



SEMICONDUCTOR GRADE



FLUOROPLASTIC PRODUCTS

CJan Fluid Technology Co., Ltd.

ABOUT PRO-SEMI



Pro-Semi Services Inc. is a professional supplier of fluid technology products. Since its establishment, the company has delivered high-quality fluid technology solutions and customized products to global customers through independent research and development (R&D) and in-house manufacturing. With sustained focus on the biotechnology, pharmaceutical, food, semiconductor, electronic chemicals, new energy, and related industries, Pro-Semi has earned an excellent reputation across these sectors. In the semiconductor industry, we offer a comprehensive range of high-purity fluoroplastic components, including PFA, PTFE, and PVDF fittings, PTFE/FEP/PFA tubing, PFA valves, and other specialized products. We also provide supporting equipment such as PFA pipe expanders and welding machines. Pro-Semi remains committed to closely following global market demands and technological advancements. By continuously investing in R&D, optimizing our products and services, and driving innovation, we actively contribute to the progress of the semiconductor industry.



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1

TUBING

TUBING

PFA Tubing

PS

Applications:

For transfer of high-purity products, chemicals, dairy and cosmetic products. Also suitable for heat exchangers and as protective sleeve for cables. They have excellent heat resistance, viscosity, chemical resistance, electrical insulation, etc.

Construction: Type PS is smooth tube manufactured from PFA material.

Temp. Range: -180° C and 260° C.

Features:

- Chemical resistance and heat resistance
- High transparency and visibility
- Anti adhesion and non adsorption
- High insulation resistance, breakdown and dielectric properties
- Ultra clean, dust-free workshop production, low metal ion precipitation

Certification: SEMI F57



Part No.	OD*ID (inch)	OD*ID (mm)	Wall Thickness (mm)	Standard Length (m/roll)
PS0015800317	1/8*1/16	3.17*1.58	0.8	100
PS0039500635	1/4*5/32	6.35*3.95	1.2	100
PS0043500635	1/4*11/64	6.35*4.35	1.0	100
PS0063500953	3/8*1/4	9.53*6.35	1.59	100
PS0095301270	1/2*3/8	12.70*9.53	1.59	100
PS0158701905	3/4*5/8	19.05*15.87	1.59	100
PS0222202540	1*7/8	25.40*22.22	1.59	100
PS0337303810	1-1/2*1-21/64	38.10*33.73	2.19	-
PS0456405080	2*1-51/64	50.80*45.64	2.58	-
PS0020000400	-	4*2	1.0	100
PS0040000600	-	6*4	1.0	100
PS0060000800	-	8*6	1.0	100
PS0080001000	-	10*8	1.0	100
PS0100001200	-	12*10	1.0	100
PS0140001600	-	16*14	1.0	100

*Other specifications are available upon customer request, while FEP ¥ PTFE materials are also available.

2

TUBE FITTINGS

TUBE FITTINGS

PFA Male Connector

MCA

Features:

it is specially used in high-purity semiconductor industry, and also suitable for ultra pure water or corrosive chemicals. It can maintain good dimensional stability and corrosion resistance between - 40 °C and 200 °C, and has good mechanical characteristics and wear resistance.

Material: PFA

Connection type: flared (sleeve-insert type or compression type is also available)

Maximum operating temperature: 200 °C

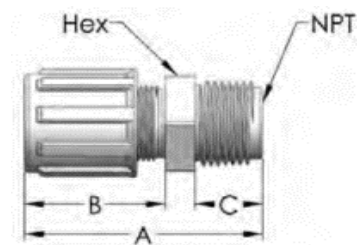
Maximum service pressure: 0.7MPa

Applicable medium: liquid

Certification: SEMI F57

*Nuts are available in PFA and PVDF.

*PVDF is not suitable for applications exceeding 120°C



Part No.	Tube OD (inch)	NPT Thread (inch)	Orifice (mm)	A (mm)	B (mm)	C (mm)	Hex (mm)
MCA04021	1/4"	1/8"	3.81mm	48.51mm	29.46mm	11.43mm	15.88mm
MCA04041	1/4"	1/4"	3.81mm	50.80mm	29.46mm	13.97mm	15.88mm
MCA04061	1/4"	3/8"	3.81mm	50.80mm	29.46mm	13.97mm	17.46mm
MCA04081	1/4"	1/2"	3.81mm	53.85mm	29.46mm	16.76mm	20.64mm
MCA06021	3/8"	1/8"	4.57mm	53.09mm	32.26mm	13.97mm	20.64mm
MCA06041	3/8"	1/4"	6.35mm	53.59mm	32.26mm	13.97mm	20.64mm
MCA06061	3/8"	3/8"	6.35mm	53.59mm	32.26mm	13.97mm	20.64mm
MCA06081	3/8"	1/2"	6.35mm	56.13mm	32.26mm	16.76mm	23.81mm
MCA06121	3/8"	3/4"	6.35mm	56.39mm	32.26mm	16.76mm	30.16mm
MCA06161	3/8"	1"	6.35mm	60.71mm	32.26mm	21.59mm	36.51mm
MCA08041	1/2"	1/4"	7.40mm	55.88mm	34.54mm	13.97mm	23.81mm
MCA08061	1/2"	3/8"	9.65mm	55.88mm	34.54mm	13.97mm	23.81mm
MCA08081	1/2"	1/2"	9.65mm	58.93mm	34.54mm	16.76mm	23.81mm
MCA08121	1/2"	3/4"	9.65mm	58.93mm	34.54mm	16.76mm	30.16mm
MCA08161	1/2"	1"	9.65mm	63.75mm	34.54mm	21.84mm	36.51mm
MCA12061	3/4"	3/8"	9.65mm	60.20mm	38.61mm	14.22mm	23.81mm
MCA12081	3/4"	1/2"	12.95mm	62.99mm	38.61mm	17.02mm	30.16mm
MCA12121	3/4"	3/4"	16.00mm	62.99mm	38.61mm	17.02mm	30.16mm
MCA12161	3/4"	1"	16.00mm	67.56mm	38.61mm	21.59mm	36.51mm
MCA16081	1"	1/2"	12.95mm	68.33mm	43.94mm	17.02mm	36.51mm
MCA16121	1"	3/4"	16.76mm	68.33mm	43.94mm	17.02mm	36.51mm
MCA16161	1"	1"	22.35mm	73.15mm	43.94mm	21.84mm	36.51mm
MCA24241	1-1/2"	1-1/2"	33.70mm	98.00mm	60.70mm	27.00mm	67.60mm

TUBE FITTINGS

PFA Straight Union

SUA

Features:

it is specially used in high-purity semiconductor industry, and also suitable for ultra pure water or corrosive chemicals. It can maintain good dimensional stability and corrosion resistance between - 40 °C and 200 °C, and has good mechanical characteristics and wear resistance.

Material: PFA

Connection type: flared (sleeve-insert type or compression type is also available)

Maximum operating temperature: 200 °C

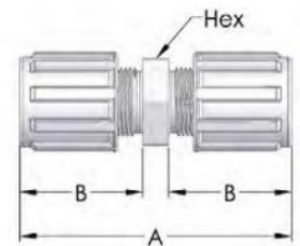
Maximum service pressure: 0.7MPa

Applicable medium: liquid

Certification: SEMI F57

***Nuts are available in PFA and PVDF.**

***PVDF is not suitable for applications exceeding 120°C**



Part No.	Tube OD (inch)	Orifice (mm)	A (mm)	B (mm)	Hex (mm)
SUA041	1/4"	3.81mm	66.55mm	29.46mm	17.46mm
SUA061	3/8"	6.35mm	71.88mm	32.26mm	20.64mm
SUA081	1/2"	9.65mm	76.71mm	34.54mm	23.81mm
SUA121	3/4"	16.00mm	84.33mm	38.61mm	30.16mm
SUA161	1"	22.35mm	94.49mm	43.94mm	36.51mm

TUBE FITTINGS

PFA Straight Union Reducer

SURA

Features:

it is specially used in high-purity semiconductor industry, and also suitable for ultra pure water or corrosive chemicals. It can maintain good dimensional stability and corrosion resistance between - 40 °C and 200 °C, and has good mechanical characteristics and wear resistance.

Material: PFA

Connection type: flared (sleeve-insert type or compression type is also available)

Maximum operating temperature: 200 °C

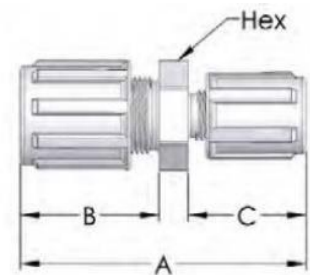
Maximum service pressure: 0.7MPa

Applicable medium: liquid

Certification: SEMI F57

***Nuts are available in PFA and PVDF.**

***PVDF is not suitable for applications exceeding 120°C**



Part No.	Tube OD (inch)	Orifice (mm)	A (mm)	B (mm)	C (mm)	Hex (mm)
SURA06041	3/8"*1/4"	3.81mm	69.09mm	32.26mm	29.46mm	17.46mm
SURA08041	1/2"*1/4"	3.81mm	71.63mm	34.54mm	29.46mm	23.81mm
SURA08061	1/2"*3/8"	6.35mm	74.17mm	34.54mm	32.26mm	23.81mm
SURA12041	3/4"*1/4"	3.81mm	75.18mm	38.61mm	29.46mm	30.16mm
SURA12061	3/4"*3/8"	6.35mm	77.98mm	38.61mm	32.26mm	30.16mm
SURA12081	3/4"*1/2"	9.65mm	80.52mm	38.61mm	34.54mm	30.16mm
SURA16041	1"*1/4"	3.81mm	77.60mm	43.91mm	29.46mm	36.51mm
SURA16081	1"*1/2"	9.65mm	85.85mm	43.91mm	34.54mm	36.51mm
SURA16121	1"*3/4"	16.76mm	89.66mm	43.91mm	34.54mm	36.51mm

TUBE FITTINGS

PFA 90 Degree Male Elbow

MEA

Features:

it is specially used in high-purity semiconductor industry, and also suitable for ultra pure water or corrosive chemicals. It can maintain good dimensional stability and corrosion resistance between - 40 °C and 200 °C, and has good mechanical characteristics and wear resistance.

Material: PFA

Connection type: flared (sleeve-insert type or compression type is also available)

Maximum operating temperature: 200 °C

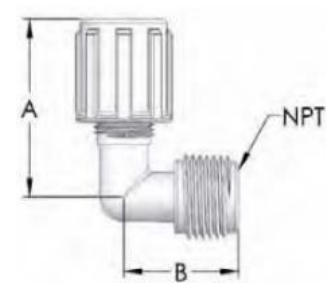
Maximum service pressure: 0.7MPa

Applicable medium: liquid

Certification: SEMI F57

*Nuts are available in PFA and PVDF.

*PVDF is not suitable for applications exceeding 120°C



Part No.	Tube OD (inch)	NPT Thread (inch)	Orifice (mm)	A (mm)	B (mm)
MEA04021	1/4"	1/8"	3.81	42.16	26.92
MEA04041	1/4"	1/4"	3.81	42.16	26.92
MEA04061	1/4"	3/8"	3.81	42.16	28.50
MEA04081	1/4"	1/2"	3.81	42.16	29.70
MEA06021	3/8"	1/8"	4.57	44.70	26.90
MEA06041	3/8"	1/4"	6.35	44.70	26.90
MEA06061	3/8"	3/8"	6.35	44.70	28.50
MEA06081	3/8"	1/2"	6.35	44.70	29.70
MEA08041	1/2"	1/4"	7.40	47.24	26.92
MEA08061	1/2"	3/8"	9.65	47.24	28.50
MEA08081	1/2"	1/2"	9.65	47.24	29.70
MEA08121	1/2"	3/4"	12.45	47.24	34.55
MEA12061	3/4"	3/8"	9.14	56.13	31.20
MEA12081	3/4"	1/2"	13.46	56.13	35.55
MEA12121	3/4"	3/4"	16.00	56.13	34.80
MEA12161	3/4"	1"	16.00	56.13	45.70
MEA16081	1"	1/2"	12.95	68.60	34.80
MEA16121	1"	3/4"	16.76	68.60	41.65
MEA16161	1"	1"	22.10	68.60	45.70

TUBE FITTINGS

PFA 90 Degree Union Elbow

UEA

Features:

it is specially used in high-purity semiconductor industry, and also suitable for ultra pure water or corrosive chemicals. It can maintain good dimensional stability and corrosion resistance between - 40 °C and 200 °C, and has good mechanical characteristics and wear resistance.

Material: PFA

Connection type: flared (sleeve-insert type or compression type is also available)

Maximum operating temperature: 200 °C

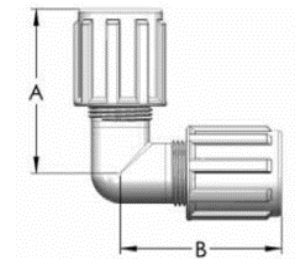
Maximum service pressure: 0.7MPa

Applicable medium: liquid

Certification: SEMI F57

***Nuts are available in PFA and PVDF.**

***PVDF is not suitable for applications exceeding 120°C**



Part No.	Tube OD (inch)	Orifice (mm)	A (mm)	B (mm)
UEA041	1/4"	3.81mm	42.16mm	42.16mm
UEA061	3/8"	6.35mm	44.70mm	44.70mm
UEA081	1/2"*	9.65mm	47.50mm	47.50mm
UEA121	3/4"	16.00mm	56.39mm	56.39mm
UEA161	1"	22.10mm	68.58mm	68.58mm

TUBE FITTINGS

PFA Union Elbow Reducer

UERA

Features:

it is specially used in high-purity semiconductor industry, and also suitable for ultra pure water or corrosive chemicals. It can maintain good dimensional stability and corrosion resistance between - 40 °C and 200 °C, and has good mechanical characteristics and wear resistance.

Material: PFA

Connection type: flared (sleeve-insert type or compression type is also available)

Maximum operating temperature: 200 °C

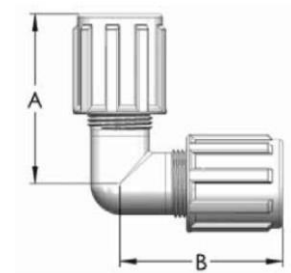
Maximum service pressure: 0.7MPa

Applicable medium: liquid

Certification: SEMI F57

*Nuts are available in PFA and PVDF.

*PVDF is not suitable for applications exceeding 120°C



Part No.	Tube OD (inch)	Orifice (mm)	A (mm)	B (mm)
UERA06041	3/8" 1/4"	3.81mm	44.70mm	42.16mm
UERA08041	1/4"*1/2"	3.81mm	47.50mm	42.16mm
UERA08061	1/2" 3/8"	6.35mm	44.70mm	47.50mm
UERA12041	3/4" 1/4"	3.81mm	56.39mm	42.16mm
UERA12061	3/4" 3/8"	6.35mm	56.39mm	44.70mm
UERA12081	3/4" 1/2"	9.65mm	56.39mm	47.50mm
UERA16081	1"*1/2"	9.65mm	68.58mm	47.50mm
UERA16121	1"*3/4"	16.00mm	68.58mm	56.39mm

TUBE FITTINGS

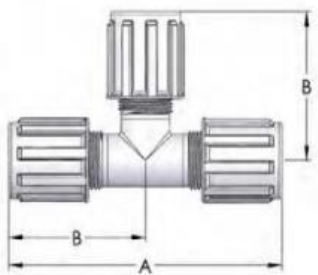
PFA Union Tee

UTA

Features:
it is specially used in high-purity semiconductor industry, and also suitable for ultra pure water or corrosive chemicals. It can maintain good dimensional stability and corrosion resistance between - 40 °C and 200 °C, and has good mechanical characteristics and wear resistance.

Material: PFA
Connection type: flared (sleeve-insert type or compression type is also available)
Maximum operating temperature: 200 °C
Maximum service pressure: 0.7MPa
Applicable medium: liquid
Certification: SEMI F57

*Nuts are available in PFA and PVDF.
*PVDF is not suitable for applications exceeding 120°C



Part No.	Tube OD (inch)	Orifice (mm)	A (mm)	B (mm)
UTA041	1/4"	3.81mm	84.33mm	42.16mm
UTA061	3/8"	6.35mm	89.41mm	44.70mm
UTA081	1/2"	9.65mm	95.00mm	47.50mm
UTA121	3/4"	16.00mm	112.78mm	56.39mm
UTA161	1"	22.35mm	137.16mm	68.58mm

TUBE FITTINGS

PFA Male Branch Tee

MBTA

Features:

it is specially used in high-purity semiconductor industry, and also suitable for ultra pure water or corrosive chemicals. It can maintain good dimensional stability and corrosion resistance between - 40 °C and 200 °C, and has good mechanical characteristics and wear resistance.

Material: PFA

Connection type: flared (sleeve-insert type or compression type is also available)

Maximum operating temperature: 200 °C

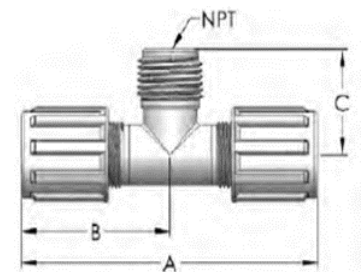
Maximum service pressure: 0.7MPa

Applicable medium: liquid

Certification: SEMI F57

***Nuts are available in PFA and PVDF.**

***PVDF is not suitable for applications exceeding 120°C**



Part No.	Tube OD1 (inch)	Tube OD2 (inch)	NPT Thread (inch)	Orifice (mm)	A (mm)	B (mm)	C (mm)
MBTA0404021	1/4"	1/4"	1/8"	3.81mm	84.33mm	42.16mm	27.18mm
MBTA0404041	1/4"	1/4"	1/4"	3.81mm	84.33mm	42.16mm	27.18mm
MBTA0606021	3/8"	3/8"	1/8"	6.35mm	89.41mm	44.70mm	27.18mm
MBTA0606041	3/8"	3/8"	1/4"	6.35mm	89.41mm	44.70mm	27.18mm
MBTA0606061	3/8"	3/8"	3/8"	6.35mm	89.41mm	44.70mm	27.18mm
MBTA0606081	3/8"	3/8"	1/2"	6.35mm	89.41mm	44.70mm	29.72mm
MBTA0808041	1/2"	1/2"	1/4"	6.35mm	95.00mm	47.50mm	27.18mm
MBTA0808061	1/2"	1/2"	3/8"	9.65mm	95.00mm	47.50mm	27.43mm
MBTA0808081	1/2"	1/2"	1/2"	9.65mm	95.00mm	47.50mm	29.72mm
MBTA0808121	1/2"	1/2"	3/4"	9.65mm	95.00mm	47.50mm	34.29mm
MBTA1212081	3/4"	3/4"	1/2"	12.95mm	112.78mm	56.39mm	34.29mm
MBTA1212121	3/4"	3/4"	3/4"	16.00mm	112.78mm	56.39mm	34.29mm
MBTA1616081	1"	1"	1/2"	12.95mm	137.16mm	68.58mm	41.40mm
MBTA1616121	1"	1"	3/4"	17.53mm	137.16mm	68.58mm	41.40mm
MBTA1616161	1"	1"	1"	22.35mm	137.16mm	68.58mm	45.97mm

TUBE FITTINGS

PFA Male Run Tee

MRTA

Features:

it is specially used in high-purity semiconductor industry, and also suitable for ultra pure water or corrosive chemicals. It can maintain good dimensional stability and corrosion resistance between - 40 °C and 200 °C, and has good mechanical characteristics and wear resistance.

Material: PFA

Connection type: flared (sleeve-insert type or compression type is also available)

Maximum operating temperature: 200 °C

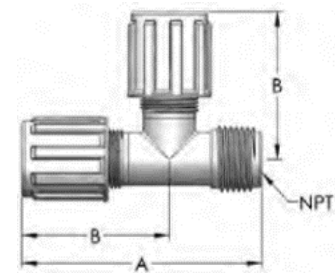
Maximum service pressure: 0.7MPa

Applicable medium: liquid

Certification: SEMI F57

***Nuts are available in PFA and PVDF.**

***PVDF is not suitable for applications exceeding 120°C**



Part No.	Tube OD1 (inch)	Tube OD2 (inch)	NPT Thread (inch)	Orifice (mm)	A (mm)	B (mm)
MRTA0404021	1/4"	1/4"	1/8"	3.81mm	69.09mm	42.67mm
MRTA0404041	1/4"	1/4"	1/4"	3.81mm	69.09mm	42.67mm
MRTA0404061	1/4"	1/4"	3/8"	3.81mm	69.09mm	42.67mm
MRTA0606021	3/8"	3/8"	1/8"	4.32mm	71.88mm	44.70mm
MRTA0606041	3/8"	3/8"	1/4"	6.35mm	71.88mm	44.70mm
MRTA0606061	3/8"	3/8"	3/8"	6.35mm	71.88mm	44.70mm
MRTA0606081	3/8"	3/8"	1/2"	6.35mm	71.88mm	44.70mm
MRTA0808061	1/2"	1/2"	3/8"	9.65mm	75.18mm	47.50mm
MRTA0808081	1/2"	1/2"	1/2"	9.65mm	77.22mm	47.50mm
MRTA1212061	3/4"	3/4"	3/8"	9.65mm	87.63mm	56.39mm
MRTA1212081	3/4"	3/4"	1/2"	12.45mm	90.42mm	56.39mm
MRTA1212121	3/4"	3/4"	3/4"	16.00mm	91.19mm	56.39mm
MRTA1616121	1"	1"	3/4"	16.00mm	110.24mm	68.58mm
MRTA1616161	1"	1"	1"	22.35mm	114.30mm	68.58mm

TUBE FITTINGS

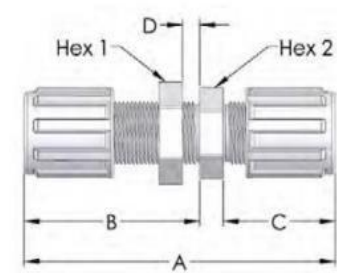
PFA Straight Union Panel Mount

SUPA

Features:
it is specially used in high-purity semiconductor industry, and also suitable for ultra pure water or corrosive chemicals. It can maintain good dimensional stability and corrosion resistance between - 40 °C and 200 °C, and has good mechanical characteristics and wear resistance.

Material: PFA
Connection type: flared (sleeve-insert type or compression type is also available)
Maximum operating temperature: 200 °C
Maximum service pressure: 0.7MPa
Applicable medium: liquid
Certification: SEMI F57

*Nuts are available in PFA and PVDF.
*PVDF is not suitable for applications exceeding 120°C



Part No.	Tube OD (inch)	Orifice (mm)	Hole Size (mm)	A (mm)	B (mm)	C (mm)	D (Max) (mm)
SUPA041	1/4"	3.81mm	13mm	86.36mm	49.28mm	29.46mm	12.70mm
SUPA061	3/8"	6.35mm	17mm	90.93mm	51.31mm	32.26mm	12.70mm
SUPA081	1/2"*	9.65mm	20mm	96.52mm	56.90mm	34.54mm	12.70mm
SUPA121	3/4"	16.00mm	26mm	104.39mm	58.42mm	38.61mm	12.70mm
SUPA161	1"	22.35mm	38mm	115.06mm	64.01mm	43.94mm	12.70mm

TUBE FITTINGS

PFA Straight Union (Space Saving)

SUSA

Features:

it is specially used in high-purity semiconductor industry, and also suitable for ultra pure water or corrosive chemicals. It can maintain good dimensional stability and corrosion resistance between - 40 °C and 200 °C, and has good mechanical characteristics and wear resistance.

Material: PFA

Connection type: flared (sleeve-insert type or compression type is also available)

Maximum operating temperature: 200 °C

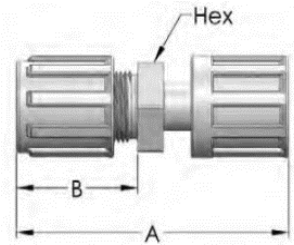
Maximum service pressure: 0.7MPa

Applicable medium: liquid

Certification: SEMI F57

*Nuts are available in PFA and PVDF.

*PVDF is not suitable for applications exceeding 120°C



Part No.	Tube OD (inch)	Orifice (mm)	A (mm)	B (mm)
SUSA04S1	1/4"	3.81mm	70.10mm	29.46mm
SUSA06S1	3/8"	6.35mm	74.42mm	32.26mm
SUSA08S1	1/2"*	9.65mm	77.98mm	34.54mm
SUSA12S1	3/4"	16.00mm	86.61mm	38.61mm
SUSA16S1	1"	22.35mm	102.62mm	43.94mm

TUBE FITTINGS

PFA Union Elbow (Space Saving)

UESA

Features:

it is specially used in high-purity semiconductor industry, and also suitable for ultra pure water or corrosive chemicals. It can maintain good dimensional stability and corrosion resistance between - 40 °C and 200 °C, and has good mechanical characteristics and wear resistance.

Material: PFA

Connection type: flared (sleeve-insert type or compression type is also available)

Maximum operating temperature: 200 °C

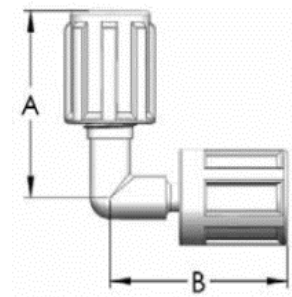
Maximum service pressure: 0.7MPa

Applicable medium: liquid

Certification: SEMI F57

*Nuts are available in PFA and PVDF.

*PVDF is not suitable for applications exceeding 120°C



Part No.	Tube OD (inch)	Orifice (mm)	A (mm)	B (mm)
UESA0404S1	1/4"	3.81mm	41.91mm	41.00mm
UESA0406S1	1/4"*3/8"S	3.81mm	41.91mm	42.30mm
UESA0408S1	1/4"*1/2"S	3.81mm	41.91mm	43.50mm
UESA0604S1	3/8"*1/4"S	3.81mm	44.70mm	41.00mm
UESA0606S1	3/8"	6.35mm	44.70mm	42.30mm
UESA0608S1	3/8"*1/2"S	6.35mm	44.70mm	43.50mm
UESA0612S1	3/8"*3/4"S	6.35mm	44.70mm	57.00mm
UESA0804S1	1/2"*1/4"S	9.65mm	47.50mm	41.00mm
UESA0806S1	1/2"*3/8"S	9.65mm	47.50mm	42.30mm
UESA0808S1	1/2"	9.65mm	47.50mm	43.50mm
UESA0812S1	1/2"*3/4"S	9.65mm	47.50mm	57.00mm
UESA0816S1	1/2"*1"S	9.65mm	47.50mm	69.50mm
UESA1206S1	3/4"*3/8"S	16.00mm	56.39mm	42.30mm
UESA1208S1	3/4"*1/2"S	16.00mm	56.39mm	43.50mm
UESA1212S1	3/4"	16.00mm	56.39mm	57.00mm
UESA1216S1	3/4"*1"S	16.00mm	56.39mm	69.50mm
UESA1612S1	1"*3/4"S	22.35mm	68.58mm	57.00mm
UESA1616S1	1"	22.35mm	68.58mm	69.50mm
UESA2020S1	1-1/4"	27.94mm	75.18	78.70mm

TUBE FITTINGS

PFA Union Tee Reducer

UTRA

Features:

it is specially used in high-purity semiconductor industry, and also suitable for ultra pure water or corrosive chemicals. It can maintain good dimensional stability and corrosion resistance between - 40 °C and 200 °C, and has good mechanical characteristics and wear resistance.

Material: PFA

Connection type: flared (sleeve-insert type or compression type is also available)

Maximum operating temperature: 200 °C

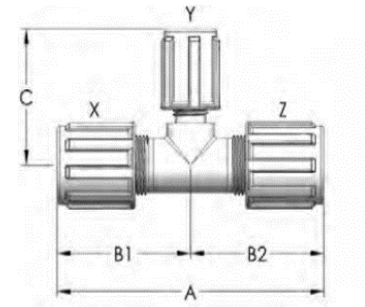
Maximum service pressure: 0.7MPa

Applicable medium: liquid

Certification: SEMI F57

***Nuts are available in PFA and PVDF.**

***PVDF is not suitable for applications exceeding 120°C**



Part No.	Tube OD X*Y*Z (inch)	Orifice (mm)	A (mm)	B1 (mm)	B2 (mm)	C (mm)
UTRA0604041	3/8"*1/4"*1/4"	3.81mm	86.87mm	44.70mm	42.16mm	42.16mm
UTRA0604061	3/8"*1/4"*3/8"	3.81mm	89.41mm	44.70mm	44.70mm	42.16mm
UTRA0606041	3/8"*3/8"*1/4"	3.81mm	86.87mm	44.70mm	42.16mm	44.70mm
UTRA0804041	1/2"*1/4"*1/4"	3.81mm	89.66mm	47.50mm	42.16mm	42.16mm
UTRA0804061	1/2"*1/4"*3/8"	3.81mm	92.20mm	47.50mm	44.70mm	42.16mm
UTRA0804081	1/2"*1/4"*1/2"	3.81mm	95.00mm	47.50mm	47.50mm	42.16mm
UTRA0806061	1/2"*3/8"*3/8"	6.35mm	92.20mm	47.50mm	44.70mm	44.70mm
UTRA0806081	1/2"*3/8"*1/2"	6.35mm	95.00mm	47.50mm	47.50mm	44.70mm
UTRA0808041	1/2"*1/2"*1/4"	3.81mm	89.66mm	47.50mm	42.16mm	47.50mm
UTRA0808061	1/2"*1/2"*3/8"	9.65mm	92.20mm	47.50mm	44.70mm	47.50mm
UTRA1204121	3/4"*1/4"*3/4"	3.81mm	112.78mm	56.39mm	56.39mm	42.16mm
UTRA1206121	3/4"*3/8"*3/4"	6.35mm	112.78mm	56.39mm	56.39mm	44.70mm
UTRA1208081	3/4"*1/2"*1/2"	9.65mm	103.89mm	56.39mm	47.50mm	47.50mm
UTRA1208121	3/4"*1/2"*3/4"	9.65mm	112.78mm	56.39mm	56.39mm	47.50mm
UTRA1212061	3/4"*3/4"*3/8"	6.35mm	101.09mm	56.39mm	44.70mm	56.39mm
UTRA1212081	3/4"*3/4"*1/2"	9.65mm	103.89mm	56.39mm	47.50mm	56.39mm
UTRA1604161	1"*1/4"*1"	3.81mm	137.16mm	68.58mm	68.58mm	51.31mm
UTRA1606161	1"*3/8"*1"	6.35mm	137.16mm	68.58mm	68.58mm	54.40mm
UTRA1608161	1"*1/2"*1"	9.65mm	137.16mm	68.58mm	68.58mm	57.40mm
UTRA1612161	1"*3/4"*1"	16.00mm	137.16mm	68.58mm	68.58mm	56.39mm
UTRA1612121	1"*3/4"*3/4"	16.00mm	124.97mm	68.58mm	56.39mm	56.39mm
UTRA1616081	1"*1"*1/2"	9.65mm	124.97mm	68.58mm	56.39mm	68.58mm
UTRA1616121	1"*1"*3/4"	16.00mm	124.97mm	68.58mm	56.39mm	68.58mm

TUBE FITTINGS

PFA Branch Tee (Space saving in the middle)

BTSA

Features:

it is specially used in high-purity semiconductor industry, and also suitable for ultra pure water or corrosive chemicals. It can maintain good dimensional stability and corrosion resistance between - 40 °C and 200 °C, and has good mechanical characteristics and wear resistance.

Material: PFA

Connection type: flared (sleeve-insert type or compression type is also available)

Maximum operating temperature: 200 °C

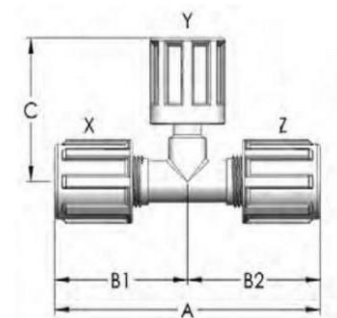
Maximum service pressure: 0.7MPa

Applicable medium: liquid

Certification: SEMI F57

***Nuts are available in PFA and PVDF.**

***PVDF is not suitable for applications exceeding 120°C**



Part No.	X (inch)	Y (Space Saving) (inch)	Z (inch)	Orifice (mm)	A (mm)	B1 (mm)	B2 (mm)	C (mm)
BTSA0404S041	1/4"	1/4"	1/4"	3.81mm	84.33mm	42.16mm	42.16mm	41.66mm
BTSA0406S041	1/4"	3/8"	1/4"	3.81mm	84.33mm	42.16mm	42.16mm	43.94mm
BTSA0604S061	3/8"	1/4"	3/8"	3.81mm	89.41mm	44.70mm	44.70mm	41.66mm
BTSA0606S061	3/8"	3/8"	3/8"	6.35mm	89.41mm	44.70mm	44.70mm	41.66mm
BTSA0608S061	3/8"	1/2"	3/8"	6.35mm	89.41mm	44.70mm	47.50mm	46.74mm
BTSA0804S081	1/2"	1/4"	1/2"	3.81mm	95.00mm	47.50mm	47.50mm	41.66mm
BTSA0808S041	1/2"	1/2"	1/4"	3.81mm	89.66mm	47.50mm	42.16mm	46.74mm
BTSA0808S061	1/2"	1/2"	3/8"	6.35mm	92.20mm	47.50mm	44.70mm	46.74mm
BTSA0808S081	1/2"	1/2"	1/2"	9.65mm	95.00mm	47.50mm	47.50mm	46.74mm
BTSA0812S081	1/2"	3/4"	1/2"	9.65mm	95.00mm	47.50mm	47.50mm	54.10mm
BTSA1204S121	3/4"	1/4"	3/4"	3.81mm	112.78mm	56.39mm	56.39mm	41.66mm
BTSA1206S121	3/4"	3/8"	3/4"	6.35mm	112.78mm	56.39mm	56.39mm	43.94mm
BTSA1208S081	3/4"	1/2"	1/2"	9.65mm	103.89mm	56.39mm	47.50mm	46.74mm
BTSA1208S121	3/4"	1/2"	3/4"	9.65mm	112.78mm	56.39mm	56.39mm	50.04mm
BTSA1212S121	3/4"	3/4"	3/4"	16.00mm	112.78mm	56.39mm	56.39mm	54.10mm
BTSA1216S121	3/4"	1"	3/4"	16.00mm	112.78mm	56.39mm	56.39mm	69.60mm
BTSA1608S161	1"	1/2"	1"	9.65mm	137.16mm	68.58mm	68.58mm	53.09mm
BTSA1612S161	1"	3/4"	1"	16.00mm	137.16mm	68.58mm	68.58mm	56.64mm
BTSA1616S161	1"	1"	1"	22.35mm	137.16mm	68.58mm	68.58mm	69.60mm

TUBE FITTINGS

PFA Run Tee (Space saving at both ends)

RTS2A

Features:

it is specially used in high-purity semiconductor industry, and also suitable for ultra pure water or corrosive chemicals. It can maintain good dimensional stability and corrosion resistance between - 40 °C and 200 °C, and has good mechanical characteristics and wear resistance.

Material: PFA

Connection type: flared (sleeve-insert type or compression type is also available)

Maximum operating temperature: 200 °C

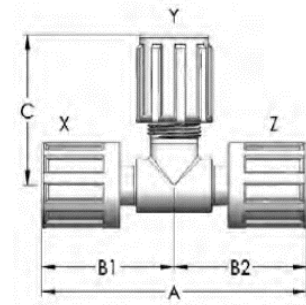
Maximum service pressure: 0.7MPa

Applicable medium: liquid

Certification: SEMI F57

***Nuts are available in PFA and PVDF.**

***PVDF is not suitable for applications exceeding 120°C**



Part No.	X (Space Saving) (inch)	Y (inch)	Z (Space Saving) (inch)	Orifice (mm)	A (mm)	B1 (mm)	B2 (mm)	C (mm)
RTS2A04S0404S1	1/4"	1/4"	1/4"	3.81mm	83.31mm	41.66mm	41.66mm	42.16mm
RTS2A06S0406S1	3/8"	1/4"	3/8"	3.81mm	87.88mm	43.94mm	43.94mm	42.16mm
RTS2A06S0606S1	3/8"	3/8"	3/8"	6.35mm	87.88mm	43.94mm	43.94mm	44.70mm
RTS2A06S0806S1	3/8"	1/2"	3/8"	6.35mm	87.88mm	43.94mm	43.94mm	47.50mm
RTS2A08S0408S1	1/2"	1/4"	1/2"	3.81mm	93.47mm	46.74mm	46.74mm	42.16mm
RTS2A08S0808S1	1/2"	1/2"	1/2"	9.65mm	93.47mm	46.74mm	46.74mm	47.50mm
RTS2A08S1208S1	1/2"	3/4"	1/2"	9.65mm	93.47mm	46.74mm	46.74mm	56.39mm
RTS2A12S0412S1	3/4"	1/4"	3/4"	3.81mm	108.20mm	54.10mm	54.10mm	42.16mm
RTS2A12S0612S1	3/4"	3/8"	3/4"	6.35mm	108.20mm	54.10mm	54.10mm	44.70mm
RTS2A12S0812S1	3/4"	1/2"	3/4"	9.65mm	108.20mm	54.10mm	54.10mm	47.50mm
RTS2A12S1212S1	3/4"	3/4"	3/4"	16.00mm	108.20mm	54.10mm	54.10mm	68.58mm
RTS2A16S0616S1	1"	3/8"	1"	6.35mm	139.19mm	69.60mm	69.60mm	54.10mm
RTS2A16S0816S1	1"	1/2"	1"	9.65mm	139.19mm	69.60mm	69.60mm	57.40mm
RTS2A16S1216S1	1"	3/4"	1"	16.00mm	139.19mm	69.60mm	69.60mm	56.13mm
RTS2A16S1616S1	1"	1"	1"	22.35mm	139.19mm	69.60mm	69.60mm	68.58mm

TUBE FITTINGS

PFA Run Tee (Space saving at one end)

RTS1A

Features:

it is specially used in high-purity semiconductor industry, and also suitable for ultra pure water or corrosive chemicals. It can maintain good dimensional stability and corrosion resistance between - 40 °C and 200 °C, and has good mechanical characteristics and wear resistance.

Material: PFA

Connection type: flared (sleeve-insert type or compression type is also available)

Maximum operating temperature: 200 °C

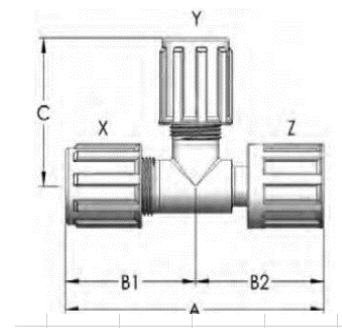
Maximum service pressure: 0.7MPa

Applicable medium: liquid

Certification: SEMI F57

***Nuts are available in PFA and PVDF.**

***PVDF is not suitable for applications exceeding 120°C**



Part No.	X (inch)	Y (inch)	Z (Space Saving) (inch)	Orifice (mm)	A (mm)	B1 (mm)	B2 (mm)	C (mm)
RTS1A040404S1	1/4"	1/4"	1/4"	3.81mm	83.82mm	42.16mm	41.66mm	42.16mm
RTS1A040808S1	1/4"	1/2"	1/2"	3.81mm	88.90mm	42.16mm	46.74mm	47.50mm
RTS1A060406S1	3/8"	1/4"	3/8"	3.81mm	88.65mm	44.70mm	43.94mm	42.16mm
RTS1A060606S1	3/8"	3/8"	3/8"	6.35mm	88.65mm	44.70mm	43.94mm	44.70mm
RTS1A060608S1	3/8"	3/8"	1/2"	6.35mm	91.44mm	44.70mm	46.74mm	44.70mm
RTS1A060808S1	3/8"	1/2"	1/2"	6.35mm	91.44mm	44.70mm	46.74mm	47.50mm
RTS1A061212S1	3/8"	3/4"	3/4"	6.35mm	98.81mm	44.70mm	54.10mm	56.39mm
RTS1A080408S1	1/2"	1/4"	1/2"	3.81mm	94.23mm	47.50mm	46.74mm	42.16mm
RTS1A080606S1	1/2"	3/8"	3/8"	6.35mm	91.44mm	47.50mm	43.94mm	44.70mm
RTS1A080608S1	1/2"	3/8"	1/2"	6.35mm	94.23mm	47.50mm	46.74mm	44.70mm
RTS1A080806S1	1/2"	1/2"	3/8"	6.35mm	91.44mm	47.50mm	43.94mm	47.50mm
RTS1A080808S1	1/2"	1/2"	1/2"	9.65mm	94.23mm	47.50mm	43.94mm	47.50mm
RTS1A080812S1	1/2"	1/2"	3/4"	9.65mm	101.60mm	47.50mm	54.10mm	47.50mm
RTS1A120412S1	3/4"	1/4"	3/4"	3.81mm	110.49mm	56.39mm	54.10mm	42.16mm
RTS1A120612S1	3/4"	3/8"	3/4"	6.35mm	110.49mm	56.39mm	54.10mm	44.70mm
RTS1A120812S1	3/4"	1/2"	3/4"	9.65mm	110.49mm	56.39mm	54.10mm	47.50mm
RTS1A121208S1	3/4"	3/4"	1/2"	9.65mm	103.12mm	56.39mm	46.74mm	56.39mm
RTS1A121212S1	3/4"	3/4"	3/4"	16.00mm	110.49mm	56.39mm	54.10mm	56.39mm
RTS1A160416S1	1"	1/4"	1"	16.00mm	138.18mm	68.58mm	69.60mm	51.31mm
RTS1A160616S1	1"	3/8"	1"	6.35mm	138.18mm	68.58mm	69.60mm	54.10mm
RTS1A160816S1	1"	1/2"	1"	9.65mm	138.18mm	68.58mm	69.60mm	57.40mm
RTS1A161216S1	1"	3/4"	1"	16.00mm	138.18mm	68.58mm	69.60mm	56.39mm
RTS1A161612S1	1"	1"	3/4"	16.00mm	125.48mm	68.58mm	69.60mm	68.58mm
RTS1A161616S1	1"	1"	1"	22.35mm	138.18mm	68.58mm	69.60mm	68.58mm

TUBE FITTINGS

PFA Union Flange Adaptor

UFAA

Features:

it is specially used in high-purity semiconductor industry, and also suitable for ultra pure water or corrosive chemicals. It can maintain good dimensional stability and corrosion resistance between - 40 °C and 200 °C, and has good mechanical characteristics and wear resistance.

Material: PFA or PTFE

Connection type: flared (sleeve-insert type or compression type is also available)

Maximum operating temperature: 200 °C

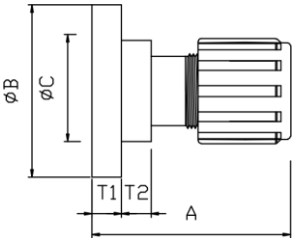
Maximum service pressure: 0.7MPa

Applicable medium: liquid

Certification: SEMI F57

***Nuts are available in PFA and PVDF.**

***PVDF is not suitable for applications exceeding 120°C**



Part No.	Tube OD (inch)	A (mm)	B (mm)	C (mm)	T1 (mm)	T2 (mm)
UFAA0815	1/2"	65	45	29	6	14
UFAA1220	3/4"	70	54	37	7	13
UFAA1625	1"	76	63	49	8	12
UFAA2032	1-1/4"	90	70	56	8	11
UFAA2440	1-1/2"	96	85	65	10	10
UFAA2450	1-1/2"	96	90	65	10	10

3

WELD TYPE FITTINGS

WELD TYPE FITTINGS

PFA Weld Fittings

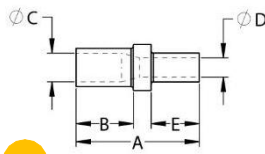
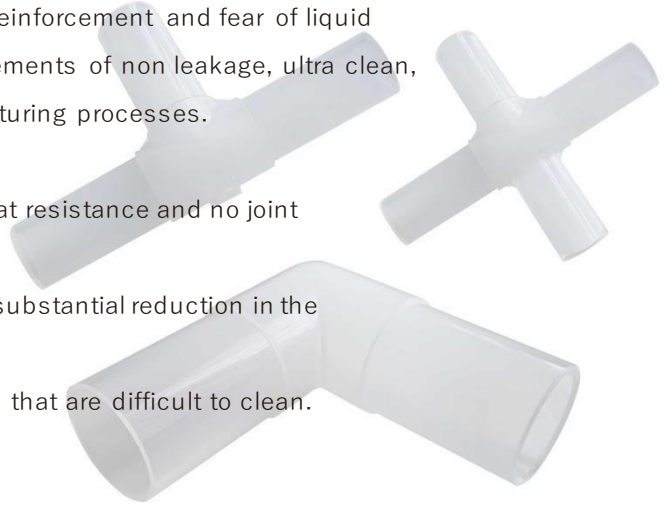
PFA weld type fittings, which are connected by weld side to end surface of the tube by hot melt to achieve complete sealing without additional reinforcement and fear of liquid leakage, is very suitable for the high standard requirements of non leakage, ultra clean, and high space utilization in semiconductor manufacturing processes.

Features:

1. The oneness of welding, which guarantees high heat resistance and no joint relaxations and leakage occur due to thermal cycling.
2. Lighter and more compact in shape, allowing for a substantial reduction in the assembly space.
3. Weld sites are smoother connected, reducing areas that are difficult to clean.

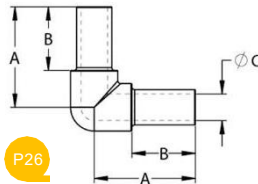
Temperature range: - 60 ° C to 200 ° C

Certification: SEMI F57



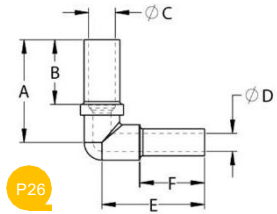
P26

PFA Weld Straight Reducer - WSRA



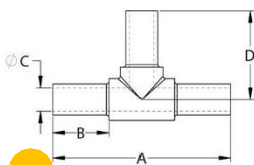
P26

PFA Weld Elbow Reducer - WEA



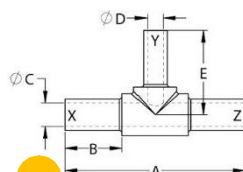
P26

PFA Weld Elbow Reducer - WERA



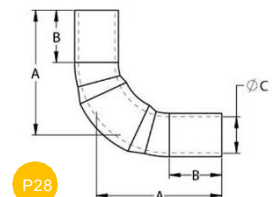
P27

PFA Weld Tee - WTA



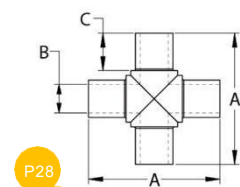
P27

PFA Weld Tee Reducer - WTRA



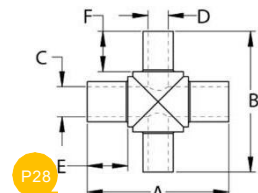
P28

PFA Weld Arc Elbow - WARCA



P28

PFA Weld Cross - WCA



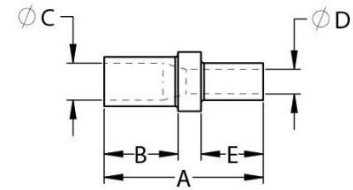
P28

PFA Weld Cross Reducer - WCRA

WELD TYPE FITTINGS

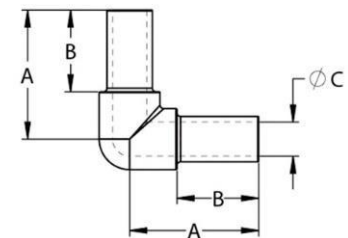
PFA Weld Straight Reducer - WSRA

Part No.	Tube OD (inch)	A (mm)	B (mm)	C (mm)	D (mm)	E (mm)
WSRA0604	3/8"*1/4"	73.7	24.9	6.4	4.1	24.9
WSRA0804	1/2"*1/4"	73.7	24.9	6.4	4.1	24.9
WSRA0806	1/2"*3/8"	73.7	24.9	9.7	6.4	24.9
WSRA1204	3/4"*1/4"	83.3	29.5	15.7	4.1	25.4
WSRA1206	3/4"*3/8"	83.3	29.5	15.7	6.4	25.4
WSRA1208	3/4"*1/2"	83.3	29.5	15.7	9.4	25.4
WSRA1604	1"*1/4"	92.2	37.3	22.4	4.1	24.6
WSRA1606	1"*3/8"	92.2	37.3	22.4	6.6	24.6
WSRA1608	1"*1/2"	92.2	37.3	22.4	9.4	24.6
WSRA1612	1"*3/4"	98.6	37.3	22.4	16.0	31.0
WSRA2016	1-1/4"*1"	98.6	34.3	28.4	21.8	25.9
WSRA2416	1-1/2"*1"	98.6	34.3	34.3	21.3	25.9
WSRA2420	1-1/2"*1-1/4"	98.6	34.3	34.3	27.7	25.9



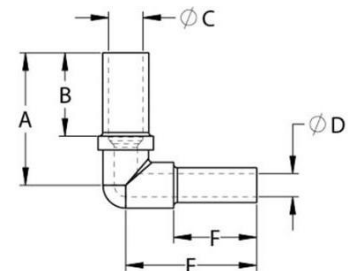
PFA Weld Elbow - WEA

Part No.	Tube OD (inch)	A (mm)	B (mm)	C (mm)
WEA04	1/4"	25.7	19.1	4.1
WEA06	3/8"	35.3	25.4	6.6
WEA08	1/2"	42.7	29.5	9.9
WEA12	3/4"	47.5	30.0	16.3
WEA16	1"	58.7	34.5	22.9
WEA20	1-1/4"	68.3	38.1	27.9
WEA24	1-1/2"	74.4	38.1	33.8



PFA Weld Elbow Reducer - WERA

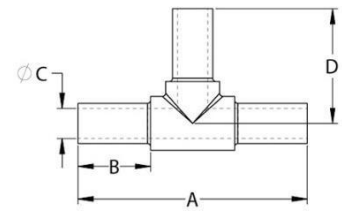
Part No.	Tube OD (inch)	A (mm)	B (mm)	C (mm)	D (mm)	E (mm)	F (mm)
WERA0604	3/8"*1/4"	34.5	25.4	7.1	4.1	25.7	19.1
WERA0804	1/2"*1/4"	42.7	29.5	9.9	4.1	33.8	20.6
WERA0806	1/2"*3/8"	42.7	29.5	9.9	6.6	36.1	22.9
WERA1208	3/4"*1/2"	47.5	30.0	16.3	9.9	42.7	29.5
WERA1608	1"*1/2"	58.7	34.5	22.6	9.9	42.7	29.5
WERA1612	1"*3/4"	58.7	34.5	22.6	16.3	47.5	30.0
WERA2016	1-1/4"*1"	68.3	42.2	27.9	21.6	59.9	38.1
WERA2416	1-1/2"*1"	69.1	42.2	33.8	21.6	59.9	38.1
WERA2420	1-1/2"*1-1/4"	74.4	43.2	33.8	27.4	64.5	38.1



WELD TYPE FITTINGS

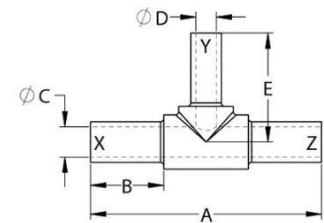
PFA Weld Tee - WTA

Part No.	Tube OD (inch)	A (mm)	C (mm)	D (mm)
WTA04	1/4"	56.1	4.1	25.9
WTA06	3/8"	63.8	6.4	25.9
WTA08	1/2"	71.6	9.9	34.5
WTA12	3/4"	103.1	15.7	51.6
WTA16	1"	108.7	22.1	54.4
WTA20	1-1/4"	113.5	28.4	51.1
WTA24	1-1/2"	113.5	34.3	56.9



PFA Weld Tee Reducer - WTRA

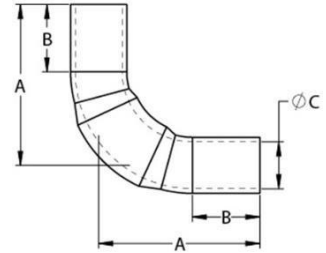
Part No.	* (inch)	Y (inch)	Z (inch)	A (mm)	C (mm)	D (mm)	E (mm)
WTRA060406	3/8"	1/4"	3/8"	63.8	6.4	4.1	27.7
WTRA080408	1/2"	1/4"	1/2"	71.6	9.9	4.1	25.1
WTRA080608	1/2"	3/8"	1/2"	71.6	9.9	6.6	28.2
WTRA120412	3/4"	1/4"	3/4"	103.1	15.7	4.1	38.6
WTRA120612	3/4"	3/8"	3/4"	103.1	15.7	6.4	48.0
WTRA120812	3/4"	1/2"	3/4"	103.1	15.7	9.7	48.0
WTRA160416	1"	1/4"	1"	108.7	22.1	4.3	42.2
WTRA160816	1"	1/2"	1"	108.7	22.1	9.7	42.2
WTRA161216	1"	3/4"	1"	108.7	22.1	15.7	47.0
WTRA201620	1-1/4"	1"	1-1/4"	113.5	28.4	21.8	56.9
WTRA241624	1-1/2"	1"	1-1/2"	113.5	34.3	22.4	56.9
WTRA242024	1-1/2"	1-1/4"	1-1/2"	113.5	34.3	27.9	60.7



WELD TYPE FITTINGS

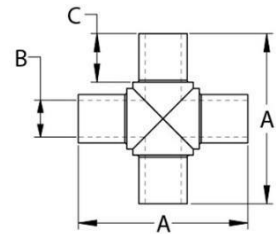
PFA Weld Arc Elbow - WARCA

Part No.	Tube OD (inch)	A (mm)	B (mm)	C (mm)
WARCA04	1/4"	35.8	15.2	3.8
WARCA08	3/8"	40.9	17.8	6.4
WARCA08	1/2"	45.5	20.3	9.7
WARCA12	3/4"	55.1	23.4	16.0
WARCA16	1"	68.1	23.4	22.4



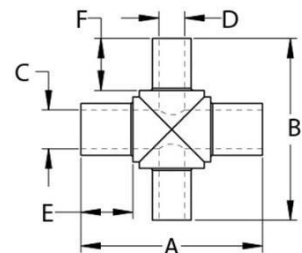
PFA Weld Cross - WCA

Part No.	Tube OD (inch)	A (mm)	B (mm)	C (mm)
WCA04	1/4"	44.5	4.1	12.7
WCA06	3/8"	44.5	6.6	12.7
WCA08	1/2"	44.5	9.9	12.7
WCA12	3/4"	50.8	15.7	12.7
WCA16	1"	52.3	22.1	11.4
WCA20	1-1/4"	67.1	28.4	16.0



PFA Weld Cross Reducer - WCRA

Part No.	Tube OD (inch)	A (mm)	B (mm)	C (mm)	D (mm)	E (mm)	F (mm)
WCRA0604	3/8" * 1/4"	44.5	44.5	6.6	4.1	12.7	12.7
WCRA0806	1/2" * 3/8"	44.5	44.5	9.9	6.6	12.7	12.7
WCRA1208	3/4" * 1/2"	50.8	50.8	15.7	9.9	12.4	12.4
WCRA1612	1" * 3/4"	52.3	55.9	22.1	15.7	11.4	13.0



4

VALVES

VALVES

PTFE Check Valve

TCV

Application:

It is specially used in the high purity semiconductor industry, and also suitable for ultra pure water or corrosive chemicals.

Features:

1. High purity and corrosion resistance. By machining PTFE components, no metal material, excellent chemical resistance and purity.
2. Special sealing design, no O-ring is required for sealing.
3. The machined PTFE spring has low opening pressure and can be resealed with minimum back pressure.
4. The product is pasted with obvious arrows to indicate the flow direction.

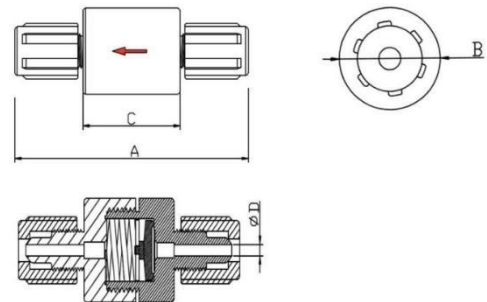
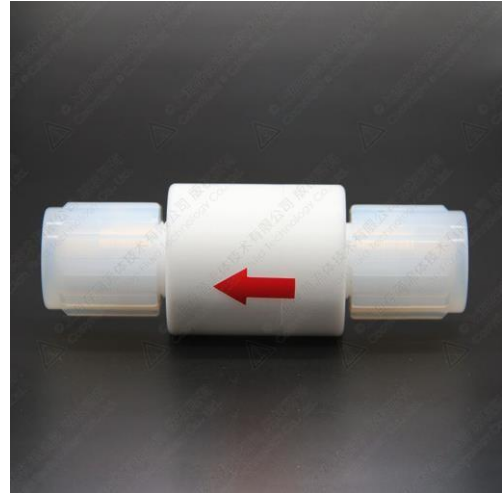
Material: PTFE body and internal components, PFA nut

Connection type: flared (sleeve-insert type or compression type is also available)

Opening pressure: 0.017-0.052Bar

Back pressure/sealing pressure: 0.35Bar

Note: 1" and above Tube OD can be customized.



Part No.	Tube OD	Material	A (mm)	B (mm)	C (mm)	D (mm)
TCV0041	1/4"	PTFE+PFA	94	31	39	3.4
TCV0061	3/8"	PTFE+PFA	99	34	39	6.4
TCV0081	1/2"	PTFE+PFA	108	38	45	9.5
TCV0121	3/4"	PTFE+PFA	112	54	45	15.9
TCV0161	1"	PTFE+PFA	141	70	55	22

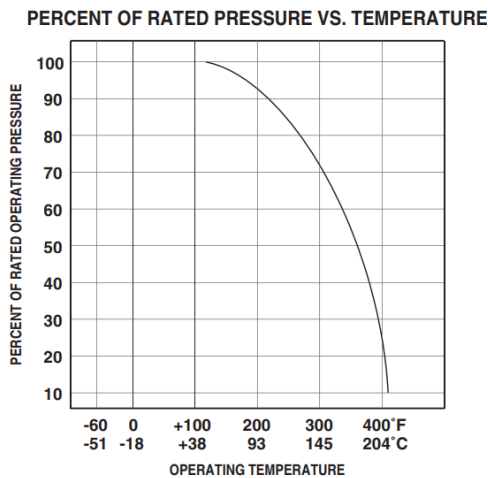
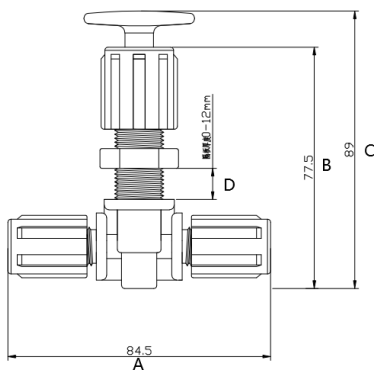
VALVES

PFA Needle Valve

PNV

PFA needle valve PNV series are designed for high purity, corrosion resistant applications such as semiconductors, pharmaceuticals, fine chemicals, etc. The PNV Series uses an integrated PFA stem, handle and body. Accessories are molded from precision molded to ensure more precise flow regulation and control for our needle valves. Flared connectors are used at both ends for both metric and British piping.

- Features:
- High purity and corrosion resistance (full PFA material for liquid-receiving part)
 - Integrated valve stem with high strength and safety factor
 - Compact shape, no space, easy to install
 - Stem control, strong maneuverability, easy flow control
 - Baffle nut for panel mounting
 - Connection Size: 1/4", 3/8", 1/2"
 - Maximum media temperature: 120 °C
 - Ambient temperature: 17 - 66 °C
 - Maximum operating pressure: 7Bar
- Note: When using at a higher temperature, the applicable pressure is shown in the right figure.



For operation at temperatures above ambient conditions, please refer to the chart above for reduced pressure ratings.

Part No.	Tube OD	Material	A (mm)	B (mm)	C (mm)	D (mm)
PNV0041	1/4"	PFA	84.5	77.5	89	0-12

VALVES

PFA Plug Valve

PPV

The PFA Plug Valve PPV Series is designed for high purity semiconductor applications. Designed with molded high purity PFA body and machined PTFE stem. Minimized form design is ideal for semiconductor applications with very high spatial requirements. The stem and body bonding ensures sealing while maintaining a smooth 90 degree rotation operation. The two ends can be connected by double-flare type or by flare type + NPT male.

Features:

- Perfluorine material, strong corrosion resistance
- Minimize design, take up little space
- Connection mode is more practical
- Rotate at -90 degree for stable flow

Connection Size: 1/4 " Double Flare, 1/4" Flare*1/4NPT

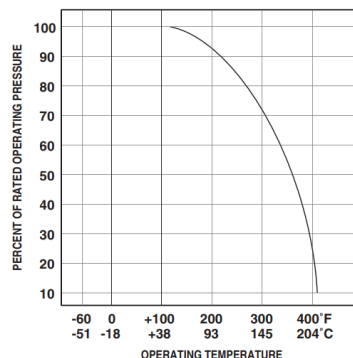
Maximum media temperature: 120 °C

Ambient temperature: 17 – 66 °C

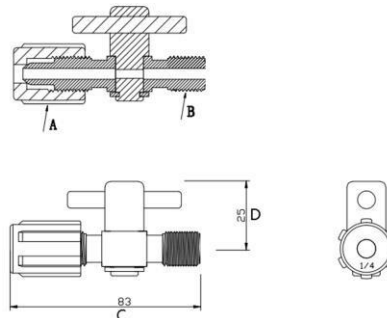
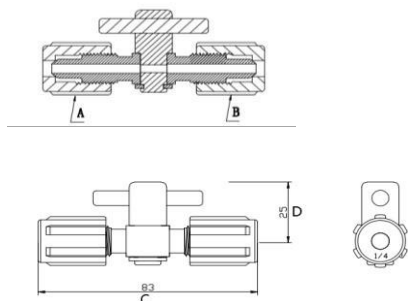
Maximum operating pressure: 4Bar

Note: When the operating temperature is high, please refer to the right figure for the applicable pressure

PERCENT OF RATED PRESSURE VS. TEMPERATURE



For operation at temperatures above ambient conditions, please refer to the chart above for reduced pressure ratings.



Part No.	Tube OD	Material	A (inch)	B (inch)	C (mm)	D (mm)
PPV0041	1/4"	PTFE+PFA	1/4" 扩口	1/4" 扩口	83	25
PPVM04041	1/4"	PTFE+PFA	1/4" 扩口	1/4" NPT	83	25

VALVES

Pneumatic Diaphragm Valve

PFDV

Pneumatic diaphragm valve type PVD is a compact control valve with excellent corrosion resistance, heat resistance and wide application. It has smooth inner wall and low ion precipitation. It is especially suitable for fields with high cleanliness requirements. Different materials can be selected according to different application scenarios to make it more cost-effective.

Easy operation and maintenance

- *All plastic appearance structure, beautiful and corrosion resistant
- *Miniaturized design, easy installation and maintenance free
- *UNF standard flarelink interface thread, with higher adaptability and interchangeability
- *The size of mounting plate shall comply with SEMI standard F65-1101

High safety performance

- *Comply with FDA 177-1520 / 177-1550 dissolution test requirements
- *Triple sealed valve chamber diaphragm structure can effectively prevent leakage
- *The drive mechanism is made of fluororesin with high pressure bearing redundancy
- *Curved PTFE diaphragm is more ductile and has a long service life

High flexibility (material)

- *Wetting material: PTFE, PFA
- *Diaphragm: PTFE
- *Structure: PVDF, PPS, PP Natural
- *Connection method: FlareLINK, Insert Bushing
- *Nut: PVDF for FlareLINK, PFA for Insert Bushing
- *Drive direction: The pilot port can be installed in four different directions
- *Automatic expansion: Pneumatic expandable manual limit, position feedback sensor



Performance characteristics

- *Working pressure 0~5bar
- *Temperature range: 5~100 °C (to be selected according to the temperature resistance characteristics of valve body material)
- *The valve body has a cone-shaped flow passage and joint integrated structure, with minimal residue and displacement characteristics of different media

Application

- *Photovoltaic
- *LCD panel
- *HDD Manufacturing
- *Semiconductor
- *Electroplating
- *Integrated Circuit
- *Biopharmaceuticals
- *Medical
- *Food
- *New materials

VALVES

Technical Data:

尺寸 Size	1/4", 3/8", 1/2"
压力等级 Pressure Rating	PN 5
阀体 Valve Body	PP-Natural (本色均聚丙烯) PVDF (聚偏二氟乙烯) PFA (可溶性聚四氟乙烯)
膜片 Diaphragm	PTFE
执行机构 Actuator	PVDF
结构件 Structural Components	PVDF (包括安装底板和锁紧螺母) PVDF (Including Mounting Base Plate and Lock Nut)
接口方式 Connection Method	UNF 标准 Flare LINK 形式 UNF Standard Flare LINK Type
安装固定 Installation/Fixation	SEMI 标准 F65-1101 SEMI Standard F65 - 1101

流通能力 Flow Capacity

以下流量基于20℃清水介质1bar 压差时数据

The following flow rates are data at 20° C for clear water medium with a 1bar differential pressure

Inch	Size		Kv 100	
	φ 通径		l/min	m ³ /h
1/4"	4		4,70	0,28
3/8"	6		10,00	0,60
1/2"	9		22,00	1,32

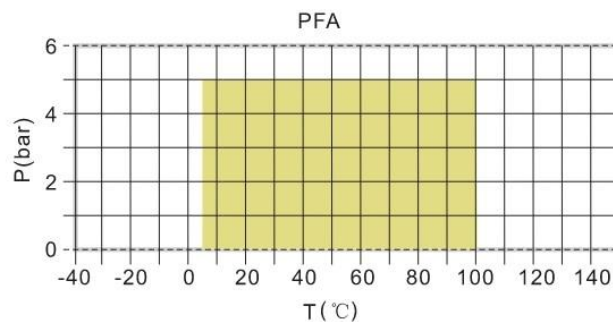
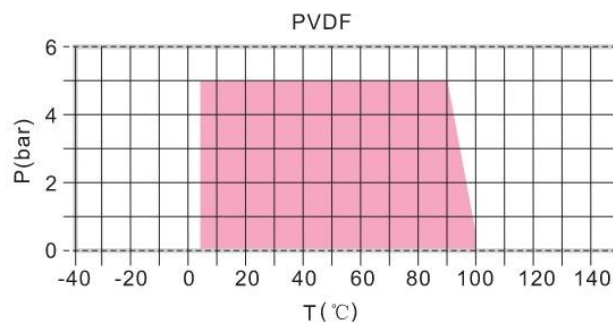
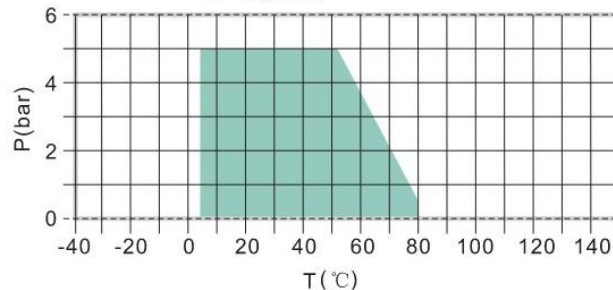
$$C_v = k_v \times 0,07 ; F_v = k_v \times 0,0585$$

Kv (l/min) ; Cv (gal/min) US ; Fv (gal/min) GB

压力/温度曲线 Pressure/Temperature Curve

以下温度曲线基于清水类介质及25年寿命

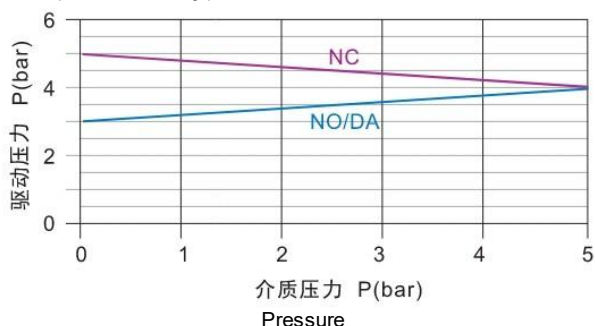
The following temperature curves are based on clear water medium and a 25 - year service life



气动 启闭驱动压力 Opening/Closing Driving Pressure

驱动压力空气的输入值, 最大限制 5 bar

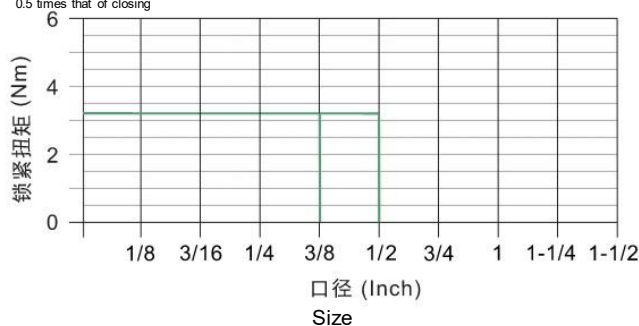
The input value of driving pressure air, with a maximum limit of 5 bar



手动 启闭保护扭矩 Opening/Closing Protection Torque

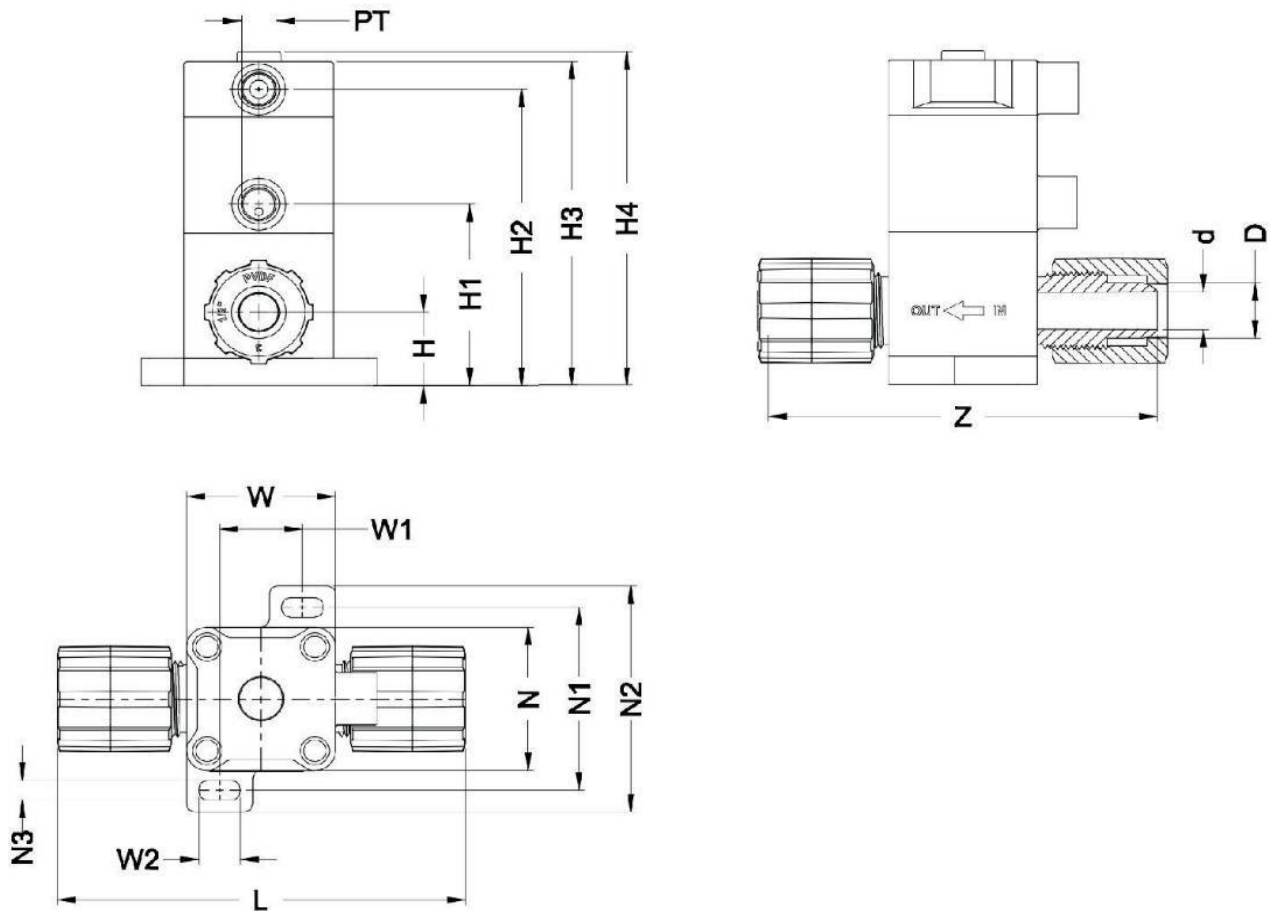
完全关闭需要的最大锁紧力矩, 开启力矩约为关闭的 0,5 倍

The maximum clamping torque required for complete closing, and the opening torque is approximately 0.5 times that of closing



VALVES

Drawing and Data:

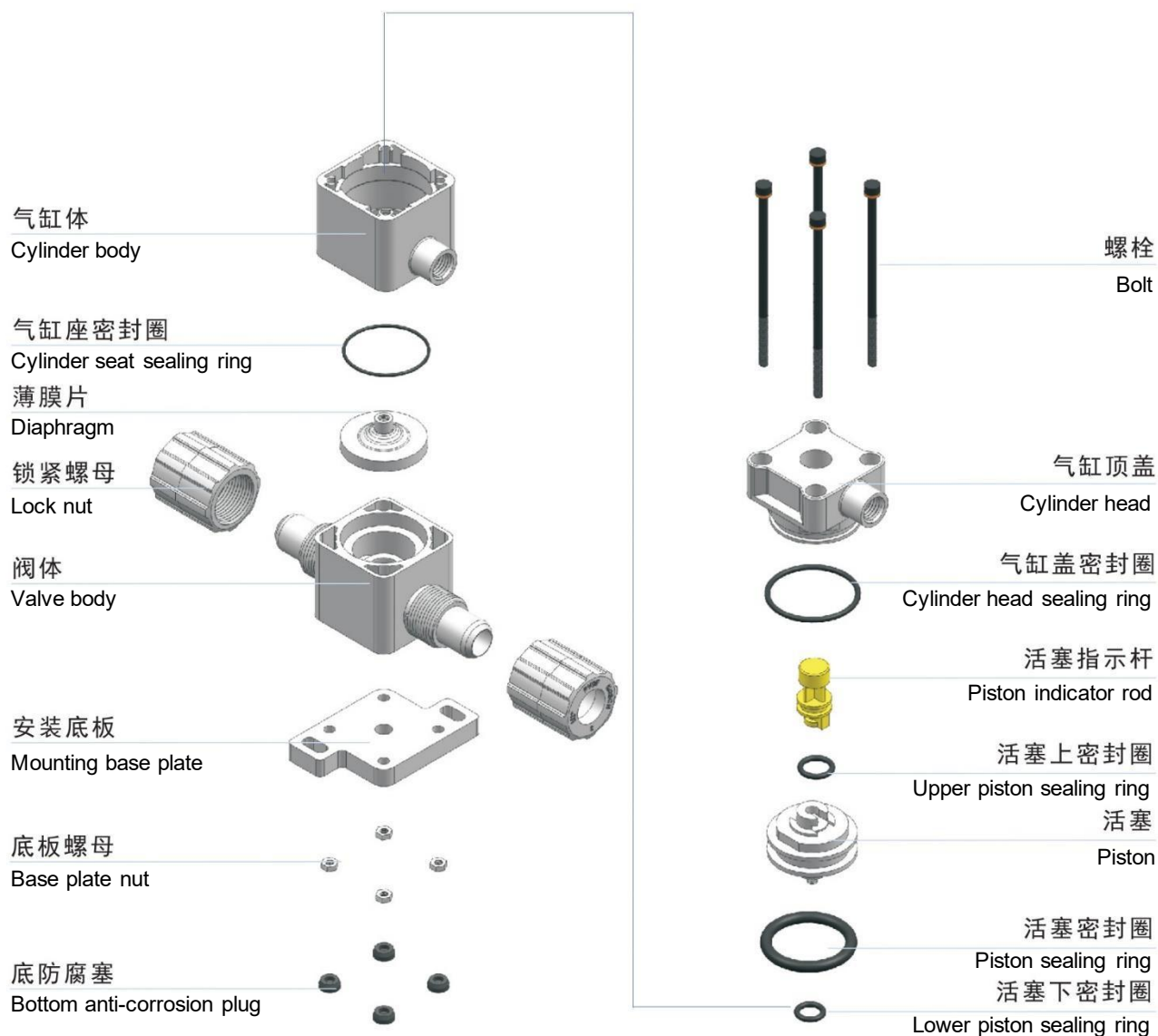


Unit: mm

Part No.	Inch	D	d	PT	H	H1	H2	H3	H4	N	N1	N2	N3	W	W1	W2	L	Z	z1
PFDV04	1/4"	7.70	4.00	1/8"	15.00	48.00	55.00	64.00	67.00	30.00	37.00	44.00	3.70	30.00	18.00	6.00	86.00	81.50	11.00
PFDV06	3/8"	10.50	6.40	1/8"	21.00	48.00	78.00	85.00	88.00	37.00	49.00	61.00	6.50	37.00	21.00	10.00	94.50	89.50	13.50
PFDV08	1/2"	13.90	9.50	1/8"	21.00	48.00	78.00	85.00	88.00	37.00	49.00	61.00	6.50	37.00	21.00	10.00	98.50	92.50	15.00
PFDV12	3/4"	20.50	15.90	1/8"	27.00	60.00	92.00	106.00	110.00	47.00	63.00	82.00	9.00	47.00	24.00	14.00	121.00	114.20	15.00
PFDV16	1"	29.00	22.20	1/8"	35.00	75.00	117.00	126.00	131.00	60.00	78.00	96.00	9.00	60.00	35.00	14.00	150.00	139.80	16.50

VALVES

Structure:

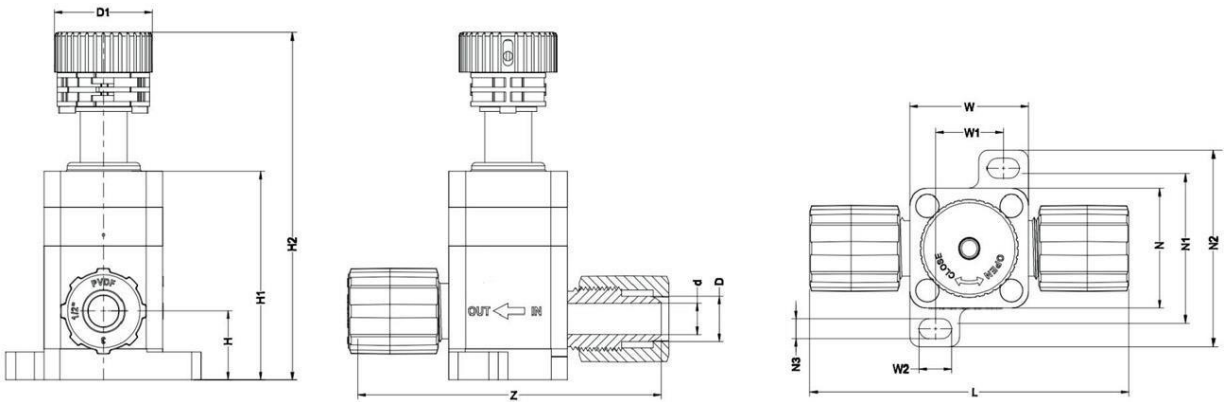
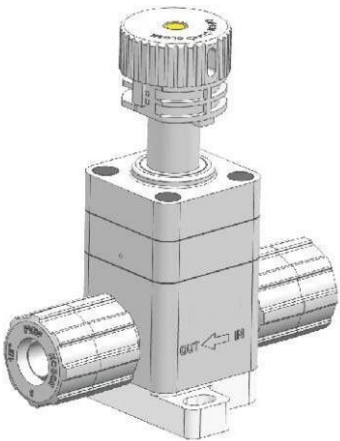


VALVES

Manual Diaphragm Valve

PMDV

Technical Data:

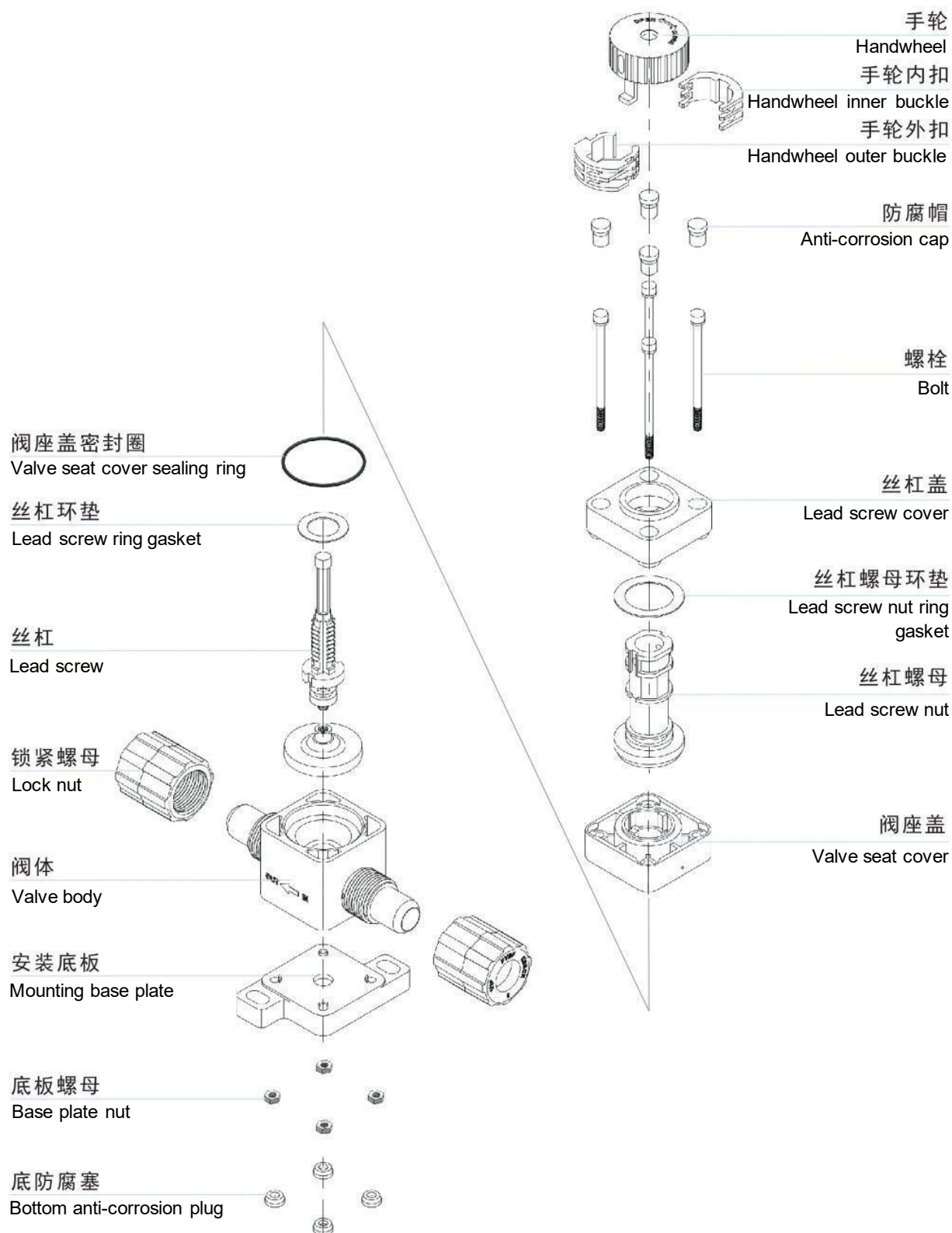


Unit: mm

Part No.	Inch	D	d	D1	H	H1	H2	N	N1	N2	N3	W	W1	W2	L	Z
PMDV04	1/4"	7.70	4.00	25.00	15.00	47.00	81.00	30.00	37.00	44.00	3.70	30.00	18.00	6.00	86.00	81.80
PMDV06	3/8"	10.50	6.40	33.00	21.00	66.00	105.00	37.00	49.00	61.00	6.50	37.00	21.00	10.00	94.50	89.50
PMDV08	1/2"	13.90	9.50	33.00	21.00	66.00	105.00	37.00	49.00	61.00	6.50	37.00	21.00	10.00	98.50	92.50
PMDV12	3/4"	20.50	15.90	44.00	27.00	82.00	136.00	47.00	63.00	82.00	9.00	47.00	24.00	14.00	121.00	114.20
PMDV16	1"	29.00	22.20	57.00	35.00	97.00	159.00	60.00	78.00	96.00	9.00	60.00	35.00	14.00	150.00	139.80

VALVES

Structure:

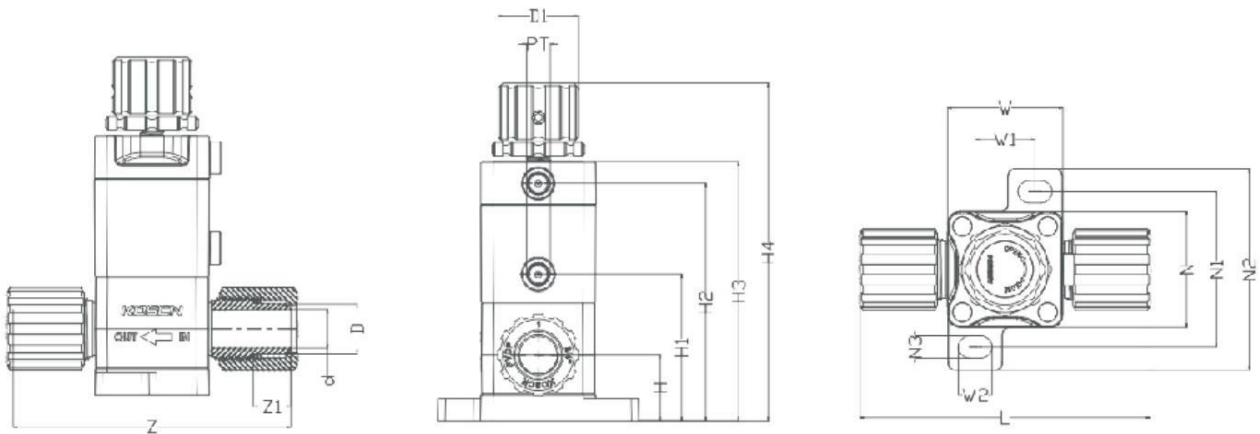
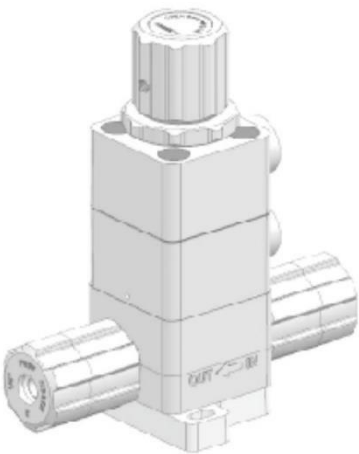


VALVES

Pneumatic & Manual Diaphragm Valve

PMFDV

Technical Data:



Unit: mm

Part No.	Inch	D	d	PT	H	H1	H2	H3	H4	N	N1	N2	N3	W	W1	W2	L	Z	D1
PMFDV04	1/4"	7.70	4.00	1/8"	15.00	48.00	55.00	64.00	91.00	30.00	37.00	44.00	3.70	30.00	18.00	6.00	86.00	81.50	21.00
PMFDV06	3/8"	10.50	6.40	1/8"	21.00	48.00	78.00	85.00	109.00	37.00	49.00	61.00	6.50	37.00	21.00	10.00	94.50	89.50	25.00
PMFDV08	1/2"	13.90	9.50	1/8"	21.00	48.00	78.00	85.00	109.00	37.00	49.00	61.00	6.50	37.00	21.00	10.00	98.50	92.50	25.00
PMFDV12	3/4"	20.50	15.90	1/8"	27.00	60.00	92.00	106.00	138.00	47.00	63.00	82.00	9.00	47.00	24.00	14.00	121.00	114.20	33.00
PMFDV16	1"	29.00	22.20	1/8"	35.00	75.00	117.00	126.00	157.00	60.00	78.00	96.00	9.00	60.00	35.00	14.00	150.00	139.80	57.00

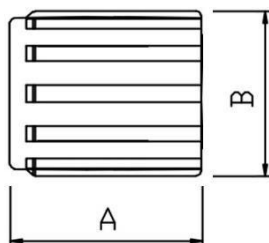
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ACCESSORIES

ACCESSORIES

PFA Union Nut (Flare type)

UNA

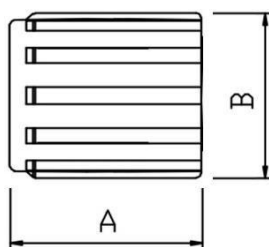


Remark: sleeve-insert type is available

Part No.	Tube OD (inch)	A (mm)	B (mm)
UNA041	1/4"	26	21.7
UNA061	3/8"	26.7	25
UNA081	1/2"	28.3	28.5
UNA121	3/4"	32	36
UNA161	1"	38.4	48.3

PVDF Union Nut (Flare type)

UNB



Remark: sleeve-insert type is available

Part No.	Tube OD (inch)	A (mm)	B (mm)
UNB041	1/4"	26	21.7
UNB061	3/8"	26.7	25
UNB081	1/2"	28.3	28.5
UNB121	3/4"	32	36
UNB161	1"	38.4	48.3

ACCESSORIES

PFA Flare Plug

FPA

It is the same as the flare connector, can be connected to a tube through flared and locked with a nut to achieve pressure sealing effect. The body is made of high-purity PFA material and produced by injection molding in a clean workshop. The nut can be optionally made of PVDF or PFA material.

Features:

1. Flare type connection, sealed well.
2. High purity and cleanliness
3. It can be used in conjunction with nuts to block tubes, and the body can also serve as a separate plug for space saving connector.



Part No.	Size (inch)
FPA041	1/4"
FPA061	3/8 "
FPA081	1/2"
FPA121	3/4"
FPA161	1"
FPA201	1.25"

PFA Cap

ECA

It is made of high-purity PFA material and injection molded in a clean workshop. PFA cap is specifically designed for sealing flare type connector.

Features:

1. High purity and cleanliness.
2. Precise size, perfectly matched with the flared end, not afraid of leakage.
3. It can be used for temporary dust prevention, coupled with a nut to lock the fitting, and can also be used for pressure sealing.



Part No.	Size (inch)
ECA041	1/4"
ECA061	3/8 "
ECA081	1/2"
ECA121	3/4"
ECA161	1"

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CUSTOMIZATION

CUSTOMIZATION



PCTFE Flanged Quick Coupler
- FLQC



Drum Cannula
- DCA/DCC



Drum Distribution Joints
- DDJA/DDJC



PTFE Pure Water Spray Gun
- PDIG



PFA Nitrogen Spray Gun
- PSG



PFA Pure Water Spray Gun
- PDIG



Manual PTFE Flaring Tool
- MFT



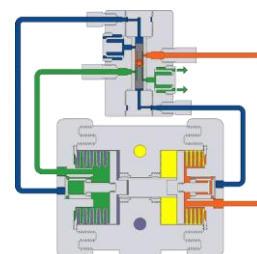
Ultra-pure PFA Pall Ring
- PRA



PTFE Customized Products

PTFE Diaphragm Pump

PDBP



Remark: For customization of other products, please contact Pro-Semi sales engineer.

