

QUARTZ FITTING SUPER 300 TYPE

Super 300 Type Quartz Fittings

The Pillar Quartz fitting combines patented S300 fitting – a leak free, high temperature, high pressure resistance fitting for PFA tubing - and a unique ferrule design with the security of a stopper ring for the quartz side, all in one compact body.



Features

- **Increased performance and safety**

The PFA stopper ring locks security into the quartz groove.
The latest S300 fitting design generates greater holding force, which means a safe and secure PFA tube connection.

- **Excellent chemical resistance**

The wetted parts are made from PTFE and PFA, providing excellent corrosion resistance.

- **Ultra clean manufacturing process**

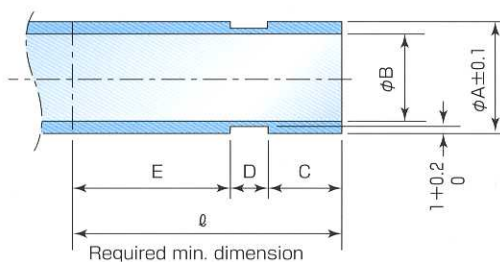
Pillar fittings are processed in a Class 1000 clean room, from resin to finished product. They are packed in the Pillar “Clean Pack”, to maintain the highest purity until the fitting is needed.

Design Feature

MAX OPERATING TEMP.	200°C
MAX OPERATING PRESSURE	0.4MPa

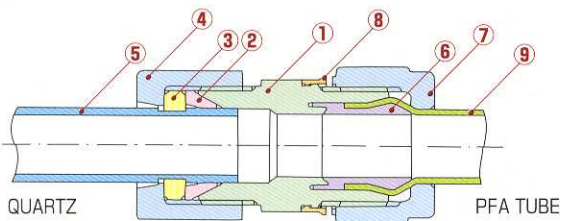
TEMPERATURE	°C	0~60	61~100	101~200
PRESSURE	MPa	0.4	0.2	0.1

Quartz tube dimension



QUARTZ TUBE	±0.1 φA	φB	C	D	E	ℓ
φ8×φ4	8	4	6	4	17	27
φ10×φ6	10	6	9	4.5	19.5	33
φ12×φ8	12	8	11	5	23	39
φ16×φ12	16	12	13	6	26	45
φ19×φ15	19	15	13.5	6.5	28	48
φ20×φ16	20	16	13.5	6.5	28	48
φ25×φ20	25	20	23	8	35	66

Configuration



No.	PART	MATERIAL	No.	PART	MATERIAL
①	BODY	PTFE	⑥	SLEEVE	P F A
②	FERRULE	PTFE	⑦	UNION NUT	P F A
③	STOPPER RING	P F A	⑧	GAUGE RING	P P
④	UNION NUT	P F A	⑨	PFA TUBE	P F A
⑤	QUARTZ TUBE	QUARTZ			

How to order

Q - R U 8 - P 8 A								
TYPE	SHAPE	QUARTZ TUBE OD	SUPER 300 FITTING	TUBE SIZE	BODY MATERIAL A=PTFE B=PFA			
PFA TUBE								
mm			inch					
O.D × I.D	THICK-NESS	TOLERANCE		O.D × I.D	THICK-NESS	TOLERANCE		
		O.D	WALL THICKNESS			O.D	WALL THICKNESS	
6×4	1.0	±0.10	±0.06	6.35×3.95	W2	1.2	±0.10	
8×6				9.53×6.33	W3			
10×8		±0.12		12.7×9.5	W4	1.6	±0.12	±0.10
12×10				19×15.8	W6			
19×15.8	1.6	±0.20	±0.10	25.4×22.2	W8		±0.20	
25×22	1.5							

Assembling

Insertion of quartz tube

Composed of PILLAR QUARTZ-FITTING, stopper ring, body, ferrule and nut.
Installation method is

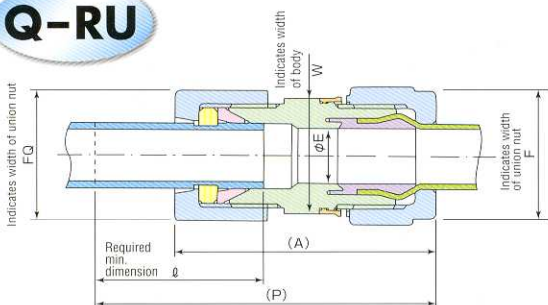
- (1) Run the quartz tube through the nut.
- (2) Put the stopper ring into the groove of quartz tube.
- (3) Insert the ferrule taking care of its correct direction.
- (4) Nut should be hand turned strongly and turned half turn by spanner. (Don't turn over)

Insertion of PFA tube

Composed of fitting, sleeve, union nut gauge ring.
Installation method is

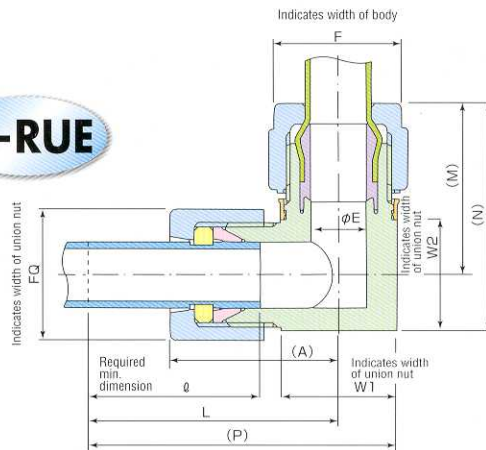
- (1) Run the tube through union nut.
- (2) Insert the sleeve to tube.
- (3) Tighten until the blade of the gauge ring and the projection at the end of the union nut come into contact with each other and starting rotating together.

Q-RU



PART No. Q-RU	QUARTZ		PFA TUBE		(P)	φ	FQ	F	(A)	W	φE
	O.D	I.D	O.D	I.D							
8-P8A	8	4	8	6	64	27	17	19	50.7	18	6
10-P10A	10	6	10	8	71.5	33	22	23	56.7	21	8
10-PW3A	10	6	9.53	6.33	71.5	33	22	23	56.7	21	8
12-P6A	12	8	6	4	71.8	39	27	16	53.9	23	4
12-PW2A	12	8	6.35	3.95	71.8	39	27	16	53.9	23	4
12-P12A	12	8	12	10	81.8	39	27	28	63.9	25	10
12-PW4A	12	8	12.7	9.5	81.8	39	27	28	63.9	25	10
16-P8A	16	12	8	6	82	45	32	19	61	28	6
16-P12A	16	12	12	10	89	45	32	28	68	28	10
16-PW4A	16	12	12.7	9.5	89	45	32	28	68	28	10
19-P19A	19	15	19	15.8	100	48	38	38	78	33.5	16
20-P19B	20	16	19	15.8	100	48	38	38	78	34	16
20-PW6B	20	16	19	15.8	100	48	38	38	78	34	16
25-P25A	25	20	25	22	128.3	66	50	47.5	100.3	44	22
25-PW8A	25	20	25.4	22.2	128.3	66	50	47.5	100.3	44	22

Q-RUE



PART No. Q-RUE	QUARTZ		PFA TUBE		(P)	φ	FQ	F	L	(M)	(N)	(A)	W1	W2	φE
	O.D	I.D	O.D	I.D											
8-P6A	8	4	6	4	50	27	17	16	42.5	26.5	34	29.2	15	15	4
8-PW2A	8	4	6.35	3.95	50	27	17	16	42.5	26.5	34	29.2	15	15	4
8-P8A	8	4	8	6	53	27	17	19	44	29.5	37	30.7	18	15	6
10-P10A	10	6	10	8	60.5	33	22	23	50	34.5	44	35.2	21	19	8
10-PW3A	10	6	9.53	6.33	60.5	33	22	23	50	34.5	44	35.2	21	19	8
12-P12A	12	8	12	10	70.8	39	27	28	58.3	40.5	52	40.4	25	23	10
12-PW4A	12	8	12.7	9.5	70.8	39	27	28	58.3	40.5	52	40.4	25	23	10
16-P12A	16	12	12	10	78	45	32	28	65.5	43	57	44.5	25	28	10
16-PW4A	16	12	12.7	9.5	78	45	32	28	65.5	43	57	44.5	25	28	10
19-P19A	19	15	19	15.8	87.6	48	38	38	70.8	52	68	48.8	33.5	32	16
20-P19B	20	16	19	15.8	86.1	48	38	38	72.6	57.1	68.1	50.6	27	27	16
20-PW6B	20	16	19	15.8	86.1	48	38	38	72.6	57.1	68.1	50.6	27	27	16
25-P25A	25	20	25	22	113.3	66	50	47.5	91.8	65	87	63.8	43	44	22
25-PW8A	25	20	25.4	22.2	113.3	66	50	47.5	91.8	65	87	63.8	43	44	22

NIPPON PILLAR PACKING CO., LTD.

Head Office: 11-48, Nonakaminami 2 Chome, Yodogawa-ku, Osaka, 532-0022 Japan.
Tel : 81-(0)6-6305-2821 Fax : 81-(0)6-6302-3300
E-mail : info@pillar.co.jp

Tokyo Office: 2-2, Uchisaiwaicho 2 Chome, Chiyoda-ku, Tokyo, 100-0011 Japan.
Tel : 81-(0)3-3508-1611 Fax : 81-(0)3-3508-1881

Nippon Pillar Corporation of America: 1562, Parkway Loop, Suite2C, Tustin, CA 92780, USA.
Tel : 1-714-258-7741 Fax : 1-714-258-7760
E-mail : sales@nipponpillar.com

Nippon Pillar Singapore Pte, Ltd.: 10 Toh Guan Road #02-03 TT International Tradepark Singapore 608838
Tel : (65)6861-7138 Fax : (65)6862-9098
E-mail : npillars@singnet.com.sg

Pillar Taiwan Semiconductor Work Shop: No.15 Lane 42, Ming-Yu 2 Street, Hsin-Chu, Taiwan. R.O.C.
Tel : 886-3-5785715 Fax : 886-3-5785716
E-mail : homwell@ms9.hinet

Pillar Korea Semiconductor Work Shop: 55-1, Changkoc-1R1, Paltan-Myun, Hwasung-Kun, Kyongki-Do, KOREA.
Tel : 031-353-1521 Fax : 031-353-1522
E-mail : hanjongeng@hotmail.com

<http://www.pillar.co.jp/> e-mail : info@pillar.co.jp

*Specifications and dimensions are subject to change without prior notice.

*The data on this catalogue are solely for your reference and are not to be construed as constituting a warranty.

CAUTION

• Follow the instructions, before installation and operation, for your safety.

NON LOOSEN, NON LEAK, "PILAFLO[®] QUARTZ FITTING" ON MARKET!!



New type "PILAFLO[®] QUARTZ FITTING" improved, will not come off, withstand high temperature, clean, sealing performance and satisfy performance required for Semi-Conductor industries.

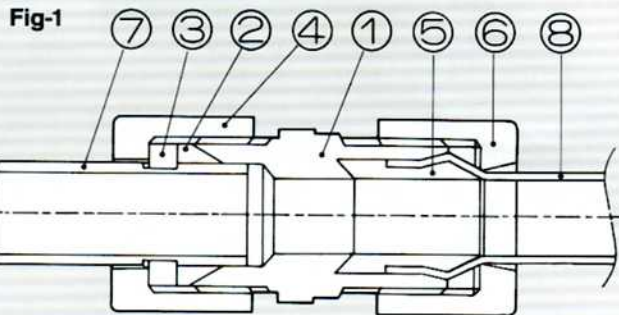
■ Design Feature

MAX OPERATING TEMP	200°C	MAX OPERATING PRESSURE	0.4MPa (4kgf/cm ²)
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TEMPERATURE	°C	0 ~ 60	61 ~ 100	101 ~ 200
PRESSURE	MPa (kgf/cm ²)	0.4 (4)	0.2 (2)	0.1 (1)

Special feature

- **High safety**
For quartz tube side, the stopper is effective to prevent slip out and the ferrule keep high sealing. For PFA tube side, SUPER-FITTING offers high performance.
- **Excellent chemical resistance**
Can be used in fluids of almost any conceivable.
- **Clean**
Liquid pocket is very few, clean piping is available.



No.	PART	MATERIAL	No.	PART	MATERIAL
①	BODY	PTFE	⑤	SLEEVE	PFA
②	FERRULE	PTFE	⑥	UNION NUT	PFA
③	STOPPER RING	PFA	⑦	QUARTZ TUBE	QUARTZ
④	NUT	PFA	⑧	PFA TUBE	PFA

■ Assembling

• Insertion of quartz tube

Composed of PILLAR QUARTZ-FITTING, stopper ring, body, ferrule and nut as shown on Fig 1.

Installation method is

- (1) Run the quartz tube through the nut.
- (2) Put the stopper ring into the groove of quartz tube.
- (3) Insert the ferrule taking care of its correct direction.
- (4) Nut should be hand turned strongly and turned half turn by spanner. (Don't turn over)

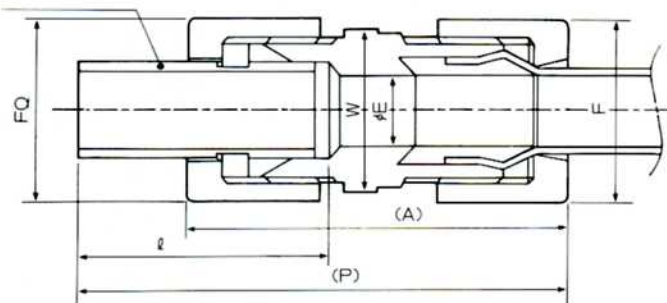
• Insertion of PFA tube

Composed of fitting, sleeve and union nut as shown on Fig 1.

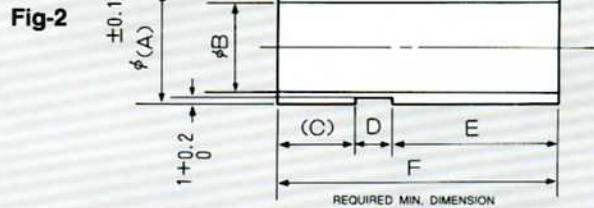
Installation method is

- (1) Run the tube through union nut.
- (2) Insert the sleeve to tube.
- (3) Nut should be hand turned strongly and turned one turn by spanner. (Don't turn over)

Fig-3 Q-RU



PART NO. Q-RU	QUARTZ		PFA TUBE O.D × I.D	(P)	l	WIDTH OF SURFACE DISTANCE		(A)	W	φE
	O.D	I.D				FQ	F			
10-SW3A	10	6	9.53 × 6.33	71.4	33	22	22	56.6	19	8
12-SW4A	12	8	12.7 × 9.5	82.8	39	27	27	64.9	24	10
16-SW4A	16	12	12.7 × 9.5	90.0	45	32	27	69.0	28	10
20-SW6A	20	16	19 × 15.8	100.4	48	38	38	78.4	34	16
25-SW8A	25	20	25.4 × 22.2	125.3	66	50	50	97.3	44	24.6



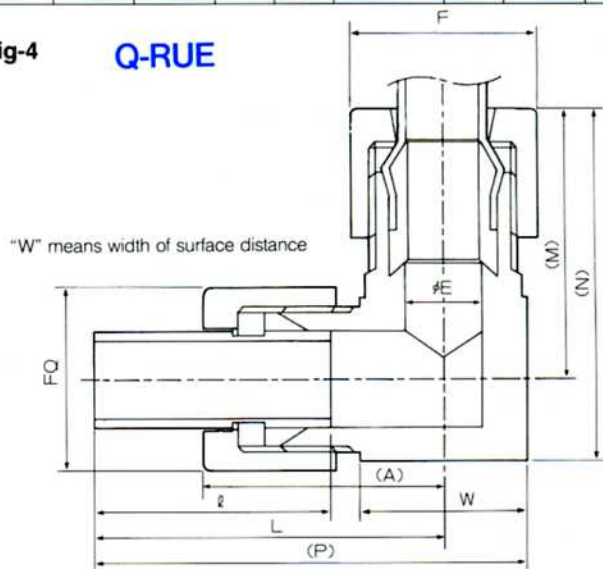
QUARTZ TUBE	±0.1 φA	φB	(C)	D	E	F
φ10 × φ6	10	6	9	4.5	19.5	33
φ12 × φ8	12	8	11	5	23	39
φ16 × φ12	16	12	13	6	26	45
φ20 × φ16	20	16	13.5	6.5	28	48
φ25 × φ20	25	20	23	8	35	66

■ How to order

Q	-	R	U	8	-	S	8	A
TYPE	SHAPE	O.D	SUPPER FITTING	TUBE SIZE	BODY MATERIAL A=PTFE B=PFA			

QUARTZ TUBE O.D × I.D	TOLERANCE	DIMENSION OF GROOVE			PFA TUBE O.D × I.D	THICK- NESS	TOLERANCE	
		DEPTH	WIDTH	LENGTH			O.D	WALL THICKNESS
10 × 6	±0.1	+ 0.2 0	4.5	33	9.53 × 6.33	1.6	±0.12	±0.10
12 × 8			5	39	12.7 × 9.5			
16 × 12			6	45	12.7 × 9.5			
20 × 16			6.5	48	19 × 15.8			
25 × 20			8	66	25.4 × 22.2			

Fig-4 Q-RUE



PART NO. Q-RUE	QUARTZ		PFA TUBE O.D × I.D	(P)	l	WIDTH OF SURFACE DISTANCE		L	(M)	(N)	(A)	W	φE
	O.D	I.D				FQ	F						
10-SW3A	10	6	9.53 × 6.33	58.5	33	22	22	49	35.7	44.7	34.2	19	8
12-SW4A	12	8	12.7 × 9.5	69.8	39	27	27	57.8	42	54	39.9	24	10
16-SW4A	16	12	12.7 × 9.5	77.0	45	32	27	65.0	44	58	44.0	28	10
20-SW6A	20	16	19 × 15.8	87.9	48	38	38	70.9	55.4	71.4	48.9	34	16
25-SW8A	25	20	25.4 × 22.2	114.3	66	50	50	92.3	67	89	64.3	44	24.6

NIPPON PILLAR PACKING CO., LTD.

Head Office: 11-48, Nonakaminami 2 Chome, Yodogawa-ku, Osaka, 532-0022 Japan.
Tel : 81-(0)6-6305-2821 Fax : 81-(0)6-6302-3300

Tokyo Office: 2-2, Uchisaiwaicho 2 Chome, Chiyoda-ku, Tokyo, 100-0011 Japan.
Tel : 81-(0)3-3508-1611 Fax : 81-(0)3-3508-1881

Nippon Pillar Corporation of America: 1562, Parkway Loop, Suite2C, Tustin, CA 92780, USA.
Tel : 1-714-258-7741 Fax : 1-714-258-7760

Nippon Pillar Singapore Pte. Ltd.: 10 Toh Guan Road #09-01 TT International TradePark Singapore 608838
Tel : (65)861-7138 Fax : (65)862-9098

Pillar Taiwan Semiconductor Work Shop: No.15 Lane 42, Ming-Yu 2 Street, Hsin-Chu, Taiwan, R.O.C.
Tel : 886-3-5785715 Fax : 886-3-5785716

Pillar Korea Semiconductor Work Shop: RM. 306, Youcheon Factopia 196, Anyang-Dong, Manan-Ku Anyang-Shi, Kyungki-Do, Korea.
Tel : 0343-467-2610 Fax : 0343-467-2612

Edwards Manufacturing Inc. (EMI) Service Shop: 2441 SE Stubb St. Milwaukie, Oregon 97222, USA.

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CAUTION

• Read through and follow the instructions on the manual before installation and operation for your safety.