

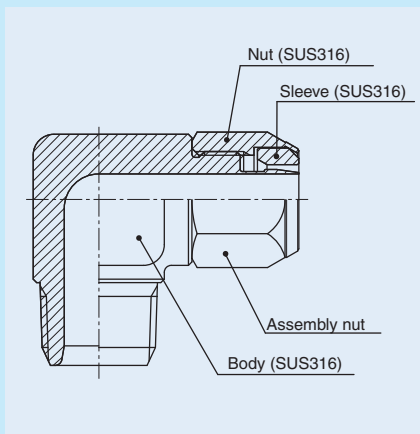
Chemifit™ CSE Series

Threaded fitting for clean air, pure water and chemical liquids

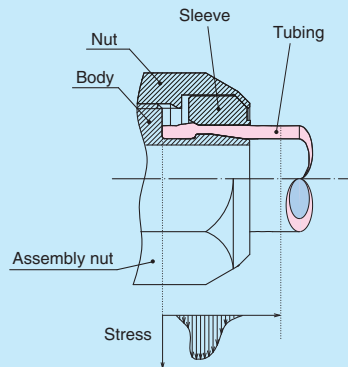
Features

- **SUS316 threaded fitting**
2-piece assembly, consisting of nut and body, which utilizes Nitta's proprietary mechanism.
- **Highly improved workability for attaching and detaching a tubing**
Fitting body and insertion part have an integrated construction. The assembly nut has a built-in sleeve. Both the fitting body and the assembly nut are reusable.
- **Uniform workability for connecting tubing**
Tubing connection is completed when the assembly nut reaches the fitting body. No need for torque control or special tools.
- **No rotation of tubing when the tubing is attached**
A sleeve inside the assembly nut can rotate. Hence the inserted does not rotate with it.
- **Made in oil-free process**
Assembled after cleaning each part in a clean room.
- **High sealing performance**
Nitta's original sealing mechanism achieves high durability against degradation of sealing performance due to cold-hot cycle.
- **No need for additional tightening of nut**
Construction with less stress relaxation ensures high sealing performance for a long period of time and the nut does not need to be tightened at maintenance.
- **Highly smooth inner surface and R sphere surface processing on elbow crossing**
The surface roughness is below Ra3.2. The corner of the elbow is sphere surface processed, which reduces liquid and detergent remnants.
- **Silver plated thread inside assembly nut**
Prevents the body and assembly nuts from seizing when the tubing is tightened.

Cross-sectional structure diagram



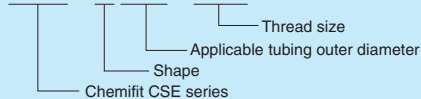
Sealing mechanism



Nitta's original sealing mechanism achieves high durability against degradation of sealing performance due to cold-hot cycle. The mechanism does not cause stress relaxation, ensuring sealing performance for a long period of time. Also, the nut does not need to be tightened at maintenance.

Product number example

CSE - C 6x4 - R1/4



Operating fluid, working temperature range

Operating fluid	Working temperature range
Air (clean air)	-65°C~+260°C
Water (pure water)	0°C~+100°C

☞ Contact us for various chemical liquids.

☞ See "Combination List of Tubing and Fitting" on page 8.

Pressure condition

Maximum working pressure: 5.0MPa
Negative pressure performance:
-101.294kPa

Handling instructions

⚠ **Caution:** When the working conditions of tubes and fittings differ, use them under the lower specified conditions.

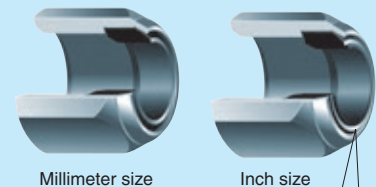
⚠ **Caution:** When water is used as the operating fluid, do not allow it to freeze.

⚠ **Caution:** Do not bend the pipe sharply near the tubing insertion port of the fitting. Keep the tubing straight for twice as long as the tubing diameter from the insertion port.

☞ See page 34 for the common handling instructions for fittings.

Distinction of millimeter/inch sizes

Assembly nut

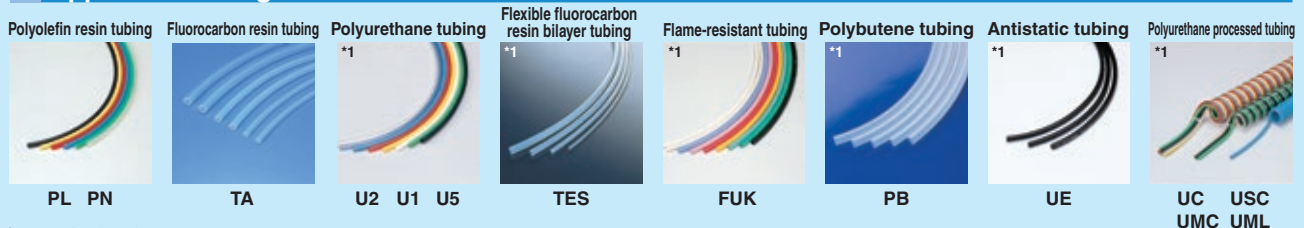


The inch size type has a boss at the sleeve end to distinguish from millimeter size type.

Reference

Instruction manual.....P.178
Chemical resistance specification table...P.198
Effective sectional areaP.168
Negative-pressure performance list...P.169

Applicable tubing



Clean, Antistatic tubing



ES

(*1) Combinatory use of U2, U1, U5, TES, FUK, PB, UE or polyurethane processed tubing and Chemifit CSE series mixes general and clean type performances.

When using them together in a clean environment, be aware of how this could lower the cleanliness level.

Chemifit™ CSE Series

Shape list



Tubing

Clean tubing

Processed tubing

PushOne fitting

QuickSeal fitting

Clean fitting/
Chemifit

Bamboo-shoot fitting

Control switch/
Detachable series

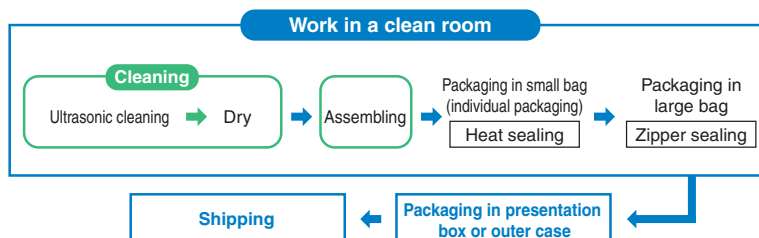
Jig/Tool/
Accessory

Technical information

Reference

Oil-free processing, Clean wrapping and packaging

● Ultrasonic cleaning with no oil or fat used for assembling in a clean room.



● High-barrier sheet packaging available

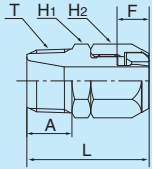
What is high-barrier sheet packaging?

In order to maintain the cleanliness of our products, no space for oxygen, water, or corrosive gas is allowed inside the package and a packaging bag with a high gas barrier is needed for protecting the content from these gases. To meet this requirement, Nitta provides high-barrier bags with a high gas barrier performance also for nitrogen sealing or atmospheric sealing.



- The packaging bags that Nitta uses have the highest gas barrier performance among clear bags.
- The bags do not contain halogen, etc., for safe burning.

Connector



●Millimeter size type

Product number	Applicable tubing outer/inner diameters (mm)	T Thread size (R)	L (mm)	A (mm)	F Tubing insertion length (mm)	H ₁ Width across flat (mm)	H ₂ Width across flat (mm)	Min. inner diameter (mm)	Effective sectional area (mm ²)	Weight (g)
CSE-C4x2-R1/8	4x2	R1/8	23.0	8.0	5.5	10.0	10.0	1.5	1.7	11.0
CSE-C4x2-R1/4	4x2	R1/4	26.0	11.0	5.5	14.0	10.0	1.5	1.7	19.0
CSE-C6x4-R1/8	6x4	R1/8	25.5	8.0	7	12.0	12.0	3.5	9.0	16.0
CSE-C6x4-R1/4	6x4	R1/4	28.5	11.0	7	14.0	12.0	3.5	9.0	23.0
CSE-C6x4-R3/8	6x4	R3/8	29.5	12.0	7	17.0	12.0	3.5	9.0	33.0
CSE-C8x5-R1/8	8x5	R1/8	27.0	8.0	7.5	14.0	14.0	4.5	15.0	22.0
CSE-C8x5-R1/4	8x5	R1/4	30.0	11.0	7.5	14.0	14.0	4.5	15.5	26.0
CSE-C8x5-R3/8	8x5	R3/8	31.0	12.0	7.5	17.0	14.0	4.5	15.5	36.0
CSE-C8x6-R1/8	8x6	R1/8	27.0	8.0	7.5	14.0	14.0	5.5	23.0	21.0
CSE-C8x6-R1/4	8x6	R1/4	30.0	11.0	7.5	14.0	14.0	5.5	23.5	25.0
CSE-C8x6-R3/8	8x6	R3/8	31.0	12.0	7.5	17.0	14.0	5.5	23.5	35.0
CSE-C8x6-R1/2	8x6	R1/2	34.0	15.0	7.5	22.0	14.0	5.5	23.5	54.0
CSE-C10x6.5-R1/4	10x6.5	R1/4	31.5	11.0	8.5	17.0	17.0	6.0	27.5	36.0
CSE-C10x8-R1/4	10x8	R1/4	31.5	11.0	8.5	17.0	17.0	7.5	42.5	34.0
CSE-C10x8-R3/8	10x8	R3/8	32.5	12.0	8.5	17.0	17.0	7.5	43.5	40.0
CSE-C10x8-R1/2	10x8	R1/2	35.5	15.0	8.5	22.0	17.0	7.5	43.5	58.0
CSE-C12x8-R1/4	12x8	R1/4	33.5	11.0	10	17.0	19.0	7.5	42.5	42.0
CSE-C12x9-R1/4	12x9	R1/4	33.5	11.0	10	17.0	19.0	8.0	48.5	40.0
CSE-C12x9-R3/8	12x9	R3/8	34.5	12.0	10	17.0	19.0	8.5	53.0	46.0
CSE-C12x9-R1/2	12x9	R1/2	37.5	15.0	10	22.0	19.0	8.5	54.0	65.0
CSE-C12x10-R1/4	12x10	R1/4	33.5	11.0	10	17.0	19.0	8.0	49.5	39.0
CSE-C12x10-R3/8	12x10	R3/8	34.5	12.0	10	17.0	19.0	9.5	67.0	44.0
CSE-C12x10-R1/2	12x10	R1/2	37.5	15.0	10	22.0	19.0	9.5	68.5	63.0
CSE-C19x16-R1/2	19x16	R1/2	42.3	15.0	12.3	27.0	27.0	12.0	-	100.0
CSE-C19x16-R3/4	19x16	R3/4	44.3	17.0	12.3	29.0	27.0	15.0	-	119.0

*Made to order

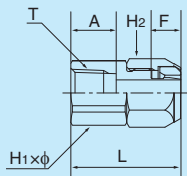
●Inch size type

Product number	Applicable tubing outer/inner diameters (mm)	T Thread size (R)	L (mm)	A (mm)	F Tubing insertion length (mm)	H ₁ Width across flat (mm)	H ₂ Width across flat (mm)	Min. inner diameter (mm)	Effective sectional area (mm ²)	Weight (g)
CSE-C1/4-R1/8	6.35x4.57	R1/8	25.5	8.0	7	12.0	12.0	4.0	12.5	16.0
CSE-C1/4-R1/4	6.35x4.57	R1/4	28.5	11.0	7	14.0	12.0	4.0	12.5	22.0
CSE-C1/4-R3/8	6.35x4.57	R3/8	29.5	12.0	7	17.0	12.0	4.0	12.5	32.0
CSE-C3/8-R1/4	9.53x6.99	R1/4	32.0	11.0	9	17.0	17.0	6.5	32.0	36.0
CSE-C3/8-R3/8	9.53x6.99	R3/8	33.0	12.0	9	17.0	17.0	6.5	33.0	42.0
CSE-C3/8-R1/2	9.53x6.99	R1/2	36.0	15.0	9	22.0	17.0	6.5	32.5	62.0
CSE-C1/2-R1/4	12.70x9.56	R1/4	35.0	11.0	10.5	19.0	22.0	8.0	49.5	57.0
CSE-C1/2-R3/8	12.70x9.56	R3/8	36.0	12.0	10.5	19.0	22.0	9.0	61.0	63.0
CSE-C1/2-R1/2	12.70x9.56	R1/2	39.0	15.0	10.5	22.0	22.0	9.0	61.0	81.0

*Made to order

Internal connector

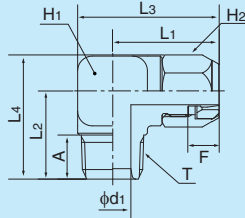
●Millimeter size type



Product number	Applicable tubing outer/inner diameters (mm)	T Thread size (RC)	L (mm)	A (mm)	F Tubing insertion length (mm)	H ₂ Width across flat (mm)	H ₁ ×φ Width across flat (mm)	Min. inner diameter (mm)	Effective sectional area (mm ²)	Weight (g)
CSE-FC6x4-R1/8	6x4	RC1/8	24.5	8.7	7	12.0	14.0x15.4	3.5	9.0	20.0
CSE-FC8x6-R1/4	8x6	RC1/4	30.0	13.0	7.5	14.0	17.0x18.5	5.5	21.5	33.0
CSE-FC10x8-R1/4	10x8	RC1/4	31.5	13.0	8.5	17.0	17.0x18.5	7.5	29.0	39.0

Tubing
Clean tubing
Processed tubing
PushOne fitting
QuickSeal fitting
Clean fitting/ Chemifit
Bamboo-shoot fitting
Control switch/ Detachable series
Jig/Tool/ Accessory
Technical information
Reference

90 degree elbow



●Millimeter size type

Product number	Applicable tubing outer/inner diameters (mm)	T Thread size (R)	L1 (mm)	L2 (mm)	L3 (mm)	L4 (mm)	A (mm)	F Tubing insertion length (mm)	H1 Width across flat (mm)	H2 Width across flat (mm)	d1 (mm)	Min. inner diameter (mm)	Effective sectional area (mm ²)	Weight (g)
CSE-L6x4-R1/8	6x4	R1/8	23.5	17.0	30.5	24.0	8	7	14.0	12.0	6	3.5	8.5	33.0
CSE-L6x4-R1/4	6x4	R1/4	23.5	20.0	30.5	27.0	11	7	14.0	12.0	8	3.5	8.5	35.0
CSE-L6x4-R3/8	6x4	R3/8	26.0	24.0	35.5	33.5	12	7	19.0	12.0	10	3.5	8.0	72.0
CSE-L8x5-R1/4	8x5	R1/4	25.0	20.0	32.0	28.1	11	7.5	14.0	14.0	8	4.5	-	42.0
CSE-L8x6-R1/8	8x6	R1/8	25.0	18.0	32.0	26.1	8	7.5	14.0	14.0	6	5.5	19.0	37.0
CSE-L8x6-R1/4	8x6	R1/4	25.0	20.0	32.0	28.1	11	7.5	14.0	14.0	8	5.5	20.0	38.0
CSE-L8x6-R3/8	8x6	R3/8	27.5	24.0	37.0	33.5	12	7.5	19.0	14.0	10	5.5	20.5	74.0
CSE-L8x6-R1/2	8x6	R1/2	29.0	27.0	40.0	38.0	15	7.5	22.0	14.0	12	5.5	20.5	98.0
CSE-L10x8-R1/4	10x8	R1/4	29.0	23.0	38.5	32.8	11	8.5	19.0	17.0	8	7.5	35.0	77.0
CSE-L10x8-R3/8	10x8	R3/8	29.0	24.0	38.5	33.8	12	8.5	19.0	17.0	10	7.5	37.0	79.0
CSE-L10x8-R1/2	10x8	R1/2	30.5	27.0	41.5	38.0	15	8.5	22.0	17.0	12	7.5	-	116.0
CSE-L12x8-R1/4	12x8	R1/4	31.0	23.0	40.5	34.0	11	10	19.0	19.0	8	7.5	34.0	85.0
CSE-L12x8-R1/2	12x8	R1/2	32.5	27.0	43.5	38.0	15	10	22.0	19.0	12	7.5	38.0	110.0
CSE-L12x9-R1/4	12x9	R1/4	31.0	23.0	40.5	34.0	11	10	19.0	19.0	8	8	40.5	83.0
CSE-L12x9-R3/8	12x9	R3/8	31.0	24.0	40.5	35.0	12	10	19.0	19.0	10	8.5	44.0	85.0
CSE-L12x9-R1/2	12x9	R1/2	32.5	27.0	43.5	38.0	15	10	22.0	19.0	12	8.5	48.5	107.0
CSE-L12x10-R1/4	12x10	R1/4	31.0	23.0	40.5	34.0	11	10	19.0	19.0	8	8	47.5	80.0
CSE-L12x10-R3/8	12x10	R3/8	31.0	24.0	40.5	35.0	12	10	19.0	19.0	10	9.5	54.0	83.0
CSE-L12x10-R1/2	12x10	R1/2	32.5	27.0	43.5	38.0	15	10	22.0	19.0	12	9.5	56.0	106.0
CSE-L19x16-R3/8	19x16	R3/8	37.3	27.5	50.3	43.1	12	12.3	26.0	27.0	10	10	-	192.0
CSE-L19x16-R1/2	19x16	R1/2	37.3	30.5	50.3	46.1	15	12.3	26.0	27.0	12	12	-	201.0
CSE-L19x16-R3/4	19x16	R3/4	38.8	34.0	53.3	49.6	17	12.3	29.0	27.0	15	15	-	267.0

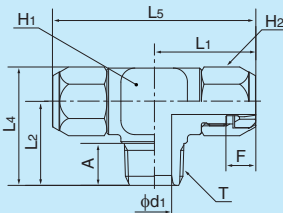
*Made to order

●Inch size type

Product number	Applicable tubing outer/inner diameters (mm)	T Thread size (R)	L1 (mm)	L2 (mm)	L3 (mm)	L4 (mm)	A (mm)	F Tubing insertion length (mm)	H1 Width across flat (mm)	H2 Width across flat (mm)	d1 (mm)	Min. inner diameter (mm)	Effective sectional area (mm ²)	Weight (g)
CSE-L1/4-R1/8	6.35x4.57	R1/8	23.5	17.0	30.5	24.0	8	7	14.0	12.0	6.0	4.0	10.5	37.0
CSE-L1/4-R1/4	6.35x4.57	R1/4	23.5	20.0	30.5	27.0	11	7	14.0	12.0	8.0	4.0	11.0	38.0
CSE-L1/4-R3/8	6.35x4.57	R3/8	26.0	24.0	35.5	33.5	12	7	19.0	12.0	10.0	4.0	11.0	81.0
CSE-L3/8-R1/4	9.53x6.99	R1/4	29.5	23.0	39.0	33.0	11	9	19.0	17.0	8.0	6.5	27.5	90.0
CSE-L3/8-R3/8	9.53x6.99	R3/8	29.5	24.0	39.0	34.0	12	9	19.0	17.0	10.0	6.5	28.5	91.0
CSE-L3/8-R1/2	9.53x6.99	R1/2	31.0	27.0	42.0	38.0	15	9	22.0	17.0	12.0	6.5	29.5	123.0
CSE-L1/2-R1/4	12.70x9.56	R1/4	31.5	26.0	41.0	38.7	11	10.5	19.0	22.0	8.0	8.0	44.0	111.0
CSE-L1/2-R3/8	12.70x9.56	R3/8	31.5	27.0	41.0	39.7	12	10.5	19.0	22.0	10.0	9.0	50.5	112.0
CSE-L1/2-R1/2	12.70x9.56	R1/2	33.0	27.5	44.0	40.2	15	10.5	22.0	22.0	12.0	9.0	51.5	135.0

*Made to order

Tee



●Millimeter size type

Product number	Applicable tubing outer/inner diameters (mm)	T Thread size (R)	L1 (mm)	L2 (mm)	L4 (mm)	L5 (mm)	A (mm)	F Tubing insertion length (mm)	H1 Width across flat (mm)	H2 Width across flat (mm)	d1 (mm)	Min. inner diameter (mm)	Effective sectional area (mm ²)	Weight (g)
CSE-T6x4-R1/8	6x4	R1/8	23.5	17.0	24.0	47.0	8.0	7	14.0	12.0	6.0	3.5	-	48.0
CSE-T6x4-R1/4	6x4	R1/4	23.5	20.0	27.0	47.0	11.0	7	14.0	12.0	8.0	3.5	-	50.0
CSE-T6x4-R3/8	6x4	R3/8	26.0	24.0	33.5	52.0	12.0	7	19.0	12.0	10.0	3.5	-	94.0
CSE-T8x6-R1/8	8x6	R1/8	25.0	18.0	26.1	50.0	8.0	7.5	14.0	14.0	6.0	5.5	-	54.0
CSE-T8x6-R1/4	8x6	R1/4	25.0	20.0	28.1	50.0	11.0	7.5	14.0	14.0	8.0	5.5	-	56.0
CSE-T8x6-R3/8	8x6	R3/8	27.5	24.0	33.5	55.0	12.0	7.5	19.0	14.0	10.0	5.5	20.5	102.0
CSE-T8x6-R1/2	8x6	R1/2	29.0	27.0	38.0	58.0	15.0	7.5	22.0	14.0	12.0	5.5	-	127.0
CSE-T10x8-R1/4	10x8	R1/4	29.0	23.0	32.8	58.0	11.0	8.5	19.0	17.0	8.0	7.5	34.0	109.0
CSE-T10x8-R3/8	10x8	R3/8	29.0	24.0	33.8	58.0	12.0	8.5	19.0	17.0	10.0	7.5	-	110.0
CSE-T10x8-R1/2	10x8	R1/2	30.5	27.0	38.0	61.0	15.0	8.5	22.0	17.0	12.0	7.5	-	138.0
CSE-T12x9-R1/4	12x9	R1/4	31.0	23.0	34.0	62.0	11.0	10	19.0	19.0	8.0	8.0	-	119.0
CSE-T12x9-R3/8	12x9	R3/8	31.0	24.0	35.0	62.0	12.0	10	19.0	19.0	10.0	8.5	-	121.0
CSE-T12x9-R1/2	12x9	R1/2	32.5	27.0	38.0	65.0	15.0	10	22.0	19.0	12.0	8.5	-	149.0
CSE-T12x10-R1/4	12x10	R1/4	31.0	23.0	34.0	62.0	11.0	10	19.0	19.0	8.0	8.0	-	115.0
CSE-T12x10-R3/8	12x10	R3/8	31.0	24.0	35.0	62.0	12.0	10	19.0	19.0	10.0	9.5	-	117.0
CSE-T12x10-R1/2	12x10	R1/2	32.5	27.0	38.0	65.0	15.0	10	22.0	19.0	12.0	9.5	-	145.0

*Made to order

●Inch size type

Product number	Applicable tubing outer/inner diameters (mm)	T Thread size (R)	L1 (mm)	L2 (mm)	L4 (mm)	L5 (mm)	A (mm)	F Tubing insertion length (mm)	H1 Width across flat (mm)	H2 Width across flat (mm)	d1 (mm)	Min. inner diameter (mm)	Effective sectional area (mm ²)	Weight (g)
CSE-T1/4-R1/8	6.35x4.57	R1/8	23.5	17.0	24.0	47.0	8.0	7	14.0	12.0	6.0	4.0	-	47.0
CSE-T1/4-R1/4	6.35x4.57	R1/4	23.5	20.0	27.0	47.0	11.0	7	14.0	12.0	8.0	4.0	-	49.0
CSE-T1/4-R3/8	6.35x4.57	R3/8	26.0	24.0	33.5	52.0	12.0	7	19.0	12.0	10.0	4.0	-	93.0
CSE-T3/8-R1/4	9.53x6.99	R1/4	29.5	23.0	33.0	59.0	11.0	9	19.0	17.0	8.0	6.5	-	112.0
CSE-T3/8-R3/8	9.53x6.99	R3/8	29.5	24.0	34.0	59.0	12.0	9	19.0	17.0	10.0	6.5	-	114.0
CSE-T3/8-R1/2	9.53x6.99	R1/2	31.0	27.0	38.0	62.0	15.0	9	22.0	17.0	12.0	6.5	-	142.0
CSE-T1/2-R1/4	12.70x9.56	R1/4	31.5	26.0	38.7	63.0	11.0	10.5	19.0	22.0	8.0	8.0	-	149.0
CSE-T1/2-R3/8	12.70x9.56	R3/8	31.5	27.0	39.7	63.0	12.0	10.5	19.0	22.0	10.0	9.0	-	151.0
CSE-T1/2-R1/2	12.70x9.56	R1/2	33.0	27.5	40.2	66.0	15.0	10.5	22.0	22.0	12.0	9.0	-	175.0

*Made to order

Tubing

Clean tubing

Processed tubing

PushOne fitting

QuickSeal fitting

Clean fitting/ Chemifit

Bamboo-shoot fitting

Control switch/ Detachable series

Jig/Tool/ Accessory

Technical information

Reference

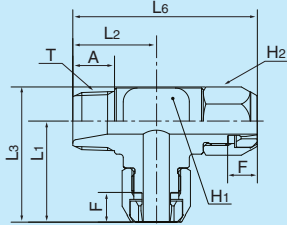
Service tee



●Millimeter size type

Product number	Applicable tubing outer/inner diameters (mm)	T Thread size (R)	L ₁ (mm)	L ₂ (mm)	L ₃ (mm)	L ₆ (mm)	A (mm)	F Tubing insertion length (mm)	H ₁ Width across flat (mm)	H ₂ Width across flat (mm)	Min. inner diameter (mm)	Effective sectional area (mm ²)	Weight (g)
* CSE-ST6×4-R1/8	6×4	R1/8	23.5	17.0	30.5	40.5	8	7	14.0	12.0	3.5	–	50.0
* CSE-ST6×4-R1/4	6×4	R1/4	23.5	20.5	30.5	44.0	11	7	14.0	12.0	3.5	7.0	56.0
* CSE-ST8×6-R1/4	8×6	R1/4	25.0	20.0	33.1	45.0	11	7.5	14.0	14.0	5.5	–	59.0
* CSE-ST10×8-R3/8	10×8	R3/8	29.0	24.0	38.8	53.0	12	8.5	19.0	17.0	7.5	–	115.0
* CSE-ST12×9-R1/2	12×9	R1/2	32.5	30.0	45.5	62.5	15	10	26.0	19.0	8.5	–	221.0
* CSE-ST12×10-R1/2	12×10	R1/2	32.5	30.0	45.5	62.5	15	10	26.0	19.0	9.5	–	216.0

*Made to order



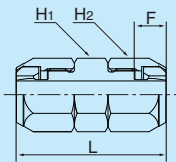
Union connector



●Millimeter size type

Product number	Applicable tubing outer/inner diameters (mm)	L (mm)	F Tubing insertion length (mm)	H ₁ Width across flat (mm)	H ₂ Width across flat (mm)	Min. inner diameter (mm)	Effective sectional area (mm ²)	Weight (g)
CSE-UC6×4	6×4	32.0	7	12.0	12.0	3.5	8.5	23.0
* CSE-UC8×5	8×5	36.0	7.5	14.0	14.0	4.5	–	35.0
CSE-UC8×6	8×6	36.0	7.5	14.0	14.0	5.5	21.5	34.0
CSE-UC10×8	10×8	40.0	8.5	17.0	17.0	7.5	39.5	54.0
CSE-UC12×9	12×9	45.0	10	19.0	19.0	8.5	47.0	73.0
* CSE-UC12×10	12×10	45.0	10	19.0	19.0	9.5	63.0	70.0

*Made to order



●Inch size type

Product number	Applicable tubing outer/inner diameters (mm)	L (mm)	F Tubing insertion length (mm)	H ₁ Width across flat (mm)	H ₂ Width across flat (mm)	Min. inner diameter (mm)	Effective sectional area (mm ²)	Weight (g)
CSE-UC1/4	6.35×4.57	32.0	7	12.0	12.0	4	11.0	23.0
CSE-UC3/8	9.53×6.99	41.0	9.0	17.0	17.0	6.5	30.0	57.0
CSE-UC1/2	12.70×9.56	48.0	10.5	19.0	22.0	9	57.5	102.0

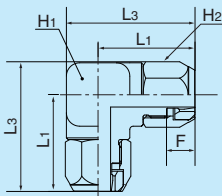
90 degree union elbow



●Millimeter size type

Product number	Applicable tubing outer/inner diameters (mm)	L ₁ (mm)	L ₃ (mm)	F Tubing insertion length (mm)	H ₁ Width across flat (mm)	H ₂ Width across flat (mm)	Min. inner diameter (mm)	Effective sectional area (mm ²)	Weight (g)
CSE-UL6×4	6×4	23.5	30.5	7	14.0	12.0	3.5	7.0	43.0
CSE-UL8×6	8×6	25.0	33.1	7.5	14.0	14.0	5.5	17.5	49.0
CSE-UL10×8	10×8	29.0	38.8	8.5	19.0	17.0	7.5	32.5	95.0
CSE-UL12×9	12×9	31.0	42.0	10	19.0	19.0	8.5	42.0	116.0
* CSE-UL12×10	12×10	31.0	42.0	10	19.0	19.0	9.5	–	106.0
* CSE-UL19×16	19×16	38.8	54.4	12.3	26.0	27.0	15.0	–	–

*Made to order



Tubing
Clean tubing
Processed tubing
PushOne fitting
QuickSeal fitting
Clean fitting/ Chemifit
Bamboo-shoot fitting
Control switch/ Detachable series
Jig/Tool/ Accessory
Technical information
Reference

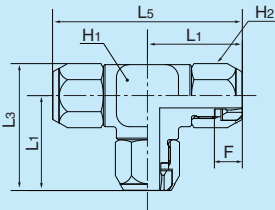
Union tee



●Millimeter size type

Product number	Applicable tubing outer/inner diameters (mm)	L ₁ (mm)	L ₃ (mm)	L ₅ (mm)	F Tubing insertion length (mm)	H ₁ Width across flat (mm)	H ₂ Width across flat (mm)	Min. inner diameter (mm)	Effective sectional area (mm ²)	Weight (g)
CSE-UT6×4	6×4	23.5	30.5	47.0	7	14.0	12.0	3.5	7.0	59.0
CSE-UT8×5	8×5	25.0	33.1	50.0	7.5	14.0	14.0	4.5	11.5	72.0
CSE-UT8×6	8×6	25.0	33.1	50.0	7.5	14.0	14.0	5.5	16.5	68.0
CSE-UT10×8	10×8	29.0	38.8	58.0	8.5	19.0	17.0	7.5	31.5	127.0
CSE-UT12×9	12×9	31.0	42.0	62.0	10	19.0	19.0	8.5	-	140.0
CSE-UT12×10	12×10	31.0	42.0	62.0	10	19.0	19.0	9.5	-	133.0

*Made to order



●Inch size type

Product number	Applicable tubing outer/inner diameters (mm)	L ₁ (mm)	L ₃ (mm)	L ₅ (mm)	F Tubing insertion length (mm)	H ₁ Width across flat (mm)	H ₂ Width across flat (mm)	Min. inner diameter (mm)	Effective sectional area (mm ²)	Weight (g)
CSE-UT1/4	6.35×4.57	23.5	30.5	47.0	7	14.0	12.0	4	-	55.0
CSE-UT3/8	9.53×6.99	29.5	39.5	59.0	9	19.0	17.0	6.5	-	129.0
CSE-UT1/2	12.70×9.56	33.0	45.7	66.0	10.5	22.0	22.0	9	45.5	204.0

*Made to order

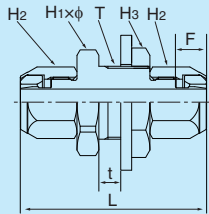
Panel touch connector



●Millimeter size type

Product number	Applicable tubing outer/inner diameters (mm)	L (mm)	F Tubing insertion length (mm)	H ₂ Width across flat (mm)	H ₃ Width across flat (mm)	T Thread size (M)	t Max. panel thickness (mm)	Washer thickness (mm)	Washer outer diameter (mm)	H ₁ ×φ Width across flat (mm)	Min. inner diameter (mm)	Effective sectional area (mm ²)	Weight (g)
CSE-UCT6×4	6×4	45.0	7	12.0	21.0	M15×1	6.0	3	28	21.0×23.0	3.5	8.0	70.0
CSE-UCT8×5	8×5	48.0	7.5	14.0	22.0	M17×1	6.0	3	30	22.0×24.5	4.5	-	85.0
CSE-UCT8×6	8×6	48.0	7.5	14.0	22.0	M17×1	6.0	3	30	22.0×24.5	5.5	21.0	83.0
CSE-UCT10×8	10×8	51.0	8.5	17.0	26.0	M20×1	6.0	3	34	26.0×29.0	7.5	40.5	121.0
CSE-UCT12×9	12×9	54.5	10	19.0	27.0	M22×1	5.5	3	37	27.0×30.0	8.5	47.5	139.0
CSE-UCT12×10	12×10	54.5	10	19.0	27.0	M22×1	5.5	3	37	27.0×30.0	9.5	63.0	135.0

*Made to order



Assembly nut



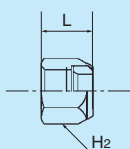
●Millimeter size type

Product number	Applicable tubing outer diameter (mm)	L (mm)	H ₂ Width across flat (mm)	Weight (g)
CSAN4	4	11.0	10.0	4.0
CSAN6	6	12.5	12.0	6.0
CSAN8	8	14.0	14.0	8.5
CSAN10	10	15.5	17.0	14.0
CSAN12	12	17.5	19.0	18.5
CSAN19	19	22.5	27.0	37.5

*Made to order

●Inch size type

Product number	Applicable tubing outer diameter (inch)	L (mm)	H ₂ Width across flat (mm)	Weight (g)
CSAN1/4	1/4	12.5	12.0	6.0
CSAN3/8	3/8	15.5	17.0	14.5
CSAN1/2	1/2	19.0	22.0	29.0

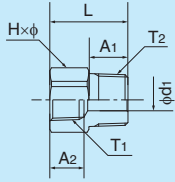


Bushing

●Millimeter size type



Product number	T ₁ Thread size (RC)	T ₂ Thread size (R)	L (mm)	A ₁ (mm)	A ₂ (mm)	H×φ Width across flat (mm)	d ₁ (mm)	Weight (g)
3A0-4-6-CS	RC1/4	R3/8	29.0	14.0	13.0	17.0×18.5	9.0	—
3A0-6-8-CS	RC3/8	R1/2	34.5	18.0	13.5	22.0×24.5	11.0	—
3A0-8-12-CS	RC1/2	R3/4	40.0	20.0	17.5	30.0×33.0	11.0	—

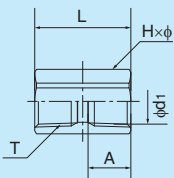


Socket

●Millimeter size type



Product number	T Thread size (RC)	L (mm)	A (mm)	H×φ Width across flat (mm)	d ₁ (mm)	Weight (g)
330-4-4-CS	RC1/4	30.0	13.0	17.0×18.5	9.0	—
330-6-6-CS	RC3/8	33.0	13.5	19.0×21.0	13.0	—
330-8-8-CS	RC1/2	39.5	17.5	24.0×26.5	17.0	—



- Tubing
- Clean tubing
- Processed tubing
- PushOne fitting
- QuickSeal fitting
- Clean fitting/ Chemifit
- Bamboo-shoot fitting
- Control switch/ Detachable series
- Jig/Tool/ Accessory
- Technical information
- Reference

Reference

Technical information

Jig/Tool/
Accessory

Control switch/
Detachable
series

Bambo-
shoot fitting

Clean fitting/
Chemifit

QuickSeal
fitting

PushOne
fitting

Processed
tubing

Clean
tubing

Tubing