Needle Valves are specially designed and ruggedly manufactured for use in corrosive & hazardous conditions. Our valves are precision machined for maximum durability & efficency to provide a high quality, low cost alternative in fluid & gaseuos control systems to meet the demands of our customers. All valves are alailable in high-grade stainless steel, carbon steel, brass & monel. End connections are available in M/F threaded NPT, BSP, BSPT, ISO, DIN and JIS tapered ends.

#### Features / Benefits

**Non-Rotating Vee / Ball Tip Design**-forms a bearing joint with the stem which eliminates rotation between plug & seat @ closure. This prevents scoring and galling up the valveseat and ensures long life in repetitive shut-off service.

**Safety Bonnet Lock** - prevents accidental disassembley.

eliminates possible tensile.

Stem Thread Rolled & Hard Platted - provides additional strength & maximum service life.

Mirror Finish Stem (Burnished to a 16 RMS) - extends packing life and smooth stem operation.

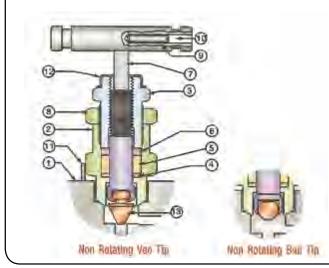
**Adjustable Packing Below Stem Threads** - prevents stem lubrication washout and isolate threads from process contamination.

**Safety Back Seating** - provides secondary stem seal in full open position, prevents stem blow-out. **Stainless Steel Handle** - for proper actuation.

Body-to-Bonnet Seal - metal to metal constant compression, isolate bonnet threads from system fluids and

**Dust Cap** - prevents contaminants and lubricant washout of bonnet assembly.

#### **Materials of Construction**



SR No	Part	Qty	Material
1	Body	1	A479-316 / A-105
2	Gland Body	1	A479-316 / A-105
3	Gland Retainer	1	A479-316 / A-105
4	Washer	1	A479-316 / A-105
5	Packing	1	PTFE / Graphoil
6	Packing Washer	1	A276-316 / A-105
7	Spindle	1	A276-316
8	Lock Nut	1	A479-316 / A-105
9	Grub Screw	1	Steel
10	Handle	1	A276-304 / A-105
11	Lock Pin	1	A479-316 / A-105
12	Dust Cap	1	Plastic LD
13	Vee Tip / Ball Tip	1	A 564-630

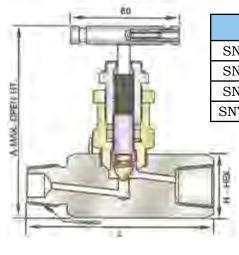
#### Pressure / Temperature Ratings

Valve Size	Orifice	Cv	Max Working Pressure	Temp	Pressure @ Max. Temp
1/4" 3/8"	3.5mm	0.31	6,000 psi	PTFE -20 to 250 F -29 to 121 C	PTFE 4000 psi @ 260 C
1/2"	4.8mm	0.52	(41,300 kpa)	a 1 11 00 1 600 T 00 1 01 T 0	0 1 11 1500 1 0 500 0
3/4"	6.4mm	1.40		Graphoil -29 to 600 F -29 to 315 C	Graphoil 1500 psi @ 538 C

#### **Testing**

Each valve is hydrostatically tested in accordance with MSS-SP-99. This procedure includes testing of the body cavity. The hydrostatic test is performed with pure water or other liquids of similar or lower viscosity @ 1.5 times the seat leakage and 1.1 times the maximum working pressure.

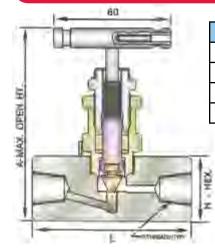
## Needle Valve MF



Part No.	P-NPTF	L	Н-Нех	A-OP	WT. *
SNV-H-S-4-MF	1/4"	60	25	92	300 GMS
SNV-H-S-6-MF	3/8"	60	25	92	300 GMS
SNV-H-S-8-MF	1/2"	80	32	98	600 GMS
SNV-H-S-12-MF	3/4"	80	32	114	600 GMS



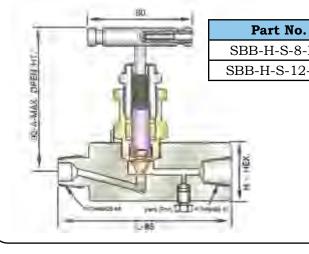
## Needle Valve FF



Part No.	P-NPTF	L	H-Hex	A-OP	WT. *
SNV-H-S-4-FF	1/4"	53	25	92	300 GMS
SNV-H-S-6-FF	3/8"	53	25	92	300 GMS
SNV-H-S-8-FF	1/2"	75	32	98	600 GMS
SNV-H-S-12-FF	3/4"	75	36	114	600 GMS



## Block & Bleed Valve MF



•	P-NPTF	P1-NPTM	H-Hex	WT. *
-MF	1/2"	1/2"	25	650 GMS
2-MF	1/2"	3/4"	36	750 GMS
			all to	(7)





## Needle Valves - IB Series

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#### IB Series - Needle Valves

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#### Features / Benefits

One Piece Body - no weld construction for high strength and full safety

**Non-Rotating Vee / Ball Tip Design**-forms a bearing joint with the stem which eliminates rotation between plug & seat @ closure. This prevents scoring and galling up the valveseat and ensures long life in repetitive shut-off service.

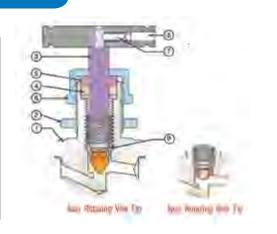
Stem Thread Rolled & Hard Platted - provides additional strength & maximum service life.

Mirror Finish Stem (Burnished to a 16 RMS) - extends packing life and smooth stem operation.

Stainless Steel Handle - for proper actuation.

### **Materials of Construction**

SR No	Part	Qty	Material
1	Body	1	A479-316 / A-105
2	Pannel Nut	1	A479-316 / A-105
3	Stem	1	A479-316 / 17-4PH
4	Packing	1	Teflon / Graphoil
5	Washer	1	A479-316
6	Gland Nut	1	A479-316
7	Grub Screw	1	Steel Plated
8	Handle	1	Stainless Steel
9	Vee Tip / Ball Tip	1	A 564-630



#### Pressure / Temperature Ratings

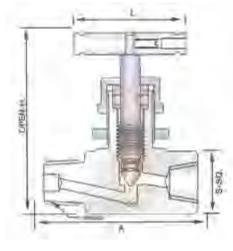
Valve Size	Orifice	Cv	Max Working Pressure	Temp	Pressure @ Max. Temp	
1/4"	3.5mm	0.31		PTFE -20° to 250° F	DTEE 4000 mai @ 260° C	
3/8"	3.311111	0.31		(-29° to 121°C)	PTFE 4000 psi @ 260°C	
1/2"	4.8mm	0.52	6,000 psi (41,300 kpa)	0 1 1 0004 6000 5		
3/4"	6.4mm	1.40		Graphoil -29° to 600° F (-29° to 315° C)	Graphoil 1500 psi @ 538°C	
1"	9.5mm	2.4		(2) (0010 0)		

## **Testing**

Each valve is hydrostatically tested in accordance with MSS-SP-99. This procedure includes testing of the body cavity. The hydrostatic test is performed with pure water or other liquids of similar or lower viscosity @ 1.5 times the seat leakage and 1.1 times the maximum working pressure.

Each valve is also tested with Nitrogen Gas @ 1,000 PSI for seat, seal and shell leakage. Other tests like vibration, temperature and helium are available upon request.

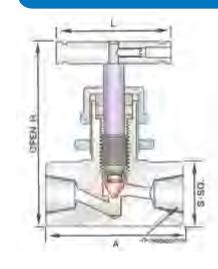
### Needle Valve MF





Part No.	P-NPTF	A	s-sq	H	L
SNV-IB-S-4-MF	1/4"	50	22	69	50
SNV-IB-S-6-MF	3/8"	50	25	69	60
SNV-IB-S-8-MF	1/2"	68	30	83	60
SNV-IB-S-12-MF	3/4"	70	36	89	70
SNV-IB-S-16-MF	1"	88	45	102	70

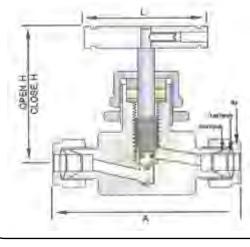
#### Needle Valve FF





Part No.	P-NPTF	A	S-SQ	H	L
SNV-IB-S-4-FF	1/4"	50	22	69	50
SNV-IB-S-6-FF	3/8"	50	25	69	60
SNV-IB-S-8-FF	1/2"	68	30	83	60
SNV-IB-S-12-FF	3/4"	70	36	89	70
SNV-IB-S-16-FF	1"	88	45	102	70

## **Needle Valve Compression**





Part No.	P-NPTF	A	S-SQ	H	L
SNV-IB-S-4-OD	1/4"	50	22	69	50
SNV-IB-S-6-OD	3/8"	50	25	69	60
SNV-IB-S-8-OD	1/2"	68	30	83	60
SNV-IB-S-12-OD	3/4"	70	36	89	70
SNV-IB-S-16-OD	1"	88	45	102	70

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**Needle Valves - HP Series** 

#### HP Series - Needle Valves

Sync-Lok HP Series Needle Valves are specially designed and ruggedly manufactured for use in corrosive & hazardous conditions. Our valves are precision machined for maximum durability & efficency to provide a high quality, low cost alternative in fluid & gaseuos control systems to meet the demands of our customers. All valves are alailable in high-grade stainless steel, carbon steel, brass & monel. End connections are available in M/F threaded NPT, BSP, BSPT, ISO, DIN and JIS tapered ends.

#### Features / Benefits

One Piece Body - no weldconstruction for high strength and full safety.

**Vee Tip Design**- controls accurate flow

Stem Threads Rolled & Hard Platted - provides additional strength & maximum service life.

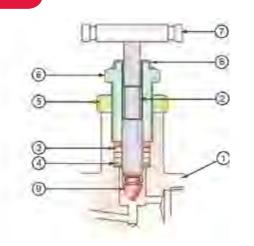
Mirror Finish Stem (Burnished to a 16 RMS) - extends packing life and smooth stem operation.

**Stainless Steel Handle** - for proper actuation.

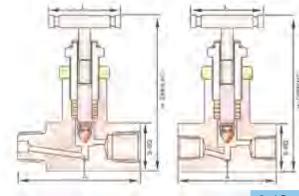
**Dust Cap** - prevents contaminants and lubricant washout of bonnet assembly.

#### **Materials of Construction**

SR No	Part	Qty	Material
1	Body	1	A479-316 / A-105
2	Stem	1	A479-316 / A-105
3	Packing Washer	1	A479-316 / A-105
4	Gland Packing	1	Glass Filled PTFE
5	Lock Nut	1	A479-316 / A-105
6	Gland Retainer	1	A479-316 / A-105
7	Handle	1	Stainless Steel
8	Dust Cap	1	Plastic LD
9	Vee Tip	1	A 564-630



#### **Dimensions**



Part No.	Size	A(MF)	A(FF)	s-sq	Н	L		
SNV-HP-S-4-MF	1 / 4"	60	55	٥٢	0.0	60		
SNV-HP-S-4-FF	1/4"	80	55	25	86	60		
SNV-HP-S-6-MF	1 /0"	60	55	28	96	60		
SNV-HP-S-6-FF	1/8"	00	33	40	86	00		
SNV-HP-S-8-MF	1 /0"	1 /0"	1/2"	." 82	75	34	98	70
SNV-HP-S-8-FF	1/4	04	13	34	90	/0		
SNV-HP-S-12-MF	3/4"	87	80	38	98	70		
SNV-HP-S-12-FF	3/4	07	80	30	90	70		
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Orifice	Cv	Pressure Rating	Temperature Rating
5mm	0.22	10,000 psi (700 bar)	65° to 200° F (50° to 93° C)

#### **Testing**

Each valve is hydrostatically tested in accordance with MSS-SP-99. This procedure includes testing of the body cavity. The hydrostatic test is performed with pure water or other liquids of similar or lower viscosity @ 1.5 times the seat leakage and 1.1 times the maximum working pressure.



Needle Valves - Mini Series

#### Mini Series - Needle Valves

Sync-Lok Mini Series Needle Valves are specially designed and ruggedly manufactured for use in corrosive & hazardous conditions. Our valves are precision machined for maximum durability & efficency to provide a high quality, low cost alternative in fluid & gaseuos control systems to meet the demands of our customers. All valves are alailable in high-grade stainless steel, carbon steel, brass & monel. End connections are available in M/F threaded NPT, BSP, BSPT, ISO, DIN and JIS tapered ends.

#### Features / Benefits

Vee Tip Design- controls accurate flow

Stem Threads Rolled & Hard Platted - provides additional strength & maximum service life.

Mirror Finish Stem (Burnished to a 16 RMS) - extends packing life and smooth stem operation.

Fully Supported Packing - reduces need for adjustment

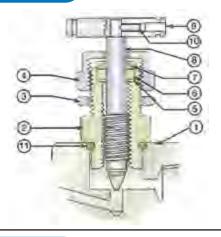
**Packing Nut** - easy and fast to move external adjustment

**Stainless Steel Handle** - for proper actuation.

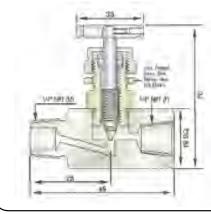
**Dust Cap** - prevents contaminants and lubricant washout of bonnet assembly.

## **Materials of Construction**

SR No	Part	Qty	Material				
1	Body	1	A479-316 / A-105				
2	Gland Body	1	A479-316 / A-105				
3	Panel Nut	1	A479-316 / A-105				
4	Gland Nut	1	A479-316 / A-105				
5	Washer	1	A479-316 / A-105				
6	Packing	1	PTFE / Graphoil				
7	Packing Washer	1	A479-316 / A-105				
8	Spindle	1	A564-630				
9	Handle	1	Stainless Steel				
10	Grub Screw		Steel Plated				
11	l O-Ring		Viton				

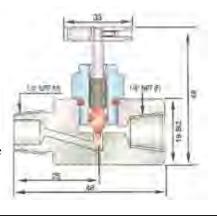


#### **Dimensions**



Sync-Lok Mini Needle Valves are also available in Female to Female, Male to Male & Male to Female end connections

4,000 & 6,000 PSI models available



Orifice	Cv	Pressure Rating	Temperature Rating
3.5mm	0.31	3000 PSI (20700 kpa)	20 to 250 F (-29 to 121 C)

#### **Testing**

Each valve is hydrostatically tested in accordance with MSS-SP-99. This procedure includes testing of the body cavity. The hydrostatic test is performed with pure water or other liquids of similar or lower viscosity @ 1.5 times the seat leakage and 1.1 times the maximum working pressure.

Each valve is also tested with Nitrogen Gas @ 1,000 PSI for seat, seal and shell leakage. Other tests like vibration, temperature and helium are available upon request.



Other Sync-Lok products include:
Ball Valves and Needle Valves
Stainless Steel Twin Ferrule Tube Fittings
Single Ferrule Tube Fittings
Bronze Alloy Fittings
Brass Single / Twin Ferrule Fittings
Marine Fittings

## Locations:

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