HiFLUX

High Pressure Valves & Fittings

HIGH SERVICE
HIGH QUALITY
HIGH PERFORMANCE
High Pressure equipment

HiFLUX

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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

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

HRS	–	NV	20	V	S	04	–	S
①		①	②	③	④	⑤		⑥

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

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.

High Pressure Check Valve & Line Filter

A valve that prevents the backflow of gas or liquid

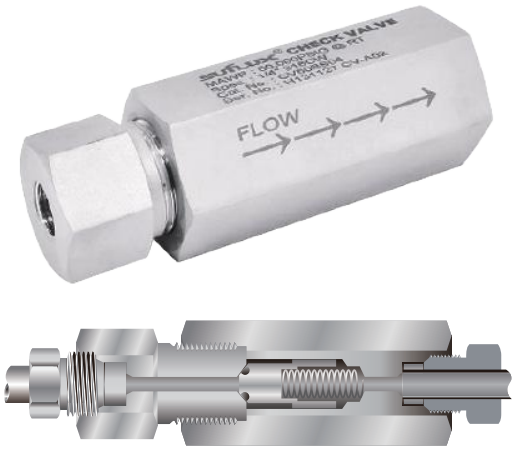
A check valve is a valve that prevents the backflow of fluid, and is manufactured to block the flow in one direction and allow the flow in the opposite direction to proceed freely. The HIFLUX check valve uses a ball or O-ring in the sealing area to reliably prevent the backflow, and can be used for both gas and liquid. It is classified by pressure, port size, and type, so you can use it according to the specifications you want.

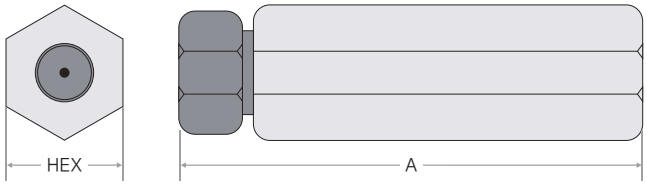
Features

- 2 types of sealing (O-Ring Type, Ball Type)
- 2~90㎛ 2 types of sealing type filter element (Cup Type)
- Easy O-Ring and Ball replacement
- Stainless Steel 316 cold material used
- Cone and Thread Connection to prevent gas liquid leaking.
- Valve that prevents backflow of gas and liquid and facilitates one-way transport

		Check Valve		Line Filter
Pressure	Tube Size	Sealing Type		Element Type
		O-Ring	Ball	Cup
15,000 psi	1/8"	CV15OS02	CV15BS02	FL15CS02
	1/4"	CV15OS04	CV15BS04	FL15CS04
	3/8"	CV15OS06	CV15BS06	FL15CS06
10,000 psi	1/2"	CV10OS08	CV10BS08	FL10CS08
20,000 psi	1/4"	CV20OS04	CV20BS04	FL20CS04
	3/8"	CV20OS06	CV20BS06	FL20CS06
	9/16"	CV20OS09	CV20BS09	FL20CS09
	3/4"	CV20OS12	CV20BS12	FL20CS12
	1"	CV20OS16	CV20BS16	FL20CS16
30,000 psi	1/8"	CV30OS02	CV30BS02	FL30CS02
	1"	CV30OS16	CV30BS16	FL30CS16
60,000 psi	1/4"	CV60OS04	CV60BS04	FL60CS04
	3/8"	CV60OS06	CV60BS06	FL60CS06
	9/16"	CV60OS09	CV60BS09	FL60CS09
100,000 psi	1/4"		CV100BS04	
	3/8"		CV100BS06	

[O-Ring Type]



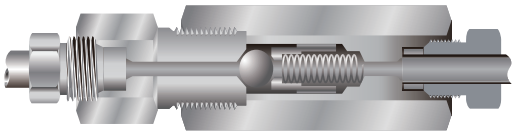


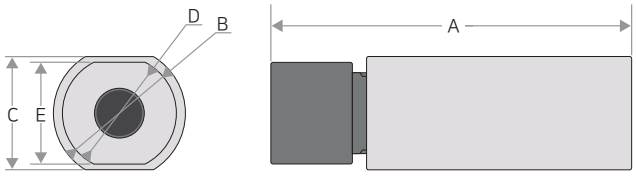
< 15,000 ~ 60,000 psi >

(Unit : mm)

Catalog No	Pressure Rating	Port Type	Tube Size	Orifice Size	Dimensions	
					A	HEX
CV15OS02	15,000 psi	H1502	1/8"	1.4	68	22
CV15BS02						
CV15OS04		H1504	1/4"	3.2	81	25.4
CV15BS04						
CV15OS06		H1506	3/8"	5	93	36
CV15BS06						
CV10OS08	10,000 psi	H1008	1/2"	5	108	41
CV10BS08						
CV20OS04	20,000 psi	H2004	1/4"	2.8	77	25.4
CV20BS04						
CV20OS06		H2006	3/8"	5.2	91	25.4
CV20BS06						
CV20OS09		H2009	9/16"	5	107	35
CV20BS09						
CV20OS12		H2012	3/4"	11.1	131	36
CV20BS12						
CV20OS16		H2016	1"	7	167	55
CV20BS16						
CV30OS02	30,000 psi	H3002	1/8"	1.2	69	20.6
CV30BS02						
CV30OS16		H3016	1"			
CV30BS16						
CV60OS04	60,000 psi	H6004	1/4"	2.4	85	32
CV60BS04						
CV60OS06		H6006	3/8"	3.2	102.6	36
CV60BS06						
CV60OS09		H6009	9/16"	4.8	118	38
CV60BS09						

[Ball Type]





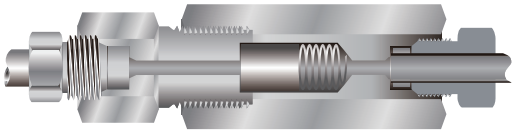
< 100,000 psi >

(Unit : mm)

Catalog No	Pressure Rating	Port Type	Tube Size	Orifice Size	Dimensions				
					A	B	C	D	E
CV100BS04	100,000 psi	H10004	1/4"	2.4	103.1	Ø42	32	Ø36	32
CV100BS06		H10006	3/8"	2.4	114.5	Ø42	32	Ø36	32

※ 100,000 psi check valve does not have O-ring type.

[Filter Element (Cup Type)]



(Unit : mm)

Catalog No	Pressure Rating	Port Type	Tube Size	Orifice Size	Dimensions	
					A	HEX
FL15CS02	15,000 psi	H1502	1/8"	1.4	68	22
FL15CS04		H1504	1/4"	3.2	81	2.54
FL15CS06		H1506	3/8"	5	93	36
FL10CS08	10,000 psi	H1008	1/2"	5	108	41
FL20CS04	20,000 psi	H2004	1/4"	2.8	77	25.4
FL20CS06		H2006	3/8"	5.2	91	25.4
FL20CS09		H2009	9/16"	7.9	107	35
FL20CS12		H2012	3/4"	11.1	131	36
FL20CS16		H2016	1"	7	167	55
FL30CS02	30,000 psi	H3002	1/8"	1.2	69	20.6
FL30CS16		H3016	1"			
FL60CS04	60,000 psi	H6004	1/4"	2.4	85	32
FL60CS06		H6006	3/8"	3.2	102.6	36
FL60CS09		H6009	9/16"	4.8	118	38

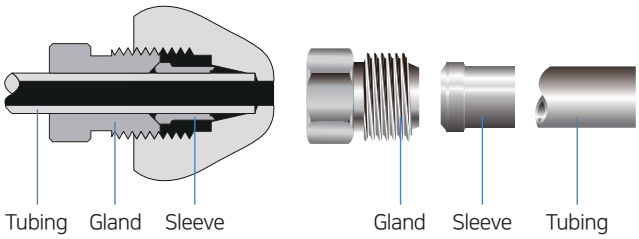
All dimensions are for reference only and may differ from the actual size.
NPT, PT standard and specification production possible.
(please contact customer service center)

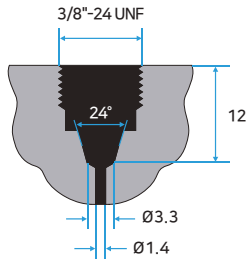
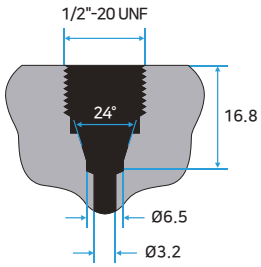
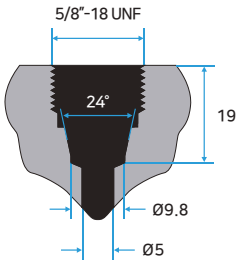
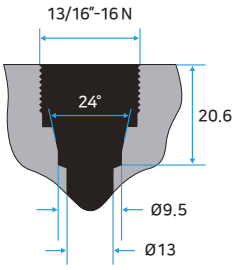
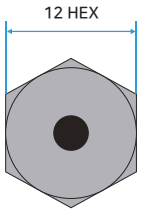
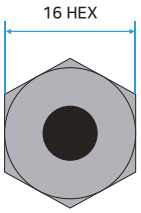
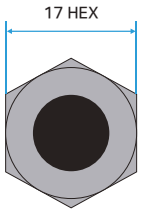
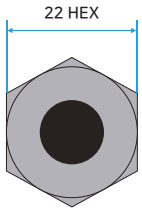
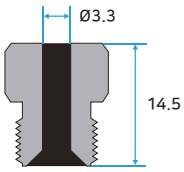
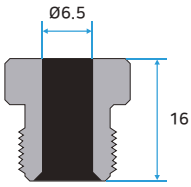
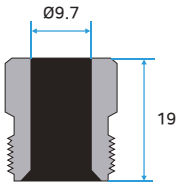
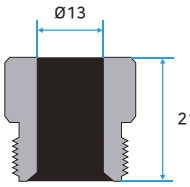
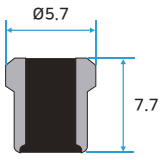
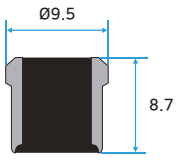
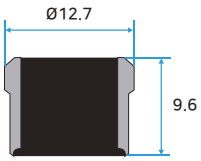
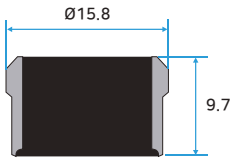
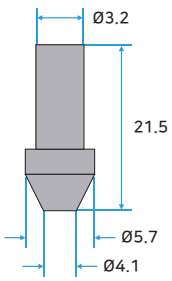
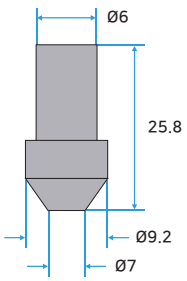
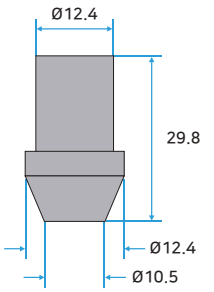
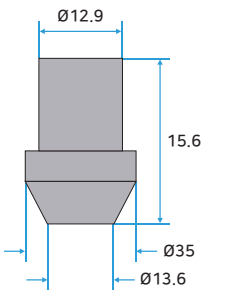
Port Type

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.



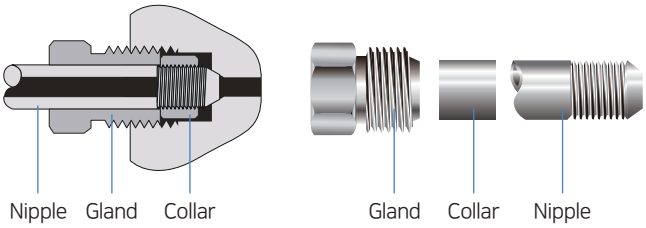
H1502 15,000psi - 1/8"	H1504 15,000psi - 1/4"	H1506 15,000psi - 3/8"	H1008 10,000psi - 1/2"
			
			
			
			
			

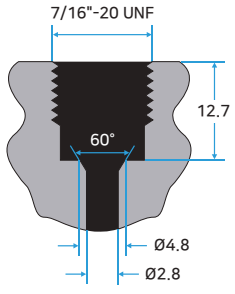
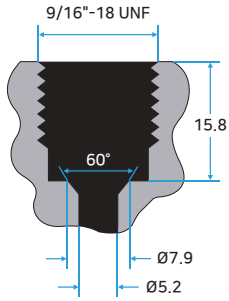
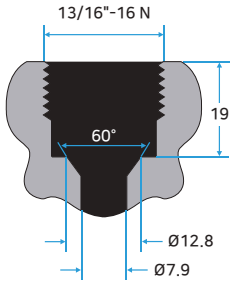
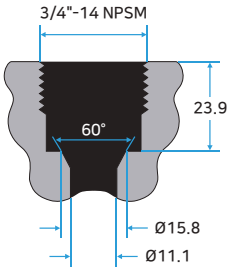
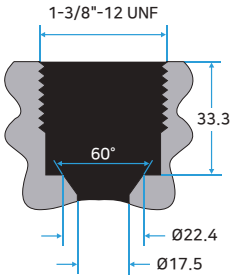
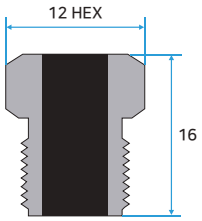
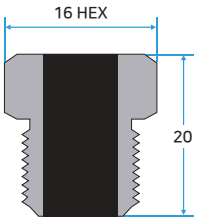
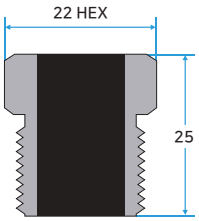
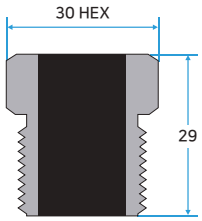
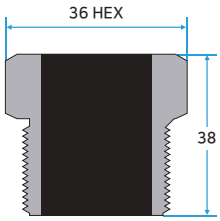
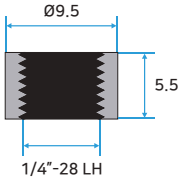
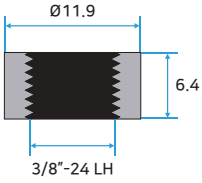
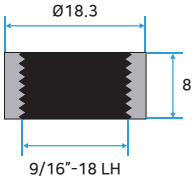
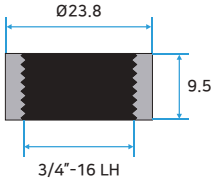
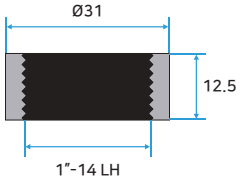
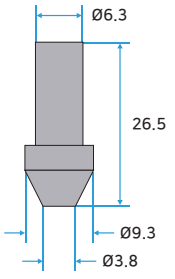
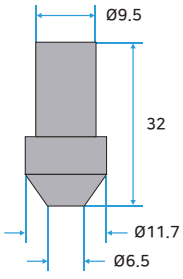
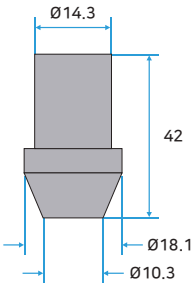
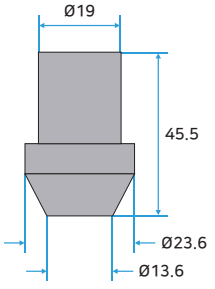
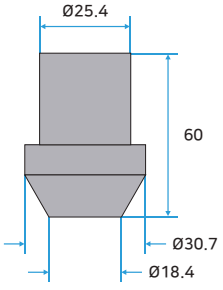
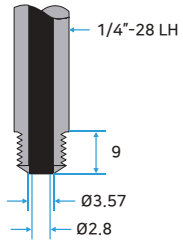
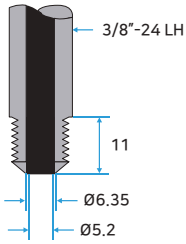
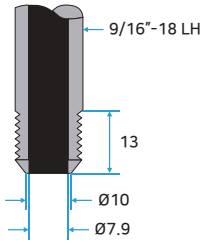
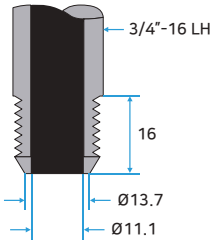
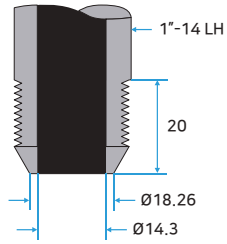
Port Type

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.



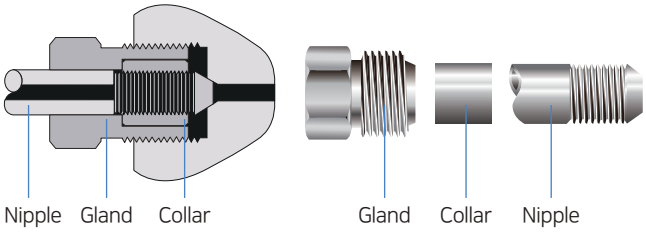
H2004 20,000psi - 1/4"	H2006 20,000psi - 3/8"	H2009 20,000psi - 9/16"	H2012 20,000psi - 3/4"	H2016 20,000psi - 1"
				
				
				
				
				

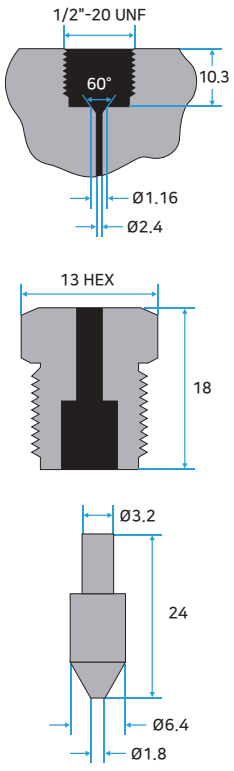
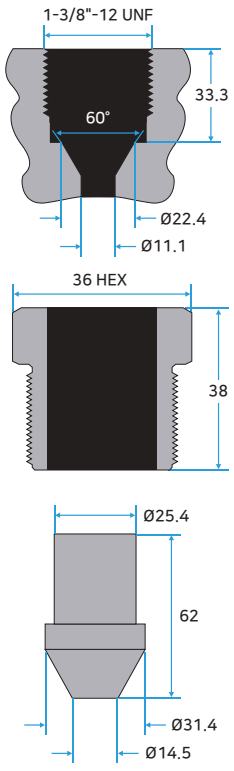
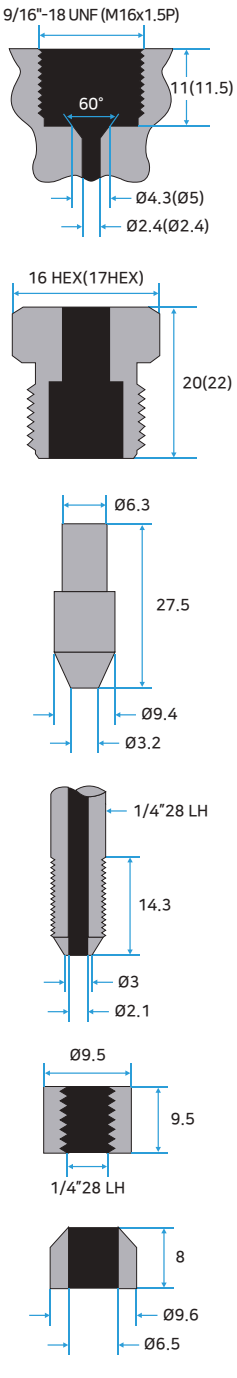
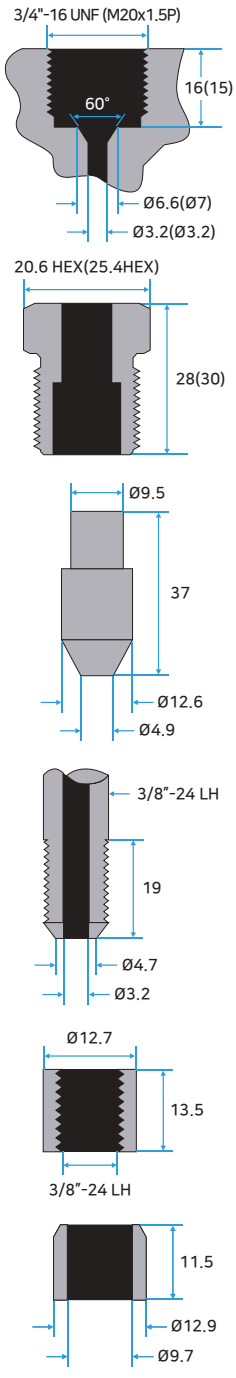
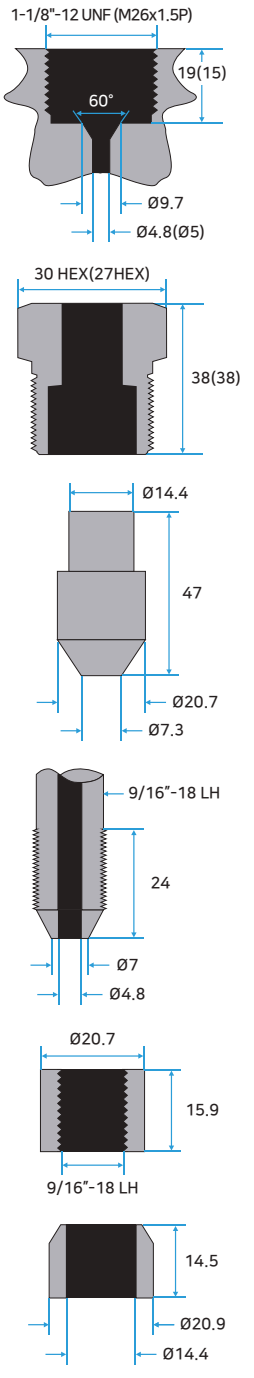
Port Type

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.



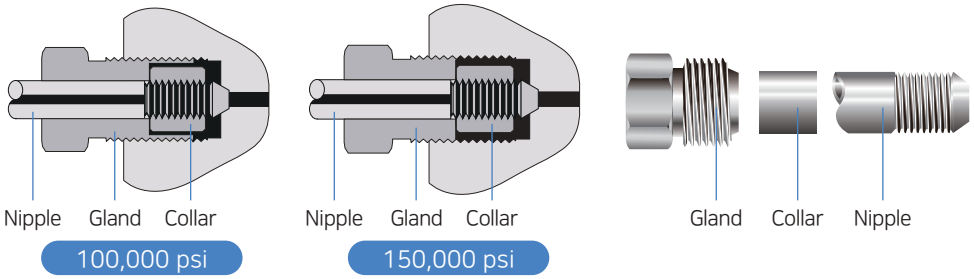
H3002 30,000psi - 1/8"	H3016 30,000psi - 1"	H6004 60,000psi - 1/4" (M : Metric)	H6006 60,000psi - 3/8" (M : Metric)	H6009 60,000psi - 9/16" (M : Metric)
				

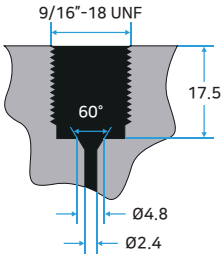
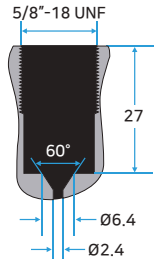
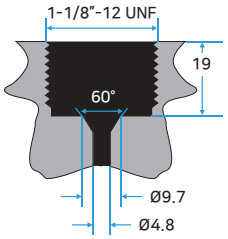
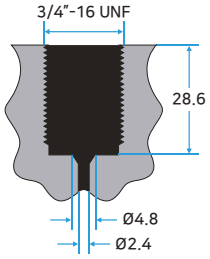
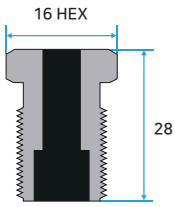
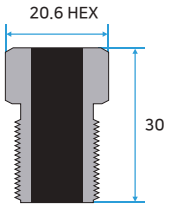
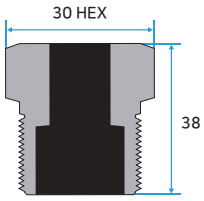
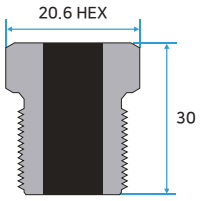
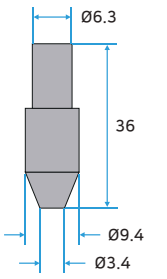
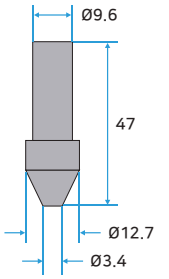
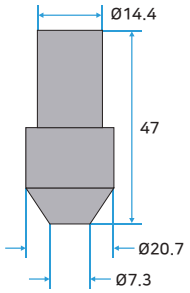
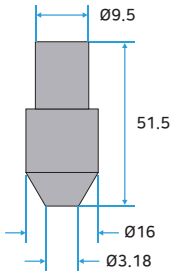
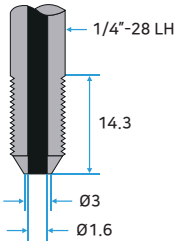
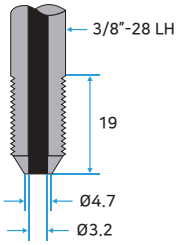
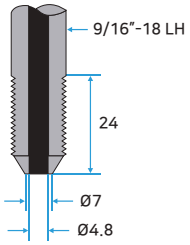
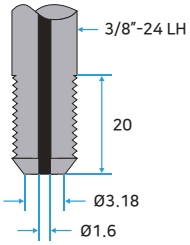
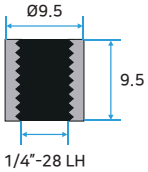
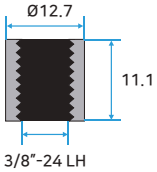
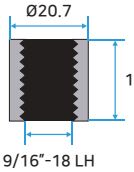
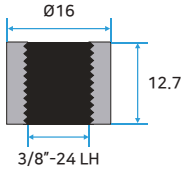
Port Type

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"
			
			
			
			
			

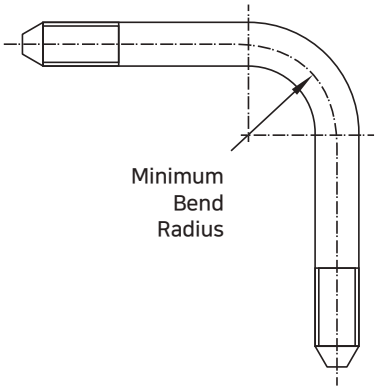
Technical Information

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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