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.

Regulator

Low pressure regulator (GPR), high pressure regulator (HPR), and back pressure regulator (BPR) series

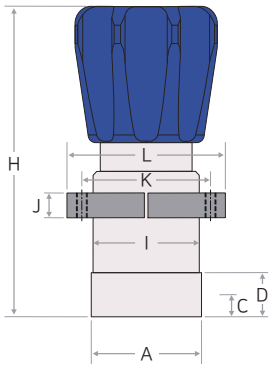
The HIFLUX pressure regulator is a pressure control device that maintains the pressure at the inlet and outlet of the regulator at a constant level within the maximum usable pressure range, and applies a sealing type that suits the characteristics of the gas or liquid. It can be divided into low-pressure GPR, high-pressure HPR, and back pressure regulator BPR, so that you can use it according to the desired application and pressure specifications. BPR products are the opposite concept of generally used regulators, and unlike generally used regulators that regulate the pressure at the outlet, they are products that maintain the front pressure at a constant level at the desired pressure.

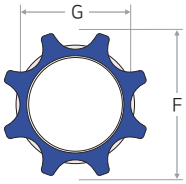
Features

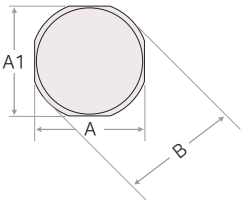
- Accuracy: 1% relief pressure range
- Ambient operating and fluid media temperature: -55℃ to 100℃
- NACE compatibility options
- 6 relief pressure ranges
- Anti-bubble shutoff at all re-mounting pressures
- Unbalanced stem provides positive shutoff
- Main valve cartridge for easy maintenance
- Convertible to 6 outlet pressure ranges
- Safety and reliability of spring-loaded piston sensor
- Various porting options

Product Name	GPR (General Pressure Regulator)	HPR (High Pressure Regulator)	BPR (Back Pressure Regulator)
Product			
Maximum Operating Pressure	3,500 psi	15,000 psi	15,000 psi
Product Series	500 psi / 1,000 psi / 1,500 psi 2,000 psi / 2,500 psi / 3,000 psi	2,000 psi / 4,000 psi 6,000 psi / 10,000 psi / 15,000 psi	800 psi / 2,000 psi / 4,000 psi 6,000 psi / 10,000 psi / 15,000 psi
Operating Temperature	-40℃ ~ 100℃	-55℃ ~ 100℃	-55℃ ~ 100℃

BPR





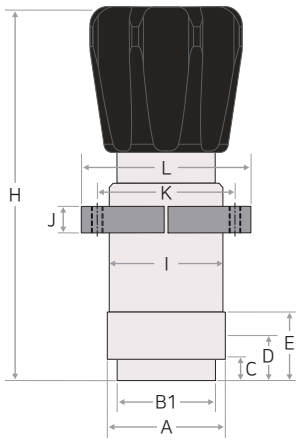


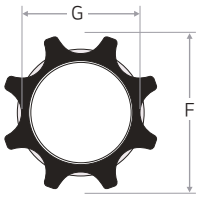
(Unit : mm)

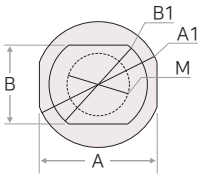
Catalog No	GAS	Pressure Rating	Port type		Orifice Size	Dimensions											
			Inlet	Outlet		A	A1	B	C	D	F	G	H	I	J	K	L
BPR800	Normal	800	1/4" NPT	1/4" NPT	2.5	61	61	64	12	24	82	60	168.7	58	13.5	70	86
BPR800	CO_2	800															
BPR2000	Normal	2,000			1.7												
BPR2000	CO_2	2,000															
BPR4000	Normal	4,000															
BPR4000	CO_2	4,000															
BPR6000	Normal	6,000															
BPR6000	CO_2	6,000															
BPR10000	Normal	10,000															
BPR10000	CO_2	10,000															
BPR15000	Normal	15,000															
BPR15000	CO_2	15,000															

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

HPR







(Unit : mm)

Catalog No	GAS	Pressure Rating	Port type		Orifice Size	Dimensions												
			Inlet	Outlet		A	A1	B	B1	C	D	F	G	H	I	J	K	L
HPR2000	Normal	2,000	1/4" NPT	1/4" NPT	2.1	61	64	40	50	11	23	82	60	190	58	13.5	70	86
HPR2000	CO2	2,000																
HPR4000	Normal	4,000																
HPR4000	CO2	4,000																
HPR6000	Normal	6,000																
HPR6000	CO2	6,000																
HPR10000	Normal	10,000																
HPR10000	CO2	10,000																
HPR15000	Normal	15,000																
HPR15000	CO2	15,000																

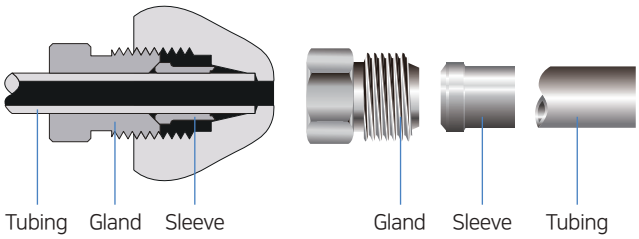
All dimensions are for reference only and may differ from actual size.

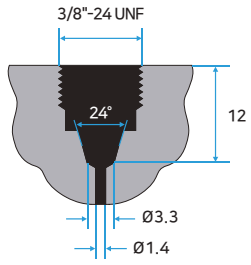
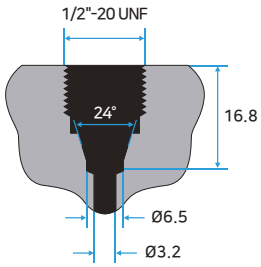
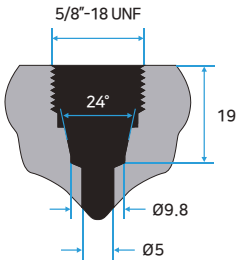
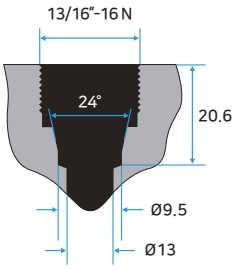
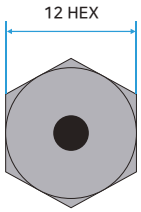
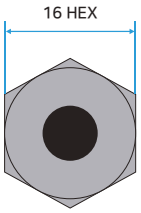
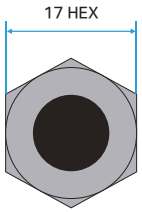
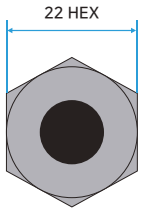
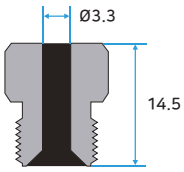
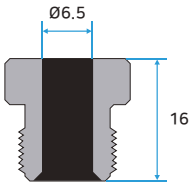
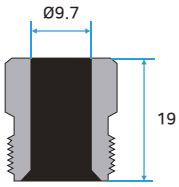
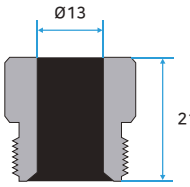
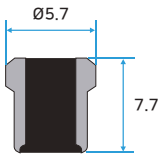
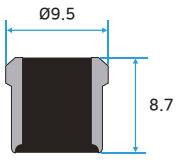
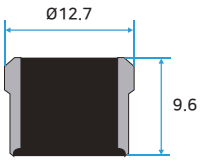
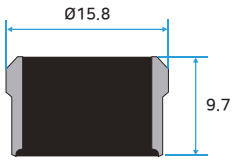
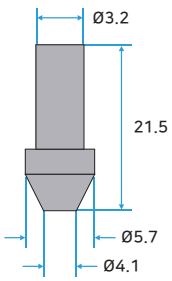
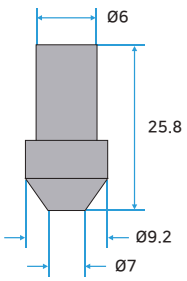
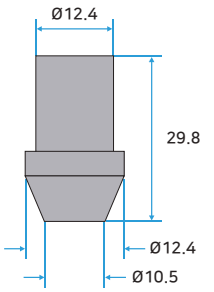
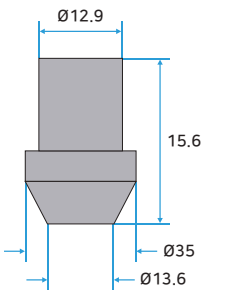
Port Type

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.



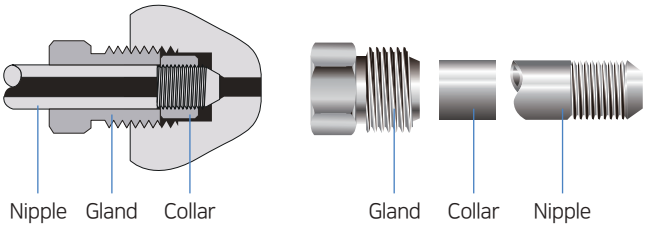
H1502 15,000psi - 1/8"	H1504 15,000psi - 1/4"	H1506 15,000psi - 3/8"	H1008 10,000psi - 1/2"
			
			
			
			
			

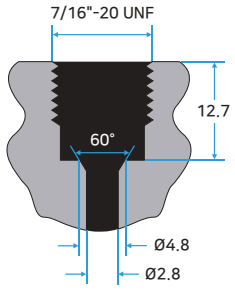
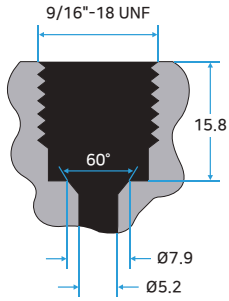
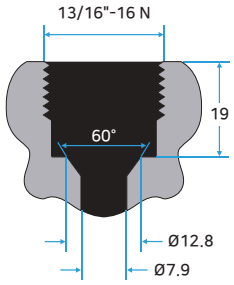
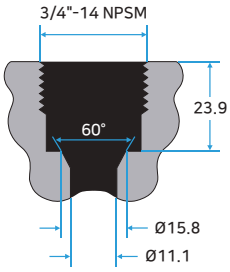
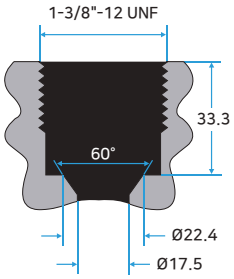
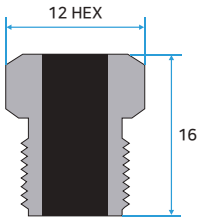
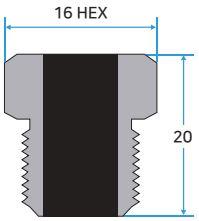
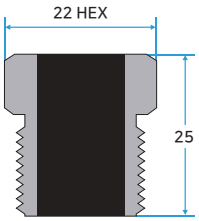
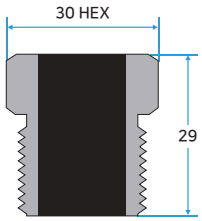
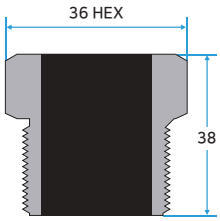
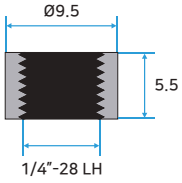
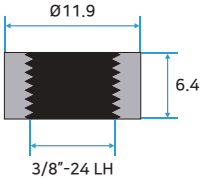
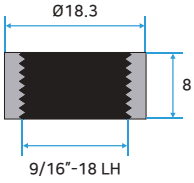
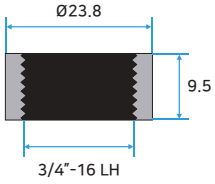
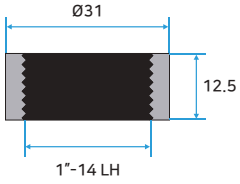
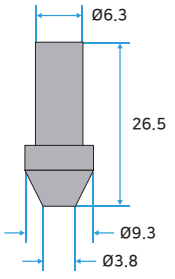
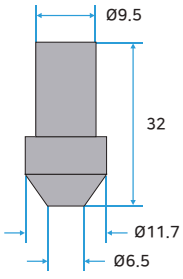
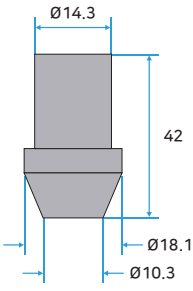
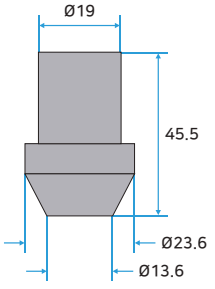
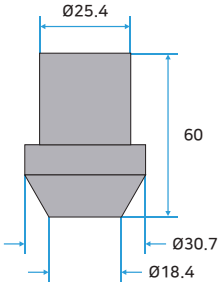
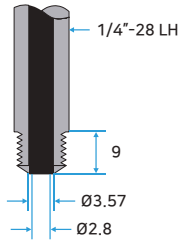
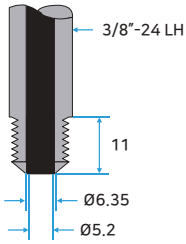
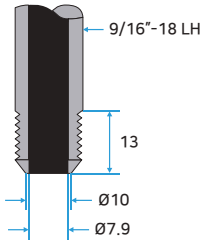
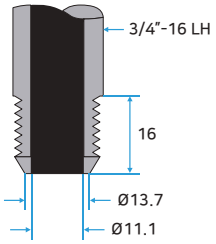
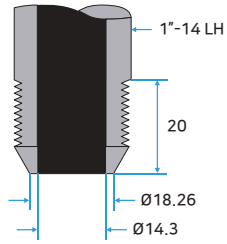
Port Type

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.



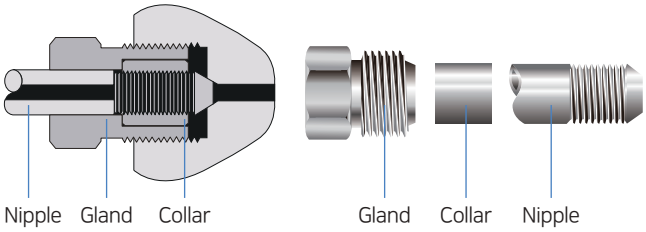
H2004 20,000psi - 1/4"	H2006 20,000psi - 3/8"	H2009 20,000psi - 9/16"	H2012 20,000psi - 3/4"	H2016 20,000psi - 1"
				
				
				
				
				

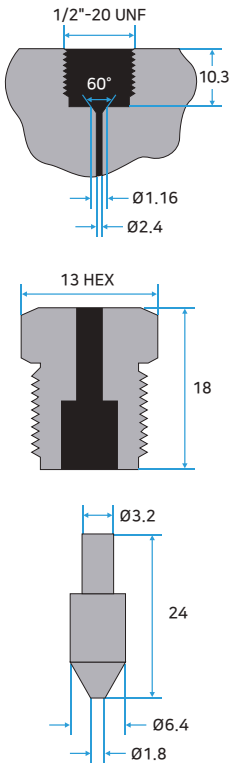
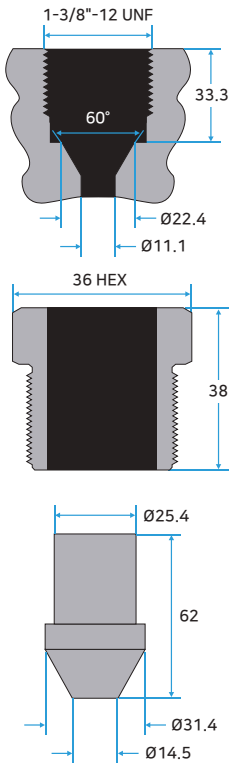
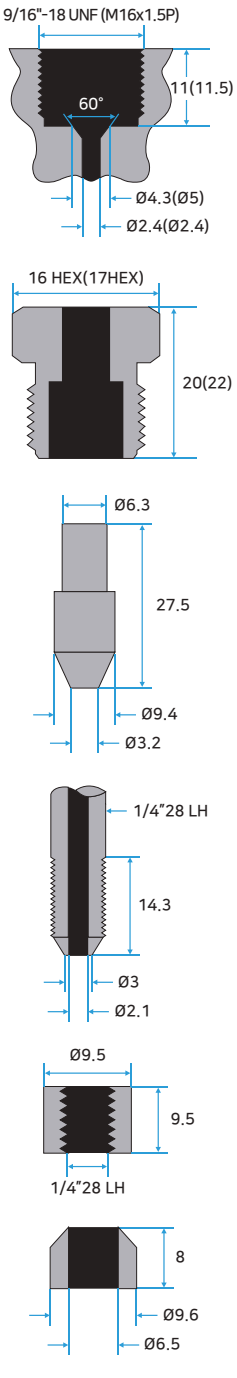
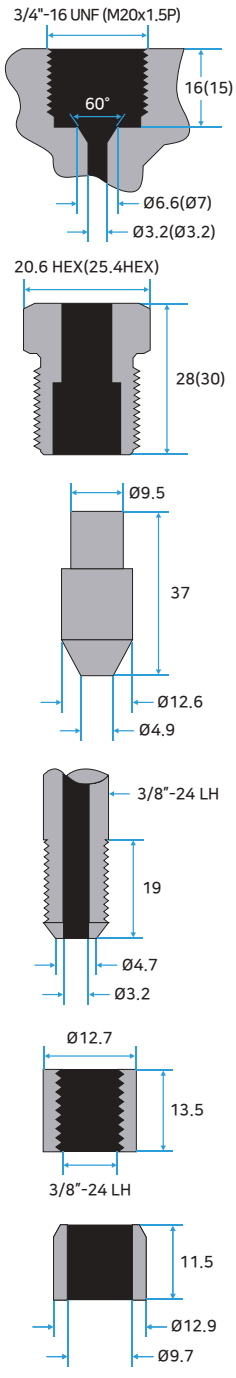
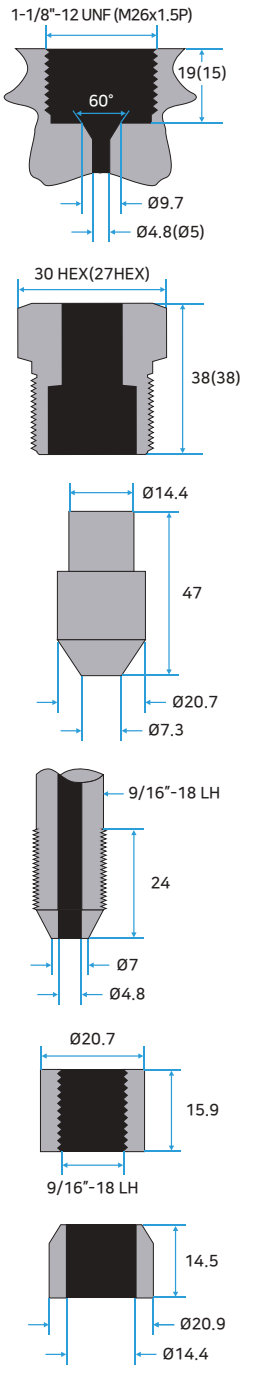
Port Type

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.



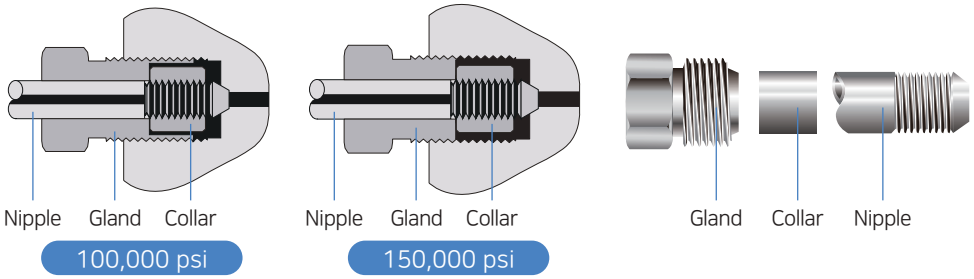
H3002 30,000psi - 1/8"	H3016 30,000psi - 1"	H6004 60,000psi - 1/4" (M : Metric)	H6006 60,000psi - 3/8" (M : Metric)	H6009 60,000psi - 9/16" (M : Metric)
				

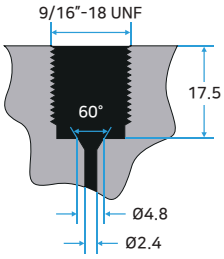
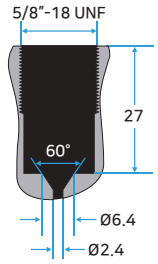
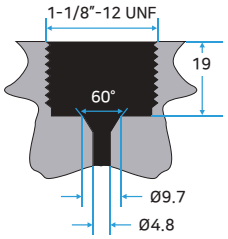
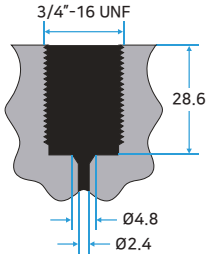
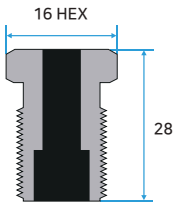
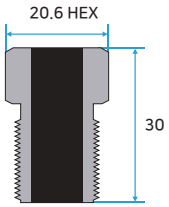
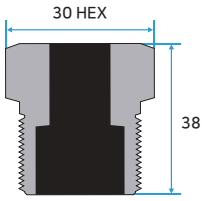
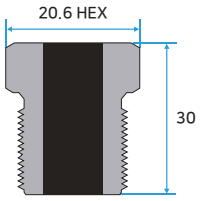
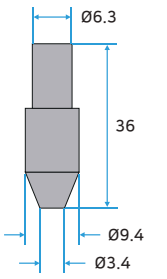
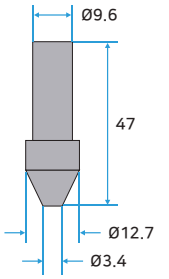
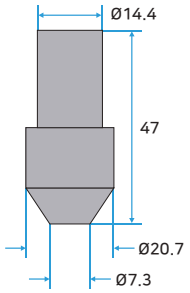
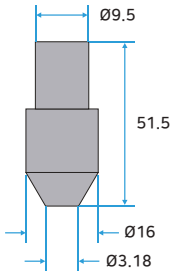
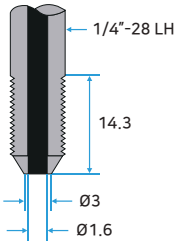
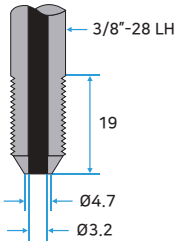
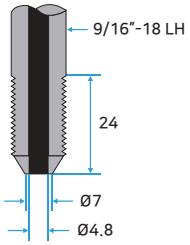
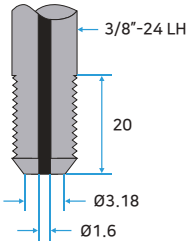
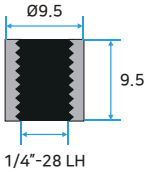
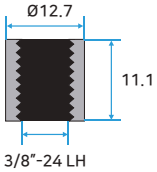
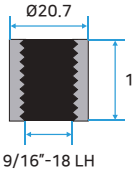
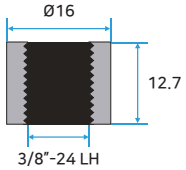
Port Type

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"
			
			
			
			
			

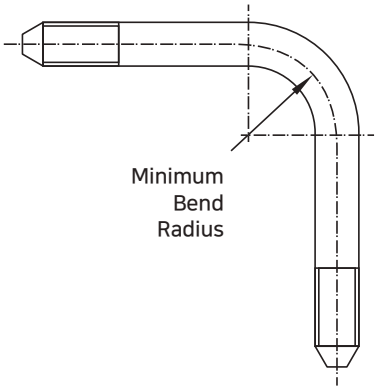
Technical Information

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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