



# DAJA








大甲永和










DAJA-UHP-11-2.0

## Metal Gasket Face Seal Fittings



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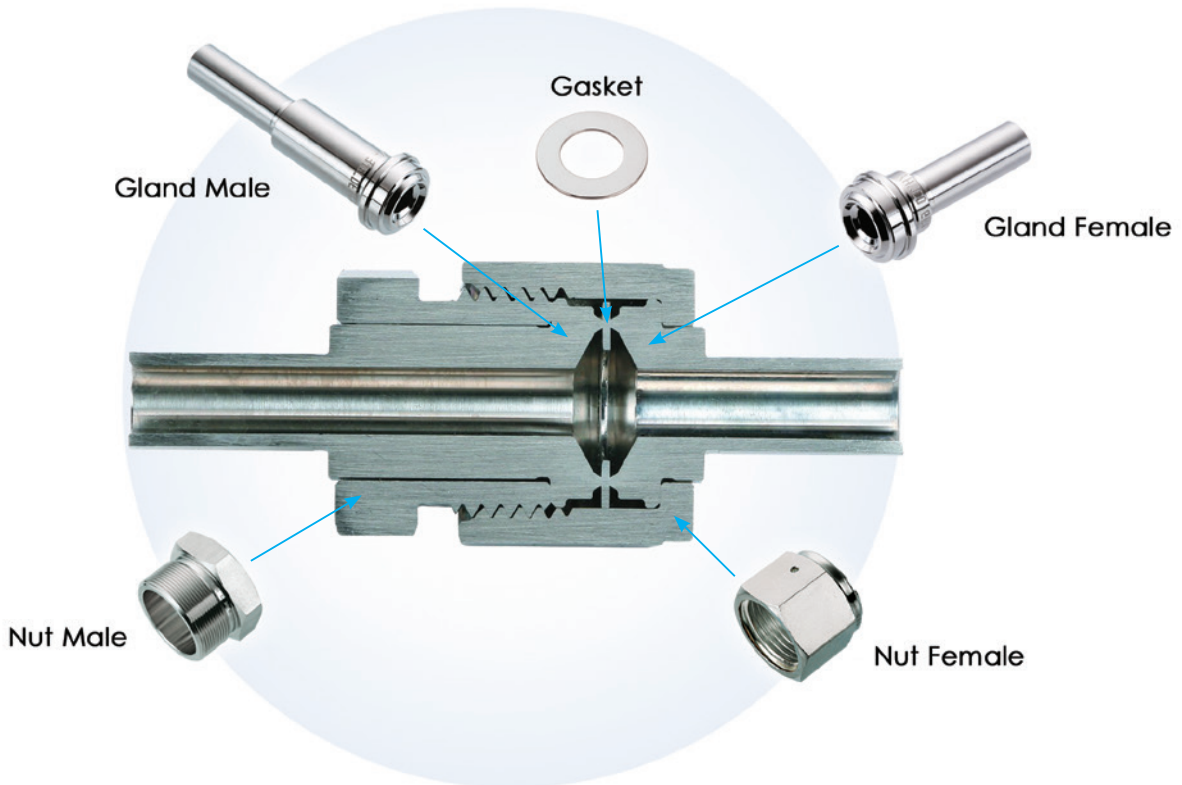
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FS Fittings

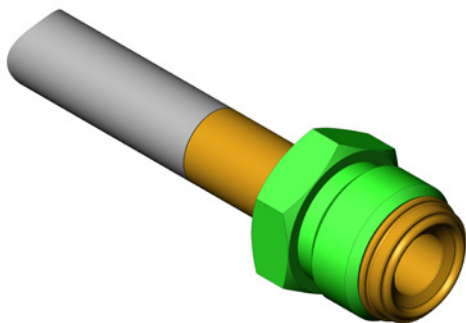
# General Introduction

## Face Seal Fittings

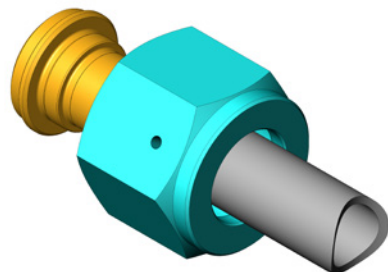
DAJA's Metal Gasket Face Seal Fittings (FS fitting) contains five major precision machined parts. One completed assembly of the connection includes nut female, gland female, gasket, gland male and nut male. A photo for one set of assembly is showed below.



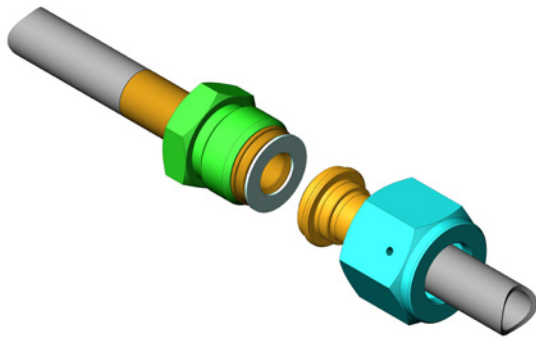
## Installation Instructions



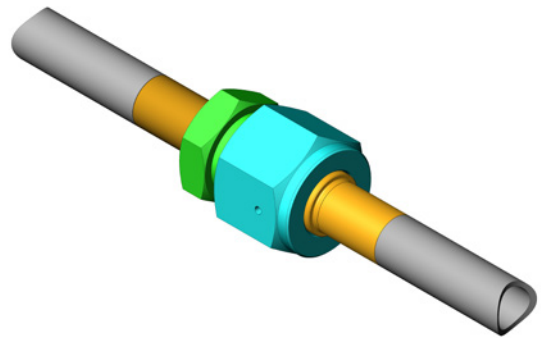
1. Assembly the Male Gland with Male Nut, then butt-weld with the tube.



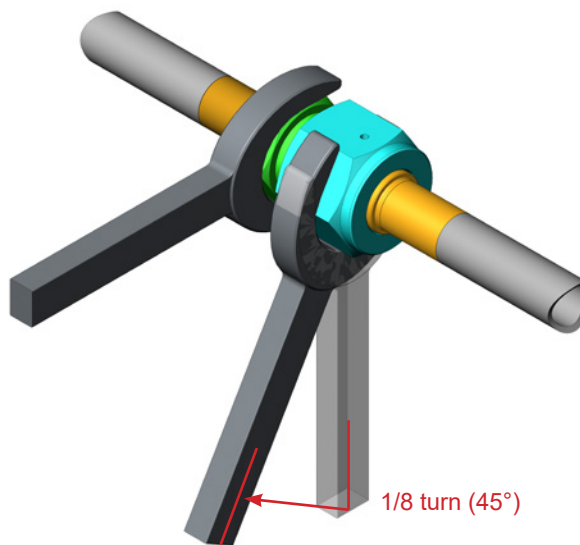
2. Assembly the Female Gland with Female Nut, then butt-weld with the tube.



3. Install the Gasket on the toroid of Gland.



4. Tighten slightly with fingers.



5. Tighten the nut to one-eighth turn with wrenches.

### Feature

- DAJA FS fitting is a high performance leak-tight seal fittings for high purity gas piping, and high vacuum piping application.
  - Installing and removing the connection can be performed with minimum clearance.
  - The inside surface of the nut female is silver plated to prevent galling, ensure easy assembly and consistent make-up.
  - Weld Parts are made of SCQ<sup>®</sup> SUS316L VAR or VIM+VAR which is precision machined for high purity welding.
  - DAJA fittings are individually vacuum packed in the certified class 100 clean room after being ultra clean washed and protection applied to the seals.
  - Product package is labeled with an identification label containing fitting type, description, heat code, and production batch number for tracing.
- Note: SCQ<sup>®</sup>: Semi-conductor clean quality.

# Technical Specification and Designation

## Material Designation

Designator	Material	Specification
D	316L VIM+VAR Stainless Steel	Bar stock meets the standard of ASTM A479, ASME SA479, ASTM A276.  Forged body meets the standard of ASTM A182, ASME SA182, ASTM A314.
S	316L VAR or VOD Stainless Steel	
L	316L Stainless Steel	
6	316 Stainless Steel	
N	Nickel	

## Surface Roughness Designation (Wetted Area)

Designator	Process Description	Specification
E	EP, electro-polishing	Ra5µin (Ra0.13µm)
B	BA, mechanical processing	Ra10µin (Ra0.25µm)
M	Machining	mill finish
S	Silver plating over thread area	mill finish

## Pressure Rating Designation

All data shown as on this catalogue is for the temperature ranging from 20°F to 100°F (-25°C to 36°C).

## Demonstration of Part Number

Product Category	Description	Product Code	EP 5Ra Finish	BA 10Ra Finish or Mill Finish
Glands	Gland Female	GFW	GFW19-1/2-1/2-SE	GFW19-1/2-1/2-SB
	Gland Male	GMW	GMW10-1/4-1/4-SE	GMW10-1/4-1/4-SB
Nuts, Caps, and Plugs	Nut Female	NF		NF-1/2-6S
	Nut Male	NM		NM-1/2-6M
	Nut Male Short	NMS		NMS14-1/4-6M
	Cap Female	CP		CP-1/2-6S
	Plug Male	PL		PL-1/2-6M
High-Flow Connections	High Flow Gland	HFGM, HFGMS	HFGM30-1/4-3/8-SE	HFGM30-1/4-3/8-SB
	High Flow Nut Female	HFNF		HFNF-1/4-10-6S
	High Flow Nut Male	HFNM		HFNM-1/4-10-6M
Gaskets	Gasket Silver Plated	GAS		GAS-1/4-LS
	Gasket EP Finish	GAP	GAP-1/4-NE	
	Gasket Retainer Assembly Silver Plated	GRS		GRS-1/4-LS
	Gasket Retainer Assembly EP Finish	GRP	GRP-1/4-NE	
	Gasket Blind Silver Plated	GBS		GBS-1/4-NS
	Gasket Blind EP Finish	GBP	GBP-1/4-LE	

## Tubing Specifications for FS Fittings

OD (inch)	OD (mm)	Wall Thickness (mm)		Manufacturing Standard
		*J	*A	
1/4"	6.35	1.00	0.89	JIS G3459/ ASTM standard (A270, A269)
3/8"	9.53	1.00	0.89	JIS G3459/ ASTM standard (A270, A269)
1/2"	12.70	1.24	1.24	JIS G3459/ ASTM standard (A270, A269)
3/4"	19.05	1.65	1.65	JIS G3459/ ASTM standard (A270, A269)
1"	25.40	1.65	1.65	JIS G3459/ ASTM standard (A270, A269)

• Note :

1. J is JIS design and specification.
2. A is American design and specification.

# Glands

## How to Order A Part

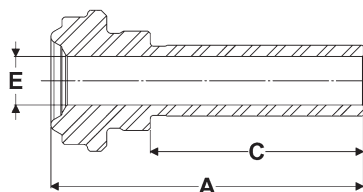
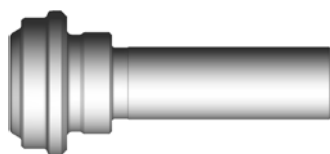
Example: GMW19-1/4-1/4-DE-A

<b>GMW19</b>	Gland Male with (3/4") 19.1mm orbital welding leg
<b>1/4</b>	FS face sealing head dimensions is 1/4" OD
<b>1/4</b>	tube end dimension is 1/4" OD
<b>DE</b>	D: 316L VIM/VAR Material, E: Electro-polishing finish, 5 Ra (Ra0.13µm)
<b>A</b>	American/Europe Standard

Description		Code		DAJA Part NO.	
Gland Female		GFW		GFW19-1/2-1/2-SB	
Gland Male		GMW		GMW10-1/4-1/4-DB	
Sleeve Length 1	FS Size (in.)	Tube Size (in.)	Material	Inner Surface Quality	Standard
Weld leg length	1/4	1/4	D = 316L VIM/VAR	E=EP finish, Ra5µin(Ra0.13µm)	A = American/ Europe Standard
6 =6.40mm	1/2(3/8)	3/8	S = 316L VAR	B=BA finish, Ra10µin(Ra0.25µm)	
10=9.60mm	3/4	1/2	L = 316L		
19=19.10mm	1	3/4	6 = 316		J = JIS Standard
		1			



## Gland Female (GFW)

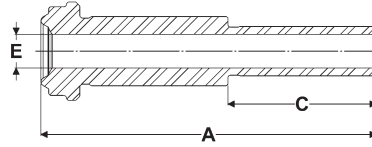


DAJA Part No.	FS Size	Tube Size	Dimensions			Working Pressure	
			A	C	E	Ni	SS
Dimensions, mm.						psig (bar)	
GFW6-1/4-1/4-XX	1/4	1/4	15.3	6.4	4.35	5100 (351)	5100 (351)
GFW10-1/4-1/4-XX	1/4	1/4	18.3	9.6	4.35		
GFW19-1/4-1/4-XX	1/4	1/4	28.0	19.1	4.35		
GFW19-1/2-1/4-XX	1/2(3/8)	1/4	28.4	19.1	4.35	3500 (241)	4300 (296)
GFW6-1/2-3/8-XX	1/2(3/8)	3/8	15.7	6.4	7.52	3300 (227)	3300 (227)
GFW19-1/2-3/8-XX	1/2(3/8)	3/8	28.4	19.1	7.52		
GFW6-1/2-1/2-XX	1/2(3/8)	1/2	15.7	6.4	10.22	3500 (241)	3700 (254)
GFW10-1/2-1/2-XX	1/2(3/8)	1/2	18.8	9.6	10.22		
GFW19-1/2-1/2-XX	1/2(3/8)	1/2	28.4	19.1	10.22		
GFW19-3/4-3/4-XX	3/4	3/4	28.96	19.1	15.75	2400 (165)	2400 (165)
GFW19-1-1-XX	1	1	31.6	19.1	22.1	2400 (165)	2400 (165)

Ⓢ Not designed for gasket retainer assembly.

Glands

Gland Male (GMW)



DAJA Part No.	FS Size	Tube Size	Dimensions			Working Pressure	
			A	C	E	Ni	SS
Dimensions, mm.						psig (bar)	
GMW6-1/4-1/4-XX	1/4	1/4	30.5	6.4	4.35	5100 (351)	5100 (351)
GMW10-1/4-1/4-XX	1/4	1/4	33.5	9.6	4.35		
GMW19-1/4-1/4-XX	1/4	1/4	43.2	19.1	4.35		
GMW19-1/2-1/4-XX	1/2(3/8)	1/4	45.5	19.1	4.35	3500 (241)	4300 (296)
GMW6-1/2-3/8-XX	1/2(3/8)	3/8	32.8	6.4	7.52	3300 (227)	3300 (227)
GMW19-1/2-3/8-XX	1/2(3/8)	3/8	45.5	19.1	7.52		
GMW6-1/2-1/2-XX	1/2(3/8)	1/2	32.8	6.4	10.22	3500 (241)	3700 (254)
GMW10-1/2-1/2-XX	1/2(3/8)	1/2	35.8	9.6	10.22		
GMW19-1/2-1/2-XX	1/2(3/8)	1/2	45.5	19.1	10.22		
GMW19-3/4-3/4-XX	3/4	3/4	50.8	19.1	15.75	2400 (165)	2400 (165)
GMW19-1-1-XX	1	1	58.8	19.1	22.1	2400 (165)	2400 (165)

ⓈNot designed for gasket retainer assembly.

ⓈMay contain internal diameter transitions.

# Nuts, Caps, and Plugs

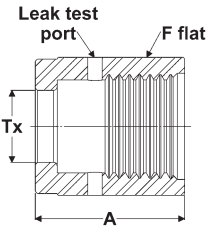
## How to Order A Part

Example: NM-1/4-6M

<b>NM</b>	Nut Male
<b>1/4</b>	FS face sealing head dimension is 1/4" OD
<b>6M</b>	6: 316 Material, M: Mill finish

Description		Code	DAJA Part NO.
Nut Female		NF	NF-1/2-6S
Nut Male		NM	NM-1/2-6M
Nut Male Short		NMS	NMS14-1/4-6M
Cap Female		CP	CP-1/2-6S
Plug Male		PL	PL-1/2-6M
Sleeve Length 1	FS Size (in.)	Material	Inner Surface Quality
Total length	1/4	6 = 316	M=Mill finish
14 = 13.70 mm	1/2 (3/8)		S=Sliver Plated
(↑only for nut male short)	3/4		
	1		

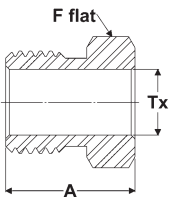
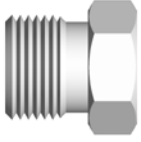
## Nut Female (NF)



DAJA Part No.	FS Size	Dimensions		
		A	F	T <sub>x</sub>
Dimensions, mm.				
NF-1/4-6S	1/4	20.5	19.05	9.2
NF-1/2-6S	1/2(3/8)	22.4	27	15.5
NF-3/4-6S	3/4	28.45	38.1	22.6
NF-1-6S	1	34.0	44.45	30.6

## Nuts, Caps, and Plugs

### Nut Male (NM)

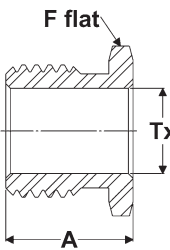


DAJA Part No.	FS Size	Dimensions		
		A	F	T <sub>x</sub>
Dimensions, mm.				
NM-1/4-6M	1/4	18	15.88	9.2
NM-1/2-6M	1/2(3/8)	20.6	23.81	15.5
NM-3/4-6M	3/4	25.4	33.34	22.6
NM-1-6M	1	30.2	41	30.6

Option: A taper at the hex end allows the nut to move around 90° Tube bends.

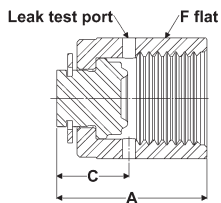
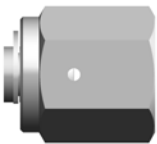
### Nut Male Short (NMS)

For use with short gland.



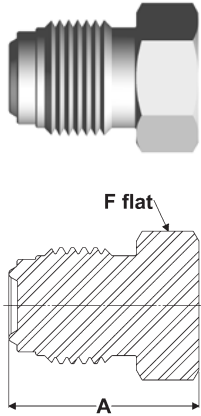
DAJA Part No.	FS Size	Dimensions		
		A	F	T <sub>x</sub>
Dimensions, mm.				
NMS14-1/4-6M	1/4	13.7	15.88	9.2

### Cap Female (CP)



DAJA Part No.	FS Size	Dimensions		
		A	C	F
Dimensions, mm.				
CP-1/4-6S	1/4	23.7	11.4	19.05
CP-1/2-6S	1/2(3/8)	25.6	11.8	27
CP-3/4-6S	3/4	34.1	15.65	38.1
CP-1-6S	1	39.1	16.6	44.45

**Plug Male (PL)**



DAJA Part No.	FS Size	Dimensions	
		A	F
Dimensions, mm.			
PL-1/4-6M	1/4	23.4	15.88
PL-1/2-6M	1/2(3/8)	27.4	23.81
PL-3/4-6M	3/4	36.3	33.34
PL-1-6M	1	38.6	41

① Not designed for gasket retainer assembly.

# High-Flow Connections

## How to Order A Part

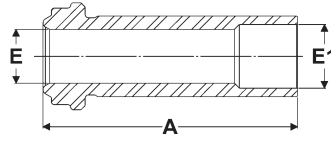
Example: HFGM30-1/4-3/8-SB-A

<b>HFGM30</b>	High Flow Gland, 30.20mm: Total gland length
<b>1/4</b>	FS face sealing head dimensions is 1/4" OD
<b>3/8</b>	Tube end dimensions is 3/8" OD
<b>SB</b>	S: 316L VAR Material, B: mechanical processing finish, 10 Ra (Ra0.25µm)
<b>A</b>	American/Europe Standard

Description			Code		DAJA Part NO.		
High Flow Gland			HFGM, HFGMS		HFGM30-1/4-3/8-SB		
High Flow Nut Female			HFNF		HFNF-1/4-10-6S		
High Flow Nut Male			HFNM		HFNM-1/4-10-6M		
Sleeve Length 1	FS Size	Tube Size	Sleeve Length 2	Material	Inner Surface Quality	Standard	
	(in.)	(in.)					
Total length	1/4	3/8	Tx	D=316L VIM/VAR	B=BA finish, Ra10µin(Ra0.25)	A = American/ Europe Standard	
15=15.20mm			10= 9.90mm	S=316L VAR	E=EP finish, Ra5µin(Ra0.13µm)		
30=30.20mm			(↑only for High Flow Nut Series)	L=316L	M=Mill finish	J = JIS Standard	
33=33.30mm				6=316	S=Sliver Plated		
(↑only for High Flow Gland)							

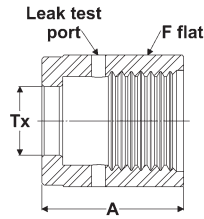
## High-Flow Connections

### High Flow Gland (HFGM, HFGMS)



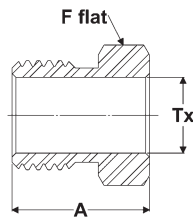
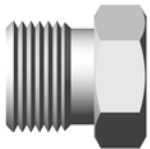
DAJA Part No.	FS Size	Tube Size	Dimensions			Working Pressure	
			A	E	E <sub>1</sub>	Ni	SS
Dimensions, mm.						psig (bar)	
HFGMS15-1/4-3/8-XX	1/4	3/8	15.2	6.35	7.74	3300 (227)	3300 (227)
HFGM30-1/4-3/8-XX	1/4	3/8	30.2	6.35	7.74	3300 (227)	3300 (227)
HFGM33-1/4-3/8-XX	1/4	3/8	33.3	6.35	7.74	3300 (227)	3300 (227)

### High Flow Nut Female (HFNF)



DAJA Part No.	FS Size	Dimensions		
		A	F	T <sub>x</sub>
Dimensions, mm.				
HFNF-1/4-10-6S	1/4	20.5	19.05	9.9

### High Flow Nut Male (HFNM)



DAJA Part No.	FS Size	Dimensions		
		A	F	T <sub>x</sub>
Dimensions, mm.				
HFNM-1/4-10-6M	1/4	18	15.88	9.9

# Gaskets

## How to Order A Part

Example: GAS-1/4-LS

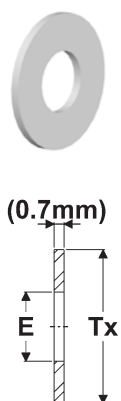
<b>GAS</b>	Gasket Silver Plated
<b>1/4</b>	FS face sealing dimensions is 1/4" OD
<b>LS</b>	L: 316L Material, S: Silver Plated

Description	Code	DAJA Part NO.	FS Size (in.)	Material	Inner Surface Quality
Gasket Silver Plated	GAS	GAS-1/4-LS	1/4	N = Ni	E = EP finish, Ra5µin(Ra0.13µm)
Gasket EP Finish	GAP	GAP-1/4-NE	1/2(3/8)	L = 316L	S = Silver Plated
Gasket Retainer Assembly Silver Plated	GRS	GRS-1/4-LS	3/4		
Gasket Retainer Assembly EP Finish	GRP	GRP-1/4-NE	1		
Gasket Blind Silver Plated	GBS	GBS-1/4-NS			
Gasket Blind EP Finish	GBP	GBP-1/4-NE			

## Electro-Polished

### Gasket EP Finish (GAP)

(Can not be used in a gasket retainer assembly.)

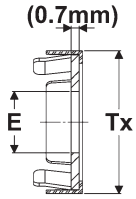


DAJA Part No.	FS Size	Dimensions	
		E	T <sub>x</sub>
Dimensions, mm.			
GAP-1/4-XX	1/4	5.6	12.45
GAP-1/2-XX	1/2(3/8)	11.2	20.0
GAP-3/4-XX	3/4	16.8	29.0
GAP-1-XX	1	22.6	35.6

## Gaskets

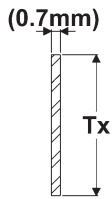
### Gasket Retained Assembly EP Finish (GRP)

(Retainer and gasket must be used as an assembly.)



DAJA Part No.	FS Size	Dimensions	
		E	T <sub>x</sub>
Dimensions, mm.			
GRP-1/4-XX	1/4	5.4	12.6
GRP-1/2-XX	1/2(3/8)	11.2	20.1

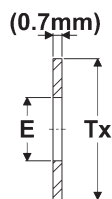
### Gasket Blind EP Finish (GBP)



DAJA Part No.	FS Size	Dimensions
		T <sub>x</sub>
Dimensions, mm.		
GBP-1/4-XX	1/4	12.45
GBP-1/2-XX	1/2(3/8)	20.0
GBP-3/4-XX	3/4	29.0
GBP-1-XX	1	35.6

### Silver Plated Gasket Silver Plated (GAS)

(Can not be used in a gasket retainer assembly.)

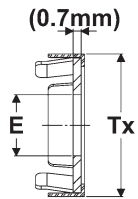


DAJA Part No.	FS Size	Dimensions	
		E	T <sub>x</sub>
Dimensions, mm.			
GAS-1/4-XX	1/4	5.6	12.45
GAS-1/2-XX	1/2(3/8)	11.2	20.0
GAS-3/4-XX	3/4	16.8	29.0
GAS-1-XX	1	22.6	35.6



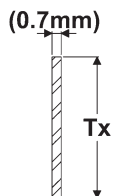
### Gasket Retained Assembly Silver Plated (GRS)

(Retainer and gasket must be used as an assembly.)



DAJA Part No.	FS Size	Dimensions	
		E	T <sub>x</sub>
Dimensions, mm.			
GRS-1/4-XX	1/4	5.4	12.6
GRS-1/2-XX	1/2(3/8)	11.2	20.1

### Gasket Blind Silver Plated (GBS)



DAJA Part No.	FS Size	Dimensions
		T <sub>x</sub>
Dimensions, mm.		
GBS-1/4-XX	1/4	12.45
GBS-1/2-XX	1/2(3/8)	20.0
GBS-3/4-XX	3/4	29.0
GBS-1-XX	1	35.6

MEMO

A series of horizontal dashed lines for writing.

# DAJA

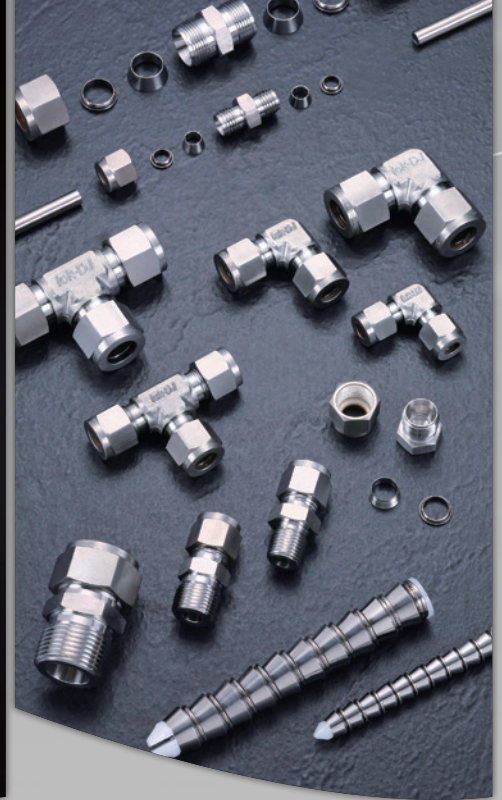
High Purity Pipes & Pipe Fittings



Micro Butt-Welding Fittings



Iok-DJ® Compression Fittings



Metal Gasket Face Seal Fittings



HP Ball Valve



UHP CGA/DISS Fittings Series





### Quality certification

1994: Certified to ISO 9002

1998: Certified to ISO 14001

2002: Certified to ISO 9001 (replacing ISO 9002)

2007: Certified to JIS MARK (JQA JIS B2312) (JQA JIS B2313)

2009: Certified to ISO 9001 : 2008

2013: Certified to JIS MARK (JQA JIS B2309)

2017: Certified to ISO 9001:2015

2020: Certified to NSF/ANSI 61-G

### OUR PRODUCT & SERVICE

1. High Purity Pipe & Pipe Fitting.
2. High Purity Micro Butt-Welding Fittings.
3. High Purity Metal Gasket Face Seal Fittings.
4. UHP CGA/Diss Fittings Series.
5. Compression Fittings.
6. High Purity Ball Valves.
7. Manifold Pipe/Tube.
8. Contract Service: High Purity Welding components (in clean room).
9. Customized electro-polishing and UHP clean service.



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