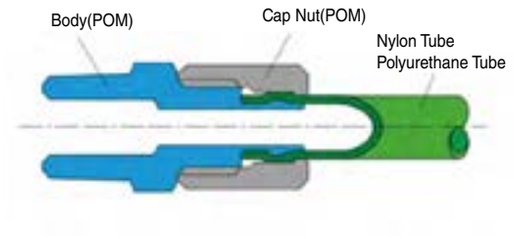
TWO-TOUCH FITTINGS

Application
- Nut-tightened air connector used for pneumatic piping.

Feature
- Effective use at the place of vibration or rocking.
- Long life-span made of plastic.
- Excellent in anti-corrosion and anti-chemicals.

Structural Diagram



Specification

Fluid	Air(No other gases or liquids)	
Working Pressure Range	0~150PSI	0~9Kgf/㎠(0~900kPa)
Negative Pressure	-29.5 in Hg	-750mmHg(10Torr)
Temperature Range	32~140℉	0~60℃
Applicable Tube Material	Polyurethane and Nylon	

Product Code System

TC 04 - 01

① ② ③

① Type

Metric Size					
Code	TC	TL	TUT	THT	THL
Type	STRAIGHT	ELBOW	UNION	TEE	ELBOW
				ROTATION	

② Tube Dia(ØD)

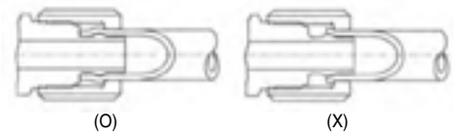
Code	04	06	08	10	12
Dia	Ø4XØ2.5	Ø6XØ4	Ø8XØ5.5	Ø10XØ6.5	Ø12XØ8

③ Thread Size(T)

	Taper Pipe Thread			
Code	01	02	03	04
Size	R1/8	R1/4	R3/8	R1/2

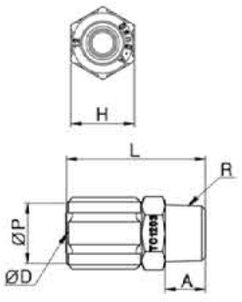
⚠ CAUTION

- Be sure to read the “Common Precautions” and “Using Precautions of Fitting Series” (P14) before using.
- Festening the cap by force will cause damage on thread or body.
- Push the tube fully into the end when connecting.
- Cut the used part of tube after using once.
- Seal with teflon, failure to do so will cause air leakage



TC

Straight

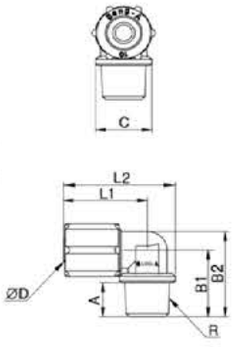


MODEL [ØD-T] (mm)

MODEL	ØD	R	A	L	H	ØP	Orifice (mm)	W.G(g)	Q'ty/Inbox
TC 04-01	4	R1/8	8	25	12	10	2	1.8	100
TC 04-02	4	R1/4	11	28	14	10	2	2.5	100
TC 06-01	6	R1/8	8	29	12	12	3	2.8	100
TC 06-02	6	R1/4	11	32	14	12	3	4.8	100
TC 08-01	8	R1/8	8	30.5	14	14	4.6	3.3	50
TC 08-02	8	R1/4	11	33.5	14	14	4.6	4.7	50
TC 08-03	8	R3/8	12	34.5	17	14	4.6	6.3	50
TC 10-02	10	R1/4	11	34.5	17	17	5.2	5.9	50
TC 10-03	10	R3/8	12	35.5	17	17	5.2	8.2	50
TC 12-03	12	R3/8	12	41.5	19	18	6.5	10.7	50
TC 12-04	12	R1/2	15	44.5	22	18	6.5	13	25

TL

Elbow

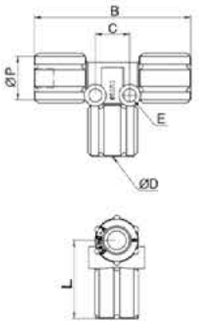


MODEL [ØD-T] (mm)

MODEL	ØD	R	A	B1	B2	C	L1	L2	Orifice (mm)	W.G(g)	Q'ty/Inbox
TL 04-01	4	R1/8	8	16.5	20	10	16	21	2	3	100
TL 04-02	4	R1/4	11	19.5	23	15	16	23.5	2	3.5	100
TL 06-01	6	R1/8	8	16	20	10	20	25	3	4.9	100
TL 06-02	6	R1/4	11	18	22	14	26	29	3	6.8	50
TL 08-01	8	R1/8	8	17	22	14	23.5	30.5	4.6	5.2	50
TL 08-02	8	R1/4	11	21	26	14	23.5	30.5	4.6	7	50
TL 08-03	8	R3/8	12	22	27	17	24.5	33	4.6	10.1	50
TL 10-02	10	R1/4	11	21.5	27.5	17	25.5	34	5.2	9.2	50
TL 10-03	10	R3/8	12	22.5	28.5	17	25.5	34	5.2	11.1	50
TL 12-03	12	R3/8	12	25	34.5	19	32	41.5	6.5	15.3	25
TL 12-04	12	R1/2	15	28	37.5	22	33.5	44.5	6.5	21	25

TUT

Union Tee

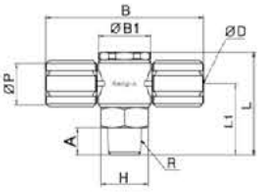


MODEL [ØD-T] (mm)

MODEL	ØD	ØP	B	C	E	L	Orifice (mm)	W.G(g)	Q'ty/Inbox
TUT 04	4	10	36	7.5	2.4	18	2	4.8	100
TUT 06	6	12	41	11	3.2	23	3	10	50
TUT 08	8	14	50	11	4.2	25	4.6	13	25
TUT 10	10	17	50.8	11	4.2	25.5	5.2	19.6	25
TUT 12	12	19	68	16	7	34	6.5	30.9	20

THT(D1)

Single Universal Tee

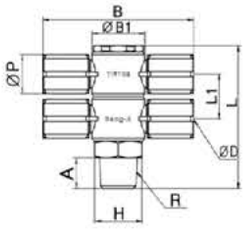


MODEL [ØD-T] (mm)

MODEL	ØD	R	A	B	B1	H	L	L1	ØP	Orifice (mm)	W.G(g)	Q'ty/ Inbox
THT 0401-D1	4	R1/8	8	40.4	15.4	14	30.2	21	10	2	18.1	50
THT 0402-D1	4	R1/4	11	40.4	15.4	14	30.2	24	10	2	30.6	50
THT 0601-D1	6	R1/8	8	46.4	15.4	14	30.3	21	12	3	21	50
THT 0602-D1	6	R1/4	11	46.4	15.4	14	33.3	24	12	3	32.5	25
THT 0801-D1	8	R1/8	8	54	19	17	32.2	22	14	4.6	32.7	25
THT 0802-D1	8	R1/4	11	54	19	17	35.2	25	14	4.6	33.5	25
THT 0803-D1	8	R3/8	12	54	19	17	36.2	26	14	4.6	40	25
THT 1002-D1	10	R1/4	11	59	23	21	42.5	30	17	5.2	35.6	25
THT 1003-D1	10	R3/8	12	59	23	21	43.5	31	17	5.2	66.5	25
THT 1004-D1	12	R1/2	15	59	23	21	47	34	17	5.2	75	20
THT 1202-D1	12	R1/4	11	76	30	27	47	33	19	6.5	51.1	20
THT 1203-D1	12	R3/8	12	76	30	27	47	33	19	6.5	74.5	20
THT 1204-D1	12	R1/2	15	76	30	27	51	37	19	6.5	85	20

THT(D2)

Double Universal Tee

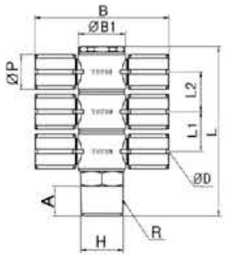


MODEL [ØD-T] (mm)

MODEL	ØD	R	A	B	B1	H	L	L1	ØP	Orifice (mm)	W.G(g)	Q'ty/ Inbox
THT 0401-D2	4	R1/8	8	40.4	15.4	14	44.2	14	10	2	30.4	25
THT 0402-D2	4	R1/4	11	40.4	15.4	14	47.2	14	10	2	45.4	25
THT 0601-D2	6	R1/8	8	46.4	15.4	14	44.3	21	12	3	34.2	25
THT 0602-D2	6	R1/4	11	46.4	15.4	14	47.3	24	12	3	48.7	25
THT 0801-D2	8	R1/8	8	54	19	17	48.3	22	14	4.6	47.5	20
THT 0802-D2	8	R1/4	11	54	19	17	51.3	25	14	4.6	50.7	20
THT 0803-D2	8	R3/8	12	54	19	17	52.3	26	14	4.6	105	12
THT 1002-D2	10	R1/4	11	59	23	21	62.5	20	17	5.2	54.6	12
THT 1003-D2	10	R3/8	12	59	23	21	63.5	20	17	5.2	106.6	12
THT 1004-D2	10	R1/2	15	59	23	21	66.5	34	17	5.2	110	12
THT 1202-D2	12	R1/4	11	76	30	27	68.8	21.8	19	6.5	86.8	9
THT 1203-D2	12	R3/8	12	76	30	27	69.8	21.8	19	6.5	119	6
THT 1204-D2	12	R1/2	15	76	30	27	72.8	37	19	6.5	125	6

THT(D3)

Triple Universal Tee

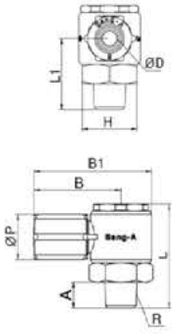


MODEL [ØD-T] (mm)

MODEL	ØD	R	A	B	B1	H	L	L1	L2	ØP	Orifice (mm)	W.G(g)	Q'ty/ Inbox
THT 0401-D3	4	R1/8	8	40.4	15.4	14	58.2	14	14	10	2	42.8	20
THT 0402-D3	4	R1/4	11	40.4	15.4	14	61.2	14	14	10	2	61.6	20
THT 0601-D3	6	R1/8	8	46.4	15.4	14	58.3	14	21	12	3	47.2	15
THT 0602-D3	6	R1/4	11	46.4	15.4	14	61.3	14	24	12	3	67.2	15
THT 0801-D3	8	R1/8	8	54	19	17	64.3	16	22	14	4.6	70.1	12
THT 0802-D3	8	R1/4	11	54	19	17	67.3	16	25	14	4.6	70.4	12
THT 0803-D3	8	R3/8	12	54	19	17	68.3	16	26	14	4.6	135.6	8
THT 1002-D3	10	R1/4	11	59	23	21	82.5	20	20	14	5.2	75.6	12
THT 1003-D3	10	R3/8	12	59	23	21	83.5	20	20	17	5.2	141.5	12
THT 1004-D3	10	R1/2	15	59	23	21	86.5	34	34	17	5.2	145	6
THT 1202-D3	12	R1/4	11	76	30	27	90.6	21.8	21.8	19	6.5	145	6
THT 1203-D3	12	R3/8	12	76	30	27	91.6	21.8	21.8	19	6.5	159.3	6
THT 1204-D3	12	R1/2	15	76	30	27	94.6	37	37	19	6.5	165	6

THL(D1)

Single Universal Elbow

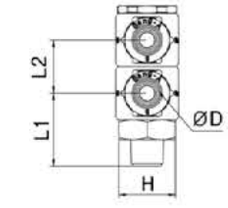


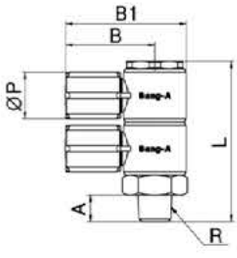
MODEL [ØD-T] (mm)

MODEL	ØD	R	A	B	B1	H	L	L1	ØP	Orifice (mm)	W.G(g)	Q'ty/ Inbox
THL 0401-D1	4	R1/8	8	20.2	27.9	14	30.2	21	10	2	18.7	50
THL 0402-D1	4	R1/4	11	20.2	27.9	14	33.2	24	10	2	19.7	50
THL 0601-D1	6	R1/8	8	23.2	30.9	14	30.3	21	12	3	19.7	50
THL 0602-D1	6	R1/4	11	23.2	30.9	14	33.3	24	12	3	31.2	25
THL 0801-D1	8	R1/8	8	26.9	36.4	17	32.2	22	14	4.6	55	25
THL 0802-D1	8	R1/4	11	26.9	36.4	17	35.2	25	14	4.6	60	25
THL 0803-D1	8	R3/8	12	26.9	36.4	17	36.2	26	14	4.6	65.2	20
THL 1002-D1	10	R1/4	11	29.5	41	21	42.5	30	17	5.2	32.5	25
THL 1003-D1	10	R3/8	12	29.5	41	21	43.5	31	17	5.2	66.6	20
THL 1004-D1	10	R1/2	15	29.5	41	21	47	34	17	5.2	72	20
THL 1202-D1	12	R1/4	11	38	53	27	47	33	19	6.5	67	20
THL 1203-D1	12	R3/8	12	38	53	27	47	33	19	6.5	69.3	20
THL 1204-D1	12	R1/2	15	38	53	27	51	37	19	6.5	73	20

THL(D2)

Double Universal Elbow



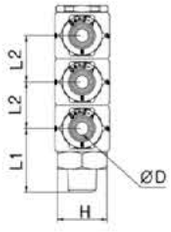


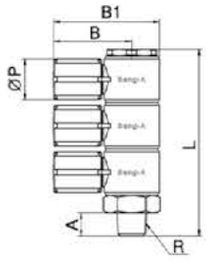
MODEL [ØD-T] (mm)

MODEL	ØD	R	A	B	B1	H	L	L1	L2	ØP	Orifice (mm)	W.G(g)	Q'ty/ Inbox
THL 0401-D2	4	R1/8	8	20.2	27.9	14	44.2	21	14	10	2	29.7	25
THL 0402-D2	4	R1/4	11	20.2	27.9	14	47.2	24	14	10	2	34	25
THL 0601-D2	6	R1/8	8	23.2	30.9	14	44.3	21	14	12	3	31.7	25
THL 0602-D2	6	R1/4	11	23.2	30.9	14	47.3	24	14	12	3	46.2	25
THL 0801-D2	8	R1/8	8	26.9	36.4	17	48.3	22	16	14	4.6	45	25
THL 0802-D2	8	R1/4	11	26.9	36.4	17	51.3	25	16	14	4.6	47.2	25
THL 0803-D2	8	R3/8	12	26.9	36.4	17	52.3	26	16	14	4.6	100.7	25
THL 1002-D2	10	R1/4	11	29.5	41	21	62.5	30	20	17	5.2	49.1	20
THL 1003-D2	10	R3/8	12	29.5	41	21	63.5	31	20	17	5.2	103.2	12
THL 1004-D2	12	R1/2	15	29.5	41	21	66.5	34	20	17	5.2	108	12
THL 1202-D2	12	R1/4	11	38	53	27	68.8	32.9	21.8	19	6.5	115	9
THL 1203-D2	12	R3/8	12	38	53	27	69.8	33.9	21.8	19	6.5	120	9
THL 1204-D2	12	R1/2	15	38	53	27	72.8	37	21.8	19	6.5	131	9

THL(D3)

Triple Universal Elbow





MODEL [ØD-T] (mm)

MODEL	ØD	R	A	B	B1	H	L	L1	L2	ØP	Orifice (mm)	W.G(g)	Q'ty/ Inbox
THL 0401-D3	4	R1/8	8	20.2	27.9	14	58.2	21	14	10	2	40.5	50
THL 0402-D3	4	R1/4	11	20.2	27.9	14	61.2	24	14	10	2	42	50
THL 0601-D3	6	R1/8	8	23.2	30.9	14	58.3	21	14	12	3	43.3	25
THL 0602-D3	6	R1/4	11	23.2	30.9	14	61.3	24	14	12	3	62.9	20
THL 0801-D3	8	R1/8	8	26.9	36.4	17	64.3	22	16	14	4.6	61.5	20
THL 0802-D3	8	R1/4	11	26.9	36.4	17	67.3	25	16	14	4.6	64.4	20
THL 0803-D3	8	R3/8	12	26.9	36.4	17	68.3	26	16	14	4.6	73.4	12
THL 1002-D3	10	R1/4	11	29.5	41	21	82.5	30	20	14	5.2	67.2	20
THL 1003-D3	10	R3/8	12	29.5	41	21	83.5	31	20	17	5.2	80	12
THL 1004-D3	10	R1/2	15	29.5	41	21	86.5	34	20	17	5.2	91	6
THL 1202-D3	12	R1/4	11	38	53	27	90.6	32.9	21.8	19	6.5	100	8
THL 1203-D3	12	R3/8	12	38	53	27	91.6	33.9	21.8	19	6.5	109	8
THL 1204-D3	12	R1/2	15	38	53	27	94.6	37	21.8	19	6.5	120	6

Classification of Warning Indication

DANGER Risk of death or serious injury.
(The most dangerous condition.)

WARNING Potential risk of danger, death or serious injury.
(Potential danger)

CAUTION Potential risk of danger and of financial damage.

Common Precautions

DANGER

▶ Never use for the following:
① As equipment for the purpose of the maintenance and management of human life.
② As equipment for the purpose of movement of human transportation.
③ As equipment requiring essential safety.

WARNING

▶ Never use on the following environment:
① Using for applications other than originally intended.
② Place of excessive vibration, shock, rotation and curve.
③ Place consisting of corrosive gas, inflammable/flammable gas, chemicals, sea water, water and vapor.

▶ Never disassmble or remodel the equipment; this may cause malfunction or leakage.
▶ When repairing or checking equipment, remove air pressure first.
▶ Never tamper with the sleeve of fitting when pressure is on.

CAUTION

▶ Never assemble with parts from other manufacturers; this may cause leakage or damage to the equipment.

Sang-A Pneumatic Co., Ltd. is not responsible for damage or injury that may occur due to interchanging of parts outside of the Sang-A Pneumatic brand.

Using Precautions of Fitting Series

Never fail to check the following

WARNING

1. Never use for fluids other than air and water(Water:available in case of special order only)
2. Never use at the place of spatter to avoid fire.
3. Be sure to use with Rotary Joint to prevent damage or leakage at the place of rotation.
4. Never use with water hotter than 60℃. This causes breakage of resin due to hydrolysis or heat.
5. Be sure to use after checking static electricity prevention requirements.
6. Avoid external impact such as bending, twisting and drawing on fittings.

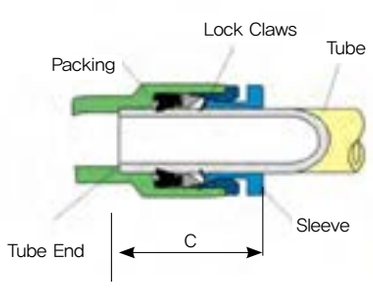
CAUTION

① Be sure to meet the following conditions for the tube, otherwise it may cause leakage of air or inferiority of the application.

SIZE	POLYURETHANE TUBE	NYLON TUBE	SIZE	POLYURETHANE TUBE	NYLON TUBE
Ø 3mm	± 0.10	± 0.08	Ø 1/8	± 0.10	± 0.08
Ø 4mm	± 0.10	± 0.08	Ø 5/32	± 0.10	± 0.08
Ø 6mm	± 0.12	± 0.10	Ø 3/16	± 0.12	± 0.10
Ø 8mm	± 0.12	± 0.10	Ø 1/4	± 0.12	± 0.10
Ø 10mm	± 0.15	± 0.12	Ø 5/16	± 0.15	± 0.12
Ø 12mm	± 0.15	± 0.12	Ø 3/8	± 0.15	± 0.12
Ø 16mm	± 0.15	± 0.15	Ø 1/2	± 0.15	± 0.15

② Cautions in the application of tube:

- Be sure to confirm that the section of tube is cut at a right angle. Make sure that there is no indication of damage to the outside of the tube.
- Be sure to refer to the following for application and removal of the tube.
  Sang-A Pneumatic equipment is made to follow a 2-step insertion of tubing into the fitting.
  The 1st step goes past the Lock Claws, and the 2nd step goes into the Packing.
  Make sure that the second step has been acquired.
- The elliptical design of the sleeve makes for a simple and easy application.
  (Please order the round sleeve if there are restrictions)



▶The size of Sleeve

SLEEVE SIZE		Ø3	Ø4		Ø6	Ø8	Ø10	Ø12	Ø16
		Ø1/8	Ø5/32	Ø3/16	Ø1/4	Ø5/16	Ø3/8	Ø1/2	
C	General Specifications(mm)		10X12	11X13	12X14	14X16	17X19	21X23	24X27
	Compact Specifications(mm)	7X6	10X8		12X10				

- Minimum insertion part of tube is as follows and be sure to use leaving as much as the following size as margin.

SLEEVE SIZE		Ø3	Ø4	Ø6	Ø8	Ø10	Ø12	Ø16
		Ø1/8	Ø5/32, 3/16	Ø1/4	Ø5/16	Ø3/8	Ø1/2	
C	General Specifications(mm)		16	17	18.5	21	22	25
	Compact Specifications(mm)	9.5	11.5	12.5	Ø3/16(N/A)			

③ Cautions on disconnecting tube:

- Before disconnecting tube, be sure to confirm that the pressure inside the tube is at zero.
- Before disconnecting tube, pull it out after pressing the sleeve equally on both sides.
  Unequal pressing strength will make scratch on tube by insufficient open of lock claws, this will cause air leakage.
- Be sure not to shake or make 360 degree rotation when disconnecting the tube.
  The scratch made by the misuses will cause air leakage.

④ Cautions on treatment of the equipment body:

- When fastening the body onto the six-angle part of the inside and outside of the fitting, choose the correct tool and size.
- When fastening the thread, please refer to the "Torque Recommended"(P13)
  If torque is higher than the recommended, this may cause damage or air leakage.
  If torque is lower than the recommecded, this may cause air leakage.
- After fastening the thread, most of Sang-A equipment allows control of the direction of the pipe.