

HiFLUX

High Pressure Valves & Fittings



HIGH SERVICE
HIGH QUALITY
HIGH PERFORMANCE
High Pressure equipment

HiFLUX

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HiFLUX



Passion for a high-pressure future, constant challenge and innovation

HIFLUX Co., Ltd. has been recognized for its technological prowess by successfully producing various of high-pressure piping materials that are difficult to manufacture domestically through continuous R&D and facility investment to open up new markets in the ultra-high pressure piping materials sector.

Based on differentiated technological prowess and price competitiveness compared to overseas manufacturers in Europe and the United States, it is growing into a global brand by concluding OEM supply contracts with domestic OEM suppliers and overseas global waterjet manufacturers.

In addition, in order to open up new markets, we have developed air-operated valves, high-pressured pressure regulators, back pressure regulators, and other fittings for various purposes and pressure-specific accessories, and now our products are being applied to mass production facilities in various industries.

Expanding R&D investment to achieve carbon neutrality

In order to contribute to carbon neutrality, HIFLUX has researched and developed manual valves for hydrogen refueling stations with pure domestic capital and technology, obtained KS certification, and is currently being supplied to hydrogen refueling station plant sites. It is also developing check valves and pneumatic valves (AOV) KS propulsion and valves for liquefied hydrogen.

In addition, based on its technology related to high-pressure piping for hydrogen refueling stations, it was selected as a hydrogen specialized company by the Ministry of Trade, Industry and Energy in 2024. We will continue to do our best to contribute to the development of the hydrogen industry through steady investment and marketing.

We will always listen to our customers' voices and contribute to productivity and quality improvement through continuous product improvement and service provision, and strive to become HIFLUX that can grow and develop together with our customers.

Thank you.

HIFLUX Co., Ltd. | CEO *Kim Hyeon Hyo*

Overview

Company name	HIFLUX Co., Ltd.	CEO	Kim Hyeon Hyo
Date of Establishment	May 26, 2010	Business Area	Various valves, hydraulic equipment, pumps, etc
Address	(34037) Da Dong, 361-33, Gapcheon-ro, Yuseong-gu, Daejeon, Republic of Korea	Telephone	+82 042-933-5670 (Extension number 1.Technical Sales Department 2.Design Department 3.Public Relations Department 4.Purchasing Department 5.Production Department)
E-mail	Technical Sales Dept : sales@hiflux.com Promotion Dept : min@hiflux.com	Main Product	Needle Valve, Check Valve, Ball Valve, Relief Valve, Air Operated Valve, High-Temp Valve, Control Valve, Fitting, Fitting Accessory, Tube, Nipple, Regulator, Union, Adapter, Tube Support, Radiating Pipe, Pressure Gauge, Tooling Set, Lok Type Products

HIFLUX HISTORY

- 2024.05. Selected as a 'Hydrogen Specialist Company' by Government
- 2023.10. Acquired 'KS certification for manual valve for hydrogen refueling station' by KGS
- 2023.05. KS Q ISO 45001 certification
- 2023.05. Selected as a 2023 HIFLUX Small Giant Company
- 2021.08. Patent (Double-sealed check valve) acquired
- 2021.07. Received a commendation from KGS
- 2021.03. Patent (High-pressure valve) acquired
- 2020.07. 'Material/Component/Equipment Specialist Company Confirmation' acquired
- 2020.07. Patent (High-temperature/high-pressure valve) acquired
- 2020.06. R&D (Valve and fittings for H70 hydrogen refueling stations)
- 2020.04. Patent (Valves including stem carriers) acquired
- 2020.02. 2 types of valve patents acquired
- 2019.01. Joined the Korea Hydrogen Industry Association
- 2018.09. Moved to new headquarters and factory in Daedeok Techno Valley
- 2018.08. Acquired 'Venture Business Certification' from the Technology Guarantee Fund
- 2018.02. HIFLUX acquired European Standard Certification (CE)
- 2016.09. Self-developed 3 types of high-pressure valves
- 2016.04. Self-developed high-pressure Trunnion Ball Valve
- 2015.11. Self-developed high-pressure relief valve
- 2015.11. Factory expansion
- 2015.10. High pressure manifold block, high pressure ball valve self-development
- 2015.08. High pressure relief valve, high pressure needle valve self-development
- 2014.07. Corporate research institute certification
- 2013.10. KS Q ISO 9001 certification, KS I ISO 14001 certification
- 2010.05. Establishment of HIFLUX

Certification Patents



Certificate of Hydrogen Specialist Company



KS Certificate of Needle valve for Hydrogen Station



ISO 9001, 14001, 45001 (Quality, Environment, Health)



CE Certifications



Certificate of Corporate Research Institute



Certificate of Small and Medium Enterprise



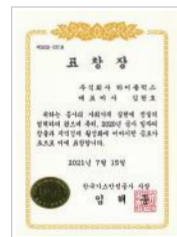
Certificate of Materials/Parts/Equipment Specialist Enterprise



Certificate of Venture Enterprise



Hydrogen Association Membership Card



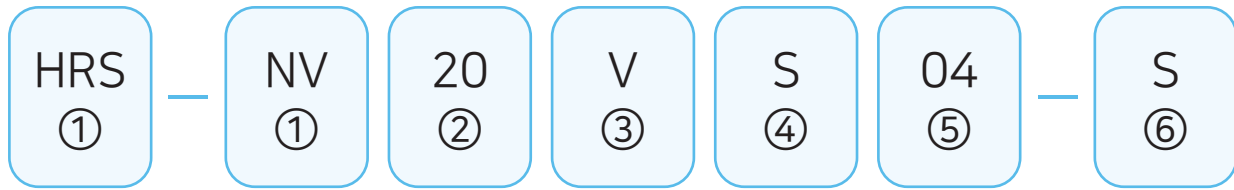
Gas Safety Corporation Award



Patent Certificate / Trademark Registration Certificate

Catalog Numbering System

simply indicate catalog number and specify option or special requirement



① Products	② Pressure	③ Type of Components	④ Material	⑤ Tube Size	⑥ Options
HRS-NV : Hydrogen Refueling System Needle Valve	03 : 3,000 psi	Needle Valve - V : Vee Stem - R : Regulating Stem	S : Stainless Steel 316	02 : 1/8 inch 04 : 1/4 inch	Needle Valve Control Valve Air Operated Valve High Temperature Valve
NV : Needle Valve	07 : 7,500 psi	Check Valve - O : O-Ring Type - B : Ball Type	H : Hastelloy	06 : 3/8 inch	- S : Straight Type - A : Angle Type
CV : Check Valve	15 : 15,000 psi	Ball Valve	HC : Hastelloy C276 Wetted Part	08 : 1/2 inch	- O : 3way/1on Type - T : 3way/2on Type
BV : Ball Valve	20 : 20,000 psi	- 03 : Orifice 4.8mm - 05 : Orifice 8mm	IN : Inconel 600	09 : 9/16 inch	- D : 3way 2stem Type
ABV : Actuator Ball Valve	30 : 30,000 psi	Control Valve Air Operated Valve - O : Normal-Open Type - C : Normal-Closed Type	IN625 : Inconel 625	12 : 3/4 inch 16 : 1 inch	Ball Valve - 20-90 : 2way - 3-180 : 3way Switching - 3-90 : 3way Diverting
AOV : Air Operated Valve	60 : 60,000 psi	Relief Valve - FS : Factory Set - FA : Field Adjustable - PP : Proportional Type	IN825 : Inconel 825	15 : 15A 25 : 25A	Relief Valve Field Adjustable - 1 : 1 Inlet - 2 : 2 Inlet
RV : Relief Valve	100 : 100,000 psi	Fitting - E : Elbow Type - T : Tee Type - C : Cross Type	NI : Nickel 200		Proportional Type - N : NPT Inlet port
SH : Safety Head	150 : 150,000 psi	Fitting Accessory - A : Adapter - S : Sleeve - G : Gland - R : Collar - T : Collet	TI : Titanium		Fitting Accessory - AV : Anti-Vibration Type
CON : Control Valve	N : NPT P : PT				GPR - N : Normal Type - P : Panel Type
HV : High Temperature Valve					
GV : Wellhead Gauge Valve					
BLV : Bleed Valve					
DBBV : Double Block and Bleed Valve					
FT : Fitting					
FA : Fitting Accessory					
MF : Manifold Block					
FATC : Tube Cap					
T : Tube					
N : Nipple					
A : Adapter					
BPR : Back Pressure Regulator					
HPR : High Pressure Regulator					
GPR : General Pressure Regulator					
ABPR : Air Operating Back Pressure Regulator					

Example

- NV60VS06-A : Needle Valve, 60,000 psi, Vee Stem, 3/8", Angle Type.
- NV15VS04-O : Needle Valve, 15,000 psi, Vee Stem, 1/4", 3Way/1on Pressure Type.
- AOV60CS04-A : Air Operated Valve, 60,000 psi, Normal-Closed, 1/4", Angle Type.
- FT60ES06 : Fitting, 60,000 psi, Elbow Type, 3/8".
- FA60GS04-AV : Fitting Accessory, 60,000 psi, Gland, 1/4", Anti-Vibration Type.

Hydrogen Fuel Station Needle Valve

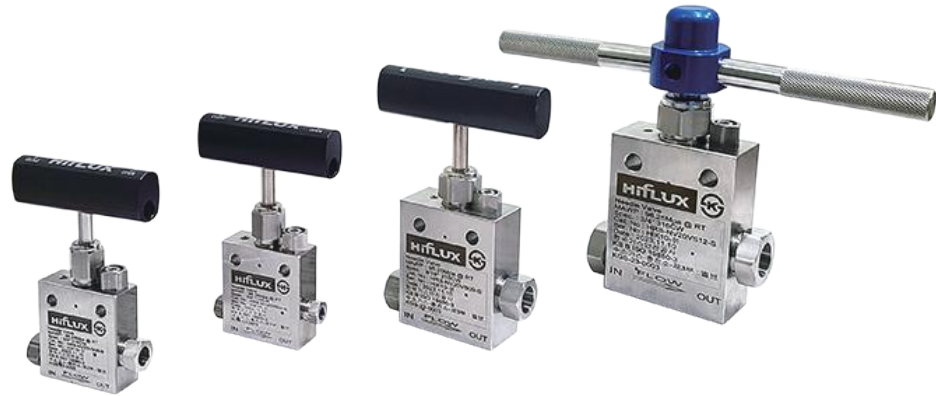
KS-certified valve for hydrogen refueling station that supplement for hydrogen embrittlement



KS인증 밸브
제 KGS-23-0003호



Hydrogen



This product has changed the sealing method of existing high-pressure needle valve products to allow use with hydrogen, and has completed refueling station testing and received KS certification.

Features

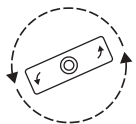
- Prevents galling with non-rotating stem
- Packing designed for reliable sealing
- Metal to metal seating method that extends the life of sealing
- Outstanding corrosion resistance required at high pressure due to use of STS316
- Straight type body
- Temperature range: -40°C ~ 85°C
- **Water pressure strength: 231 MPa**

Minimum recommended torque by size

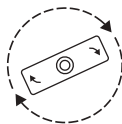
(Unit : kg.f-cm)

	Tube Size	Stem Gland	Tube fastening Gland
Tightening torque value	1/4"	700	280
	3/8"	700	420
	9/16"	1,200	750
	3/4"	3,500	1,250

Handle direction



Counterclockwise
CCW
OPEN



Clockwise
CW
Close

Material

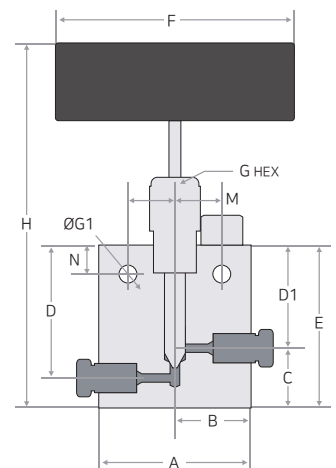
- Body : STS316CW
- Stem : STR660
- O-ring : EPDM
- Packing : TEFLON

Straight Type

Catalog No	Pressure Rating	Port Type	Tube Size	Cv	Orifice Size	Dimensions											Block Thickness	
						A	B	C	D	D1	E	F	G(HEX)	G1	H	M		N
HRS-NV20VS04-S	H70 (70MPa)	H2004	1/4"	0.31	3.2	50	25	20	44.5	34.5	54.5	80	17	6.5	122.15	15.7	9.7	20
HRS-NV20VS06-S		H2006	3/8"	0.75	5.5	50	25	20	44.5	34.5	54.5	80	17	6.5	122.15	15.7	9.7	20
HRS-NV20VS09-S		H2009	9/16"	1.30	7.9	63	31.5	29	63	47	76	100	22	8	150.7	17.5	12.7	30
HRS-NV20VS12-S		H2012	3/4"	2.50	11	76	38	38	81	62	100	253	30	10	177.63	23	15.8	35

G: Mounting hole size using the stem gland
G1: Mounting hole size using the body
H: Height when the valve is completely closed

All dimensions are for reference only and may differ from the actual size.
NPT, PT standard and specification production possible
(please contact customer service center)



High Pressure Needle Valve

Manual valve to control flow or open/close the flow



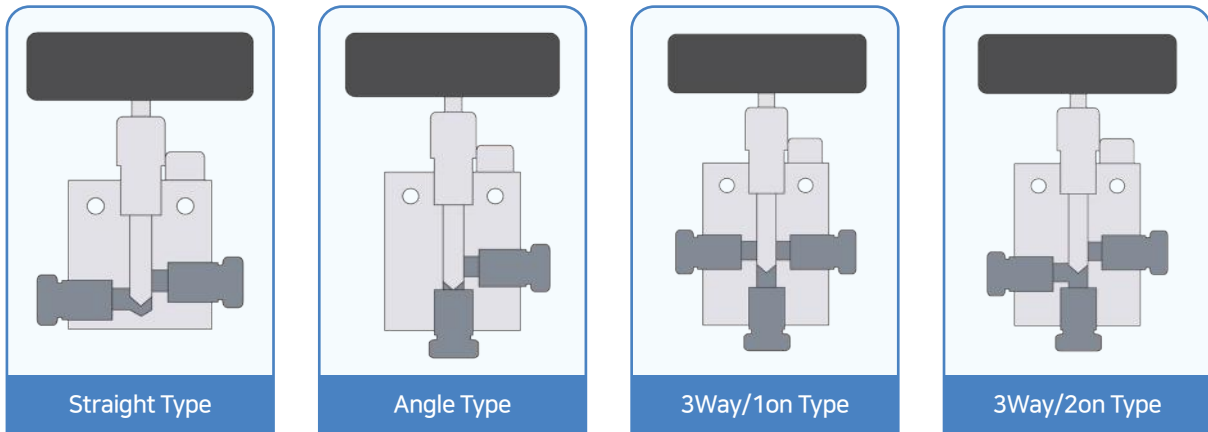
A needle valve is a manual valve that controls the flow rate or opens and closes the flow of fluids or gases. HIFLUX high-pressure needle valves are designed and manufactured considering the characteristics of the fluid or gas, as well as the operating pressure and temperature, boasting excellent safety and corrosion resistance. In particular, the occurrence of galling on the stem has been minimized to extend the product's lifespan.

	Pressure	Tube Size	Cv	Stem Type	Body Type				
					Straight	Angle	3Way/1on	3Way/2on	
NVP~: PT Thread NVN~: NPT Thread	15,000 psi	1/8"		Vee	NVPVS02-S / NVNV502-S	NVPVS02-A / NVNV502-A			
				Reg	NVPRS02-S / NVNRS02-S	NVPRS02-A / NVNRS02-A			
		1/4"		Vee	NVPVS04-S / NVNV504-S	NVPVS04-A / NVNV504-A			
				Reg	NVPRS04-S / NVNRS04-S	NVPRS04-A / NVNRS04-A			
		3/8"		Vee	NVPVS06-S / NVNV506-S	NVPVS06-A / NVNV506-A			
				Reg	NVPRS06-S / NVNRS06-S	NVPRS06-A / NVNRS06-A			
	10,000 psi	1/2"		Vee	NVPVS08-S / NVNV508-S	NVPVS08-A / NVNV508-A			
				Reg	NVPRS08-S / NVNRS08-S	NVPRS08-A / NVNRS08-A			
		3/4"		Vee	NVPVS12-S / NVNV512-S	NVPVS12-A / NVNV512-A			
				Reg	NVPRS12-S / NVNRS12-S	NVPRS12-A / NVNRS12-A			
		1"		Vee	NVPVS16-S / NVNV516-S	NVPVS16-A / NVNV516-A			
				Reg	NVPRS16-S / NVNRS16-S	NVPRS16-A / NVNRS16-A			
Low Pressure	15,000 psi	1/8"	0.12	Vee	NV15VS02-S	NV15VS02-A	NV15VS02-O	NV15VS02-T	
				Reg	NV15RS02-S	NV15RS02-A	NV15RS02-O	NV15RS02-T	
		1/4"	0.20	Vee	NV15VS04-S	NV15VS04-A	NV15VS04-O	NV15VS04-T	
				Reg	NV15RS04-S	NV15RS04-A	NV15RS04-O	NV15RS04-T	
		3/8"	0.20	Vee	NV15VS06-S	NV15VS06-A	NV15VS06-O	NV15VS06-T	
				Reg	NV15RS06-S	NV15RS06-A	NV15RS06-O	NV15RS06-T	
	10,000 psi	1/2"	1.62	Vee	NV10VS08-S	NV10VS08-A	NV10VS08-O	NV10VS08-T	
				Reg	NV10RS08-S	NV10RS08-A	NV10RS08-O	NV10RS08-T	
		20,000 psi	1/4"	0.31	Vee	NV20VS04-S	NV20VS04-A	NV20VS04-O	NV20VS04-T
					Reg	NV20RS04-S	NV20RS04-A	NV20RS04-O	NV20RS04-T
			3/8"	0.75	Vee	NV20VS06-S	NV20VS06-A	NV20VS06-O	NV20VS06-T
					Reg	NV20RS06-S	NV20RS06-A	NV20RS06-O	NV20RS06-T
9/16"	1.30	Vee	NV20VS09-S	NV20VS09-A	NV20VS09-O	NV20VS09-T			
		Reg	NV20RS09-S	NV20RS09-A	NV20RS09-O	NV20RS09-T			
Medium Pressure	20,000 psi	3/4"	2.50	Vee	NV20VS12-S	NV20VS12-A	NV20VS12-O	NV20VS12-T	
				Reg	NV20RS12-S	NV20RS12-A	NV20RS12-O	NV20RS12-T	
		1"	4.40	Vee	NV20VS16-S	NV20VS16-A	NV20VS16-O	NV20VS16-T	
				Reg	NV20RS16-S	NV20RS16-A	NV20RS16-O	NV20RS16-T	
		30,000 psi	1/8"	0.03	Vee	NV30VS02-S	NV30VS02-A	NV30VS02-O	NV30VS02-T
					Reg	NV30RS02-S	NV30RS02-A	NV30RS02-O	NV30RS02-T
	1/4"		0.12	Vee	NV30VS04-S	NV30VS04-A	NV30VS04-O	NV30VS04-T	
				Reg	NV30RS04-S	NV30RS04-A	NV30RS04-O	NV30RS04-T	
	3/8"		0.2	Vee	NV30VS06-S	NV30VS06-A	NV30VS06-O	NV30VS06-T	
				Reg	NV30RS06-S	NV30RS06-A	NV30RS06-O	NV30RS06-T	
	9/16"	0.33	Vee	NV30VS09-S	NV30VS09-A	NV30VS09-O	NV30VS09-T		
			Reg	NV30RS09-S	NV30RS09-A	NV30RS09-O	NV30RS09-T		
60,000 psi	1/4"	0.08	Vee	NV60VS04-S	NV60VS04-A	NV60VS04-O	NV60VS04-T		
			Reg	NV60RS04-S	NV60RS04-A	NV60RS04-O	NV60RS04-T		
	3/8"	0.09	Vee	NV60VS06-S	NV60VS06-A	NV60VS06-O	NV60VS06-T		
			Reg	NV60RS06-S	NV60RS06-A	NV60RS06-O	NV60RS06-T		
	9/16"	0.14	Vee	NV60VS09-S	NV60VS09-A	NV60VS09-O	NV60VS09-T		
			Reg	NV60RS09-S	NV60RS09-A	NV60RS09-O	NV60RS09-T		
Ultra High Pressure	100,000 psi	1/4"	0.09	Vee	NV100VS04-S	NV100VS04-A	NV100VS04-O	NV100VS04-T	
		3/8"	0.09	Vee	NV100VS06-S	NV100VS06-A			
		9/16"	0.09	Vee	NV100VS09-S	NV100VS09-A			
	150,000 psi	3/8"	0.06	Vee	NV150VS06-S	NV150VS06-A	NV150VS06-O	NV150VS06-T	

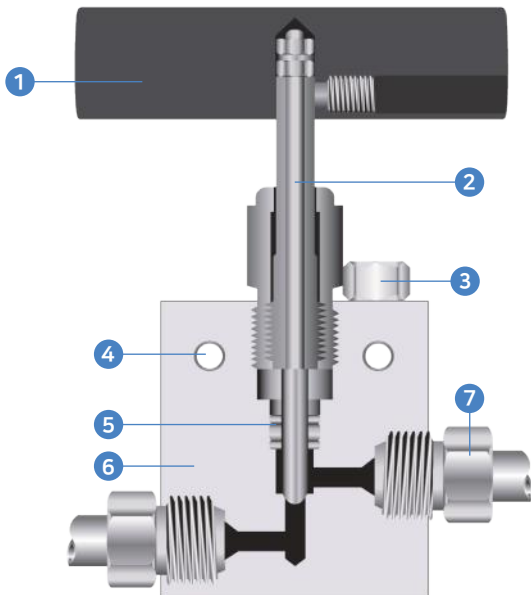
Features

- 4 types of body (Straight, angle, 3Way/1on, 3Way/2on Type)
- Non-rotating stem prevents galling phenomenon
- Packing designed for reliable sealing
- Metal to Metal Sealing method that extends the life of the seat
- Outstanding corrosion resistance required at high pressure due to use of STS316
- Regulating Stem for flow control and Vee Stem with Shut-off method

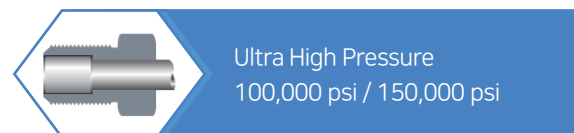
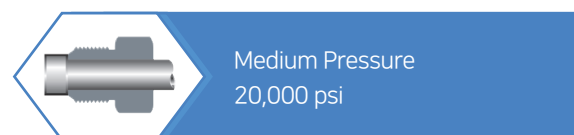
Body Type



Exploded View & Connection Components



No	Description
1	Valve handle
2	Stem
3	Anti-loosening device
4	Valve mounting hole
5	Leak-proof packing
6	Valve body
7	Connections



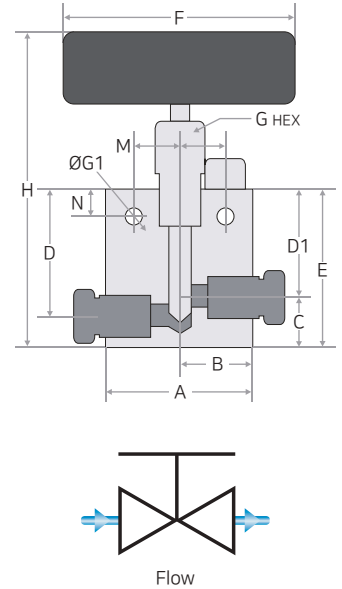
➤ Straight Type

(Unit : mm)

Catalog No	Stem	Pressure Rating	Port Type	Tube Size	Cv	Orifice Size	Dimensions											Block Thickness		
							A	B	C	D	D1	E	F	G	G1	H	M		N	
NV15VS02-S	Vee	15,000 psi	H1502	1/8"	0.12	1.4	38	19	22	30	23	45	50	13	5	85.6	12.8	8	20	
NV15RS02-S	Reg		H1504	1/4"	0.20	3.2	50	25	20	40	30	50	80	17	6.5	118.2	15.7	9.7	20	
NV15VS04-S	Vee		H1506	3/8"	0.20	3.2	50	25	20.5	40.3	29.5	50	80	17	6.5	119	15.7	9.7	20	
NV15RS04-S	Reg		H1008	1/2"	1.62	8.5	63	31.5	30.5	60.5	44.5	75	100	22	9	151.8	17.5	12.7	25	
NV15VS06-S	Vee		20,000 psi	H2004	1/4"	0.31	3.2	50	25	20	40	30	50	80	17	6.5	118.2	15.7	9.7	20
NV15RS04-S	Reg			H2006	3/8"	0.75	5.5	50	25	20	40	30	50	80	17	6.5	117.5	15.7	9.7	20
NV15VS06-S	Vee	H2009		9/16"	1.30	7.9	63	31.5	29	60	44	73	100	22	8	145	17.5	12.7	30	
NV15RS06-S	Reg	30,000 psi		H3002	1/8"	0.03	1.6	38	19	22	30	23	45	50	13	5	82.2	12.75	8	20
NV15VS04-S	Vee			H3004	1/4"	0.12	2.4	50	25	21	43	33	54	80	20	6.5	121.36	17	9.7	25
NV15RS04-S	Reg			H3006	3/8"	0.2	3.2	50	25	24	43	33	57	80	20	6.5	124.4	17	9.7	25
NV15VS06-S	Vee		60,000 psi	H3009	9/16"	0.33	3.2	67	33.5	29	43	33	62	80	20	6.5	130.3	17	9.7	38
NV15RS06-S	Reg			H6004	1/4"	0.08	2	50	25	21	43	33	54	80	20	6.5	121.4	17	9.7	25
NV15VS06-S	Vee			H6006	3/8"	0.09	2	50	25	24	43	33	57	80	20	6.5	124.9	17	9.7	25
NV15RS06-S	Reg	100,000 psi		H6009	9/16"	0.14	2	67	33.5	29	43	33	62	80	20	6.5	130	17	9.7	38
NV15VS09-S	Vee			H10004	1/4"	0.09	2	67	33.5	28.5	46	35	63.5	100	24	6.5	130.8	20	9.7	38
NV15RS09-S	Reg			H10006	3/8"	0.09	2	85	42.5	30	43	34	64	100	24	6.5	126.3	20	12.7	38
NV15VS09-S	Vee		H10009	9/16"	0.09	2	85	42.5	30	43	34	64	100	24	6.5	126.3	20	12.7	38	
NV15VS06-S	Vee		150,000 psi	H15006	3/8"	0.06	1.6	85	42.5	27	43	35	62	100	24	6.5	130.3	20	12.7	38

G: Mounting hole size using the stem gland
 G1: Mounting hole size using the body
 H: Height when the valve is completely closed

All dimensions are for reference only and may differ from the actual size.
 NPT, PT standard and specification production possible.
 (please contact customer service center)



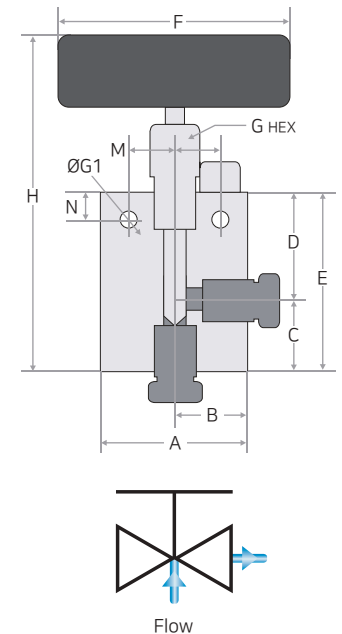
➤ Angle Type

(Unit : mm)

Catalog No	Stem	Pressure Rating	Port Type	Tube Size	Cv	Orifice Size	Dimensions											Block Thickness		
							A	B	C	D	E	F	G	G1	H	M	N			
NV15VS02-A	Vee	15,000 psi	H1502	1/8"	0.12	1.4	38	19	22	23	45	50	13	5	82	12.8	8	20		
NV15RS02-A	Reg		H1504	1/4"	0.2	3.2	50	25	32	30	62	80	17	6	130.2	15.7	9.7	20		
NV15VS04-A	Vee		H1506	3/8"	0.2	3.2	50	25	32	30	62	80	17	6	131	15.7	9.7	20		
NV15RS04-A	Reg		10,000 psi	H1008	1/2"	1.62	8.5	63	31.5	41.5	44.5	86	100	22	9	162.8	17.6	12.7	25	
NV15VS06-A	Vee			H2004	1/4"	0.31	3.2	50	25	32	30	62	80	17	6.5	130.2	15.7	9.7	20	
NV15RS06-A	Reg			H2006	3/8"	0.75	5.5	50	25	32	30	62	80	17	6.5	129.5	15.7	9.7	20	
NV15VS06-A	Vee	H2009		9/16"	1.3	7.9	63	31.5	41.5	44	85.5	100	22	8	156.6	17.5	12.7	30		
NV15RS06-A	Reg	20,000 psi		H2009	9/16"	1.3	7.9	63	31.5	41.5	44	85.5	100	22	8	156.6	17.5	12.7	30	
NV15VS09-A	Vee			30,000 psi	H3002	1/8"	0.03	1.6	38	19	22	23	45	50	13	5	86	12.75	8	20
NV15RS02-A	Reg		H3004		1/4"	0.12	2.4	50	25	27.5	33	60.5	80	20	6.5	126.4	17	9.7	25	
NV15VS04-A	Vee		H3006		3/8"	0.2	3.2	50	25	33.5	33	66.5	80	20	6.5	133.9	17	9.7	25	
NV15RS04-A	Reg		60,000 psi		H3009	9/16"	0.33	3.2	67	33.5	34	33	67	80	20	6.5	133.8	17	9.7	38
NV15VS06-A	Vee				H6004	1/4"	0.08	2	50	25	27.5	33	60.5	80	20	6.5	127.9	17	9.7	25
NV15RS06-A	Reg	H6006			3/8"	0.09	2	50	25	33.5	33	66.5	80	20	6.5	134.4	17	9.7	25	
NV15VS06-A	Vee	100,000 psi		H6009	9/16"	0.14	2	67	33.5	34	33	67	80	20	6.5	134.4	17	9.7	38	
NV15RS06-A	Reg			H10004	1/4"	0.09	2	67	33.5	28.5	35	63.5	100	24	6.5	130.8	20	9.7	38	
NV15VS09-A	Vee			H10006	3/8"	0.09	2	76.2	38.1	42.2	34	76.2	100	24	6.5	143.5	20	9.7	38	
NV15RS09-A	Reg		H10009	9/16"	0.09	2	76.2	38.1	42.2	34	76.2	100	24	6.5	143.5	20	9.7	38		
NV15VS06-A	Vee		150,000 psi	H15006	3/8"	0.06	1.6	62	42.5	50	35	85	100	24	6.5	152.3	19	12.7	38	

G: Mounting hole size using the stem gland
 G1: Mounting hole size using the body
 H: Height when the valve is completely closed

All dimensions are for reference only and may differ from the actual size.
 NPT, PT standard and specification production possible.
 (please contact customer service center)



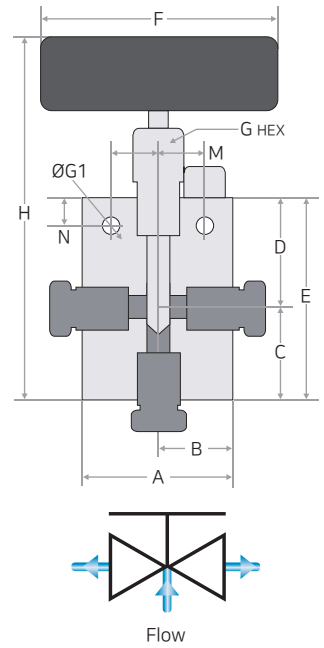
3way/1on Type

(Unit : mm)

Catalog No	Stem	Pressure Rating	Port Type	Tube Size	Cv	Orifice Size	Dimensions											Block Thickness			
							A	B	C	D	E	F	G	G1	H	M	N				
NV15VS02-O	Vee	15,000 psi	H1502	1/8"	0.12	1.4	38	19	22	23	45	50	13	5	82	12.8	8	20			
NV15RS02-O	Reg		H1504	1/4"	0.2	3.2	50	25	32	30	62	80	17	6.5	130.2	15.6	9.7	20			
NV15VS04-O	Vee		H1506	3/8"	0.2	3.2	50	25	32	30	62	80	17	6.5	128.9	15.7	9.7	20			
NV15RS04-O	Reg		H1008	1/2"	1.62	8.5	63	31.5	41.5	44.5	86	100	24	9	162.8	17.5	12.7	25			
NV15VS06-O	Vee		20,000 psi	H2004	1/4"	0.31	3.2	50	25	32	30	62	80	17	6.5	130.2	15.7	9.7	20		
NV15RS06-O	Reg			H2006	3/8"	0.75	5.5	50	25	32	30	62	80	17	6.5	128.9	15.7	9.7	20		
NV20VS04-O	Vee	H2009		9/16"	1.3	7.9	63	31.5	42	44	86	100	22	8	156.1	17.5	12.7	30			
NV20RS04-O	Reg	30,000 psi		H3002	1/8"	0.03	1.6	38	19	22	23	45	50	13	5	82.2	12.8	8	20		
NV20VS06-O	Vee			H3004	1/4"	0.12	2.4	50	25	27.5	33	60.5	80	20	6.5	126.4	17.2	9.7	25		
NV20RS06-O	Reg			H3006	3/8"	0.2	3.2	50	25	34	33	67	80	20	6.5	126.4	17.2	9.7	25		
NV20VS09-O	Vee		60,000 psi	H3009	9/16"	0.33	3.2	67	33.5	38.5	33	71.5	80	20	6.5	130.3	17.2	9.7	38		
NV20RS09-O	Reg			100,000 psi	H6004	1/4"	0.08	2	50	25	27.5	33	60.5	80	20	6.5	127.9	17	9.7	25	
NV30VS02-O	Vee				150,000 psi	H6006	3/8"	0.09	2	50	25	34	33	67	80	20	6.5	135.2	17	9.7	25
NV30RS02-O	Reg	150,000 psi				H6009	9/16"	0.14	2	67	33.5	38.5	33	71.5	80	20	6.5	139.7	17	9.7	38
NV30VS04-O	Vee					H10004	1/4"	0.09	1.59	67	33.5	32	30	62	100	24	6.5	130.2	20	9.7	38
NV30RS04-O	Reg					H15006	3/8"	0.06	1.59	90	45	32	30	62	100	24	7	130.2	19	12.7	38

G: Mounting hole size using the stem gland
 G1: Mounting hole size using the body
 H: Height when the valve is completely closed

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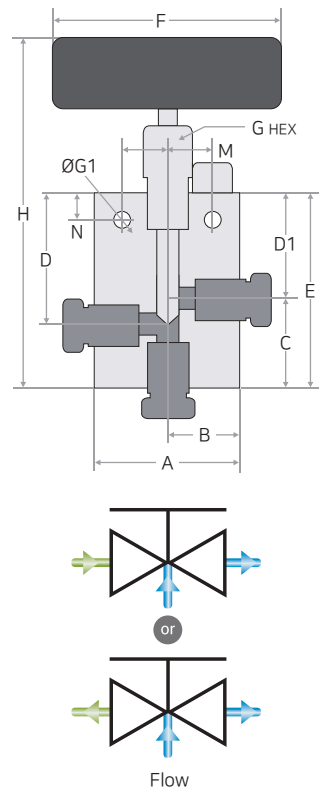
3way/2on Type

(Unit : mm)

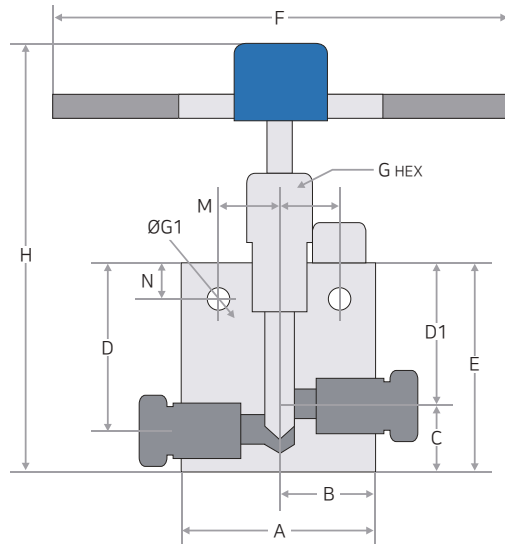
Catalog No	Stem	Pressure Rating	Port Type	Tube Size	Cv	Orifice Size	Dimensions											Block Thickness					
							A	B	C	D	D1	E	F	G	G1	H	M		N				
NV15VS02-T	Vee	15,000 psi	H1502	1/8"	0.12	1.4	38	19	22	30	23	45	50	13	5	82	12.8	8	20				
NV15RS02-T	Reg		H1504	1/4"	0.2	3.2	50	25	36.5	40	30	66.5	80	17	6.5	134.8	15.7	9.7	20				
NV15VS04-T	Vee		H1506	3/8"	0.2	3.2	50	25	36.5	41	30	66.5	80	17	6.5	133.3	15.7	9.7	20				
NV15RS04-T	Reg		10,000 psi	H1008	1/2"	1.62	8.5	63	31.5	47.5	60.5	44.5	92	100	24	9	168.8	17.5	12.7	25			
NV15VS06-T	Vee			20,000 psi	H2004	1/4"	0.31	3.2	50	25	36.5	40	30	66.5	80	17	6.5	134.7	15.7	9.7	20		
NV15RS06-T	Reg				H2006	3/8"	0.75	5.5	50	25	36.5	40	30	66.5	80	17	6.5	133.3	15.7	9.7	20		
NV10VS08-T	Vee	H2009			9/16"	1.3	7.9	63	31.5	48	60	44	92	100	22	8	159.9	17.5	12.7	30			
NV10RS08-T	Reg	30,000 psi			H3002	1/8"	0.03	1.6	38	19	22	30	23	45	50	13	5	87.2	12.8	8	20		
NV20VS04-T	Vee				60,000 psi	H3004	1/4"	0.12	2.4	50	25	27.2	43	33	60.5	80	20	6.5	126.4	17.2	9.7	25	
NV20RS04-T	Reg		100,000 psi			H3006	3/8"	0.2	3.2	50	25	38.5	43	33	71.5	80	20	6.5	138.3	17	9.7	25	
NV20VS06-T	Vee			150,000 psi		H3009	9/16"	0.33	3.2	67	33.5	44	43	33	77	80	20	6.5	145.3	17	9.7	38	
NV20RS06-T	Reg					150,000 psi	H6004	1/4"	0.08	2	50	25	27.2	43	33	60.5	80	20	6.5	127.9	17	9.7	25
NV20VS09-T	Vee						150,000 psi	H6006	3/8"	0.09	2	50	25	38.5	43	33	71.5	80	20	6.5	138.9	17	9.7
NV20RS09-T	Reg	150,000 psi						H6009	9/16"	0.14	2	67	33.5	44	43	33	77	80	20	6.5	144.4	17	9.7
NV30VS02-T	Vee				150,000 psi			H10004	1/4"	0.09	1.59	67	33.5	36.5	41	30	66.5	100	24	6.5	134.7	20	9.7
NV30RS02-T	Reg		150,000 psi					H15006	3/8"	0.06	1.59	90	45	36.5	41	30	66.5	100	24	7	134.7	19	12.7

G: Mounting hole size using the stem gland
 G1: Mounting hole size using the body
 H: Height when the valve is completely closed

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 (please contact customer service center)



➤ Needle Valve - 3/4 · 1 inch



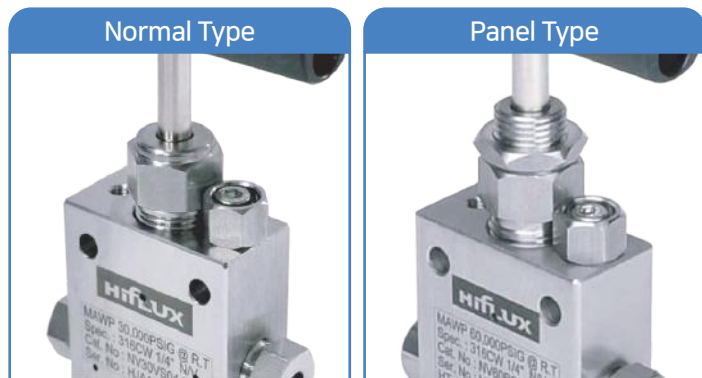
(Unit : mm)

Catalog No	Stem	Pressure Rating	Port Type	Tube Size	Cv	Orifice Size	Dimensions											Block Thickness	
							A	B	C	D	D1	E	F	G	G1	H	M		N
NV20VS12-S	Vee	20,000 psi	H2012	3/4"	2.50	11	76	38	38	76	57	95	253	30	10	177.8	23	15.8	35
NV20RS12-S	Reg																		
NV20VS16-S	Vee		H2016	1"	4.40	14.3	105	52.5	49	96	71	120	260	41	14	217.8	31.75	28.5	45
NV20RS16-S	Reg																		

G: Mounting hole size using the stem gland
 G1: Mounting hole size using the body
 H: Height when the valve is completely closed

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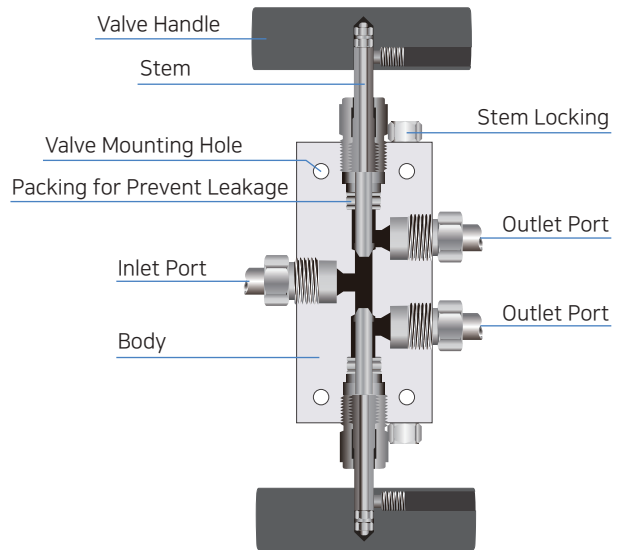
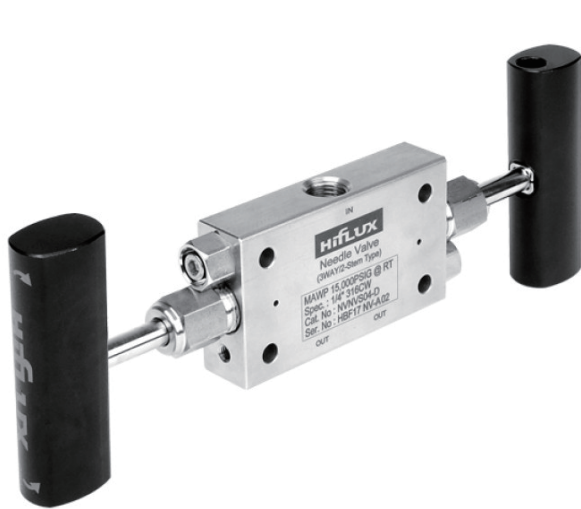
➤ Needle Valve - Panel Type



Panel type can be applied only 1/4, 3/8, 9/16" inch
 Recommend thickness for panel : 2~5mm.

3way/2stem Needle Valve

A valve that allows two outlets to be controlled by one inlet

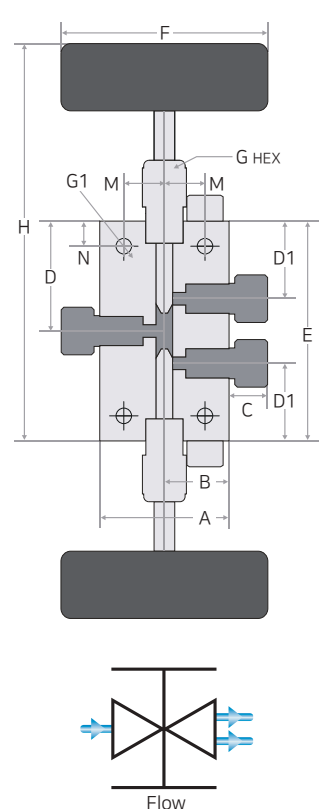


The 3way 2stem needle valve has a slightly modified structure from the basic needle valve, with one inlet port and two outlet ports, and each outlet port can be turned on/off. It is mainly installed on two lines and uses one line, and when A/S is required, it is a product that allows continuous use of the equipment by changing it to a by-pass line.

Features

- Prevents galling phenomenon with non-rotating stem
- Packing designed for reliable sealing
- Metal to Metal Sealing method that extends the life of the seat
- Outstanding corrosion resistance required at high pressure due to use of STS316
- Regulating Stem & Vee Stem with flow control and Shut-off method
- Control two outlets with one inlet

Catalog No	Stem	Pressure Rating	Port Type	Tube Size	Orifice Size	Dimensions											Block Thickness	
						A	B	C	D	D1	E	F	G	G1	H	M		N
NV15VS02-D	Vee	15,000 psi	H1502	1/8"	2.39	38	19	11.7	28.5	20.5	57	50	13	5	94	12.8	8	20
NV15RS02-D	Reg																	
NV15VS04-D	Vee		H1504	1/4"	3.18	51	25.5	12	43	27.7	86	80	17	6	154.2	15.6	9.7	20
NV15RS04-D	Reg																	
NV15VS06-D	Vee	10,000 psi	H1506	3/8"	3.18	51	25.5	14.3	43	27.7	86	80	17	6	152.9	15.7	9.7	20
NV15RS06-D	Reg																	
NV10VS08-D	Vee	20,000 psi	H1008	1/2"	8.5	63	31.5	19.6	65	44.5	130	100	22	9	200.51	17.5	12.7	25
NV10RS08-D	Reg																	
NV20VS04-D	Vee	30,000 psi	H2004	1/4"	3.2	50	25	13.8	42.5	30	85	80	17	6	153.2	15.7	9.7	20
NV20RS04-D	Reg																	
NV20VS06-D	Vee		H2006	3/8"	5.5	50	25	14.2	42.5	30	85	80	17	6	151.9	15.7	9.7	20
NV20RS06-D	Reg																	
NV20VS09-D	Vee	60,000 psi	H2009	9/16"	7.9	64	32	16	65	44.5	130	80	22	8	200.1	15.7	12.7	25
NV20RS09-D	Reg																	
NV20VS12-D	Vee	20,000 psi	H2012	3/4"	11.1	76	38	18	82.5	57	165	260	30	10	187.8	46	15.8	35
NV20RS12-D	Reg																	
NV20VS16-D	Vee	10,000 psi	H2016	1"	14.3	105	52.5	22.1	95.5	71	191	260	41	14	290.8	63.5	28.5	45
NV20RS16-D	Reg																	
NV30VS04-D	Vee	30,000 psi	H3004	1/4"	2.4	51	25.5	9	43.5	33	87	80	20	6	147.9	17	9.7	25
NV30RS04-D	Reg																	
NV30VS06-D	Vee		H3006	3/8"	3.2	51	25.5	14	47.5	33	95	80	20	6	153.6	17	9.7	25
NV30RS06-D	Reg																	
NV30VS09-D	Vee	60,000 psi	H3009	9/16"	3.2	67	33.5	21	52.5	33	105	80	20	6	173.3	17	9.7	38
NV30RS09-D	Reg																	
NV60VS04-D	Vee	60,000 psi	H6004	1/4"	2	51	25.5	12.8	43.5	33	87	80	20	6	154.4	17	9.7	25
NV60RS04-D	Reg																	
NV60VS06-D	Vee		H6006	3/8"	2	51	25.5	18.6	47.5	33	95	80	20	6	162.9	17	9.7	25
NV60RS06-D	Reg																	
NV60VS09-D	Vee	60,000 psi	H6009	9/16"	2	67	33.5	21.7	52.5	33	105	80	20	6	170.4	17	9.7	38
NV60RS09-D	Reg																	



G: Mounting hole size using the stem gland
 G1: Mounting hole size using the body
 H: Height when the valve is completely closed

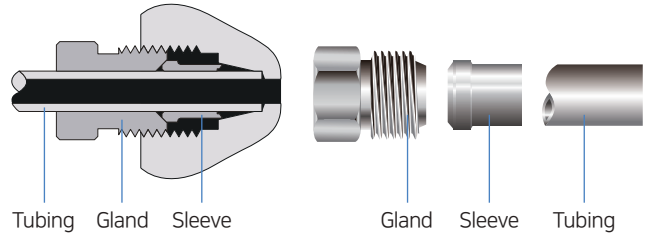
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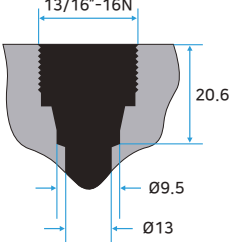
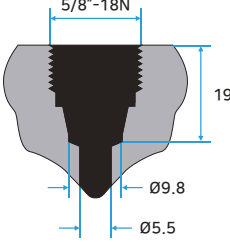
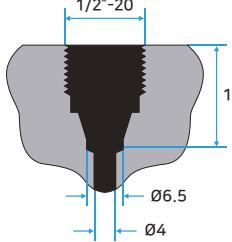
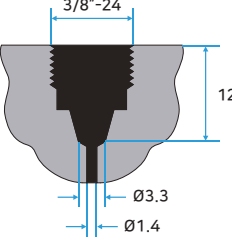
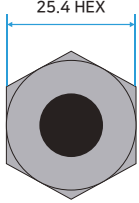
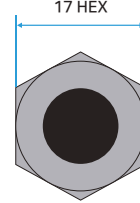
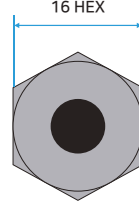
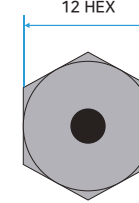
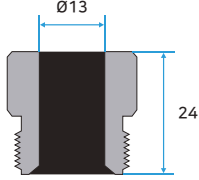
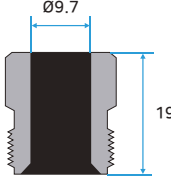
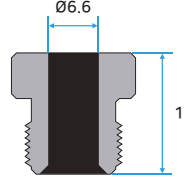
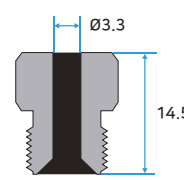
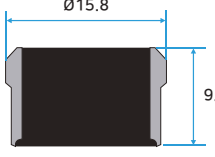
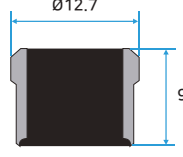
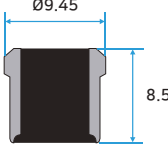
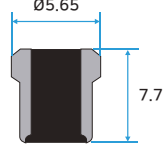
Port Type

Low Pressure Port Type

▶ Sleeve Type Connections - 10,000 psi / 15,000 psi

Sleeve Type is a method of attaching a sleeve inside a gland and can be used on 1/8", 1/4", 3/8", and 1/2" pipes. The tubes used for connecting products can be ordered from HIFLUX Mall and are made of stainless steel to ensure optimal performance in high-pressure environments.



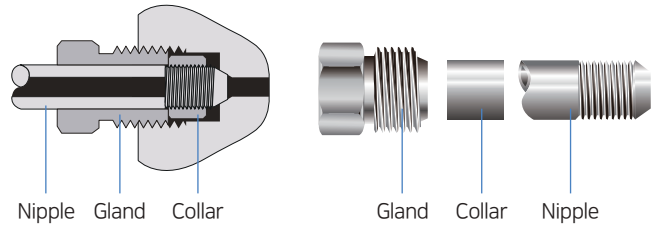
H1008 10,000psi - 1/2"	H1506 15,000psi - 3/8"	H1504 15,000psi - 1/4"	H1502 15,000psi - 1/8"
			
			
			
			

Port Type

Medium Pressure Port Type

Medium Pressure Connections - 20,000 psi

Products are connected using Collar and Nipple within the Gland, and the Nipple required for connecting products can be ordered in the desired length by the user, and can also be processed directly using our tooling set.



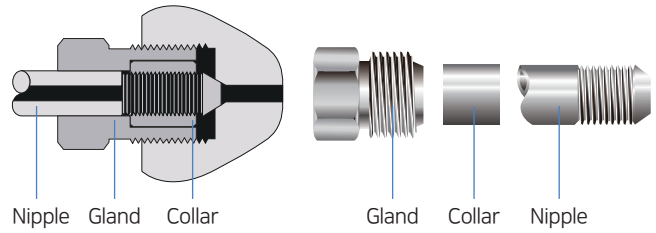
H2004 20,000psi - 1/4"	H2006 20,000psi - 3/8"	H2009 20,000psi - 9/16"	H2012 20,000psi - 3/4"	H2016 20,000psi - 1"

Port Type

High Pressure Port Type

High Pressure Connections - 30,000 psi / 60,000 psi

The Nipple required for connection between the products by using collar and Nipple in the Gland can be ordered by user's desired length. you can also process directly using our Tooling Set tool. this cone and threaded connection is the standard for easy and fast high-pressure equipment configuration with optimum sealing and reliable performance for both liquid and gas at high pressure and temperature.



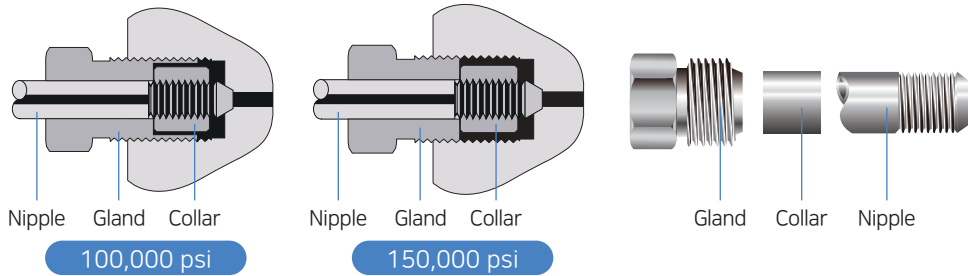
H3002 30,000psi - 1/8"	H3016 30,000psi - 1"	H6004 60,000psi - 1/4" (M : Metric)	H6006 60,000psi - 3/8" (M : Metric)	H6009 60,000psi - 9/16" (M : Metric)

Port Type

Ultra High Pressure Port Type

Ultra High Pressure Connections - 100,000 psi / 150,000 psi

The product is connected using a collar and nipple within the gland, and the corresponding pipe sizes are as follows. This Cone and Thread method connection is the optimal sealing method, and it provides reliable performance for both liquids and gases at high pressures and temperatures, and is the standard for easy and quick high-pressure equipment configuration.



H10004 100,000psi - 1/4"	H10006 100,000psi - 3/8"	H10009 100,000psi - 9/16"	H15006 150,000psi - 3/8"

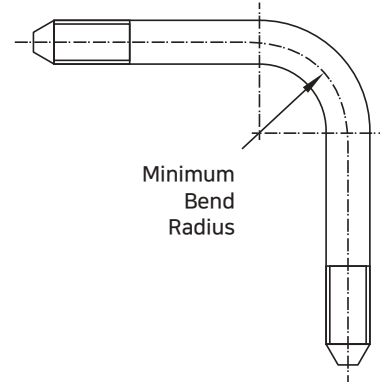
Technical Information

Recommended Torque

Recommended Minimum Bend Radius

Tubing Size O.D. x I.D. in. (mm)	Tubing Pressure psi (bar) @ R.T.	Recommended Minimum Bend Radius in. (mm)
1/4 inch (6.35 x 2.77)	20,000 (1,370)	1.25 (31.8)
3/8 inch (9.53 x 5.16)	20,000 (1,370)	1.75 (44.5)
9/16 inch (14.29 x 7.92)	20,000 (1,370)	2.63 (66.8)
3/4 inch (19.05 x 11.13)	20,000 (1,370)	3.50 (88.9)
1 inch (25.4 x 14.27)	20,000 (1,370)	4.63 (117.6)
1 inch (25.4 x 11.13)	30,000 (2,060)	4.63 (117.6)
1/4 inch (6.35 x 2.11)	60,000 (4,130)	1.25 (31.8)
3/8 inch (9.53 x 3.18)	60,000 (4,130)	1.75 (44.5)
9/16 inch (14.29 x 4.78)	60,000 (4,130)	2.63 (66.8)

All dimensions are for reference only and may differ from actual size.



HIFLUX Needle Valve Assembly Torque Chart

Valve Pressure Series	Port Type	Tube Size (PSI)	Stem Gland HEX (mm)	Minimum Torque (kg.f-cm)
10,000 PSI 15,000 PSI	H1502	1/8 Inch (15,000)	13	170
	H1504	1/4 Inch (15,000)	17	550
	H1506	3/8 Inch (15,000)	17	550
	H1008	1/2 Inch (15,000)	24	800
20,000 PSI	H2004	1/4 Inch (20,000)	17	550
	H2006	3/8 Inch (20,000)	17	550
	H2009	9/16 Inch (20,000)	22	1100
	H2010	3/4 Inch (20,000)	30	3,500
	H2012	1 Inch (20,000)	41	5,000
30,000 PSI	H3002	1/8 Inch (30,000)	13	500
	H6004	1/4 Inch (30,000)	20	550
	H6006	3/8 Inch (30,000)	20	550
	H6009	9/16 Inch (30,000)	20	550
60,000 PSI	H6004	1/4 Inch (60,000)	20	670
	H6006	3/8 Inch (60,000)	20	670
	H6009	9/16 Inch (60,000)	20	670
100,000 PSI	H10004	1/4 Inch (100,000)	24	1250
	H10006	3/8 Inch (100,000)	24	1250
	H10009	9/16 Inch (100,000)	24	1250
150,000 PSI	H15006	3/8 Inch (150,000)	24	1870
10,000 & 15,000 PSI NPT TYPE	HFN02	1/8 Inch (15,000)	13	500
	HFN04	1/4 Inch (15,000)	17	550
	HFN06	3/8 Inch (15,000)	17	550
	HFN08	1/2 Inch (15,000)	22	1100
	HFN10	3/4 Inch (10,000)	41	-
	HFN12	1 Inch (10,000)	41	-

Torque values apply to glass-impregnated Teflon packaging and may vary by ±10%



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