

# 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



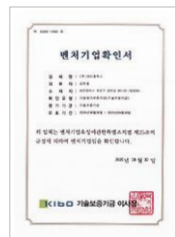
Certificate of Corporate Research Institute



Certificate of Small and Medium Enterprise



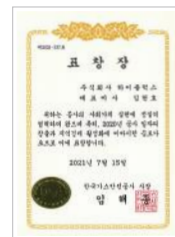
Certificate of Materials/Parts/Equipment Specialist Enterprise



Certificate of Venture Enterprise



Hydrogen Association Membership Card



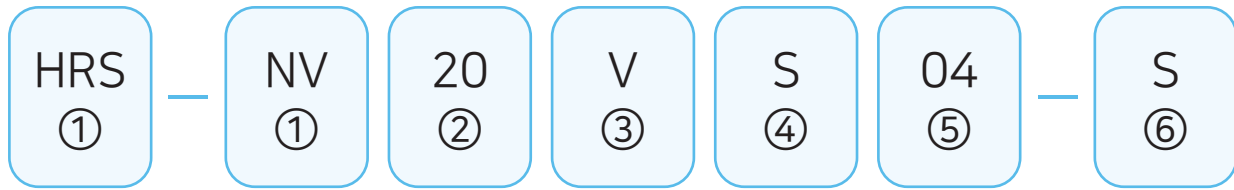
Gas Safety Corporation Award



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 - 03 : Orifice 4.8mm - 05 : Orifice 8mm	HC : Hastelloy C276 Wetted Part	08 : 1/2 inch 09 : 9/16 inch	- O : 3way/1on Type - T : 3way/2on Type - D : 3way 2stem Type
BV : Ball Valve	20 : 20,000 psi	Control Valve Air Operated Valve - O : Normal-Open Type - C : Normal-Closed Type	IN : Inconel 600	12 : 3/4 inch	Ball Valve - 20-90 : 2way - 3-180 : 3way Switching - 3-90 : 3way Diverting
ABV : Actuator Ball Valve	30 : 30,000 psi	Relief Valve - FS : Factory Set - FA : Field Adjustable - PP : Proportional Type	IN625 : Inconel 625	16 : 1 inch 15 : 15A	Relief Valve Field Adjustable - 1 : 1 Inlet - 2 : 2 Inlet
AOV : Air Operated Valve	60 : 60,000 psi	Fitting - E : Elbow Type - T : Tee Type - C : Cross Type	IN825 : Inconel 825	25 : 25A	Proportional Type - N : NPT Inlet port
RV : Relief Valve	100 : 100,000 psi	Fitting Accessory - A : Adapter - S : Sleeve - G : Gland - R : Collar - T : Collet	NI : Nickel 200		Fitting Accessory - AV : Anti-Vibration Type
SH : Safety Head	150 : 150,000 psi		TI : Titanium		GPR - N : Normal Type - P : Panel Type
CON : Control Valve	N : NPT P : PT				
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.



# High Pressure Fitting

High pressure fittings and dedicated accessories for high pressure connections with STS316 material and simple structural design



## Features

- 3 types of body (Elbow, Tee, Cross Type)
- Excellent corrosion resistance required at high pressure due to use of cold-formed stainless steel 316 material
- Leak-resistant Cone and Thread Connection
- Operating temperature range: -423°F(-252°C) to 1200°F(649°C)
- Used for various pressures (up to 150,000 psi) as fittings in chemical, refining, research, oil, and gas industries

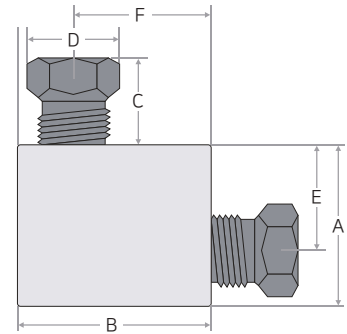
Pressure Rating	Tube Size	Fitting			Fitting Accessory		
		Elbow	Tee	Cross	Gland	Sleeve	Collar
15,000 psi	1/8"	FT15ES02	FT15TS02	FT15CS02	FA15GS02	FA15SS02	
	1/4"	FT15ES04	FT15TS04	FT15CS04	FA15GS04	FA15SS04	
	3/8"	FT15ES06	FT15TS06	FT15CS06	FA15GS06	FA15SS06	
10,000 psi	1/2"	FT10ES08	FT10TS08	FT10CS08	FA10GS08	FA10SS08	
20,000 psi	1/4"	FT20ES04	FT20TS04	FT20CS04	FA20GS04		FA20RS04
	3/8"	FT20ES06	FT20TS06	FT20CS06	FA20GS06		FA20RS06
	9/16"	FT20ES09	FT20TS09	FT20CS09	FA20GS09		FA20RS09
	3/4"	FT20ES12	FT20TS12	FT20CS12	FA20GS12		FA20RS12
	1"	FT20ES16	FT20TS16	FT20CS16	FA20GS16		FA20RS16
30,000 psi	1/8"	FT30ES02	FT30TS02	FT30CS02	FA30GS02		FA30RS02
	1"	FT30ES16	FT30TS16	FT30CS16	FA30GS16		FA30RS16
60,000 psi	1/4"	FT60ES04	FT60TS04	FT60CS04	FA60GS04		FA60RS04
	3/8"	FT60ES06	FT60TS06	FT60CS06	FA60GS06		FA60RS06
	9/16"	FT60ES09	FT60TS09	FT60CS09	FA60GS09		FA60RS09
100,000 psi	1/4"	FT100ES04	FT100TS04	FT100CS04	FA100GS04		FA100RS04
	3/8"	FT100ES06	FT100TS06	FT100CS06	FA100GS06		FA100RS06
	9/16"	FT100ES09	FT100TS09	FT100CS09	FA100GS09		FA100RS09
150,000 psi	3/8"	FT150ES06	FT150TS06	FT150CS06	FA150GS06		FA150RS06

Anti-Vibration	Tube Size	Elbow	Tee	Cross	Gland	Collar	Collet
20,000 psi	1/4"	FT20ES04-AV	FT20TS04-AV	FT20CS04-AV	FA20GS04-AV	FA20RS04-AV	FA20TS04-AV
	3/8"	FT20ES06-AV	FT20TS06-AV	FT20CS06-AV	FA20GS06-AV	FA20RS06-AV	FA20TS06-AV
	9/16"	FT20ES09-AV	FT20TS09-AV	FT20CS09-AV	FA20GS09-AV	FA20RS09-AV	FA20TS09-AV
	3/4"	FT20ES12-AV	FT20TS12-AV	FT20CS12-AV	FA20GS12-AV	FA20RS12-AV	FA20TS12-AV
	1"	FT20ES16-AV	FT20TS16-AV	FT20CS16-AV	FA20GS16-AV	FA20RS16-AV	FA20TS16-AV
60,000 psi	1/4"	FT60ES04-AV	FT60TS04-AV	FT60CS04-AV	FA60GS04-AV	FA60RS04-AV	FA60TS04-AV
	3/8"	FT60ES06-AV	FT60TS06-AV	FT60CS06-AV	FA60GS06-AV	FA60RS06-AV	FA60TS06-AV
	9/16"	FT60ES09-AV	FT60TS09-AV	FT60CS09-AV	FA60GS09-AV	FA60RS09-AV	FA60TS09-AV

## Elbow Type

(Unit : mm)

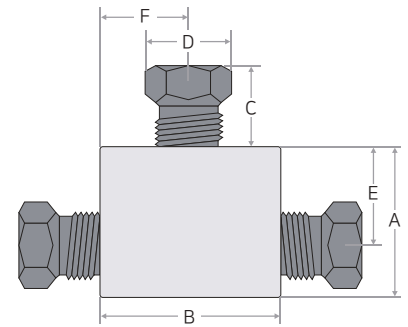
Catalog No	Pressure Rating	Port Type	Tube Size	Orifice Size	Dimensions						Block Thickness
					A	B	C	D(HEX)	E	F	
FT15ES02	15,000	H1502	1/8"	1.4	25	25	12.2	12	19	18	15.5
FT15ES04		H1504	1/4"	4	35	35	12.2	16	25	25	20
FT15ES06		H1506	3/8"	5.5	35	35	14	19	25	25	20
FT10ES08	10,000	H1008	1/2"	8.5	45	45	16.3	25.4	31.5	31.5	25
FT20ES04		H2004	1/4"	2.8	28.5	28.5	13.8	12	19	19	16
FT20ES06		H2006	3/8"	5.2	35	35	14.2	16	25	25	20
FT20ES09	20,000	H2009	9/16"	7.9	45	45	19.3	22	31.5	31.5	25
FT20ES12		H2012	3/4"	13	57	57	19.3	28	38	38	35
FT20ES16		H2016	1"	17.5	76	76	21.7	35	52.5	52.5	45
FT30ES02	30,000	H3002	1/8"	1.16	28	28	8.7	13	19	19	20
FT30ES16		H3016	1"	11.1	76	76	21.7	35	52.5	52.5	45
FT60ES04		H6004	1/4"	2.4	35	35	12.83	16	22.5	22.5	25
FT60ES06	60,000	H6006	3/8"	3.2	38	45	18.6	20	25	31.5	25
FT60ES09		H6009	9/16"	4.8	47.5	67	21.66	30	28.5	48	38
FT100ES04		H10004	1/4"	2.4	44.5	44.5	14.4	16	31.5	31.5	25
FT100ES06	100,000	H10006	3/8"	2.4	54	76.2	18.11	20.6	38.1	38.1	35
FT100ES09		H10009	9/16"	4.8	47.5	67	21.66	30	28.5	48	38
FT150ES06		H15006	3/8"	2.4	60	60	18.3	20.6	45	45	38



## Tee Type

(Unit : mm)

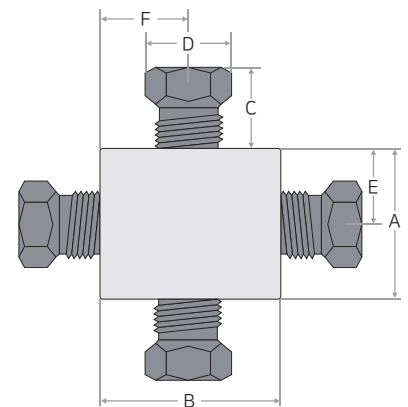
Catalog No	Pressure Rating	Port Type	Tube Size	Orifice Size	Dimensions						Block Thickness
					A	B	C	D(HEX)	E	F	
FT15TS02	15,000	H1502	1/8"	1.4	25	38	12.2	12	19	19	15.5
FT15TS04		H1504	1/4"	4	35	50	12.2	16	25	25	20
FT15TS06		H1506	3/8"	5.5	35	50	14	19	25	25	20
FT10TS08	10,000	H1008	1/2"	8.5	45	63	16.3	25.4	31.5	31.5	25
FT20TS04		H2004	1/4"	2.8	28.5	38	13.8	12	19	19	16
FT20TS06		H2006	3/8"	5.2	35	50	14.2	16	25	25	20
FT20TS09	20,000	H2009	9/16"	7.9	45	63	19.3	22	31.5	31.5	25
FT20TS12		H2012	3/4"	13	57	76	19.3	28	38	38	35
FT20TS16		H2016	1"	17.5	76	105	21.7	35	52.5	52.5	45
FT30TS02	30,000	H3002	1/8"	1.16	38	28	8.7	13	19	19	20
FT30TS16		H3016	1"	11.1	76	105	21.7	35	52.5	52.5	45
FT60TS04		H6004	1/4"	2.4	35	50	12.83	16	22.5	25	25
FT60TS06	60,000	H6006	3/8"	3.2	40	50	18.6	20	27	25	25
FT60TS09		H6009	9/16"	4.8	54	67	21.66	30	35	33.25	38
FT100TS04		H10004	1/4"	2.4	63	44.5	14.4	16	31.5	31.5	25
FT100TS06	100,000	H10006	3/8"	2.4	54	76.2	18.11	20.6	38.1	38.1	35
FT100TS09		H10009	9/16"	4.8	54	67	21.66	30	35	33.5	38
FT150TS06		H15006	3/8"	2.4	60	90	18.3	20.6	45	45	38



## Cross Type

(Unit : mm)

Catalog No	Pressure Rating	Port Type	Tube Size	Orifice Size	Dimensions						Block Thickness
					A	B	C	D(HEX)	E	F	
FT15CS02	15,000	H1502	1/8"	1.4	38	38	12.2	12	19	19	15.5
FT15CS04		H1504	1/4"	4	50	50	12.2	16	25	25	20
FT15CS06		H1506	3/8"	5.5	50	50	14	19	25	25	20
FT10CS08	10,000	H1008	1/2"	8.5	63	63	16.3	25.4	31.5	31.5	25
FT20CS04		H2004	1/4"	2.8	38	38	13.8	12	19	19	16
FT20CS06		H2006	3/8"	5.2	50	50	14.2	16	25	25	20
FT20CS09	20,000	H2009	9/16"	7.9	63	63	19.3	22	31.5	31.5	25
FT20CS12		H2012	3/4"	13	76	76	19.3	28	38	38	35
FT20ES16		H2016	1"	17.5	105	105	21.7	35	52.5	52.5	45
FT30CS02	30,000	H3002	1/8"	1.16	38	38	8.7	13	19	19	20
FT30CS16		H3016	1"	11.1	105	105	21.7	35	52.5	52.5	45
FT60CS04		H6004	1/4"	2.4	38	50	12.83	16	19	25	25
FT60CS06	60,000	H6006	3/8"	3.2	50	54	18.6	20	25	27	25
FT60CS09		H6009	9/16"	4.8	67	70	21.66	30	33.25	35	38
FT100CS04		H10004	1/4"	2.4	63	63	14.4	16	31.5	31.5	25
FT100CS06	100,000	H10006	3/8"	2.4	76.2	76.2	18.11	20.6	38.1	38.1	35
FT100CS09		H10009	9/16"	4.8	67	70	21.66	30	33.5	35	38
FT150CS06		H15006	3/8"	2.4	90	90	18.3	20.6	45	45	38

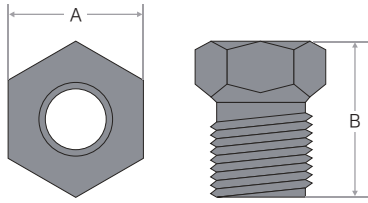


All dimensions are for reference only and may differ from the actual size.  
NPT, PT standard and specification production possible.  
(please contact customer service center)

# High Pressure Fitting Accessory

High pressure fittings and dedicated accessories for high pressure connections with STS316 material and simple structural design

## ▶ Gland



## ▶ Sleeve



## ▶ Collar



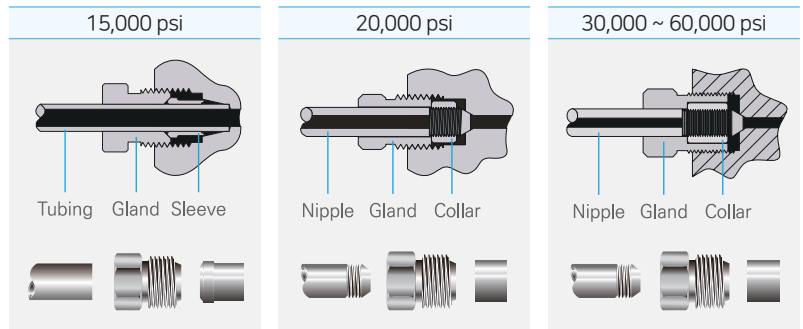
## ▶ Collet



(Unit : mm)

Catalog No				Pressure Rating	Port Type	Tube Size	Dimensions	
Gland	Sleeve	Collar	Plug				A(HEX)	B
FA15GS02	FA15SS02		FA15PS02	15,000	H1502	1/8"	12	14.5
FA15GS04	FA15SS04		FA15PS04		H1504	1/4"	16	16
FA15GS06	FA15SS06		FA15PS06		H1506	3/8"	17	19
FA10GS08	FA10SS08		FA10PS08	10,000	H1008	1/2"	25.4	24
FA20GS04		FA20RS04	FA20PS04	20,000	H2004	1/4"	12	16
FA20GS06		FA20RS06	FA20PS06		H2006	3/8"	16	20
FA20GS09		FA20RS09	FA20PS09		H2009	9/16"	22	27
FA20GS12		FA20RS12	FA20PS12		H2012	3/4"	27	28
FA20GS16		FA20RS16	FA20PS16		H2016	1"	36	38
FA30GS02		FA30RS02	FA30PS02		30,000	H3002	1/8"	13
FA30GS16		FA30RS16	FA30PS16	H3016		1"	36	38
FA60GS04		FA60RS04	FA60PS04	60,000	H6004	1/4"	16	21
FA60GS06		FA60RS06	FA60PS06		H6006	3/8"	20.6	28
FA60GS09		FA60RS09	FA60PS09		H6009	9/16"	30	36
FA100GS04		FA100RS04	FA100PS04	100,000	H10004	1/4"	16	28
FA100GS06		FA100RS06	FA100PS06		H10006	3/8"	20.6	30
FA100GS09		FA100RS09	FA100PS09		H10009	9/16"	30	38
FA150GS06		FA150RS06	FA150PS06		H15006	3/8"	20.6	30

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

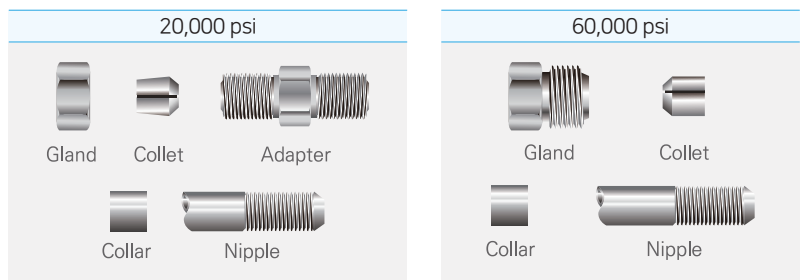


## Anti-Vibration Type

(Unit : mm)

Catalog No					Pressure Rating	Port Type	Tube Size
Anti - Set	Gland	Collar	Collet	Adapter			
FA20AS04-AV	FA20GS04-AV	FA20RS04	FA20TS04	FA20DS04	20,000	H2004	1/4"
FA20AS06-AV	FA20GS06-AV	FA20RS06	FA20TS06	FA20DS06		H2006	3/8"
FA20AS09-AV	FA20GS09-AV	FA20RS09	FA20TS09	FA20DS09		H2009	9/16"
FA20AS12-AV	FA20GS12-AV	FA20RS12	FA20TS12	FA20DS12		H2012	3/4"
FA20AS16-AV	FA20GS16-AV	FA20RS16	FA20TS16	FA20DS16	H2016	1"	
FA60AS04-AV	FA60GS04-AV	FA60RS04	FA60TS04		60,000	H6004	1/4"
FA60AS06-AV	FA60GS06-AV	FA60RS06	FA60TS06			H6006	3/8"
FA60AS09-AV	FA60GS09-AV	FA60RS09	FA60TS09			H6009	9/16"

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





# Tube Cap

Tube Cap is a product used for pressure testing of tubes and finishing of pipes



(Unit : mm)

## Features

- Tube Size: 1/4", 3/8", 9/16"
- Packing designed for reliable sealing
- STS 316
- Simple construction
- Easy closing method

Catalog No	Pressure Rating	Tube Size	Dimensions	
			A	B
FATC15S02	15,000 psi	1/8"	12.7	16
FATC15S04		1/4"	16	25.5
FATC15S06		3/8"	20	28
FATC10S08	10,000 psi	1/2"	25.4	32
FATC20S04		1/4"	16	21
FATC20S06	20,000 psi	3/8"	19	30
FATC20S09		9/16"	25.4	35
FATC20S12		3/4"	36	44.5
FATC20S16		1"	46	57.5
FATC20S04	60,000 psi	1/4"	20	19
FATC20S06		3/8"	25.4	27
FATC20S09		9/16"	36	40

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

# Oil Based Thread Lubricant

Special grease for long-term lubrication, blended with oil-based PTFE

Blue lube is a special grease mixed with oil-based PTFE as a thread lubricant. It is used in various ways such as stainless steel, general metals, titanium, aluminum, and nickel-based alloys, and when screwing, it lowers the torque due to the solid lubricant on the fastening surface, and prevents wear and seizure. In addition, it can maintain lubrication ability even in a water (moisture) atmosphere, and has excellent anti-oxidation and anti-corrosion performance.

(Application - various stainless steel, carbon steel, titanium, aluminum, and special alloys)



## Features

- Long-term lubrication grease
- Prevents screw sticking
- Oil-based lubricant that does not flow easily in water
- Maintains low torque during screw assembly
- Excellent wear resistance
- Excellent anti-oxidation and anti-corrosion performance
- Usable temperature range: -35 to 204°C
- Contains PTFE

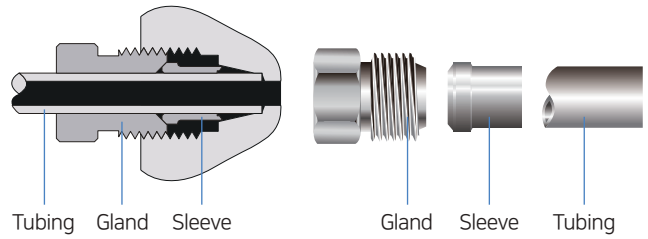
※ Product handling precautions - It is difficult to use in areas where halogen, freon, nitrogen dioxide, strong acids, or strong bases come into contact. It can be used as a replacement for existing similar overseas products (Blue Goop).

# 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.



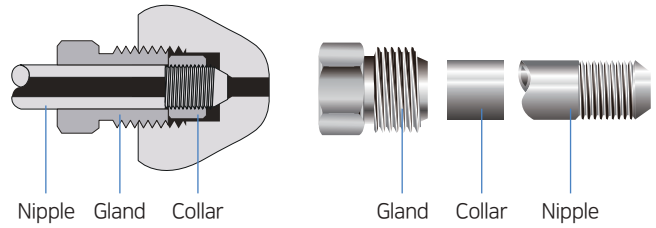
<b>H1008</b> 10,000psi - 1/2"	<b>H1506</b> 15,000psi - 3/8"	<b>H1504</b> 15,000psi - 1/4"	<b>H1502</b> 15,000psi - 1/8"

# 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.



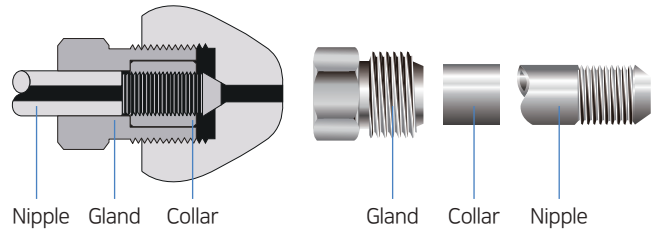
H2004 20,000psi - 1/4"	H2006 20,000psi - 3/8"	H2009 20,000psi - 9/16"	H2012 20,000psi - 3/4"	H2016 20,000psi - 1"
<p>7/16"-20 12.7 60° Ø4.8 Ø2.8</p>	<p>9/16"-18 15.8 Ø7.9 Ø5.2</p>	<p>13/16"-16 19 Ø12.8 Ø7.9</p>	<p>3/4"-14 23.9 Ø15.8 Ø11.1</p>	<p>1-3/8"-12 33.3 Ø22.4 Ø14.3</p>
<p>12 HEX 16</p>	<p>16 HEX 20</p>	<p>22 HEX 25</p>	<p>30 HEX 29</p>	<p>36 HEX 29</p>
<p>Ø9.5 5.5 1/4"-28 LH</p>	<p>Ø11.9 6.4 3/8"-24 LH</p>	<p>Ø18.3 8 9/16"-18 LH</p>	<p>Ø23.8 9.5 3/4"-16 LH</p>	<p>Ø31 12.5 1"-14 LH</p>
<p>Ø6.35 26.5 Ø9.3 Ø3.57</p>	<p>Ø9.53 32 Ø11.7 Ø6.35</p>	<p>Ø14.29 42 Ø18.1 Ø10.32</p>	<p>Ø19.05 45.5 Ø23.6 Ø14.29</p>	<p>Ø25.4 60 Ø30.7 Ø18.26</p>
<p>1/4"-28 LH 9 Ø3.57 Ø2.77</p>	<p>3/8"-24 LH 11 Ø6.35 Ø5.16</p>	<p>9/16"-18 LH 13 Ø10.32 Ø7.92</p>	<p>3/4"-16 LH 16 Ø14.29 Ø11.12</p>	<p>1"-14 LH 20 Ø18.26 Ø14.27</p>

# 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.



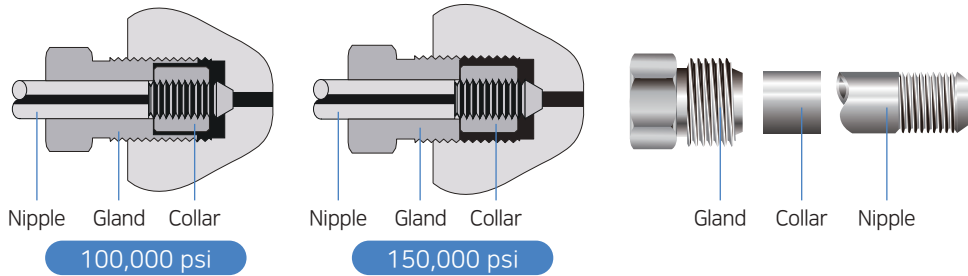
H3002 30,000psi - 1/8"	H3016 30,000psi - 1"	H6004 60,000psi - 1/4" (M : Metric)	H6006 60,000psi - 3/8" (M : Metric)	H6009 60,000psi - 9/16" (M : Metric)

# 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"



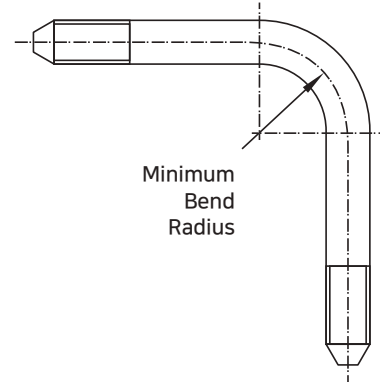
# Technical Information

## 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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