ONE-TOUCH FITTING

- Push to connect fitting
- Commonly used for a whole range of pneumatic applications
- No tools needed
- Fast Installation & Quick Disconnection

ONE-TOUCH FITTINGS

COMPACT ONE-TOUCH FITTING

- Lightweight & Compact fitting
- Electroless nickel(EN) plating type
- Suitable for small equipment & narrow space
- Fast installation & Quick Disconnection

COMPACT ONE-TOUCH FITTINGS

SPEED CONTROLLERS

- Precise control of airflow rate
- Designed to secure a large airflow and to control high air speed
- Lightweight & Quick installation
- Increased the number of needle rotational 10-12)
- NSO/DI type: easy adjustment by using tools in a narrow space

PILOT CHECK VALVES SPEED CONTROLLERS

- Combination of pilot check valves and speed controllers
- Able to adjust airflow speed
- Enables 360° direction for tube mounting

HAND VALVES, HAND SLIDE VALVES

- Used for turning air pressure on/off
- The three-ways control, when closed, discharged the residual pressure from the output side. Thus, assures safety at adjustment or repairment

STOP FITTINGS

- One touch fitting with built-in stop valve
- Used for frequent change of pneumatic connections
- The flow-shut mechanism operates to stop the air flow when the tube is disconnected
- Allows air flow when the tube is connected

CHECK VALVES

- Permits the air flow in one direction but block the flow in the opposite direction
- Keeps the output pressure at a constant level
- Suitable for low air pressure

STAINLESS STEEL (SUS316L)

- Lock-claws push-in fitting made of SUS316
- Used in all sectors related to food, medical, and precision parts Rotating body structure
- Fast Installation & Quick disconnection
- Suitable for high temperature and Excellent corrosion resistance

BRASS PUSH-IN FITTINGS

BRASS PUSH-IN FITTINGS

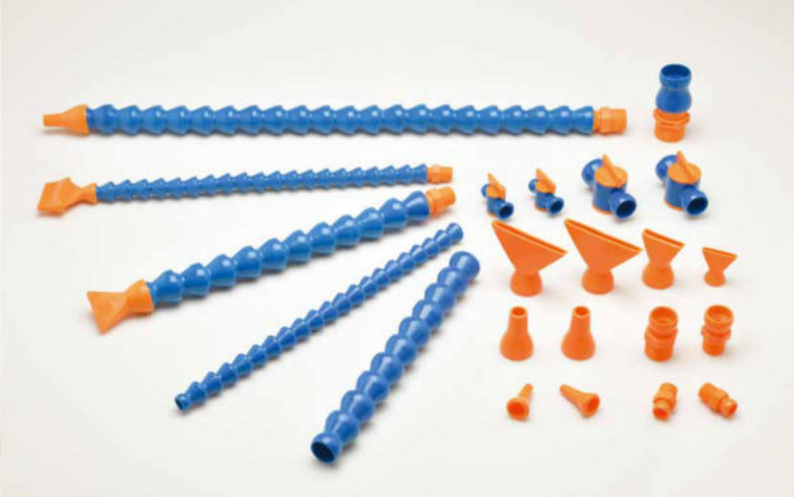
- One-touch fitting made of brass/body & release ring)
- Compact type & suitable for narrow space
- Excellent flame/spatter resistance and heat resistance

TWO-TOUCH FITTINGS

- Nut-tightened air connector for pneumatic piping
- Used in places with severe shock and vibration
- Excellent chemical resistance and corrosion resistance
- Semi-permanent

SILENCER

- Connected to the exhaust port of a device, suppresses that exhaust noise
- Provides superior performance in noise control and a minimum effect on air efficiency
- Compact and lightweight
- Suitable for air and gas
- Plastic and metal silencers available



OIL EJECTOR LINE

- Excellent for cutting oil supply and washing process
- Excellent chemical resistance, corrosion resistance and nonconductive
- Lightweight and semi-permanent made of plastic
- Comes with various sizes

OIL EJECTOR LINES

TUBE(PU, PE, NA, COIL)

- Offer excellent flexibility and outstanding use in a wide range of applications
- Used for pneumatic applications, food industry
- Featuring excellent flexibility, oil-resistance, wear-resistance and cold-resistance
- Wide range of color options

AIR GUN

- Efficient blowing of air, ideal the cleaning of parts and surfaces
- Adjustable air injection volume
- Used in limited spaces due to various nozzle length

COUPLING

- Used to connect pneumatic device
- One-way switch valve built-in automatic on-off valve
- Easy to use due to connection and release of plug and socket being smooth
- Wide range of coupling available

KOREAN COUPLING

- Used to connect pneumatic device
- One-way switch valve built-in automatic on-off valve
- Easy to use due to connection and release of plug and socket being smooth
- Wide range of coupling available

TWO-TOUCH FITTINGS (BSBM)

- Screw joining fitting for severe shock and vibration
- Attached insert allows tolerance top pressure and vibration
- Efficient connection because of thread part coating

TWO-TOUCH FITTINGS (BSBM)

BARB FITTINGS

BARB FITTINGS

- Miniature fitting
- Easy to use, simple to assemble, and high cost-efficient
- Clean design

Caution and Warning

DANGER heath or serious injury may occur

WARNING death or serious injury may occur depending on the specific situation

CAUTION serious/light injury or loss of property may occur depending on the specific situation

⚠ DANGER

Do not use for the following purposes

- Devices used for maintaining and handling human life and body
- Devices for moving and transporting human
- Devices that prioritize safety purposes

⚠ WARNING

Do not use CDCPNEUMATIC products under the following conditions

- Beyond the specifications stated in the catalog or the instructions
- Excessive vibrations, impacts
- Avoid any load on products such as tensile strength, twisting and bending
- Exposure spatter(there is a risk of causing fire by sparks)
- Under condition of over 60℃, hot temperature fluid(hydrolysis may occur) or thermal oil
- Exposure/adhere to corrosive gas, inflammable gas, chemicals, seawater, water and vapor(except some products)
- For Use in water(damaged by surge pressure)
- Under condition of pharmaceuticals being used(see chemical compatibility table)

⚠ CAUTION

Pay attention to the following

- Remove dusts or drain before installation
- Supply air after connection fitting to the pipe. There is a possibility that the seal of fitting may come off and cause leakage.
- Excessive force and exceeding the recommended allowable torque may cause damage or quality problems due to broken screws.
- Tube detachable sleeve is designed in a circular shape, thus, suitable for the narrow space. However, in case of space being limited select other products(compact fitting and etc.)

Common Safety Instructions

Safety Instruction Manual

- When installing a fitting, refer to table of recommended tightening torque
- The taper pipe thread is coated with Teflon, thus requiring no additional Teflon tape or sealing treatment.

〈Table〉 Recommended Tightening Torque(Thread Size)

Thread type	Thread Size	Recommended torque(kgf · cm)
Metric Thread (mm)	M3×P0.5	0.7 Nm
	M5×P0.8	1.5 Nm
	M6×P1.0	2.3 Nm
Pipe Taper Thread (PT)	R 1/8	7 Nm
	R 1/4	12 Nm
	R 3/8	22 Nm
	R 1/2	28 Nm
Unified Thread (UNF)	No. 10-32 UNF	1.5 Nm
NPT Thread	NPT 1/16	7 Nm
	NPT 1/8	7 Nm
	NPT 1/4	12 Nm
	NPT 3/8	22 Nm
	NPT 1/2	28 Nm
PF Thread	G 1/8	10 Nm
	G 1/4	15 Nm
	G 3/8	25 Nm
	G 1/2	40 Nm

Tube Mounting Length

- Please check tube mounting length before connecting a fitting into a tube.
- When inserting a tube, the tube needs to be inserted fully into the pushing in fitting to the end. It goes through the packing till the endpoint B).
- When the tube is completely installed, lock-claws tightens and it is sealed by packing.

〈Table〉 Tube O.D. Tolerance

▶mm Size O.D. Tolerance (Unit/mm)

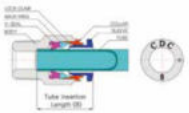
Tube Size	Ø3	Ø4	Ø6	Ø8	Ø10	Ø12	Ø12
Tolerance	±0.1	±0.1	±0.1	±0.1	±0.15	±0.15	±0.15

▶Inch Size O.D. Tolerance (Unit/mm)

Tube Size	Ø1/8	Ø5/32	Ø3/16	Ø1/4	Ø5/16	Ø3/8	Ø1/2
Tolerance	±0.1	±0.1	±0.1	±0.1	±0.15	±0.15	±0.15

Tube Mounting Depth

- Check the tolerance of the outer diameter of the tube before use CDCPneumatic products
- The tolerance for the outer diameter of the tube that can be mounted on the product is ±.01mm to ±0.15mm from the standard diameter. Please refer to the table for the tolerance for each size.



〈Image〉 Tube Mounting Depth

〈Table〉 Standard Fitting Type

Tube Mounting Depth	Standard Type						Compact Type		
	Φ4	Φ6	Φ8	Φ10	Φ12	Φ16	Φ3	Φ4	Φ6
B	15.0	16.5	18.8	20.1	22.9	23.6	11.3	11.8	12.9

〈Table〉 Inch Fitting Type

Tube Mounting Depth	Standard Type						Compact Type		
	Φ1/32	Φ1/16	Φ1/4	Φ5/16	Φ3/16	Φ1/2	Φ1/8	Φ5/32	Φ1/4
B	15.0	15.9	16.8	18.8	20.1	23.1	11.3	11.8	13.5

Instructions for Fitting Installation

- Please check screw dimensions and thread size before use
- The taper pipe thread is coated with Teflon, thus requiring no additional Teflon tape or sealing treatment

〈Image〉 Thread Size

〈Table〉 Metric Thread Size (Unit/mm)

Thread type	M Thread		R Thread				U Thread	NPT Thread			
Thread Size(T)	M5	M6	R1/8	R1/4	R 3/8	R1/2	UNF 10/32	R1/8	R1/4	R 3/8	R1/2
Thread Length(A)	4	4.1	8	10	11	14	4.1	8.5	10.5	11.5	14.5

〈Table〉Metric Thread Specifications

Thread Code	Thread Size	Applicable product
M3	M3× 0.5	(Applied to all products)
M5	M5× 0.8	
M6	M6× 1.0	

Instructions for Tube Insertion

 # Tube Insertion

- Make sure that the tube inserts fully into the fitting
- Make sure that the cut end surface of the tube is a right angle without a scratch on the surface and deformations. Pull the tube lightly to check the complete installation.
- There is a risk of leakage when there is damage to the outside of the tube
- Check tube diameter to avoid tube damage.

 # Instructions for Tube Disconnection

- Make sure there is no air pressure inside of the tube before disconnection it
- Push the release ring of the push-in fitting evenly and deeply enough to pull out the tube by hand
- Cut the compressed part of the tube before reuse

 # How to Insert Tube

1. Preparation — prepare the tube, tube cutter, fitting connection devices(spanner or monkey wrench)
2. Tube cutting — cut the tube at a right angle axial and vertically using tube cutter
3. Fitting Installation — Tighten the fitting with the spanner or money referring recommended Tightening Torque
4. Tube insertion — Insert the tube in a straight line into the fitting after marking the length of the tube insertion

Instructions for removing a fitting

- When removing a fitting, use proper tools to loosen
- Remove the sealant stuck on the mating equipment
- Please refer to the size of sleeve

〈Image〉 X, Y size

〈Table〉 The Size of Sleeve

▶The Size of Standard Sleeve Type (Unit/mm)

Sleeve specification	Standard Type							Compact Type		
	Φ4	Φ6	Φ8	Φ10	Φ12	Φ14	Φ16	Φ3	Φ4	Φ6
X	9.7	11.8	13.8	16.6	19.8	22	25.2	7.2	8.2	10.2
Y	-	-	-	-	-	-	-	9.2	10.4	12.4

▶The Size of Inch Sleeve Type (Unit/mm)

Sleeve specification	Standard Type						Compact Type		
	Φ1/32	Φ1/16	Φ1/4	Φ1/8	Φ3/8	Φ1/2	Φ1/8	Φ1/32	Φ1/4
X	9.7	11.1	12.6	13.8	16.8	19.9	7.2	8.2	10.8
Y	-	-	-	-	-	-	9.2	10.4	12.8

ONE-TOUCH FITTINGS

Product Code System

METRIC - BSPT(R)

PC 06-01-N

ONETOUCH FITTING

TUBE DIA CODE	TUBE DIA SIZE
04	Ø4
06	Ø6
08	Ø8
10	Ø10
12	Ø12
14	Ø14
16	Ø16

THREAD SIZE CODE	THREAD SIZE SIZE
M5	M5×0.8
M6	M6×1.0
M12	M12×1.5
M14	M14×1.5
M16	M16×1.5
M22	M22×1.5

R(PT) THREAD CODE	R(PT) THREAD SIZE
01	R⅛
02	R¼
03	R⅜
04	R½

PLATING
Nickel

METRIC - BSPP(G)

PC 06-G01

ONETOUCH FITTING

TUBE DIA CODE	TUBE DIA SIZE
04	Ø4
06	Ø6
08	Ø8
10	Ø10
12	Ø12
14	Ø14
16	Ø16

THREAD SIZE (G(PF) THREAD) CODE	THREAD SIZE SIZE
G01	G⅛
G02	G¼
G03	G⅜
G04	G½

INCH - BSPT(R)

PC-¼-01

ONETOUCH FITTING

TUBE DIA CODE	TUBE DIA SIZE
5/32	Ø5/32
1/4	Ø1/4
3/8	Ø3/8
5/16	Ø5/16
1/2	Ø1/2
3/8	Ø3/8

THREAD SIZE (R(PT) THREAD) CODE	THREAD SIZE SIZE
G01	R⅛
G02	R¼
G03	R⅜
G04	R½

INCH - NPT

PC-¼-N1

ONETOUCH FITTING

TUBE DIA CODE	TUBE DIA SIZE
5/32	Ø5/32
1/4	Ø1/4
3/8	Ø3/8
5/16	Ø5/16
1/2	Ø1/2
3/8	Ø3/8

THREAD SIZE (UNF THREAD) CODE	THREAD SIZE SIZE
U	10-32UNF

THREAD SIZE (NPT THREAD) CODE	THREAD SIZE SIZE
N1	NPT ⅛
N2	NPT ¼
N3	NPT ⅜
N4	NPT ½

Uses

- One-touch joints used in pneumatic piping
- Used for various environments to meet all needs

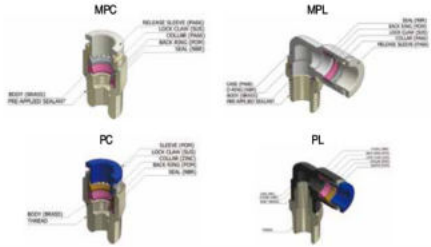
Features

- Easy Installation and disconnection by one touch
- PC type is effective for piping in narrow spaces as the inner and outer sides are hexagonal
- PL and PT types have a rotating structure, thus, efficient for piping
- It is easily disconnected by pushing the tube without tools

Specifications

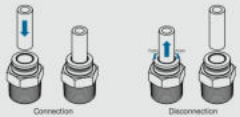
Fluid type	Air(No other gases or liquids)
Working pressure	0~150PSI / 0~9.9kgf/㎠(0~990kPa) ※In combination with the applied tube, it is based on the maximum operating pressure of the tube.
Negative pressure	-29.5 in Hg / -750mmHg(-750Torr)
Working temperature	32~140° F /0~60°C
Applicable Tube	Polyurethane and Nylon

Structural drawing



Example of uses

- Use a hexagonal wrench or spanner to tighten internal and external hexagonal part
- PL and PT type are flexible for directional tube laying given its revolving construction of body
- Sleeve is circular, thus, no interference with equipment



CAUTIONS

- Be sure to read "Caution", "Warning", "Common Safety Instructions"(pp. 25) and precautions of using fitting products before use.
- Make sure to check "Recommended Tightening Torque"(pp.26)
- It is recommended to rotate the fitting 2-3 times using a tool after tightening by hand. Screws will break if it pushes too hard.
- Make sure that the cut end surface of the tube is a right angle without a scratch on the surface and deformations. Pull the tube lightly to check the complete installation.
- Avoid piping under the condition of tension and abruptly curved piping before the tube insertion

WARNINGS

- Avoid twisting or hitting the body of fitting when assembling. It may cause damage or air leakage.
- Make sure to check specifications before using fluid. It may cause damage or air leakage

MPC
Male Straight

MPC-G
Male Straight

MODEL(ØD-T)

Tube **Metric** -Thread **R**		Tube **Inch** -Thread **R**	Tube **Inch** -Thread **NPT**		Tube **Metric** -Thread **M**	Tube **Metric** -Thread **G**	
MPC 04M5	MPC 0804	PC 1/4 -01	PC 5/32 -U	PC 5/16 -N01	PC 06-M12	MPC 04G01	MPC 08G04
MPC 04M6	MPC 1001	PC 1/4 -02	PC 5/32 -N01	PC 5/16 -N02	PC 06-M16	MPC 04G02	MPC 10G01
MPC 0401	MPC 1002	PC 1/4 -03	PC 5/32 -N02	PC 5/16 -N03	PC 06-M22	MPC 04G03	MPC 10G02
MPC 0402	MPC 1003	PC 1/4 -04	PC 5/32 -N03	PC 5/16 -N04	PC 08-M12	MPC 06G01	MPC 10G03
MPC 0403	MPC 1004	PC 5/16 -01	PC 3/16 -U	PC 3/8 -N01	PC 08-M16	MPC 06G02	MPC 10G04
MPC 06M5	MPC 1201	PC 5/16 -02	PC 3/16 -N01	PC 3/8 -N02	PC 08-M22	MPC 06G03	MPC 12G02
MPC 06M6	MPC 1202	PC 5/16 -03	PC 3/16 -N02	PC 3/8 -N03	PC 10-M12	MPC 08G01	MPC 12G03
MPC 0601	MPC 1203	PC 3/8 -01	PC 3/16 -N03	PC 3/8 -N04	PC 10-M14	MPC 08G02	MPC 12G04
MPC 0602	MPC 1204	PC 3/8 -02	PC 1/4 -U	PC 1/2 -N01	PC 10-M16	MPC 08G03	
MPC 0603	MPC 1403	PC 3/8 -03	PC 1/4 -N01	PC 1/2 -N02	PC 10-M22		
MPC 0604	MPC 1404	PC 3/8 -04	PC 1/4 -N02	PC 1/2 -N03	PC 12-M12		
MPC 0801	MPC 1603	PC 1/2 -02	PC 1/4 -N03	PC 1/2 -N04	PC 12-M14		
MPC 0802	MPC 1604	PC 1/2 -03	PC 1/4 -N04		PC 12-M16		
MPC 0803		PC 1/2 -04			PC 12-M22		

MPCF
Female Straight

MPCF-G
Female Straight

MODEL(ØD-T)

Tube **Metric** -Thread **Rc**		Tube **Inch** -Thread **Rc**	Tube **Inch** -Thread **NPT**		Tube **Metric** -Thread **G**	
MPCF 04-M5	MPCF 08-03	PCF 1/4 - 01	PCF 5/32 -N01	PCF 5/16 -N03	MPCF 04-G01	MPCF 08-G04
MPCF 06-M5	MPCF 08-04	PCF 1/4 - 02	PCF 5/32 -N02	PCF 5/16 -N04	MPCF 04-G02	MPCF 10-G01
MPCF 04-01	MPCF 10-01	PCF 5/16 -01	PCF 3/16 -N01	PCF 3/8 -N01	MPCF 04-G03	MPCF 10-G02
MPCF 04-02	MPCF 10-02	PCF 5/16 -02	PCF 3/16 -N02	PCF 3/8 -N02	MPCF 06-G01	MPCF 10-G03
MPCF 04-03	MPCF 10-03	PCF 3/8 -02	PCF 1/4 -N01	PCF 3/8 -N03	MPCF 06-G02	MPCF 10-G04
MPCF 06-01	MPCF 10-04	PCF 3/8 -03	PCF 1/4 -N02	PCF 3/8 -N04	MPCF 06-G03	MPCF 12-G02
MPCF 06-02	MPCF 12-02	PCF 1/2 -02	PCF 1/4 -N03	PCF 1/2 -N02	MPCF 08-G01	MPCF 12-G03
MPCF 06-03	MPCF 12-03		PCF 5/16 -N01	PCF 1/2 -N03	MPCF 08-G02	MPCF 12-G04
MPCF 06-04	MPCF 12-04		PCF 5/16 -N02	PCF 1/2 -N04	MPCF 08-G03	
MPCF 08-01	MPCF 16-03					
MPCF 08-02	MPCF 16-04					

MPOC
Round Male Straight

MODEL(ØD-T)

Tube **Metric** -Thread **R**			Tube **Inch** -Thread **R**	Tube **Inch** -Thread **NPT**		
MPOC 04-M5	MPOC 06-02	MPOC 10-03	POC 1/4 -01	POC 5/32-U	POC 1/4 -N01	POC 3/8 -N03
MPOC 04-M6	MPOC 06-03	MPOC 10-04	POC 1/4 -02	POC 5/32 -N01	POC 1/4 -N02	POC 3/8 -N04
MPOC 04-01	MPOC 06-01	MPOC 12-01	POC 5/16 -01	POC 5/32 -N02	POC 5/16 -N01	POC 1/2 -N02
MPOC 04-02	MPOC 06-02	MPOC 12-02	POC 5/16 -02	POC 3/16 -U	POC 5/16 -N02	POC 1/2 -N03
MPOC 04-03	MPOC 06-03	MPOC 12-03	POC 3/8 -02	POC 3/16 -N01	POC 5/16 -N03	POC 1/2 -N04
MPOC 06-M5	MPOC 06-04	MPOC 12-04	POC 3/8 -03	POC 3/16 -N02	POC 3/8 -N01	
MPOC 06-M6	MPOC 10-01			POC 1/4 -U	POC 3/8 -N02	
MPOC 06-01	MPOC 10-02					

MPMM
Bulkhead Union

MODEL(ØD)

Tube **Metric**	Tube **Inch**
MPMM 04	PMM 5/32
MPMM 06	PMM 3/16
MPMM 08	PMM 1/4
MPMM 10	PMM 5/16
MPMM 12	PMM 3/8
MPMM 16	PMM 1/2

PMP
Plastic Bulkhead Union

MODEL(ØD)

Tube **Metric**	Tube **Inch**
PMP 04	
PMP 06	
PMP 08	
PMP 10	
PMP 12	

MPMF
Bulkhead Female Straight

MPMF-G
Bulkhead Female Straight

MODEL(ØD-T)

Tube **Metric** -Thread **Rc**			Tube **Inch** -Thread **NPT**		Tube **Metric** -Thread **G**	
MPMF 04-01	MPMF 08-02	MPMF 12-02	PMF 5/32 -N01	PMF 5/16 -N03	MPMF 04-G01	MPMF 08-G03
MPMF 04-02	MPMF 08-03	MPMF 12-03	PMF 3/16 -N01	PMF 3/8 -N02	MPMF 04-G02	MPMF 10-G02
MPMF 04-03	MPMF 08-04	MPMF 12-04	PMF 3/16 -N02	PMF 3/8 -N03	MPMF 04-G03	MPMF 10-G03
MPMF 06-01	MPMF 10-01		PMF 1/4 -N01	PMF 1/2 -N02	MPMF 06-G01	MPMF 10-G04
MPMF 06-02	MPMF 10-02		PMF 1/4 -N02	PMF 1/2 -N03	MPMF 06-G02	MPMF 12-G02
MPMF 06-03	MPMF 10-03		PMF 5/16 -N01	PMF 1/2 -N04	MPMF 06-G03	MPMF 12-G03
MPMF 08-01	MPMF 10-04		PMF 5/16 -N02		MPMF 08-G01	MPMF 12-G04
					MPMF 08-G02	

MPL
Male Elbow
Swivel Rotating Type

MPL-G
Male Elbow

MODEL(ØD-T)

Tube **Metric** -Thread **R**		Tube **Inch** -Thread **R**	Tube **Inch** -Thread **NPT**		Tube **Metric** -Thread **M**	Tube **Metric** -Thread **G**	
MPL 04M5	MPL 0803	PL 1/4 -01	PL 5/32 -U	PL 5/16 -N01	PL 06-M12	MPL 04G01	MPL 08G03
MPL 04M6	MPL 0804	PL 1/4 -02	PL 5/32 -N01	PL 5/16 -N02	PL 06-M16	MPL 04G02	MPL 08G04
MPL 0401	MPL 1002	PL 1/4 -03	PL 5/32 -N02	PL 5/16 -N03	PL 06-M22	MPL 04G03	MPL 10G02
MPL 0402	MPL 1003	PL 5/16 -01	PL 3/16 -U	PL 5/16 -N04	PL 08-M12	MPL 06G01	MPL 10G03
MPL 0403	MPL 1004	PL 5/16 -02	PL 3/16 -N01	PL 3/8 -N01	PL 08-M16	MPL 06G02	MPL 10G04
MPL 06M5	MPL 1202	PL 5/16 -03	PL 3/16 -N02	PL 3/8 -N02	PL 08-M22	MPL 06G03	MPL 12G02
MPL 06M6	MPL 1203	PL 3/8 -01	PL 3/16 -N03	PL 3/8 -N03	PL 10-M12	MPL 08G01	MPL 12G03
MPL 0601	MPL 1204	PL 3/8 -02	PL 1/4 -U	PL 3/8 -N04	PL 10-M14	MPL 08G02	MPL 12G04
MPL 0602	MPL 1403	PL 3/8 -03	PL 1/4 -N01	PL 1/2 -N02	PL 10-M16		
MPL 0603	MPL 1404	PL 3/8 -04	PL 1/4 -N02	PL 1/2 -N03	PL 10-M22		
MPL 0801	MPL 1603	PL 1/2 -02	PL 1/4 -N03	PL 1/2 -N04	PL 12-M12		
MPL 0802	MPL 1604	PL 1/2 -03			PL 12-M14		
		PL 1/2 -04			PL 12-M16		
					PL 12-M22		

PL45

Male Elbow
Swivel Rotating Type

PL45-G

Male Elbow

MODEL(ØD-T)

Tube **Metric** -Thread **R**		Tube **Inch** -Thread **R**	Tube **Inch** -Thread **NPT**		Tube **Metric** -Thread **G**	
PL45 04-M5	PL45 08-02	PL45 1/4-01	PL45 5/32-U	PL45 3/8-N01	PL45 04-G01	PL45 10-G01
PL45 04-M6	PL45 08-03	PL45 1/4-02	PL45 5/32-N01	PL45 3/8-N02	PL45 04-G02	PL45 10-G02
PL45 04-01	PL45 08-04	PL45 1/4-03	PL45 5/32-N02	PL45 3/8-N03	PL45 04-G03	PL45 10-G03
PL45 04-02	PL45 10-01	PL45 5/16-01	PL45 1/4-U	PL45 3/8-N04	PL45 06-G01	PL45 10-G04
PL45 04-03	PL45 10-02	PL45 5/16-02	PL45 1/4-N01	PL45 1/2-N02	PL45 06-G02	PL45 12-G02
PL45 06-M5	PL45 10-03	PL45 5/16-03	PL45 1/4-N02	PL45 1/2-N03	PL45 06-G03	PL45 12-G03
PL45 06-M6	PL45 10-04	PL45 3/8-01	PL45 1/4-N03	PL45 1/2-N04	PL45 08-G01	PL45 12-G04
PL45 06-01	PL45 12-01	PL45 3/8-02	PL45 5/16-N01		PL45 08-G02	
PL45 06-02	PL45 12-02	PL45 3/8-03	PL45 5/16-N02		PL45 08-G03	
PL45 06-03	PL45 12-03	PL45 3/8-04	PL45 5/16-N03		PL45 08-G04	
PL45 06-04	PL45 12-04	PL45 1/2-02	PL45 5/16-N04			
PL45 08-01		PL45 1/2-03				
		PL45 1/2-04				

MPLF

Female Elbow
Swivel Rotating Type

MPLF-G

Female Elbow
Swivel Rotating Type

MODEL(ØD-T)

Tube **Metric** -Thread **Rc**		Tube **Inch** -Thread **NPT**		Tube **Metric** -Thread **G**	
MPLF 04-M5	MPLF 08-02	PLF 5/32-U	PLF 5/16-N02	MPLF 04-G01	MPLF 10-G03
MPLF 04-M6	MPLF 08-03	PLF 5/32-N01	PLF 5/16-N03	MPLF 04-G02	MPLF 10-G04
MPLF 04-01	MPLF 08-04	PLF 5/32-N02	PLF 3/8-N02	MPLF 06-G01	MPLF 12-G02
MPLF 04-02	MPLF 10-01	PLF 5/16-U	PLF 3/8-N03	MPLF 06-G02	MPLF 12-G03
MPLF 06-M5	MPLF 10-02	PLF 5/16-N01	PLF 3/8-N04	MPLF 06-G03	MPLF 12-G04
MPLF 06-M6	MPLF 10-03	PLF 5/16-N02	PLF 1/2-N03	MPLF 08-G01	
MPLF 06-01	MPLF 10-04	PLF 1/4-U	PLF 1/2-N04	MPLF 08-G02	
MPLF 06-02	MPLF 12-02	PLF 1/4-N01		MPLF 08-G03	
MPLF 06-03	MPLF 12-03	PLF 1/4-N02		MPLF 08-G04	
MPLF 06-04	MPLF 12-04	PLF 1/4-N03		MPLF 10-G01	
MPLF 08-01		PLF 5/16-N01		MPLF 10-G02	

MPLL

Extended Male Elbow
Swivel Rotating Type

MPLL-G

Extended Male Elbow
Swivel Rotating Type

MODEL(ØD-T)

Tube **Metric** -Thread **R**			Tube **Inch** -Thread **R**	Tube **Inch** -Thread **NPT**		Tube **Metric** -Thread **G**	
MPLL 04-M5	MPLL 06-04	MPLL 12-02	PLL 1/4-01	PLL 5/32-U	PLL 1/2-N03	MPLL 04-G01	MPLL 08-G04
MPLL 04-M6	MPLL 08-01	MPLL 12-03	PLL 1/4-02	PLL 5/32-N01	PLL 5/16-N01	MPLL 04-G02	MPLL 10-G01
MPLL 04-01	MPLL 08-02	MPLL 12-04	PLL 5/16-01	PLL 5/32-N02	PLL 5/16-N02	MPLL 04-G03	MPLL 10-G02
MPLL 04-02	MPLL 08-03	MPLL 16-03	PLL 5/16-02	PLL 3/16-U	PLL 5/16-N03	MPLL 06-G01	MPLL 10-G03
MPLL 04-03	MPLL 08-04	MPLL 16-04	PLL 3/8-02	PLL 3/16-N01	PLL 3/8-N02	MPLL 06-G02	MPLL 10-G04
MPLL 06-M5	MPLL 10-01		PLL 3/8-03	PLL 3/16-N02	PLL 3/8-N03	MPLL 06-G03	MPLL 12-G02
MPLL 06-M6	MPLL 10-02			PLL 3/16-N03	PLL 3/8-N04	MPLL 08-G01	MPLL 12-G03
MPLL 06-01	MPLL 10-03			PLL 1/4-U	PLL 1/2-N02	MPLL 06-G02	MPLL 12-G04
MPLL 06-02	MPLL 10-04			PLL 1/4-N01	PLL 1/2-N03	MPLL 06-G03	
MPLL 06-03	MPLL 12-01			PLL 1/4-N02	PLL 1/2-N04		

PLLP

Extended Male Elbow
Swivel Rotating Type

PLLP-G

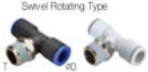
Extended Male Elbow
Swivel Rotating Type

MODEL(ØD-T)

Tube **Metric** -Thread **R**			Tube **Metric** -Thread **G**		
PLLP 04-M5	PLLP 06-02	PLLP 10-02	PLLP 04-G01	PLLP 08-G02	PLLP 12-G02
PLLP 04-M6	PLLP 06-03	PLLP 10-03	PLLP 04-G02	PLLP 08-G03	PLLP 12-G03
PLLP 04-01	PLLP 06-04	PLLP 10-04	PLLP 04-G03	PLLP 08-G04	PLLP 12-G04
PLLP 04-02	PLLP 08-01	PLLP 12-01	PLLP 06-G01	PLLP 10-G01	
PLLP 04-03	PLLP 08-02	PLLP 12-02	PLLP 06-G02	PLLP 10-G02	
PLLP 06-M5	PLLP 08-03	PLLP 12-03	PLLP 06-G03	PLLP 10-G03	
PLLP 06-M6	PLLP 08-04	PLLP 12-04	PLLP 08-G01	PLLP 10-G04	
PLLP 06-01	PLLP 10-01				

MPT

Male Branch Tee
Swivel Rotating Type



MPT-G

Male Branch Tee
Swivel Rotating Type

MODEL(ØD-T)

Tube **Metric** -Thread **R**		Tube **Inch** -Thread **R**	Tube **Inch** -Thread **NPT**		Tube **Metric** -Thread **M**	Tube **Metric** -Thread **G**	
MPT 04M5	MPT 0802	PT 1/4-01	PT 5/32-U	PT 5/16-N03	PT 06-M12	MPT 04G01	MPT 10G04
MPT 04M6	MPT 0803	PT 1/4-02	PT 5/32-N01	PT 5/16-N04	PT 06-M16	MPT 04G02	MPT 12G02
MPT 0401	MPT 0804	PT 1/4-03	PT 5/32-N02	PT 3/8-N01	PT 06-M22	MPT 04G03	MPT 12G03
MPT 0402	MPT 1002	PT 5/16-01	PT 3/16-U	PT 3/8-N02	PT 08-M12	MPT 06G01	MPT 12G04
MPT 0403	MPT 1003	PT 5/16-02	PT 3/16-N01	PT 3/8-N03	PT 08-M16	MPT 06G02	
MPT 06M5	MPT 1004	PT 5/16-03	PT 3/16-N02	PT 3/8-N04	PT 08-M22	MPT 06G03	
MPT 06M6	MPT 1202	PT 3/8-01	PT 3/16-N03	PT 1/2-N02	PT 10-M12	MPT 08G01	
MPT 0601	MPT 1203	PT 3/8-02	PT 1/4-U	PT 1/2-N03	PT 10-M16	MPT 08G02	
MPT 0602	MPT 1204	PT 3/8-03	PT 1/4-N01	PT 1/2-N04	PT 10-M22	MPT 08G03	
MPT 0603	MPT 1603	PT 3/8-04	PT 1/4-N02		PT 12-M12	MPT 08G04	
MPT 0801	MPT 1604	PT 1/2-02	PT 1/4-N03		PT 12-M14	MPT 10G02	
		PT 1/2-03	PT 5/16-N01		PT 12-M16	MPT 10G03	
		PT 1/2-04	PT 5/16-N02		PT 12-M22		

MPTF

Female Branch Tee
Swivel Rotating Type

MPTF-G

Female Branch Tee
Swivel Rotating Type

MODEL(ØD-T)

Tube **Metric** -Thread **Rc**		Tube **Inch** -Thread **NPT**		Tube **Metric** -Thread **G**	
MPTF 04-M5	MPTF 08-02	PTF 5/32-U	PTF 5/16-N01	MPTF 04-G01	MPTF 10-G02
MPTF 04-M6	MPTF 08-03	PTF 5/32-N01	PTF 5/16-N02	MPTF 04-G02	MPTF 10-G03
MPTF 04-01	MPTF 08-04	PTF 5/32-N02	PTF 5/16-N03	MPTF 06-G01	MPTF 10-G04
MPTF 04-02	MPTF 10-01	PTF 3/16-U	PTF 3/8-N02	MPTF 06-G02	MPTF 12-G02
MPTF 06-M5	MPTF 10-02	PTF 3/16-N01	PTF 3/8-N03	MPTF 06-G03	MPTF 12-G03
MPTF 06-M6	MPTF 10-03	PTF 3/16-N02	PTF 3/8-N04	MPTF 08-G01	MPTF 12-G04
MPTF 06-01	MPTF 10-04	PTF 1/4-U	PTF 1/2-N03	MPTF 08-G02	
MPTF 06-02	MPTF 12-02	PTF 1/4-N01	PTF 1/2-N04	MPTF 08-G03	
MPTF 06-03	MPTF 12-03	PTF 1/4-N02		MPTF 08-G04	
MPTF 08-01	MPTF 12-04	PTF 1/4-N03		MPTF 10-G01	

PST

Male Run Tee
Swivel Rotating Type

PST-G

Male Run Tee
Swivel Rotating Type

MODEL(ΦD-T)

Tube **Metric** -Thread **R**		Tube **Inch**-Thread **R**	Tube **Inch** -Thread **NPT**		Tube **Metric**-Thread **M**	Tube **Metric** -Thread **G**	
PST 04-M5	PST 08-02	PST 1/4-01	PST 5/32-U	PST 5/16-N01	PST 06-M12	PST 04-G01	PST 10-G01
PST 04-M6	PST 08-03	PST 1/4-02	PST 5/32-N01	PST 5/16-N02	PST 06-M16	PST 04-G02	PST 10-G02
PST 04-01	PST 08-04	PST 1/4-03	PST 5/32-N02	PST 5/16-N03	PST 06-M22	PST 04-G03	PST 10-G03
PST 04-02	PST 10-01	PST 5/16-01	PST 3/16-U	PST 5/16-N04	PST 08-M12	PST 06-G01	PST 10-G04
PST 04-03	PST 10-02	PST 5/16-02	PST 3/16-N01	PST 3/8-N01	PST 08-M16	PST 06-G02	PST 12-G02
PST 06-M5	PST 10-03	PST 5/16-03	PST 3/16-N02	PST 3/8-N02	PST 08-M22	PST 06-G03	PST 12-G03
PST 06-M6	PST 10-04	PST 3/8-02	PST 3/16-N03	PST 3/8-N03	PST 10-M12	PST 08-G01	PST 12-G04
PST 06-01	PST 12-01	PST 3/8-03	PST 1/4-U	PST 3/8-N04	PST 10-M16	PST 08-G02	
PST 06-02	PST 12-02	PST 3/8-04	PST 1/4-N01	PST 1/2-N02	PST 10-M22	PST 08-G03	
PST 06-03	PST 12-03	PST 1/2-02	PST 1/4-N02	PST 1/2-N03	PST 12-M12	PST 08-G04	
PST 06-04	PST 12-04	PST 1/2-03	PST 1/4-N03	PST 1/2-N04	PST 12-M14		
PST 08-01		PST 1/2-04			PST 12-M16		
					PST 12-M22		

PWT

Male Y
Swivel Rotating Type

PWT-G

Male Y
Swivel Rotating Type

MODEL(ΦD-T)

Tube **Metric** -Thread **R**		Tube **Inch**-Thread **R**	Tube **Inch** -Thread **NPT**		Tube **Metric** -Thread **G**	
PWT 04-M5	PWT 08-02	PWT 1/4-01	PWT 5/32-U	PWT 5/16-N02	PWT 04-G01	PWT 10-G02
PWT 04-M6	PWT 08-03	PWT 1/4-02	PWT 5/32-N01	PWT 5/16-N03	PWT 04-G02	PWT 10-G03
PWT 04-01	PWT 08-04	PWT 1/4-03	PWT 5/32-N02	PWT 5/16-N04	PWT 04-G03	PWT 10-G04
PWT 04-02	PWT 10-01	PWT 5/16-01	PWT 3/16-U	PWT 3/8-N01	PWT 06-G01	PWT 12-G02
PWT 04-03	PWT 10-02	PWT 5/16-02	PWT 3/16-N01	PWT 3/8-N02	PWT 06-G02	PWT 12-G03
PWT 06-M5	PWT 10-03	PWT 5/16-03	PWT 3/16-N02	PWT 3/8-N03	PWT 06-G03	PWT 12-G04
PWT 06-M6	PWT 10-04	PWT 3/8-02	PWT 3/16-N03	PWT 3/8-N04	PWT 06-G04	
PWT 06-01	PWT 12-01	PWT 3/8-03	PWT 1/4-U	PWT 1/2-N02	PWT 08-G01	
PWT 06-02	PWT 12-02	PWT 3/8-04	PWT 1/4-N01	PWT 1/2-N03	PWT 08-G02	
PWT 06-03	PWT 12-03	PWT 1/2-02	PWT 1/4-N02	PWT 1/2-N04	PWT 08-G03	
PWT 06-04	PWT 12-04	PWT 1/2-03	PWT 1/4-N03		PWT 08-G04	
PWT 08-01		PWT 1/2-04	PWT 5/16-N01		PWT 10-G01	

PLM

Bulkhead Union Elbow

MODEL(ΦD)

Tube **Metric**	Tube **Inch**
PLM 04	PLM 5/32
PLM 06	PLM 3/16
PLM 08	PLM 1/4
PLM 10	PLM 5/16
PLM 12	PLM 3/8
	PLM 1/2

PXT

Male Double Y

PXT-G

Male Double Y

MODEL(ΦD)

Tube **Metric** -Thread **R**	Tube **Metric** -Thread **G**
PXT 04-01	PXT 04-G01
PXT 04-02	PXT 04-G02
PXT 06-01	PXT 06-G01
PXT 06-02	PXT 06-G02

PKD

Male Reducer Triple Branch
Swivel Rotating Type

PKD-G

Male Reducer Triple Branch
Swivel Rotating Type

MODEL(ΦD1-ΦD2-T)

Tube **Metric** -Thread **R**	Tube **Inch** -Thread **NPT**	Tube **Metric** -Thread **G**
PKD 0604-01	PKD 3/16-5/32-N01	PKD 0604-G01
PKD 0604-02	PKD 1/4-5/32-N01	PKD 0604-G01
PKD 0804-01	PKD 5/16-5/32-N02	PKD 0804-G02
PKD 0804-02	PKD 5/16-3/16-N02	PKD 0806-G01
PKD 0806-01	PKD 5/16-1/4-N02	PKD 0806-G02
PKD 0806-02	PKD 3/8-1/4-N03	PKD 1006-G02
PKD 1006-02	PKD 3/8-5/16-N03	PKD 1006-G03
PKD 1006-03		PKD 1008-G02
PKD 1008-02		PKD 1008-G03
PKD 1008-03		

CAS

MODEL(ΦD)

Tube **Metric**	Tube **Inch**
CAS 04	CAS 5/32
CAS 06	CAS 3/16
CAS 08	CAS 1/4
CAS 10	CAS 5/16
CAS 12	CAS 3/8
	CAS 1/2

MPH

Male Banjo
Swivel Rotating Type

MPH-G

Male Banjo
Swivel Rotating Type

MODEL(ΦD-T)

Tube **Metric** -Thread **R**		Tube **Inch**-Thread **R**	Tube **Inch** -Thread **NPT**		Tube **Metric** -Thread **G**	
MPH 03-M5	MPH 08-01	PH 1/4-M5	PH 1/8-U	PH 1/4-N03	MPH 04-G01	MPH 08-G03
MPH 04-M5	MPH 08-02	PH 1/4-01	PH 5/32-U	PH 5/16-N01	MPH 04-G02	MPH 08-G04
MPH 04-M6	MPH 08-03	PH 1/4-02	PH 5/32-N01	PH 5/16-N02	MPH 06-G01	MPH 10-G02
MPH 04-01	MPH 08-04	PH 5/16-01	PH 5/32-N02	PH 5/16-N03	MPH 06-G02	MPH 10-G03
MPH 04-02	MPH 10-01	PH 5/16-02	PH 3/16-U	PH 5/16-N04	MPH 06-G03	MPH 10-G04
MPH 06-M5	MPH 10-02	PH 5/16-03	PH 3/16-N01	PH 3/8-N02	MPH 08-G01	MPH 12-G03
MPH 06-M6	MPH 10-03	PH 3/8-02	PH 3/16-N02	PH 3/8-N03	MPH 08-G02	MPH 12-G04
MPH 06-01	MPH 10-04	PH 3/8-03	PH 3/16-N03	PH 3/8-N04		
MPH 06-02	MPH 12-02		PH 1/4-U	PH 1/2-N02		
MPH 06-03	MPH 12-03		PH 1/4-N01	PH 1/2-N03		
MPH 06-04	MPH 12-04		PH 1/4-N02	PH 1/2-N04		

MPHF

Female Banjo
Swivel Rotating Type

MPHF-G

Female Banjo
Swivel Rotating Type

MODEL(ΦD-T)

Tube **Metric** -Thread **R**		Tube **Inch**-Thread **R**	Tube **Inch** -Thread **NPT**		Tube **Metric** -Thread **G**	
MPHF 03-M5	MPHF 08-01	PHF 1/4-M5	PHF 1/8-U	PHF 5/16-N01	MPHF 04-G01	MPHF 08-G03
MPHF 04-M5	MPHF 08-02	PHF 1/4-01	PHF 5/32-U	PHF 5/16-N02	MPHF 04-G02	MPHF 08-G04
MPHF 04-M6	MPHF 08-03	PHF 1/4-02	PHF 5/32-N01	PHF 5/16-N03	MPHF 04-G03	MPHF 10-G01
MPHF 04-01	MPHF 08-04	PHF 5/16-01	PHF 3/16-U	PHF 5/16-N04	MPHF 04-G04	MPHF 10-G02
MPHF 04-02	MPHF 10-01	PHF 5/16-02	PHF 3/16-N01	PHF 3/8-N02	MPHF 06-G01	MPHF 10-G03
MPHF 06-M5	MPHF 10-02	PHF 5/16-03	PHF 3/16-N02	PHF 3/8-N03	MPHF 06-G02	MPHF 10-G04
MPHF 06-M6	MPHF 10-03	PHF 3/8-02	PHF 3/16-N03	PHF 3/8-N04	MPHF 06-G03	MPHF 12-G02
MPHF 06-01	MPHF 10-04	PHF 3/8-03	PHF 1/4-U	PHF 1/2-N02	MPHF 06-G04	MPHF 12-G03
MPHF 06-02	MPHF 12-02		PHF 1/4-N01	PHF 1/2-N03	MPHF 08-G01	MPHF 12-G04
MPHF 06-03	MPHF 12-03		PHF 1/4-N02	PHF 1/2-N04	MPHF 08-G02	
MPHF 06-04	MPHF 12-04		PHF 1/4-N03			

PHL(2)
Double Universal Elbow

PHL-G(2)
Double Universal Elbow

MODEL(ØD-T)

Tube **Metric** -Thread **R**			Tube **Metric** -Thread **G**		
PHL 04-01(2)	PHL 06-04(2)	PHL 10-03(2)	PHL 04-G01(2)	PHL 06-G04(2)	PHL 10-G03(2)
PHL 04-02(2)	PHL 08-01(2)	PHL 10-04(2)	PHL 04-G02(2)	PHL 08-G01(2)	PHL 10-G04(2)
PHL 04-03(2)	PHL 08-02(2)	PHL 12-02(2)	PHL 04-G03(2)	PHL 08-G02(2)	PHL 12-G02(2)
PHL 04-04(2)	PHL 08-03(2)	PHL 12-03(2)	PHL 04-G04(2)	PHL 08-G03(2)	PHL 12-G03(2)
PHL 06-01(2)	PHL 08-04(2)	PHL 12-04(2)	PHL 06-G01(2)	PHL 08-G04(2)	PHL 12-G04(2)
PHL 06-02(2)	PHL 10-01(2)		PHL 06-G02(2)	PHL 10-G01(2)	
PHL 06-03(2)	PHL 10-02(2)		PHL 06-G03(2)	PHL 10-G02(2)	

PHL(3)
Triple Universal Elbow

PHL-G(3)
Triple Universal Elbow

MODEL(ØD-T)

Tube **Metric** -Thread **R**			Tube **Metric** -Thread **G**		
PHL 04-01(3)	PHL 06-04(3)	PHL 10-03(3)	PHL 04-G01(3)	PHL 06-G04(3)	PHL 10-G03(3)
PHL 04-02(3)	PHL 08-01(3)	PHL 10-04(3)	PHL 04-G02(3)	PHL 08-G01(3)	PHL 10-G04(3)
PHL 04-03(3)	PHL 08-02(3)	PHL 12-02(3)	PHL 04-G03(3)	PHL 08-G02(3)	PHL 12-G02(3)
PHL 04-04(3)	PHL 08-03(3)	PHL 12-03(3)	PHL 04-G04(3)	PHL 08-G03(3)	PHL 12-G03(3)
PHL 06-01(3)	PHL 08-04(3)	PHL 12-04(3)	PHL 06-G01(3)	PHL 08-G04(3)	PHL 12-G04(3)
PHL 06-02(3)	PHL 10-01(3)		PHL 06-G02(3)	PHL 10-G01(3)	
PHL 06-03(3)	PHL 10-02(3)		PHL 06-G03(3)	PHL 10-G02(3)	

PHT(1)
Single Universal Tee

PHT-G(1)
Single Universal Tee

MODEL(ØD-T)

Tube **Metric** -Thread **R**			Tube **Metric** -Thread **G**		
PHT 04-01(1)	PHT 06-04(1)	PHT 10-03(1)	PHT 04-G01(1)	PHT 06-G04(1)	PHT 10-G03(1)
PHT 04-02(1)	PHT 08-01(1)	PHT 10-04(1)	PHT 04-G02(1)	PHT 08-G01(1)	PHT 10-G04(1)
PHT 04-03(1)	PHT 08-02(1)	PHT 12-02(1)	PHT 04-G03(1)	PHT 08-G02(1)	PHT 12-G02(1)
PHT 04-04(1)	PHT 08-03(1)	PHT 12-03(1)	PHT 04-G04(1)	PHT 08-G03(1)	PHT 12-G03(1)
PHT 06-01(1)	PHT 08-04(1)	PHT 12-04(1)	PHT 06-G01(1)	PHT 08-G04(1)	PHT 12-G04(1)
PHT 06-02(1)	PHT 10-01(1)		PHT 06-G02(1)	PHT 10-G01(1)	
PHT 06-03(1)	PHT 10-02(1)		PHT 06-G03(1)	PHT 10-G02(1)	

PHT(2)
Double Universal Tee

PHT-G(2)
Double Universal Tee

MODEL(ØD-T)

Tube **Metric** -Thread **R**			Tube **Metric** -Thread **G**		
PHT 04-01(2)	PHT 06-04(2)	PHT10-03(2)	PHT 04-G01(2)	PHT 06-G04(2)	PHT 10-G03(2)
PHT 04-02(2)	PHT 08-01(2)	PHT10-04(2)	PHT 04-G02(2)	PHT 08-G01(2)	PHT 10-G04(2)
PHT 04-03(2)	PHT 08-02(2)	PHT12-02(2)	PHT 04-G03(2)	PHT 08-G02(2)	PHT 12-G02(2)
PHT 04-04(2)	PHT08-03(2)	PHT12-03(2)	PHT 04-G04(2)	PHT 08-G03(2)	PHT 12-G03(2)
PHT 06-01(2)	PHT08-04(2)	PHT12-04(2)	PHT 06-G01(2)	PHT 08-G04(2)	PHT 12-G04(2)
PHT 06-02(2)	PHT10-01(2)		PHT 06-G02(2)	PHT 10-G01(2)	
PHT 06-03(2)	PHT10-02(2)		PHT 06-G03(2)	PHT 10-G02(2)	

PHT(3)
Triple Universal Tee

PHT-G(3)
Triple Universal Tee

MODEL(ØD-T)

Tube **Metric** -Thread **R**			Tube **Metric** -Thread **G**		
PHT 04-01(3)	PHT 06-04(3)	PHT10-03(3)	PHT 04-G01(3)	PHT 06-G04(3)	PHT 10-G03(3)
PHT 04-02(3)	PHT 08-01(3)	PHT10-04(3)	PHT 04-G02(3)	PHT 08-G01(3)	PHT 10-G04(3)
PHT 04-03(3)	PHT 08-02(3)	PHT12-02(3)	PHT 04-G03(3)	PHT 08-G02(3)	PHT 12-G02(3)
PHT 04-04(3)	PHT08-03(3)	PHT12-03(3)	PHT 04-G04(3)	PHT 08-G03(3)	PHT 12-G03(3)
PHT 06-01(3)	PHT08-04(3)	PHT12-04(3)	PHT 06-G01(3)	PHT 08-G04(3)	PHT 12-G04(3)
PHT 06-02(3)	PHT10-01(3)		PHT 06-G02(3)	PHT 10-G01(3)	
PHT 06-03(3)	PHT10-02(3)		PHT 06-G03(3)	PHT 10-G02(3)

PA
Branch A

PA-G

MODEL(ØD-T)

Tube **Metric** -Thread **R**	Tube **Metric** -Thread **G**
PA 04-M5	PA 06-G01
PA 06-01	PA 08-G02
PA 06-02	PA 10-G02
PA 08-02	PA 10-G03
PA 10-02	PA 12-G03
PA 10-03	PA 12-G04
PA 12-03	
PA 12-04	

PAF
Female Branch A

PAF-G

MODEL(ØD-T)

Tube **Metric** -Thread **R**	Tube **Metric** -Thread **G**
PAF 04-M5	PAF 06-G01
PAF 06-01	PAF 08-G02
PAF 08-02	PAF 10-G02
PAF 10-02	PAF 10-G03
PAF 10-03	PAF 12-G03
PAF 12-03	PAF 12-G04
PAF 12-04	

One-Touch Fittings

PAT(2)
Double Branch A

PAT-G(2)
Double Branch A

MODEL(ØD-T)

Tube **Metric** -Thread **R**			Tube **Metric** -Thread **G**		
PAT 04-01(2)	PAT 06-04(2)	PAT 10-03(2)	PAT 04-G01(2)	PAT 06-G04(2)	PAT 10-G03(2)
PAT 04-02(2)	PAT 08-01(2)	PAT 10-04(2)	PAT 04-G02(2)	PAT 08-G01(2)	PAT 10-G04(2)
PAT 04-03(2)	PAT 08-02(2)	PAT 12-02(2)	PAT 04-G03(2)	PAT 08-G02(2)	PAT 12-G02(2)
PAT 04-04(2)	PAT 08-03(2)	PAT 12-03(2)	PAT 04-G04(2)	PAT 08-G03(2)	PAT 12-G03(2)
PAT 06-01(2)	PAT 08-04(2)	PAT 12-04(2)	PAT 06-G01(2)	PAT 08-G04(2)	PAT 12-G04(2)
PAT 06-02(2)	PAT 10-01(2)		PAT 06-G02(2)	PAT 10-G01(2)	
PAT 06-03(2)	PAT 10-02(2)		PAT 06-G03(2)	PAT 10-G02(2)	

PAT(3)
Triple Branch A

PAT-G(3)
Triple Branch A

MODEL(ØD-T)

Tube **Metric** -Thread **R**			Tube **Metric** -Thread **G**		
PAT 04-01(3)	PAT 06-04(3)	PAT 10-03(3)	PAT 04-G01(3)	PAT 06-G04(3)	PAT 10-G03(3)
PAT 04-02(3)	PAT 08-01(3)	PAT 10-04(3)	PAT 04-G02(3)	PAT 08-G01(3)	PAT 10-G04(3)
PAT 04-03(3)	PAT 08-02(3)	PAT 12-02(3)	PAT 04-G03(3)	PAT 08-G02(3)	PAT 12-G02(3)
PAT 04-04(3)	PAT 08-03(3)	PAT 12-03(3)	PAT 04-G04(3)	PAT 08-G03(3)	PAT 12-G03(3)
PAT 06-01(3)	PAT 08-04(3)	PAT 12-04(3)	PAT 06-G01(3)	PAT 08-G04(3)	PAT 12-G04(3)
PAT 06-02(3)	PAT 10-01(3)		PAT 06-G02(3)	PAT 10-G01(3)	
PAT 06-03(3)	PAT 10-02(3)		PAT 06-G03(3)	PAT 10-G02(3)	

MPUC
Union Straight

MODEL(ØD)

Tube **Metric**	Tube **Inch**
MPUC 04	PUC 5/32
MPUC 06	PUC 3/16
MPUC 08	PUC 1/4
MPUC 10	PUC 5/16
MPUC 12	PUC 3/8
MPUC 14	PUC 1/2
MPUC 16	

MPUL

MODEL(ØD)

Tube **Metric**	Tube **Inch**
MPUL 04	PUL 5/32
MPUL 06	PUL 3/16
MPUL 08	PUL 1/4
MPUL 10	PUL 5/16
MPUL 12	PUL 3/8
	PUL 1/2

MPUT
Union Tee

MODEL(ØD)

Tube **Metric**	Tube **Inch**
MPUT 04	PUT 5/32
MPUT 06	PUT 3/16
MPUT 08	PUT 1/4
MPUT 10	PUT 5/16
MPUT 12	PUT 3/8
MPUT 14	PUT 1/2
MPUT 16	

MPY
Union Y

MODEL(ØD)

Tube **Metric**	Tube **Inch**
MPY 04	PY 5/32
MPY 06	PY 3/16
MPY 08	PY 1/4
MPY 10	PY 5/16
MPY 12	PY 3/8
MPY 16	PY 1/2

MPW
Reducer Y

MODEL(ØD1-ØD2)

Tube **Metric**	Tube **Inch**
MPW 0604	PW 3/16 - 5/32
MPW 0804	PW 1/4 - 5/32
MPW 0806	PW 1/4 - 3/16
MPW 1006	PW 5/16 - 5/32
MPW 1008	PW 5/16 - 1/4
MPW 1208	PW 3/8 - 1/4
MPW 1210	PW 3/8 - 5/16
MPW 1612	PW 1/2 - 5/16
	PW 1/2 - 3/8

MPG
Reducer

MODEL(ØD1-ØD2)

Tube **Metric**	Tube **Inch**
MPG 0604	PG 3/16 - 5/32
MPG 0804	PG 1/4 - 5/32
MPG 0806	PG 1/4 - 3/16
MPG 1006	PG 5/16 - 5/32
MPG 1008	PG 5/16 - 1/4
MPG 1208	PG 3/8 - 1/4
MPG 1210	PG 3/8 - 5/16
MPG 1412	PG 1/2 - 3/8
MPG 1612	

PGT
Reducer Tee

MODEL(ØD1-ØD2)

Tube **Metric**	Tube **Inch**
PGT 0604	PGT 1/4 - 5/32
PGT 0804	PGT 5/16 - 1/4
PGT 0806	PGT 3/8 - 1/4
PGT 1006	PGT 3/8 - 5/16
PGT 1008	PGT 1/2 - 3/8
PGT 1208	
PGT 1210	
PGT 1610	
PGT 1612	

PGT
Expander Tee

MODEL(ØD1-ØD2)

Tube **Metric**	Tube **Inch**
PGT 0406	PGT 1/8 - 1/4
PGT 0608	PGT 1/4 - 3/16
PGT 0810	PGT 5/16 - 3/8
PGT 1012	PGT 3/8 - 1/2

MPLJ
Plug-In Elbow

MODEL(ØD)

Tube **Metric**	Tube **Inch**
MPLJ 04	PLJ 5/32
MPLJ 06	PLJ 3/16
MPLJ 08	PLJ 1/4
MPLJ 10	PLJ 5/16
MPLJ 12	PLJ 3/8
MPLJ 16	PLJ 1/2
MPLJ 0604	PLJ 1/2-1/4
MPLJ 0806	PLJ 1/4-5/32
MPLJ 1008	PLJ 5/16-1/4
MPLJ 1210	PLJ 3/8-1/4
	PLJ 3/8-5/16

PGJ
Plug-In Reducer

MODEL(ØD1-ØD2)

Tube **Metric**	Tube **Inch**
PGJ 0406	PGJ 1/8 - 1/4
PGJ 0604	PGJ 3/32 - 1/4
PGJ 0608	PGJ 3/16 - 5/32
PGJ 0804	PGJ 3/16 - 1/4
PGJ 0806	PGJ 3/16 - 5/32
PGJ 1006	PGJ 5/16 - 1/4
PGJ 1008	PGJ 5/16 - 5/16
PGJ 1206	PGJ 1/2 - 1/4
PGJ 1208	PGJ 1/2 - 5/16
PGJ 1210	PGJ 1/2 - 3/8
PGJ 1216	
PGJ 1612	

PYJ
Plug-In Y

MODEL(ØD)

Tube **Metric**	Tube **Inch**
PYJ 04	PYJ 5/32
PYJ 06	PYJ 3/16
PYJ 08	PYJ 1/4
PYJ 10	PYJ 5/16
PYJ 12	PYJ 3/8
	PYJ 1/2

One-Touch Fittings

PIJ
Tube Splicer

MODEL(ØD)

Tube Metric	Tube Inch
PIJ 04	PIJ 5/32
PIJ 06	PIJ 3/16
PIJ 08	PIJ 1/4
PIJ 10	PIJ 5/16
PIJ 12	PIJ 3/8
PIJ 16	PIJ 1/2

PWJ
Plug-In Reducer Y

MODEL(ØD1-ØD2)

Tube Metric	Tube Inch
PWJ 0604	PWJ 1/4 - 5/32
PWJ 0806	PWJ 5/16 - 1/4
PWJ 1008	PWJ 3/8 - 1/4
PWJ 1210	PWJ 3/8 - 5/16

MPCP
Coupler Plug

MODEL(ØD1-ØD2)

Tube Metric	Tube Inch
MPCP 04	PCP 5/32
MPCP 06	PCP 3/16
MPCP 08	PCP 1/4
MPCP 10	PCP 5/16
MPCP 12	PCP 3/8
MPCP 16	PCP 1/2

PSJ
Plug-In Run Tee

MODEL(ØD1-ØD2)

Tube Metric	Tube Inch
PSJ 04	PSJ 5/32
PSJ 06	PSJ 3/16
PSJ 08	PSJ 1/4
PSJ 10	PSJ 5/16
PSJ 12	PSJ 3/8
PSJ 0604	PSJ 1/2
PSJ 0806	PSJ 1/4 - 5/32
PSJ 1008	PSJ 5/16 - 1/4
PSJ 1210	PSJ 3/8 - 1/4
	PSJ 3/8 - 5/16
	PSJ 1/2 - 3/8

PTJ
Plug-In Branch Tee

MODEL(ØD1-ØD2)

Tube Metric	Tube Inch
PTJ 04	PTJ 5/32
PTJ 06	PTJ 3/16
PTJ 08	PTJ 1/4
PTJ 10	PTJ 5/16
PTJ 12	PTJ 3/8
PTJ 0604	PTJ 1/2
PTJ 0806	PTJ 1/4 - 5/32
PTJ 1008	PTJ 5/16 - 1/4
PTJ 1210	PTJ 3/8 - 1/4
	PTJ 3/8 - 5/16
	PTJ 1/2 - 3/8

PIG
Reducer Tube Splicer

MODEL(ØD1-ØD2)

Tube Metric	Tube Inch
PIG 0604	PIG 5/16 - 5/32
PIG 0804	PIG 1/4 - 5/32
PIG 0806	PIG 1/4 - 3/16
PIG 1006	PIG 5/16 - 1/4
PIG 1008	PIG 3/8 - 1/4
PIG 1208	PIG 3/8 - 5/16
PIG 1210	PIG 1/2 - 3/8
PIG 1612	

PP
Plug

MODEL(ØD)

Tube Metric	Tube Inch
PP 04	PP 5/32
PP 06	PP 3/16
PP 08	PP 1/4
PP 10	PP 5/16
PP 12	PP 3/8
PP 16	PP 1/2

PPF
Cap

MODEL(ØD)

Tube Metric	Tube Inch
PPF 04	PPF 5/32
PPF 06	PPF 3/16
PPF 08	PPF 1/4
PPF 10	PPF 5/16
PPF 12	PPF 3/8
PPF 16	PPF 1/2

PZA
Union Cross

MODEL(ØD)

Tube Metric	Tube Inch
PZA 04	PZA 5/32
PZA 06	PZA 3/16
PZA 08	PZA 1/4
PZA 10	PZA 5/16
PZA 12	PZA 3/8
	PZA 1/2

ONE-TOUCH FITTINGS
CDC PNEUMATICS

PKG
Reducer Triple Branch Union

MODEL(ØD1-ØD2)

Tube Metric	Tube Inch
PKG 0604	PKG 3/16 - 5/32
PKG 0804	PKG 1/4 - 5/32
PKG 0806	PKG 5/16 - 5/32
PKG 1006	PKG 5/16 - 3/16
PKG 1008	PKG 5/16 - 1/4
	PKG 3/8 - 1/4
	PKG 3/8 - 5/16

PXG
Reducer Double Y

MODEL(ØD1-ØD2)

Tube Metric	Tube Inch
PXG 06 04	
PXG 08 06	

PXJ
Plug - In
Reducer Double Y

MODEL(ØD1-ØD2)

Tube Metric	Tube Inch
PXJ 06 04	
PXJ 08 06	

PKJ
Plug -In
Reducer Triple Branch

MODEL(ØD1-ØD2)

Tube Metric	Tube Inch
PKJ 0604	PKJ 3/16 - 5/32
PKJ 0804	PKJ 1/4 - 5/32
PKJ 0806	PKJ 5/16 - 5/32
PKJ 1006	PKJ 5/16 - 3/16
PKJ 1008	PKJ 5/16 - 1/4
	PKJ 3/8 - 1/4
	PKJ 3/8 - 5/16

PMG

MODEL(ØD)

Tube Metric	Tube Inch
PMG 0804	
PMG 1006	
PMG 1008	
PMG 1208	

One-Touch Fittings

COMPACT ONE-TOUCH FITTINGS

Product Code System

METRIC - BSPT(R)

PC 06-01-C

COMPACT ONETOUCH FITTING	TUBE DIA		THREAD SIZE		COMPACT
	CODE	SIZE	METRIC THREAD		Nickel
	03	Ø3	CODE	SIZE	
	04	Ø4	M3	M3×0.5	
	06	Ø6	M5	M5×0.8	
			M6	M6×1.0	
			R(PT) THREAD		
			CODE	SIZE	
			01	R⅛	

METRIC - BSPF(G)

PC 06-G01-C

COMPACT ONETOUCH FITTING	TUBE DIA		THREAD SIZE	
	CODE	SIZE	G(PF) THREAD	
	04	Ø4	CODE	SIZE
	06	Ø6	G01	G⅛

INCH - BSPT(R)

PC-¼-01-C

COMPACT ONETOUCH FITTING	TUBE DIA		THREAD SIZE		COMPACT
	CODE	SIZE	METRIC THREAD		Nickel
	⅛	Ø⅛	CODE	SIZE	
	5/32	Ø5/32	M3	M3×0.5	
	¼	Ø¼	M5	M5×0.8	
			M6	M6×1.0	
			R(PT) THREAD		
			CODE	SIZE	
			01	R⅛	

INCH - NPT

PC-¼-N1-C

COMPACT ONETOUCH FITTING	TUBE DIA		THREAD SIZE	
	CODE	SIZE	UNF THREAD	
	⅛	Ø⅛	CODE	SIZE
	5/32	Ø5/32	U	10-32UNF
	¼	Ø¼	NPT THREAD	
			CODE	SIZE
			N0	NPT 1/16
			N1	NPT ⅛

Uses

- Compact type one-touch joints used in narrow spaces
- Used for various environments to meet all needs

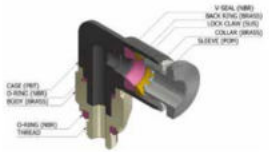
Features

- Easy installation and disconnection by one-touch
- Smaller volume ratio and smaller O.D. but the same flow rate compared the general type
- Electroless nickel plating type provides excellent corrosion resistance
- Oval sleeves are designed to install in narrow spaces
- The screws are O-ringed or Teflon-treated.
- It is suitable for small devices and narrow-space piping.

Specifications

Fluid type	Air(No other gases or liquids)
Working pressure	0~150PSI / 0~9.9kgf/㎠(0~990kPa) ※In combination with the applied tube, it is based on the maximum operating pressure of the tube.
Negative pressure	-29.5 in Hg / -750mmHg(-750Torr)
Working temperature	32~140° F / 0~60°C
Applicable Tube	Polyurethane and Nylon

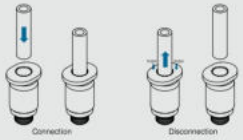
Structural drawing



Example of uses

- All fittings are brass body type and electroless nickel(EN) plating, thus, provides excellent corrosion resistance.
- Oval sleeves are easy to install and disconnect.

POC Models	Use a hexagonal wrench to tighten internal hexagonal part. POC products cannot be fastened with other tools since the outside of the body is circular.
PL Models **PLL** Models	Rotation of plastic body makes the tube piping efficient.



CAUTIONS

- Be sure to read "Caution", "Warning", "Common Safety Instructions"(pp. 25) and precautions of using fitting products before use.
- Make sure to check "Recommended Tightening Torque"(pp.26)
- It is recommended to rotate the fitting 2-3 times using a tool after tightening by hand. Screws will break if it pushes too hard.
- Make sure that the cut end surface of the tube is a right angle without a scratch on the surface and deformations. Pull the tube lightly to check the complete installation.
- Avoid piping under the condition of tension and abruptly curved piping before the tube insertion

WARNINGS

- Avoid twisting or hitting the body of fitting when assembling. It may cause damage or air leakage.
- Make sure to check specifications before using fluid. It may cause damage or air leakage

PC-C

Male Straight

PC-G-C

Male Straight

MODEL(ØD-T)

Tube **Metric** -Thread **R**		Tube **Inch**-Thread **R**		Tube **Inch** -Thread **NPT**		Tube **Metric** -Thread **G**
PC 03-M3C	PC 04-M6C	PC 1/8-M3C	PC 5/32-M6C	PC 1/8-UC	PC 5/32-N0C	PC 04-G01C
PC 03-M5C	PC 04-01C	PC 1/8-M5C	PC 5/32-01C	PC 1/8-N0C	PC 5/32-N1C	PC 06-G01C
PC 03-M6C	PC 06-M5C	PC 1/8-M6C	PC 1/4-M5C	PC 1/8-N1C	PC 1/4-UC	
PC 03-01C	PC 06-M6C	PC 1/8-01C	PC 1/4-M6C	PC 1/8-N2C	PC 1/4-N0C	
PC 04-M3C	PC 06-01C	PC 5/32-M3C	PC 1/4-01C	PC 5/32-UC	PC 1/4-N1C	
PC 04-M5C		PC 5/32-M5C				

PCF-C

Female Straight

MODEL(ØD-T)

Tube **Metric** -Thread **Rc**		Tube **Inch**-Thread **Rc**		Tube **Inch**-Thread **NPT**	
PCF 03-M3C	PCF 04-M6C	PCF 1/8-M3C	PCF 5/32-M6C	PCF 1/8-UC	PCF 5/32-N0C
PCF 03-M5C	PCF 04-01C	PCF 1/8-M5C	PCF 5/32-01C	PCF 1/8-N0C	PCF 5/32-N1C
PCF 03-M6C	PCF 06-M5C	PCF 1/8-M6C	PCF 1/4-M5C	PCF 1/8-N1C	PCF 1/4-UC
PCF 04-M3C	PCF 06-M6C	PCF 1/8-01C	PCF 1/4-M6C	PCF 1/8-N2C	PCF 1/4-N0C
PCF 04-M5C	PCF 06-01C	PCF 5/32-M3C	PCF 1/4-01C	PCF 5/32-UC	PCF 1/4-N1C
		PCF 5/32-M5C			

POC-C

Round Male Straight

MODEL(ØD-T)

Tube **Metric** -Thread **R**		Tube **Inch**-Thread **R**		Tube **Inch**-Thread **NPT**	
POC 03-M3C	POC 04-01C	POC 1/8-M3C	POC 5/32-M6C	POC 1/8-UC	POC 1/4-UC
POC 03-M5C	POC 06-M5C	POC 1/8-M5C	POC 5/32-01C	POC 1/8-N0C	POC 1/4-N0C
POC 03-M6C	POC 06-M6C	POC 1/8-M6C	POC 1/4-M5C	POC 1/8-N1C	POC 1/4-N1C
POC 04-M3C	POC 06-01C	POC 1/8-01C	POC 1/4-M6C	POC 5/32-UC	
POC 04-M5C		POC 5/32-M3C	POC 1/4-01C	POC 5/32-N0C	
POC 04-M6C		POC 5/32-M5C		POC 5/32-N1C	

PMM-C

Bulkhead Union

MODEL(ØD)

Tube **Metric**	Tube **Inch**
PMM 03C	
PMM 04C	
PMM 06C	

PLJ-C

MODEL(ØD)

Tube **Metric**	Tube **Inch**-Thread **NPT**
PLJ 03C	PLJ 1/8C
PLJ 04C	PLJ 5/32 C
PLJ 06C	PLJ 1/4C

PL-C

Male Elbow

PL-G-C

Male Elbow

MODEL(ØD-T)

Tube **Metric** -Thread **R**		Tube **Inch**-Thread **R**		Tube **Inch** -Thread **NPT**		Tube **Metric** -Thread **G**
PL 03-M3C	PL 04-01C	PL 1/8-M3C	PL 5/32-M6C	PL 1/8-UC	PL 5/32-N1C	PL 04-G01C
PL 03-M5C	PL 06-M5C	PL 1/8-M5C	PL 5/32-01C	PL 1/8-N0C	PL 1/4-UC	PL 06-G01C
PL 03-M6C	PL 06-M6C	PL 1/8-M6C	PL 1/4-M5C	PL 1/8-N1C	PL 1/4-N0C	
PL 04-M3C	PL 06-01C	PL 1/8-01C	PL 1/4-M6C	PL 5/32-UC	PL 1/4-N1C	
PL 04-M5C		PL 5/32-M3C	PL 1/4-01C	PL 5/32-N0C		
PL 04-M6C		PL 5/32-M5C				

PLL-C

Extended Male Elbow

MODEL(ØD-T)

Tube **Metric** -Thread **R**		Tube **Inch**-Thread **R**		Tube **Inch**-Thread **NPT**	
PLL 03-M3C	PLL 04-01C	PLL 1/8-M3C	PLL 5/32-M6C	PLL 1/8-UC	PLL 1/4-UC
PLL 03-M5C	PLL 06-M5C	PLL 1/8-M5C	PLL 5/32-01C	PLL 1/8-N0C	PLL 1/4-N0C
PLL 03-M6C	PLL 06-M6C	PLL 1/8-M6C	PLL 1/4-M5C	PLL 1/8-N1C	PLL 1/4-N1C
PLL 04-M3C	PLL 06-01C	PLL 1/8-01C	PLL 1/4-M6C	PLL 5/32-UC	
PLL 04-M5C		PLL 5/32-M3C	PLL 1/4-01C	PLL 5/32-N0C	
PLL 04-M6C		PLL 5/32-M5C		PLL 5/32-N1C	

PT-C

Male Branch Tee

MODEL(ΦD-T)

Tube **Metric** -Thread **R**		Tube **Inch**-Thread **R**		Tube **Inch**-Thread **NPT**	
PT 03-M3C	PT 04-01C	PT 1/8-M3C	PT 5/32-M6C	PT 1/8-UC	PT 1/4-UC
PT 03-M5C	PT 06-M5C	PT 1/8-M5C	PT 5/32-01C	PT 1/8-N0C	PT 1/4-N0C
PT 03-M6C	PT 06-M6C	PT 1/8-M6C	PT 1/4-M5C	PT 1/8-N1C	PT 1/4-N1C
PT 04-M3C	PT 06-01C	PT 1/8-01C	PT 1/4-M6C	PT 5/32-UC	
PT 04-M5C		PT 5/32-M3C	PT 1/4-01C	PT 5/32-N0C	
PT 04-M6C		PT 5/32-M5C		PT 5/32-N1C	

PST-C

Male Run Tee

MODEL(ΦD-T)

Tube **Metric** -Thread **R**		Tube **Inch**-Thread **R**		Tube **Inch**-Thread **NPT**	
PST 03-M3C	PST 04-01C	PST 1/8-M3C	PST 5/32-M6C	PST 1/8-UC	PST 1/4-UC
PST 03-M5C	PST 06-M5C	PST 1/8-M5C	PST 5/32-01C	PST 1/8-N0C	PST 1/4-N0C
PST 03-M6C	PST 06-M6C	PST 1/8-M6C	PST 1/4-M5C	PST 1/8-N1C	PST 1/4-N1C
PST 04-M3C	PST 06-01C	PST 1/8-01C	PST 1/4-M6C	PST 5/32-UC	
PST 04-M5C		PST 5/32-M3C	PST 1/4-01C	PST 5/32-N0C	
PST 04-M6C		PST 5/32-M5C		PST 5/32-N1C	

PUC-C

Union Straight

MODEL(ΦD)

Tube **Metric**	Tube **Inch**
PUC 03C	PUC 1/8C
PUC 04C	PUC 5/32C
PUC 06C	PUC 1/4C

PUL-C

Union Elbow

MODEL(ΦD)

Tube **Metric**	Tube **Inch**-Thread **NPT**
PUL 03C	PUL 1/8C
PUL 04C	PUL 5/32C
PUL 06C	PUL 1/4C

PUT-C

Union Tee

MODEL(ΦD)

Tube **Metric**	Tube **Inch**
PUT 03C	PUT 1/8C
PUT 04C	PUT 5/32C
PUT 06C	PUT 1/4C

PG-C

Reducer

MODEL(ΦD1-ΦD2)

Tube **Metric**	Tube **Inch**
PG 04-03C	PG 5/32 - 1/8C
PG 06-03C	PG 1/4 - 1/8C
PG 06-04C	PG 1/4 - 5/32C

PY-C

Union Y

MODEL(ΦD)

Tube **Metric**	Tube **Inch**
PY 03C	
PY 04C	
PY 06C	

PW-C

Reducer Y

MODEL(ΦD1-ΦD2)

Tube **Metric**	Tube **Inch**
PW 04-03C	PW 5/32 - 1/8C
PW 06-03C	PW 1/4 - 1/8C
PW 06-04C	PW 1/4 - 5/32C

PGJ-C

Plug-In Reducer

MODEL(ΦD1-ΦD2)

Tube **Metric**	Tube **Inch**
PGJ 04-03C	PGJ 5/32 - 1/8C
PGJ 06-03C	PGJ 1/4 - 1/8C
PGJ 06-04C	PGJ 1/4 - 5/32C

PP-C

Plug

MODEL(ΦD1-ΦD2)

Tube **Metric**	Tube **Inch**
PP 03C	PP 1/8C

SPEED CONTROLLERS

Product Code System

METRIC - BSPT(R)

NSC 06-01-MO

- SPEED CONTROLLERS
- TUBE DIA

CODE	SIZE
04	Ø4
06	Ø6
08	Ø8
10	Ø10
12	Ø12

- THREAD SIZE

METRIC THREAD	
CODE	SIZE
M5	M5×0.8

R(PT) THREAD	
CODE	SIZE
01	R⅛
02	R¼
03	R⅜
04	R½

- CONTROL METHOD

METER-OUT	
CODE	No Signal
METER-IN	
CODE	IN

METRIC - BSPP(G)

NSC 06-G01

- SPEED CONTROLLERS
- TUBE DIA

CODE	SIZE
04	Ø4
06	Ø6
08	Ø8
10	Ø10
12	Ø12

- THREAD SIZE

G(PF) THREAD	
CODE	SIZE
G01	G⅛
G02	G¼
G03	G⅜
G04	G½

INCH - BSPT(R)

NSC-¼-01

- SPEED CONTROLLERS
- TUBE DIA

CODE	SIZE
1/32	Ø1/32
1/16	Ø1/16
¼	Ø¼
5/32	Ø5/32
⅜	Ø⅜
½	Ø½

- THREAD SIZE

METRIC THREAD	
CODE	SIZE
M5	M5×0.8

R(PT) THREAD	
CODE	SIZE
01	R⅛
02	R¼
03	R⅜
04	R½

INCH - NPT

NSC ¼-N1-MO

- SPEED CONTROLLERS
- TUBE DIA

CODE	SIZE
1/32	Ø1/32
1/16	Ø1/16
¼	Ø¼
5/32	Ø5/32
⅜	Ø⅜
½	Ø½

- THREAD SIZE

UNF THREAD	
CODE	SIZE
U	10-32UNF

NPT THREAD	
CODE	SIZE
N1	NPT ⅛
N2	NPT ¼
N3	NPT ⅜
N4	NPT ½

- CONTROL METHOD

METER-OUT	
CODE	No Signal
METER-IN	
CODE	IN

SLEEVE COLOR	
MO	BLACK
MI	RED

Uses

- This valve is used to control the speed of pneumatic driving devices.
- Installed mainly in air driving devices

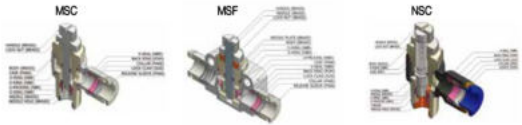
Features

- Flow control is easy for fine control.
- Main body can be rotated 360° after installation.
- Tube direction and angle can be adjusted according to piping.
- Use screw driver to easily adjust speed in narrow and restricted areas. (NSC [D] type)
- Occupies small area when installed.

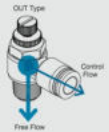
Specifications

Applicable fluid	compressed air (Not applicable to gases or liquids)
Operating pressure	14.2~150PSi / 1~9.9kgf /cm² (100~990kPa) ※The combination with the applied tube shall be decided based on maximum operating pressure of the tube.
Operating temperature range	32~140° F /0~60°C
Hose materials used	polyurethane, nylon

Structural drawing



Example of use



Meter-Out method control

Air entering from the screw side is controlled.
Air entering from the fitting side is uncontrolled and flows freely.

Meter-In method control

Air entering from the fitting side is controlled.
Air entering from the screw side is uncontrolled and flows freely.

CAUTIONS

- Note safety precautions, how to classify warning signs (p. 25), and common precautions for fitting products (p.26) before using.
- Not to be used as a stop valve where there should be no leakage. Allows a certain amount of leakage, so avoid using under conditions that require zero leakage.

WARNINGS

- Check direction of air flow control before using. If used in reverse direction, there is a risk of personal injury as the speed control needle will not work properly, the device may be damaged, and the actuator bounce to go out.
- Adjust speed by fully closing the needle and then slowly opening it.
- Check the number of turns of the needle valve in use. Rotating the needle too many turns may cause damage.
- Do not impact on or forcedly rotate the body or fitting. This may cause product damage or air leakage.

MSC

Elbow
Swivel rotating type

MODEL(ØD-T)

Tube **Metric** -Thread **R**		Tube **Inch**-Thread **R**	Tube **Inch** -Thread **NPT**		Tube **Metric** -Thread **G**	
MSC 03-M5	MSC 08-02	NSC 1/4-M5	NSC 1/8-U	NSC 1/4-N03	MSC 04-G01	MSC 10-G01
MSC 04-M3	MSC 08-03	NSC 1/4-01	NSC 5/32-U	NSC 5/16-N01	MSC 04-G02	MSC 10-G02
MSC 04-M5	MSC 08-04	NSC 1/4-02	NSC 5/32-N01	NSC 5/16-N02	MSC 06-G01	MSC 10-G03
MSC 04-01	MSC 10-01	NSC 5/16-01	NSC 5/32-N02	NSC 5/16-N03	MSC 06-G02	MSC 10-G04
MSC 04-02	MSC 10-02	NSC 5/16-02	NSC 3/16-U	NSC 5/16-N04	MSC 06-G03	MSC 12-G02
MSC 06-M5	MSC 10-03	NSC 5/16-03	NSC 3/16-N01	NSC 3/8-N02	MSC 06-G04	MSC 12-G03
MSC 06-01	MSC 10-04	NSC 3/8-02	NSC 3/16-N02	NSC 3/8-N03	MSC 08-G01	MSC 12-G04
MSC 06-02	MSC 12-02	NSC 3/8-03	NSC 3/16-N03	NSC 3/8-N04	MSC 08-G02	
MSC 06-03	MSC 12-03		NSC 1/4-U	NSC 1/2-N02	MSC 08-G03	
MSC 06-04	MSC 12-04		NSC 1/4-N01	NSC 1/2-N03	MSC 08-G04	
MSC 08-01			NSC 1/4-N02	NSC 1/2-N04		

MSC-G

Elbow
Swivel rotating type

NSC(D)

Elbow
Swivel rotating type

MODEL(ØD-T)

Tube **Metric** -Thread **R**		Tube **Inch**-Thread **R**	Tube **Inch** -Thread **NPT**		Tube **Metric** -Thread **G**	
NSC 03-M5(D)	NSC 08-02(D)	NSC 1/4-M5(D)	NSC 1/8-U(D)	NSC 1/4-N03(D)	NSC 04-G01(D)	NSC 08-G04(D)
NSC 04-M5(D)	NSC 08-03(D)	NSC 1/4-01(D)	NSC 5/32-U(D)	NSC 5/16-N01(D)	NSC 04-G02(D)	NSC 10-G01(D)
NSC 04-01(D)	NSC 08-04(D)	NSC 1/4-02(D)	NSC 5/32-N01(D)	NSC 5/16-N02(D)	NSC 06-G01(D)	NSC 10-G02(D)
NSC 04-02(D)	NSC 10-01(D)	NSC 5/16-01(D)	NSC 5/32-N02(D)	NSC 5/16-N03(D)	NSC 06-G02(D)	NSC 10-G03(D)
NSC 06-M5(D)	NSC 10-02(D)	NSC 5/16-02(D)	NSC 3/16-U(D)	NSC 5/16-N04(D)	NSC 06-G03(D)	NSC 10-G04(D)
NSC 06-01(D)	NSC 10-03(D)	NSC 5/16-03(D)	NSC 3/16-N01(D)	NSC 3/8-N02(D)	NSC 06-G04(D)	NSC 12-G02(D)
NSC 06-02(D)	NSC 10-04(D)	NSC 3/8-02(D)	NSC 3/16-N02(D)	NSC 3/8-N03(D)	NSC 08-G01(D)	NSC 12-G03(D)
NSC 06-03(D)	NSC 12-02(D)	NSC 3/8-03(D)	NSC 3/16-N03(D)	NSC 3/8-N04(D)	NSC 08-G02(D)	NSC 12-G04(D)
NSC 06-04(D)	NSC 12-03(D)		NSC 1/4-U(D)	NSC 1/2-N03(D)	NSC 08-G03(D)	
NSC 08-01(D)	NSC 12-04(D)		NSC 1/4-N01(D)	NSC 1/2-N04(D)		
			NSC 1/4-N02(D)			

NSC-G(D)

Elbow
Swivel rotating type

NSC(DC)

Elbow
Swivel rotating type

MODEL(ØD-T)

Tube **Metric** -Thread **R**		Tube **Inch**-Thread **R**	Tube **Inch** -Thread **NPT**		Tube **Metric** -Thread **G**	
NSC 03-M5(DC)	NSC 08-03(DC)	NSC 1/4-M5(DC)	NSC 1/8-U(DC)	NSC 1/4-N03(DC)	NSC 04-G01(DC)	NSC 10-G02(DC)
NSC 04-M5(DC)	NSC 08-04(DC)	NSC 1/4-01(DC)	NSC 5/32-U(DC)	NSC 5/16-N01(DC)	NSC 04-G02(DC)	NSC 10-G03(DC)
NSC 04-01(DC)	NSC 10-01(DC)	NSC 1/4-02(DC)	NSC 5/32-N01(DC)	NSC 5/16-N02(DC)	NSC 06-G01(DC)	NSC 10-G04(DC)
NSC 04-02(DC)	NSC 10-02(DC)	NSC 5/16-01(DC)	NSC 5/32-N02(DC)	NSC 5/16-N03(DC)	NSC 06-G02(DC)	NSC 12-G02(DC)
NSC 06-M5(DC)	NSC 10-03(DC)	NSC 5/16-02(DC)	NSC 3/16-U(DC)	NSC 5/16-N04(DC)	NSC 06-G03(DC)	NSC 12-G03(DC)
NSC 06-01(DC)	NSC 10-04(DC)	NSC 5/16-03(DC)	NSC 3/16-N01(DC)	NSC 3/8-N02(DC)	NSC 06-G04(DC)	NSC 12-G04(DC)
NSC 06-02(DC)	NSC 12-02(DC)	NSC 3/8-02(DC)	NSC 3/16-N02(DC)	NSC 3/8-N03(DC)	NSC 08-G01(DC)	
NSC 06-03(DC)	NSC 12-03(DC)	NSC 3/8-03(DC)	NSC 3/16-N03(DC)	NSC 3/8-N04(DC)	NSC 08-G02(DC)	
NSC 06-04(DC)	NSC 12-04(DC)		NSC 1/4-U(DC)	NSC 1/2-N03(DC)	NSC 08-G03(DC)	
NSC 08-01(DC)			NSC 1/4-N01(DC)	NSC 1/2-N04(DC)	NSC 08-G04(DC)	
NSC 08-02(DC)			NSC 1/4-N02(DC)		NSC 10-G01(DC)	

NSC-G(DC)

Elbow
Swivel rotating type

NSS

Elbow
Swivel rotating type

NSS-G

Elbow
Swivel rotating type

MODEL(ØD-T)

Tube **Metric** -Thread **R**			Tube **Metric** -Thread **G**		
NSS 04-M5	NSS 06-03	NSS 10-03	NSS 04-G01	NSS 08-G02	NSS 12-G02
NSS 04-01	NSS 08-01	NSS 10-04	NSS 04-G02	NSS 08-G03	NSS 12-G03
NSS 04-02	NSS 08-02	NSS 12-02	NSS 06-G01	NSS 08-G04	NSS 12-G04
NSS 06-M5	NSS 08-03	NSS 12-03	NSS 06-G02	NSS 10-G02	
NSS 06-01	NSS 08-04	NSS 12-04	NSS 06-G03	NSS 10-G03	
NSS 06-02	NSS 10-02		NSS 08-G01	NSS 10-G04	

NSS(D)

Elbow
Swivel rotating type

NSS-G(D)

Elbow
Swivel rotating type

MODEL(ØD-T)

Tube **Metric** -Thread **R**			Tube **Metric** -Thread **G**		
NSS 04-M5(D)	NSS 06-03(D)	NSS 10-03(D)	NSS 04-G01(D)	NSS 08-G02(D)	NSS 12-G02(D)
NSS 04-01(D)	NSS 08-01(D)	NSS 10-04(D)	NSS 04-G02(D)	NSS 08-G03(D)	NSS 12-G03(D)
NSS 04-02(D)	NSS 08-02(D)	NSS 12-02(D)	NSS 06-G01(D)	NSS 08-G04(D)	NSS 12-G04(D)
NSS 06-M5(D)	NSS 08-03(D)	NSS 12-03(D)	NSS 06-G02(D)	NSS 10-G02(D)	
NSS 06-01(D)	NSS 08-04(D)	NSS 12-04(D)	NSS 06-G03(D)	NSS 10-G03(D)	
NSS 06-02(D)	NSS 10-02(D)		NSS 08-G01(D)	NSS 10-G04(D)	

NSS(DC)

Elbow
Swivel rotating type

NSS-G(DC)

Elbow
Swivel rotating type

MODEL(ØD-T)

Tube **Metric** -Thread **R**			Tube **Metric** -Thread **G**		
NSS 04-M5(DC)	NSS 06-03(DC)	NSS 10-03(DC)	NSS 04-G01(DC)	NSS 08-G02(DC)	NSS 12-G02(DC)
NSS 04-01(DC)	NSS 08-01(DC)	NSS 10-04(DC)	NSS 04-G02(DC)	NSS 08-G03(DC)	NSS 12-G03(DC)
NSS 04-02(DC)	NSS 08-02(DC)	NSS 12-02(DC)	NSS 06-G01(DC)	NSS 08-G04(DC)	NSS 12-G04(DC)
NSS 06-M5(DC)	NSS 08-03(DC)	NSS 12-03(DC)	NSS 06-G02(DC)	NSS 10-G02(DC)	
NSS 06-01(DC)	NSS 08-04(DC)	NSS 12-04(DC)	NSS 06-G03(DC)	NSS 10-G03(DC)	
NSS 06-02(DC)	NSS 10-02(DC)		NSS 08-G01(DC)	NSS 10-G04(DC)	

NSF

MODEL(ØD)

Tube **Metric**	Tube **Inch**
NSF 04	NSF $^{3}/_{32}$
NSF 06	NSF $^{3}/_{16}$
NSF 08	NSF $^{1}/_{4}$
NSF 10	NSF $^{5}/_{16}$
NSF 12	NSF $^{3}/_{8}$
	NSF $^{1}/_{2}$

MSF

MODEL(ØD)

Tube **Metric**	Tube **Inch**
MSF 04	
MSF 06	
MSF 08	
MSF 10	
MSF 12	

MEVU

MODEL(T)

Tube **Metric**
MEVU 04
MEVU 06

MEVS

MODEL(T)

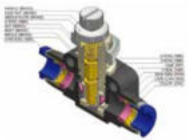
Tube **Metric**
MEVS 04
MEVS 06

Panel Mount Type Speed Control

Uses and Features

- Union speed control valve of panel mount type
- Convenient to attach and detach using hexagon nuts
- Capable of constant speed control

Structural drawing



Product model name

NSFB

MODEL(ΦD)

Tube **Metric**	Tube **Inch**
NSFB 04	NSFB 5/32
NSFB 06	NSFB 3/16
NSFB 08	NSFB 1/4
NSFB 10	NSFB 5/16
NSFB 12	NSFB 3/8
	NSFB 1/2

MSFB

MODEL(ΦD)

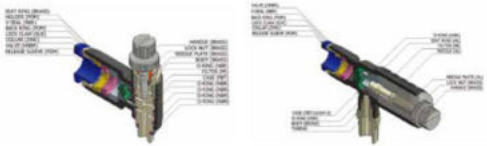
Tube **Metric**	
MSFB 04	
MSFB 06	
MSFB 08	
MSFB 10	
MSFB 12	

Quick Exhaust Speed Controllers

Uses and Features

- Quick exhaust valve + exhaust speed regulator function
- Capable of high-speed operation of the cylinder
- One-touch fitting with built-in silencer speed control

Structural drawing



Product model name

ESC

MODEL(ΦD-T)

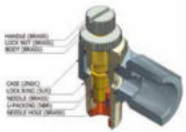
Tube **Metric** -Thread **M**	Tube **Metric** -Thread **R**	Tube **Metric** -Thread **R**	Tube **Metric** -Thread **R**
ESC 04-M3	ESC 06-S-01	ESC 08-M-01	ESC 10-L-02
ESC 04-M5	ESC 06-S-02	ESC 08-M-02	ESC 10-L-03
ESC 06-M5	ESC 08-S-01	ESC 08-M-03	ESC 10-L-04
	ESC 08-S-02	ESC 10-M-01	ESC 12-L-02
		ESC 10-M-02	ESC 12-L-03
		ESC 10-M-03	ESC 12-L-04

Speed Controllers / Elbow Type (Metal Body)

Uses and Features

- Speed control valve of metal body type
- Cost reduced and work man hours minimized
- 360° rotation type allows free setup of piping
- Capable of a constant speed control

Structural drawing



Product model name

NSCF

NSCF-G

MODEL(T)

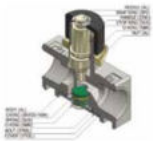
Thread **R, Rc**	Thread **NPT**	Thread **G**
NSCF 01	NSCF N01	NSCF G01
NSCF 02	NSCF N02	NSCF G02
NSCF 03	NSCF N03	NSCF G03
NSCF 04	NSCF N04	NSCF G04

In-Line Speed Controllers

Uses and Features

- Speed control valve of metal body type to be used in piping.
- Compact size for utilizing small areas.

Structural drawing



Product model name

NSFF

MODEL(T)

Thread **Rc**
NSFF 01
NSFF 02
NSFF 03
NSFF 04

In-Line Speed Controllers with Exhaust Valve

Uses and Features

- Speed control valve of metal body type to be used in piping.
- Compact size for utilizing small areas.

Structural drawing

Product model name

NSFP

MODEL(T)

Thread **Rc**
NSFP 01
NSFP 02
NSFP 03
NSFP 04

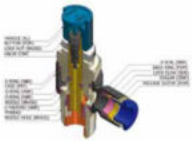
SPEED CONTROLLERS
CDC PNEUMATICS

Speed Controllers with Quick Exhaust Valve

Uses and Features

- Valve used for speed control and residual pressure release.
- Easy in fine flow control.
- Capable of constant speed control.

Structural drawing



Product model name

NSCP

Elbow
Swivel rotating type

NSCP-G

Elbow
Swivel rotating type

MODEL(ΦD-T)

Tube **Metric** -Thread **R**		Tube **Metric** -Thread **G**	
NSCP 04-01	NSCP 08-04	NSCP 04-G01	NSCP 08-G04
NSCP 04-02	NSCP 10-01	NSCP 04-G02	NSCP 10-G01
NSCP 06-01	NSCP 10-02	NSCP 06-G01	NSCP 10-G02
NSCP 06-02	NSCP 10-03	NSCP 06-G02	NSCP 10-G03
NSCP 06-03	NSCP 10-04	NSCP 06-G03	NSCP 10-G04
NSCP 06-04	NSCP 12-02	NSCP 06-G04	NSCP 12-G02
NSCP 08-01	NSCP 12-03	NSCP 08-G01	NSCP 12-G03
NSCP 08-02	NSCP 12-04	NSCP 08-G02	NSCP 12-G04
NSCP 08-03		NSCP 08-G03	

NSSP

Elbow
Swivel rotating type

NSSP-G

Elbow
Swivel rotating type

MODEL(ΦD-T)

Tube **Metric** -Thread **R**		Tube **Metric** -Thread **G**	
NSSP 04-01	NSSP 08-04	NSSP 04-G01	NSSP 08-G04
NSSP 04-02	NSSP 10-02	NSSP 04-G02	NSSP 10-G02
NSSP 06-01	NSSP 10-03	NSSP 06-G01	NSSP 10-G03
NSSP 06-02	NSSP 10-04	NSSP 06-G02	NSSP 10-G04
NSSP 06-03	NSSP 12-02	NSSP 06-G03	NSSP 12-G02
NSSP 08-01	NSSP 12-03	NSSP 08-G01	NSSP 12-G03
NSSP 08-02	NSSP 12-04	NSSP 08-G02	NSSP 12-G04
NSSP 08-03		NSSP 08-G03	

PILOT CHECK VALVES SPEED CONTROLLERS

Product Code System

METRIC - BSPT(R)

PVSC 06–01

SPEED CONTROLLER WITH PILOT CHECK VALVE FITTING

TUBE DIA	
CODE	Ø D
06	Ø6
08	Ø8
10	Ø10
12	Ø12

THREAD SIZE	
CODE	SIZE
01	R⅛
02	R¼
03	R⅜
04	R½

METRIC - BSPP(G)

PVSC 06–G01

TUBE DIA	
CODE	Ø D
06	Ø6
08	Ø8
10	Ø10
12	Ø12

THREAD SIZE	
CODE	SIZE
G01	G⅛
G02	G¼
G03	G⅜
G04	G½

BSPT(R)

PVSF 01

WITH PILOT CHECK VALVE FITTING

THREAD SIZE	
CODE	SIZE
01	R⅛
02	R¼
03	R⅜
04	R½

INCH - NPT

PVSF – N1

NPT THREAD	
CODE	SIZE
N1	NPT ⅛
N2	NPT ¼
N3	NPT ⅜
N4	NPT ½

BSPP(G)

PVSF G01

THREAD SIZE	
CODE	SIZE
G01	G⅛
G02	G¼
G03	G⅜
G04	G½

Uses

- This fitting is capable temporary intermediate stop of cylinder.
- Capable of adjusting cylinder speed.

Features

- This product combines the pilot check valve and speed controller as one body.
- Capable of freely setting direction for attaching the tube at any angle.
- Capable of a temporary intermediate stop of the cylinder.
- Possible to prevent sagging due to vertical self-load when air is blocked in OFF mode.

Specifications

Applicable fluid	compressed air (Not applicable to gases or liquids)
Operating pressure	14.2~150PSI / 1~9.9kgf / (100~990kPa) ※The combination with the applied tube shall be decided based on the maximum operating pressure of the tube.
Operating temperature range	32~140° F /0~60°C
Hose materials used	polyurethane, nylon

Structural drawing

Example of Uses

- Use a spanner or a hexagonal wrench when assembling by screw fastening.
- Possible to prevent sagging due to vertical self-load when air is blocked in OFF mode.

Product model name

PVSC

PVSC–G

MODEL(ØD-T)

Tube **Metric** -Thread **R**	Tube **Metric** -Thread **G**
PVSC 06-01	PVSC 06-G01
PVSC 06-02	PVSC 06-G02
PVSC 08-01	PVSC 08-G01
PVSC 08-02	PVSC 08-G02
PVSC 08-03	PVSC 08-G03
PVSC 10-03	PVSC 10-G03
PVSC 10-04	PVSC 10-G04
PVSC 12-03	PVSC 12-G03
PVSC 12-04	PVSC 12-G04

PVSF

PVSF–G

MODEL(T)

Thread **R**	Thread **NPT**	Thread **G**
PVSF 01	PVSF N01	PVSF G01
PVSF 02	PVSF N02	PVSF G02
PVSF 03	PVSF N03	PVSF G03
PVSF 04	PVSF N04	PVSF G04

HAND VALVES / HAND SLIDE

Product Code System

METRIC - BSPT(R)

HVC 06-01

HAND VALVE

TUBE DIA	
CODE	ØD
06	Ø6
08	Ø8
10	Ø10
12	Ø12

THREAD SIZE	
CODE	SIZE
01	R⅛
02	R¼
03	R⅜
04	R½

METRIC - BSPP(G)

HVC 06-G01

HAND VALVE

TUBE DIA	
CODE	ØD
06	Ø6
08	Ø8
10	Ø10
12	Ø12

THREAD SIZE	
CODE	SIZE
G01	G⅛
G02	G¼
G03	G⅜
G04	G½

INCH - NPT

HVC ¼-N1

HAND VALVE

TUBE DIA	
CODE	ØD
¼	¼"
5/16	5/16"
⅜	⅜"
½	½"

THREAD SIZE	
CODE	SIZE
N1	NPT ⅛
N2	NPT ¼
N3	NPT ⅜
N4	NPT ½

Uses

- Used to open and close air pressure on the device.

Features

- Turn the handle to open or shut compressed air for the pneumatic devices.
- Repair or inspection can be carried out with residual pressure inside the machine removed.
- When OFF, the 3-way valve releases residual pressure inside the machine into the atmosphere and blocks incoming air as well.
- 4 types depending on how pressured air flow is applied.

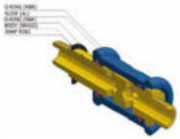
Specifications

Applicable fluid	compressed air (NOT applicable to gases or liquids)
Operating pressure	0~150PSI / 0~9.9kgf/㎠(0~990kPa) ※The combination with the applied tube shall be decided based on the maximum operating pressure of the tube.
Negative pressure	-29.5 in Hg / -750mmHg(-750Torr)
Operating temperature range	32~140° F /0~60°C
Hose materials used	polyurethane, nylon

Structural drawing

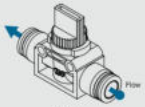
Hand Valves

Hand Slide Valves

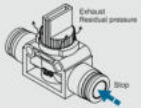


Example of uses

- When connecting tube, push it into the fitting at the end of the tube. When tube is detached, shut off the compressed air, then gently press down on the sleeve to take the tube out.
- Hand valves discharge residual air in the 3-way method, so employ according to the purpose of use. Applying to other fluids than air may cause leakage.



OPEN



CLOSE

CAUTIONS

Hand Valves

- Be sure to note safety precautions, how to classify warning signs (p. 25), and common precautions for fitting products before using.

WARNINGS

- Do not impact on or forcedly rotate the body or fitting.
- When used in a vacuum, inhaled dust and foreign substances may cause malfunction, so attach a vacuum filter to the suction side.
- When manipulating the hand lever, turn to 90 ° .
  If the hand lever is not fully turned to 90 ° , flow rate may not be smooth and low due to insufficient switching.

CAUTIONS

Hand Slide Valves

- Be sure to note safety precautions, how to classify warning signs (p.25), and common precautions (p.26) for fitting products before using.
- When manipulating the hand lever, turn fully to the right or left.
  If the hand lever is not turned fully right or left, the flow rate is not smooth and low due to insufficient switching.

WARNINGS

- Do not impact on or forcedly rotate the body or fitting. May cause product damage or air leakage.
- Use after identifying air flow control direction.
- Before conducting machine repair and inspection, make sure to shut off the power or air and completely remove residual pressure inside the piping.

HVC
Straight A

HVC-G
Straight A

MODEL(ΦD-T)

Tube **Metric** -Thread **R**		Tube **Inch** -Thread **NPT**		Tube **Metric** -Thread **G**	
HVC 04-01	HVC 08-03	HVC 5/32 -N01	HVC 5/16 -N03	HVC 04-G01	HVC 08-G03
HVC 04-02	HVC 10-02	HVC 5/32 -N02	HVC 3/8 -N02	HVC 04-G02	HVC 10-G02
HVC 04-03	HVC 10-03	HVC 5/32 -N03	HVC 3/8 -N03	HVC 04-G03	HVC 10-G03
HVC 06-01	HVC 10-04	HVC 1/4 -N01	HVC 3/8 -N04	HVC 06-G01	HVC 10-G04
HVC 06-02	HVC 12-02	HVC 1/4 -N02	HVC 1/2 -N02	HVC 06-G02	HVC 12-G02
HVC 06-03	HVC 12-03	HVC 1/4 -N03	HVC 1/2 -N03	HVC 06-G03	HVC 12-G03
HVC 08-01	HVC 12-04	HVC 5/16 -N01	HVC 1/2 -N04	HVC 08-G01	HVC 12-G04
HVC 08-02		HVC 5/16 -N02		HVC 08-G02	

HVF
Straight B

HVF-G
Straight B

MODEL(T-ΦD)

Thread **R** -Tube **Metric**		Thread **NPT** -Tube **Inch**		Thread **G**-Tube **Metric**	
HVF 01-04	HVF 03-08	HVF N01-5/32	HVF N03-5/16	HVF G01-04	HVF G03-08
HVF 02-04	HVF 02-10	HVF N02-5/32	HVF N02-3/8	HVF G02-04	HVF G02-10
HVF 03-04	HVF 03-10	HVF N03-5/32	HVF N03-3/8	HVF G03-04	HVF G03-10
HVF 01-06	HVF 04-10	HVF N01-1/4	HVF N04-3/8	HVF G01-06	HVF G04-10
HVF 02-06	HVF 02-12	HVF N02-1/4	HVF N02-1/2	HVF G02-06	HVF G02-12
HVF 03-06	HVF 03-12	HVF N03-1/4	HVF N03-1/2	HVF G03-06	HVF G03-12
HVF 01-08	HVF 04-12	HVF N01-5/16	HVF N04-1/2	HVF G01-08	HVF G04-12
HVF 02-08		HVF N02-5/16		HVF G02-08	

HVU
Union Straight

MODEL(ΦD1-ΦD2)

Tube **Metric**	Tube **Inch**
HVU 04-04	HVU 5/32 - 5/32
HVU 06-06	HVU 1/4 - 1/4
HVU 08-06	HVU 5/16 - 1/4
HVU 08-08	HVU 5/16 - 5/16
HVU 10-08	HVU 3/8 - 5/16
HVU 10-10	HVU 3/8 - 3/8
HVU 12-10	HVU 1/2 - 3/8
HVU 12-12	HVU 1/2 - 1/2

HSV
Nipple Slide

MODEL(T)

Thread **R**
HSV M5
HSV 01
HSV 02
HSV 03
HSV 04
HSV 06

HVM
Nipple

HVM-G
Nipple

MODEL(T1-T2)

Thread **R**	Thread **NPT**	Thread **G**
HVM 01-01	HVM N01-N01	HVM G01-G01
HVM 02-01	HVM N02-N01	HVM G02-G01
HVM 02-02	HVM N02-N02	HVM G02-G02
HVM 03-02	HVM N03-N02	HVM G03-G02
HVM 03-03	HVM N03-N03	HVM G03-G03
HVM 04-03	HVM N04-N03	HVM G04-G03
HVM 04-04	HVM N04-N04	HVM G04-G04

BALL VALVES

Product Code System

HBVU 0606

- HBVU → BALL VALVE
- 0606 → TUBE DIA

CODE	SIZE
06	Ø6
08	Ø8
10	Ø10
12	Ø12

Uses

- This valve turns on/off the supply of compressed air or water.
- Applicable to air and water.

Features

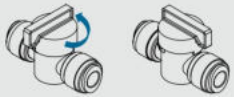
- Small and easy to use even in a small space.
- Applied according to tube size with an effective cross-sectional area as large as the tube size secured.

Specifications

Applicable fluid	compressed air (NOT applicable to gases or liquids)
Operating pressure	0~150PSI / 0~9.9kgf/cm(0~990kPa) ※The combination with the applied tube shall be decided based on the maximum operating pressure of the tube.
Negative pressure	-29.5 in Hg / -750mmHg(-750Torr)
Operating temperature range	32~140° F /0~60°C
Hose materials used	polyurethane, nylon

Structural drawing

Example of uses



CAUTIONS

- Make sure that the fitting product is not subject to twisting, pulling, or bending. Causes the tube to fall out.
- Do not use hot water above 60℃ or high temperature fluids. Hydrolysis of tube material may occur due to heat, resulting in changes in the tube and fitting.

WARNINGS

- Before assembling with a fitting, completely remove any foreign substances or dust.
- When using products other than those manufactured by this company, make sure they are within the allowable outside diameter tolerance of the tube beforehand. Any tube with an outside diameter out of the tolerance range will cause leakage.

Product model name

HBVU

MODEL(ΦD)

Tube **Metric**	Tube **Inch**
HBVU 0606	HBVU 1/4-1/4
HBVU 0808	HBVU 5/16-5/16
HBVU 1010	HBVU 3/8-3/8
HBVU 1212	HBVU 1/2-1/2

HBVU-S

MODEL(ΦD)

Tube **Metric**	Tube **Inch**
HBVU-S 0606	HBVU-S 1/4-1/4
HBVU-S 0808	HBVU-S 5/16-5/16
HBVU-S 1010	HBVU-S 3/8-3/8
HBVU-S 1212	HBVU-S 1/2-1/2

STOP FITTINGS

Product Code System

METRIC - BSPT(R)

SPC 06–01

STOP FITTING

TUBE DIA

CODE	ΦD
04	Φ4
06	Φ6
08	Φ8
10	Φ10
12	Φ12

THREAD SIZE

CODE	SIZE
M5	M5×0.8
M6	M6×1.0
01	R⅛
02	R¼
03	R⅜
04	R½

METRIC - BSPF(G)

SPC 06–G01

STOP FITTING

TUBE DIA

CODE	ΦD
04	Φ4
06	Φ6
08	Φ8
10	Φ10
12	Φ12

THREAD SIZE

CODE	SIZE
G01	G⅛
G02	G¼
G03	G⅜
G04	G½

INCH - NPT

SPC ¼–N1

STOP FITTING

TUBE DIA

CODE	SIZE
1/10	Ø 1/10
5/64	Ø 5/64
¼	Ø ¼
5/32	Ø 5/32
⅜	Ø ⅜
½	Ø ½

THREAD SIZE

CODE	SIZE
U	10-32UNF
N1	NPT ⅛
N2	NPT ¼
N3	NPT ⅜
N4	NPT ½

Uses

- Used often where pneumatic piping is changed frequently

Features

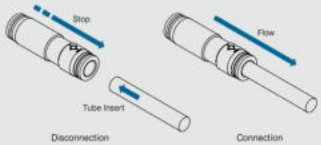
- When the tube is removed, the air is completely blocked. When connected again, the air is to flow for the purpose of ensuring good maintenance or safety of the device.
- With the stop fitting installed, compressed air is supplied only when the tube is connected

Specifications

Applicable fluid	compressed air (Not applicable to gases or liquids)
Operating pressure	0~150PSI / 0~9.9kgf/㎠(0~990kPa) ※The combination with the applied tube shall be decided based on the maximum operating pressure of the tube.
Negative pressure	-29.5 in Hg / -750mmHg(-750Torr)
Operating temperature range	32~140° F /0~60°C
Hose materials used	polyurethane, nylon

Structural drawing

Example of uses



CAUTIONS

- Be sure to note safety precautions, the classification method of warning signs (p.25), and the common precautions for fitting products (p.24) before using them.
- Assemble with reference to proper fastening torque for fitting. (p.26)
- Fasten by hand and rotate 2-3 turns with a tool. Be careful that fastening too hard may damage the screw thread.
- When the tube is installed, check the direction of the air flow before using it.
  If assembled in the opposite direction to air flow, air does not flow. Check the direction of air flow before piping and assembling

WARNINGS

- Do not impact on or forcedly rotate the body or fitting.
- Do not open the tube with pressure applied when opening the tube. The bouncing force of the tube under pressure can cause damage to the human body. Please be careful when using it.

SPC

Straight

SPC-G

Straight

MODEL(ΦD-T)

Tube **Metric** -Thread **R**		Tube **Inch** -Thread **NPT**		Tube **Metric** -Thread **G**	
SPC 04-01	SPC 10-03	SPC $^{5}/_{32}$-N01	SPC $^{5}/_{16}$-N03	SPC 04-G01	SPC 10-G03
SPC 06-01	SPC 10-04	SPC $^{5}/_{16}$-N01	SPC $^{3}/_{8}$-N02	SPC 06-G01	SPC 10-G04
SPC 06-02	SPC 12-02	SPC $^{5}/_{16}$-N02	SPC $^{3}/_{8}$-N03	SPC 06-G02	SPC 12-G02
SPC 08-02	SPC 12-03	SPC $^{1}/_{4}$- N01	SPC $^{3}/_{8}$-N04	SPC 08-G02	SPC 12-G03
SPC 08-03	SPC 12-04	SPC $^{1}/_{4}$- N02	SPC $^{1}/_{2}$-N03	SPC 08-G03	SPC 12-G04
SPC 10-02		SPC $^{5}/_{16}$- N01	SPC $^{1}/_{2}$-N04	SPC 10-G02	
		SPC $^{5}/_{16}$- N02			

SPL

Elbow

SPL-G

Elbow

MODEL(ΦD-T)

Tube **Metric** -Thread **R**		Tube **Inch** -Thread **NPT**		Tube **Metric** -Thread **G**	
SPL 04-M5	SPL 08-02	SPL $^{5}/_{32}$-U	SPL $^{5}/_{16}$-N01	SPL 04-G01	SPL 10-G04
SPL 04-M6	SPL 08-03	SPL $^{5}/_{32}$-N01	SPL $^{5}/_{16}$-N02	SPL 06-G01	SPL 12-G03
SPL 04-01	SPL 10-02	SPL $^{5}/_{16}$-U	SPL $^{5}/_{16}$-N03	SPL 06-G02	SPL 12-G04
SPL 06-M5	SPL 10-03	SPL $^{5}/_{16}$-N01	SPL $^{3}/_{8}$-N02	SPL 08-G02	
SPL 06-01	SPL 10-04	SPL $^{5}/_{16}$-N02	SPL $^{3}/_{8}$-N03	SPL 08-G03	
SPL 06-02	SPL 12-03	SPL $^{1}/_{4}$-U	SPL $^{3}/_{8}$-N04	SPL 10-G02	
SPL 08-01	SPL 12-04	SPL $^{1}/_{4}$-N01	SPL $^{1}/_{2}$-N03	SPL 10-G03	
		SPL $^{1}/_{4}$-N02	SPL $^{1}/_{2}$-N04		

SPU

Union Straight

MODEL(ΦD)

Tube **Metric**	Tube **Inch**
SPU 04	SPU $^{5}/_{32}$
SPU 06	SPU $^{5}/_{16}$
SPU 08	SPU $^{1}/_{4}$
SPU 10	SPU $^{5}/_{16}$
SPU 12	SPU $^{3}/_{8}$
	SPU $^{1}/_{2}$

SPUM

MODEL(ΦD)

Tube **Metric**	
SPUM 04	
SPUM 06	
SPUM 08	
SPUM 10	
SPUM 12	

CHECK VALVES

Product Code System

METRIC - BSPT(R)

CVPC 08–01–MO

CHECK VALVES

TUBE DIA	
CODE	ΦD
04	Φ4
06	Φ6
08	Φ8
10	Φ10
12	Φ12

THREAD SIZE	
CODE	SIZE
M5	M5 × 0.8
01	R⅛
02	R¼
03	R⅜
04	R½

CONTROL METHOD	
METER-OUT	
CODE	OUT
METER-IN	
CODE	IN

METRIC - BSPP(G)

CVPC 08–G01–MO

CHECK VALVES

TUBE DIA	
CODE	ΦD
04	Φ4
06	Φ6
08	Φ8
10	Φ10
12	Φ12

THREAD SIZE	
CODE	SIZE
G01	G⅛
G02	G¼
G03	G⅜
G04	G½

CONTROL METHOD	
METER-OUT	
CODE	OUT
METER-IN	
CODE	IN

INCH - NPT

CVPC 5/16 –N1–MO

CHECK VALVES

TUBE DIA	
CODE	SIZE
⅛	⅛"
5/16	5/16"
¼	¼"
⅜	⅜"

THREAD SIZE	
CODE	SIZE
U	10-32UNF
N1	NPT ⅛
N2	NPT ¼
N3	NPT ⅜
N4	NPT ½

CONTROL METHOD	
METER-OUT	
CODE	OUT
METER-IN	
CODE	IN

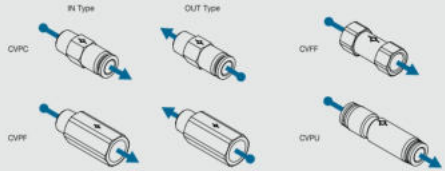
Uses	• Used where air flow passes only in one direction. • Used where the air pressure is required to remain constant on the exhaust side. • Suitable for piping the devices used under low pressure
Features	• Easily used in environments where the vacuum line is protected and maintained, and under low pressure conditions by allowing compressed air entered in one direction to flow and by blocking air flow in the opposite direction. • Female screw threads in both directions and metal body type (CVFF)

Specifications

Applicable fluid	compressed air (Not applicable to gases or liquids)
Operating pressure	150PSI / 9.9kgf/㎠ (990kPa). ※The combination with the applied tube shall be decided based on the maximum operating pressure of the tube.
Cracking pressure	0.1~0.2kgf/㎠
Negative pressure	-29.5 in Hg / -750mmHg(-750Torr)
Operating temperature range	32~140° F /0~60°C
Hose materials used	polyurethane, nylon

Structural drawing

Example of uses



CAUTIONS	• Be sure to note the safety precautions, the classification method of warning signs (p. 25), and the common precautions for fitting products before using them. • Assemble with reference to proper fastening torque for fitting. (p.26) • Fasten by hand and rotate 2-3 turns with a tool. Fastening too hard may cause operating failure of the valve.
WARNINGS	• Do not impact on or forcedly rotate the body or fitting. • Note that heat may be generated in the valve due to switching operation at a high frequency. Please be careful to avoid burns due to the heat.

CVPC

Straight

CVPC-G

Straight

MODEL(ΦD-T)

Tube **Metric** -Thread **R**		Tube **Inch** -Thread **NPT**		Tube **Metric** -Thread **G**	
CVPC 04-M5	CVPC 10-03	CVPC 5/32 -U	CVPC 5/16 -N01	CVPC 04-G01	CVPC 12-G03
CVPC 04-M6	CVPC 10-04	CVPC 5/32 -N01	CVPC 5/16 -N02	CVPC 06-G01	CVPC 12-G04
CVPC 04-01	CVPC 12-03	CVPC 3/16 -U	CVPC 3/8 -N03	CVPC 06-G02	
CVPC 06-01	CVPC 12-04	CVPC 3/16 -N01	CVPC 3/8 -N04	CVPC 08-G01	
CVPC 06-02		CVPC 3/16 -N02	CVPC 1/2 -N03	CVPC 08-G02	
CVPC 08-01		CVPC 1/4 -N01	CVPC 1/2 -N04	CVPC 10-G03	
CVPC 08-02		CVPC 1/4 -N02		CVPC 10-G04	

※The large size(Ø10, Ø12, Ø3/8, Ø1/2)is aluminum body

CVPF

Bush

CVPF-G

Bush

MODEL(T1-T2)

Thread **R** -Thread **Rc**	Thread **NPT** -Thread **NPT**	Thread **G** -Thread **G**
CVPF 01-01	CVPF N01-N01	CVPF G01-G01
CVPF 02-02	CVPF N02-N02	CVPF G02-G02
CVPF 03-03	CVPF N03-N03	CVPF G03-G03
CVPF 04-04	CVPF N04-N04	CVPF G04-G04

CVPU

Union Straight

Metal Body

MODEL(ΦD)

Tube **Metric**	Tube **Inch**
CVPU 04	CVPU 5/32
CVPU 06	CVPU 3/16
CVPU 08	CVPU 1/4
CVPU 10	CVPU 5/16
CVPU 12	CVPU 3/8
	CVPU 1/2

CVFF

Union Straight

CVFF-G

MODEL(ΦD)

Thread **Rc** -Thread **Rc**	Thread **G** -Thread **G**
CVFF 01-01	CVFF G01-G01
CVFF 02-02	CVFF G02-G02
CVFF 03-03	CVFF G03-G03
CVFF 04-04	CVFF G04-G04

STAINLESS STEEL PUSH-IN FITTINGS

Product Code System

METRIC - BSPT(R)

SUS–PC 04 M5

STAINLESS STEEL PUSH-IN FITTINGS

TUBE DIA CODE	TUBE DIA SIZE
04	Ø4
06	Ø6
08	Ø8
10	Ø10
12	Ø12

THREAD SIZE CODE	THREAD SIZE SIZE
M5	M5×0.8
01	R¼
02	R½
03	R⅜
04	R¾

METRIC - BSPP(G)

SUS–PC 04 –G01

STAINLESS STEEL PUSH-IN FITTINGS

TUBE DIA CODE	TUBE DIA SIZE
04	Ø4
06	Ø6
08	Ø8
10	Ø10
12	Ø12

THREAD SIZE (G(PF)) CODE	THREAD SIZE SIZE
G01	G ¼
G02	G ½
G03	G ⅜
G04	G ¾

Uses

- This pipe connector can be used in special industrial environments, such as those including food and beverages, oil, gas, and chemicals.
- This product is made of materials suitable for use in making chemical and pharmaceutical industry equipment.

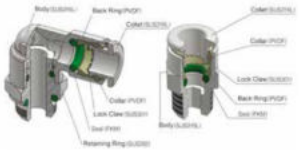
Features

- Suitable for environments requiring high temperature and corrosion resistance.
- One-touch manipulating enables to easy attachment and detachment of the tube.

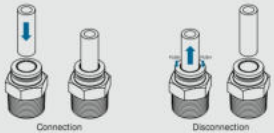
Specifications

Materials	Stainless steel SUS316L
Operating fluids	Air, Oil, air, oil, water, steam
Operating pressure	0~18kgf/cm²
Operating temperature range	-20~150℃

Structural drawing



Example of uses



CAUTIONS

- Assemble tube after completely removing foreign substances such as dust.
- When using fitting products, ensure beforehand that the outside diameter of the tube falls within the allowable range of the tolerance table.

WARNINGS

- Do not use it for fluids other than air. For use with other fluids or gases, contact CDC Neuromatic Technical Department.
- Be careful of pressure increases due to twisting, pulling, bending, etc.
- Do not use in places with welding flames.
- Not available due to rapid rotation and vibration that may cause product damage and air leakage, please refer to our catalog to select the correct product.
- Do not use cutting oil, lubricant, coolant, etc. in direct contact with the solution.

SUS-PC

SUS-PC-G

MODEL(ØD-T)

Tube **Metric** -Thread **R**		Tube **Metric** -Thread **G**	
SUS-PC 04M5	SUS-PC 0803	SUS-PC 04G01	SUS-PC 10G02
SUS-PC 0401	SUS-PC 1002	SUS-PC 04G02	SUS-PC 10G03
SUS-PC 0402	SUS-PC 1003	SUS-PC 06G01	SUS-PC 12G02
SUS-PC 06M5	SUS-PC 1202	SUS-PC 06G02	SUS-PC 12G03
SUS-PC 0601	SUS-PC 1203	SUS-PC 08G01	SUS-PC 12G04
SUS-PC 0602	SUS-PC 1204	SUS-PC 08G02	
SUS-PC 0801		SUS-PC 08G03	
SUS-PC 0802			

SUS-PL

SUS-PL-G

MODEL(ØD-T)

Tube **Metric** -Thread **R**		Tube **Metric** -Thread **G**	
SUS-PL 04M5	SUS-PL 0803	SUS-PL 04G01	SUS-PL 10G02
SUS-PL 0401	SUS-PL 1002	SUS-PL 04G02	SUS-PL 10G03
SUS-PL 0402	SUS-PL 1003	SUS-PL 06G01	SUS-PL 12G02
SUS-PL 06M5	SUS-PL 1202	SUS-PL 06G02	SUS-PL 12G03
SUS-PL 0601	SUS-PL 1203	SUS-PL 08G01	SUS-PL 12G04
SUS-PL 0602	SUS-PL 1204	SUS-PL 08G02	
SUS-PL 0801		SUS-PL 08G03	
SUS-PL 0802			

SUS-PUC

MODEL(ØD)

Tube **Metric** -Thread **R**	
SUS-PUC 04	
SUS-PUC 06	
SUS-PUC 08	
SUS-PUC 10	
SUS-PUC 12	

SUS-PUL

MODEL(ØD)

Tube **Metric** -Thread **R**	
SUS-PUL 04	
SUS-PUL 06	
SUS-PUL 08	
SUS-PUL 10	
SUS-PUL 12	

SUS-PUT

MODEL(ØD)

Tube **Metric** -Thread **R**	
SUS-PUT 04	
SUS-PUT 06	
SUS-PUT 08	
SUS-PUT 10	
SUS-PUT 12	

FITTINGS FOR SECONDARY BATTERY INDUSTRY

Product Code System

METRIC - BSPT(R)

SMPC 06-01

- STAINLESS
- FITTINGS FOR SECONDARY BATTERY INDUSTRY
- TUBE DIA

CODE	SIZE
04	Ø4
06	Ø6
08	Ø8
10	Ø10
12	Ø12
14	Ø14
16	Ø16

- THREAD SIZE

CODE	SIZE
M5	M5×0.8
M8	M8×1.0
M12	M12×1.5
M14	M14×1.5
M16	M16×1.5
M22	M22×1.5

R(PT) THREAD

CODE	SIZE
01	R⅛
02	R¼
03	R⅜
04	R½

METRIC - BSPP(G)

SMPC 06-G01

- STAINLESS
- FITTINGS FOR SECONDARY BATTERY INDUSTRY
- TUBE DIA

CODE	SIZE
04	Ø4
06	Ø6
08	Ø8
10	Ø10
12	Ø12
14	Ø14
16	Ø16

- THREAD SIZE

G(PF) THREAD

CODE	SIZE
G01	G⅛
G02	G¼
G03	G⅜
G04	G½

Uses

- This fitting is applicable for secondary battery industry and its environment.

Features

- Easy to install and remove the tubes by pushing them in with one movement
- Screw threads are O-ringed and Teflon-treated.
- Applicable for up to 20 bar.
- Applicable for up to 80°C.
- The compact design makes it easy to mount in a small area.

Specifications

Operating fluids	compressed air (not applicable to gases or liquids)
Operating pressure	20Bar
Negative pressure	-29.5 in Hg / -750mmHg(-750Torr)
Operating temperature range	- 20~80°C
Hose materials used	polyurethane, nylon

Structural drawing

SMPC

SMPL

SMSC

SMSF

Example of uses

- When assembling by screw fastening, use a spanner or a hexagon wrench to assemble the external or internal hexagon.
- PL and PT models can be used by setting the direction according to the piping. Injection-molded body rotates.
- Sleeve is circular and will not interfere with the equipment.

CAUTIONS

- Be sure to note the safety precautions, how to classify the warning signs (p.25), and the precautions for fitting products before using them.
- Assemble by referring to the proper fastening torque for fittings. (p.26)
- The standard is to fasten by hand and then rotate 2 to 3 turns with the tool. Fastening too hard may damage the screw threads.
- When installing the tube of the fitting, make sure that the tube does not fall out by gently pulling it after cutting at right angles and inserting it inside.
- Avoid piping under tension, and avoid drastically curved piping at the tube inserting inlet of the fitting.

WARNINGS

- Avoid twisting or hitting of the body or the fitting by the impact tool. May cause product damage or air leakage.
- Refrain from using water as the operating fluid if it does not meet all the conditions described in the specifications. May cause breakage of fitting, tube to fall out, and leakage of compressed air.

SMPC

SMPC-G

MODEL(ΦD-T)

Tube **Metric** -Thread **R**		Tube **Metric** -Thread **G**	
SMPC 04-M5	SMPC 08-02	SMPC 04-G01	SMPC 08-G04
SMPC 04-01	SMPC 08-03	SMPC 04-G02	SMPC 10-G02
SMPC 04-02	SMPC 10-02	SMPC 06-G01	SMPC 10-G03
SMPC 06-M5	SMPC 10-03	SMPC 06-G02	SMPC 10-G04
SMPC 06-01	SMPC 10-04	SMPC 06-G03	SMPC 12-G02
SMPC 06-02	SMPC 12-03	SMPC 08-G01	SMPC 12-G03
SMPC 08-01	SMPC 12-04	SMPC 08-G02	SMPC 12-G04
		SMPC 08-G03	

SMPL

SMPL-G

MODEL(ΦD-T)

Tube **Metric** -Thread **R**		Tube **Metric** -Thread **G**	
SMPL 04-M5	SMPL 08-03	SMPL 04-G01	SMPL 08-G04
SMPL 04-01	SMPL 10-02	SMPL 04-G02	SMPL 10-G02
SMPL 04-02	SMPL 10-03	SMPL 06-G01	SMPL 10-G03
SMPL 06-M5	SMPL 10-04	SMPL 06-G02	SMPL 10-G04
SMPL 06-01	SMPL 12-03	SMPL 06-G03	SMPL 12-G02
SMPL 06-02	SMPL 12-04	SMPL 08-G01	SMPL 12-G03
SMPL 08-01		SMPL 08-G02	SMPL 12-G04
SMPL 08-02		SMPL 08-G03	

SMPT

SMPT-G

MODEL(ΦD-T)

Tube **Metric** -Thread **R**		Tube **Metric** -Thread **G**	
SMPT 04-M5	SMPT 08-02	SMPT 04G01	SMPT 08G03
SMPT 04-01	SMPT 08-03	SMPT 04G02	SMPT 08G04
SMPT 04-02	SMPT 10-02	SMPT 04G03	SMPT 10G02
SMPT 06-M5	SMPT 10-03	SMPT 06G01	SMPT 10G03
SMPT 06-01	SMPT 10-04	SMPT 06G02	SMPT 10G04
SMPT 06-02	SMPT 12-03	SMPT 06G03	SMPT 12G02
SMPT 08-01	SMPT 12-04	SMPT 08G01	SMPT 12G03
		SMPT 08G02	SMPT 12G04

Speed Controllers

SMSC

SMSC-G

MODEL(ΦD-T)

Tube **Metric** -Thread **R**		Tube **Metric** -Thread **G**	
SMSC 04-M5	SMSC 08-03	SMSC 04-G01	SMSC 08-G04
SMSC 04-01	SMSC 08-04	SMSC 04-G02	SMSC 10-G02
SMSC 04-02	SMSC 10-01	SMSC 06-G01	SMSC 10-G03
SMSC 06-M5	SMSC 10-02	SMSC 06-G02	SMSC 10-G04
SMSC 06-01	SMSC 10-03	SMSC 06-G03	SMSC 12-G02
SMSC 06-02	SMSC 10-04	SMSC 08-G01	SMSC 12-G03
SMSC 06-03	SMSC 12-02	SMSC 08-G02	SMSC 12-G04
SMSC 06-04	SMSC 12-03	SMSC 08-G03	
SMSC 08-01	SMSC 12-04		
SMSC 08-02			

SMSF

MODEL(ΦD)

Tube **Metric**	Tube **Inch**
SMSF 04	
SMSF 06	
SMSF 08	
SMSF 10	
SMSF 12	

BRASS PUSH-IN FITTINGS

Product Code System

METRIC - BSPT(R)

BPC 06-01

BRASS PUSH-IN FITTINGS

TUBE DIA	
CODE	SIZE
04	Ø4
06	Ø6
08	Ø8
10	Ø10
12	Ø12

THREAD SIZE	
CODE	SIZE
01	R⅛
02	R¼
03	R⅜
04	R½

METRIC - BSPP(G)

BPC 06-G01

BRASS PUSH-IN FITTINGS

TUBE DIA	
CODE	SIZE
04	Ø4
06	Ø6
08	Ø8
10	Ø10
12	Ø12

THREAD SIZE	
G(PF) THREAD	
CODE	SIZE
G01	G⅛
G02	G¼
G03	G⅜
G04	G½

INCH - NPT

BPC-¼-N1

BRASS PUSH-IN FITTINGS

TUBE DIA	
CODE	SIZE
1/16	Ø 1/16
1/8	Ø 1/8
¼	Ø ¼
3/16	Ø 3/16
⅜	Ø ⅜
½	Ø ½

THREAD SIZE	
UNF THREAD	
CODE	SIZE
U	10-32UNF
NPT THREAD	
CODE	SIZE
N1	NPT ⅛
N2	NPT ¼
N3	NPT ⅜
N4	NPT ½

Uses

- This is a one-touch type pipe connector to be used for pneumatic piping.

Features

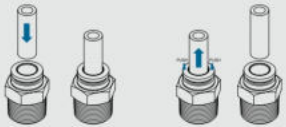
- Easily applicable as a high-specification fitting.
- A compact type that can be mounted in a small space.
- Possible to use a variety of tubes according to use circumstances.

Specifications

Operating pressure	applicable to 0 to 16 Bar.
Operating temperature range	-20°C to +80°C
Material of tube used	PU, PA

Structural drawing

Example of uses



CAUTIONS

- Assemble the tube after removing foreign substances such as dust.
- When using fitting products, ensure beforehand that the outside diameter of the tube falls within the allowable range of the tolerance table.

WARNINGS

- Do not use for fluids other than air. When using for other fluids or gases, please contact CDC Pneumatic Technical Department.
- Be careful of pressure increases due to twisting, pulling, bending, etc.
- Do not use in places with welding flames present.
- Not applicable where rapid rotation and vibration may cause product damage and air leakage. Please refer to our catalog to select the correct product.
- Do not use in environments where cutting oil, lubricant, coolant, etc. may come in direct contact.

BPC

Male Connector

BPC-G

Male Connector

MODEL(ØD-T)

Tube **Metric** -Thread **R**		Tube **Inch** -Thread **NPT**		Tube **Metric** -Thread **G**	
BPC 04-R01	BPC 10-R02	BPC 5/32-U	BPC 5/16-N03	BPC 04-M5	BPC 08-G03
BPC 04-R02	BPC 10-R03	BPC 5/32-N01	BPC 3/8-N01	BPC 04-G01	BPC 10-G02
BPC 06-R01	BPC 10-R04	BPC 5/32-N02	BPC 3/8-N02	BPC 04-G02	BPC 10-G03
BPC 06-R02	BPC 12-R02	BPC 1/4 - U	BPC 3/8-N03	BPC 06-M5	BPC 10-G04
BPC 08-R01	BPC 12-R03	BPC 1/4 - N01	BPC 3/8-N04	BPC 06-G01	BPC 12-G02
BPC 08-R02	BPC 12-R04	BPC 1/4 - N02	BPC 1/2-N02	BPC 06-G02	BPC 12-G03
BPC 08-R03		BPC 5/16-N01	BPC 1/2-N03	BPC 08-G01	BPC 12-G04
		BPC 5/16-N02	BPC 1/2-N04	BPC 08-G02	

BPL

Male Elbow

BPL-G

Male Elbow

MODEL(ØD-T)

Tube **Metric** -Thread **R**		Tube **Inch** -Thread **NPT**		Tube **Metric** -Thread **G**	
BPL 04-R01	BPL 10-R02	BPL 5/32-U	BPL 3/8-N01	BPL 04-M5	BPL 08-G03
BPL 04-R02	BPL 10-R03	BPL 5/32-N01	BPL 3/8-N02	BPL 04-G01	BPL 10-G02
BPL 06-R01	BPL 10-R04	BPL 5/32-N02	BPL 3/8-N03	BPL 04-G02	BPL 10-G03
BPL 06-R02	BPL 12-R02	BPL 1/4 - N01	BPL 3/8-N04	BPL 06-M5	BPL 10-G04
BPL 08-R01	BPL 12-R03	BPL 1/4 - N02	BPL 1/2-N02	BPL 06-G01	BPL 12-G02
BPL 08-R02	BPL 12-R04	BPL 5/16-N01	BPL 1/2-N03	BPL 06-G02	BPL 12-G03
BPL 08-R03		BPL 5/16-N02	BPL 1/2-N04	BPL 08-G01	BPL 12-G04
		BPL 5/16-N03		BPL 08-G02	

BPT

Male Branch Tee

BPT-G

Male Branch Tee

MODEL(ØD-T)

Tube **Metric** -Thread **R**		Tube **Inch** -Thread **NPT**		Tube **Metric** -Thread **G**	
BPT 04-R01	BPT 10-R02	BPT 5/32-N01	BPT 3/8-N02	BPT 04-M5	BPT 08-G03
BPT 04-R02	BPT 10-R03	BPT 5/32-N02	BPT 3/8-N03	BPT 04-G01	BPT 10-G02
BPT 06-R01	BPT 10-R04	BPT 1/4 - N01	BPT 1/2-N02	BPT 04-G02	BPT 10-G03
BPT 06-R02	BPT 12-R02	BPT 1/4 - N02	BPT 1/2-N03	BPT 06-M5	BPT 10-G04
BPT 08-R01	BPT 12-R03	BPT 5/16-N01		BPT 06-G01	BPT 12-G02
BPT 08-R02	BPT 12-R04	BPT 5/16-N02		BPT 06-G02	BPT 12-G03
BPT 08-R03				BPT 08-G01	BPT 12-G04
				BPT 08-G02	

BRASS PUSH-IN FITTINGS
CDC PNEUMATICS

BUC

Union Connector

BUL

Union Elbow

MODEL(ØD1-ØD2)

Tube **Metric**	Tube **Inch**
BUC 04	BUC 1/4-1/4
BUC 06	BUC 3/8-3/8
BUC 08	BUC 1/2-1/2
BUC 10	
BUC 12	

MODEL(ØD1-ØD2)

Tube **Metric**	Tube **Inch**
BUL 04	BUL 1/4-1/4
BUL 06	BUL 3/8-3/8
BUL 08	BUL 1/2-1/2
BUL 10	
BUL 12	

BUT

Union Tee

MODEL(ØD1-ØD2)

Tube **Metric**	Tube **Inch**
BUT 04	BUT 1/4-1/4
BUT 06	BUT 3/8-3/8
BUT 08	BUT 1/2-1/2
BUT 10	
BUT 12	

TWO-TOUCH FITTINGS

Product Code System

METRIC - BSPT**(R)**

CK 06-01

TWO TOUCH FITTING

TUBE DIA		
CODE	O.D	I.D
04	Ø4	Ø2.5
06	Ø6	Ø4
08	Ø8	Ø5.5
10	Ø10	Ø6.5
12	Ø12	Ø8

THREAD SIZE	
R(PT) THREAD	
CODE	SIZE
01	R ⅛
02	R ¼
03	R ⅜
04	R ½

Uses

- Nut tightening type pipe connector for pneumatic piping of devices.

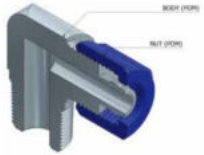
Features

- Fastening of the tube is made by nut tightening. Effective where vibration is severe.
- Made of plastic materials with a semi-permanent life span and excellent corrosion and chemical resistance.
- Suitable for use in low-pressure pneumatic applications.

Specifications

Applicable fluid	compressed air (Not applicable to gases or liquids)
Operating pressure	0~150PSI / 0~9.9kgf/㎠(0~990kPa) ※The combination with the applied tube shall be decided based on the maximum operating pressure of the tube.
Negative pressure	-29.5 in Hg / -750mmHg(-750Torr)
Operating temperature range	32~140° F /0~60°C
Hose materials used	polyurethane, nylon

Structural drawing



Example of uses

CAUTIONS

- Be sure to note the safety precautions, the classification method of warning signs (p.25), and common precautions of fitting products (p.26) before using them.
- As the material is plastic, Teflon coating is not applied on the screw thread. Applying the Teflon tape before installing will be effective in preventing air leakage.
- Make sure that pulling, bending, or twisting is not applied to the product. Otherwise, damage to the body and/or air leakage may occur.
- When assembling tube, push to the end and fasten the cap completely before using it.

WARNINGS

- When reusing a removed tube, cut the pressed part of the tube off at the right angle and assemble it.
- Product made of plastic so forced fastening may cause damage to the body. Please be careful when assembling.

CK
Straight

MODEL(ΦD-T)	
Tube **Metric** -Thread **R**	
CK 04-01	CK 10-02
CK 06-01	CK 10-03
CK 06-02	CK 12-02
CK 08-01	CK 12-03
CK 08-02	CK 12-04
CK 08-03	

GCK
Elbow

MODEL(ΦD-T)	
Tube **Metric** -Thread **R**	
GCK 04-01	GCK 10-02
GCK 06-01	GCK 10-03
GCK 06-02	GCK 12-02
GCK 08-01	GCK 12-03
GCK 08-02	GCK 12-04
GCK 08-03	

FCK
Union Tee

MODEL(ΦD)
Tube **Metric**
FCK 04
FCK 06
FCK 08
FCK 10
FCK 12

SILENCERS / METAL SILENCERS

Product Code System

ST 01

SILENCER

THREAD SIZE(T)

R(PT) THREAD	
Code	Size
01	R⅛
02	R¼
03	R⅜
04	R½
06	R¾
08	R1

STB 01

METAL SILENCER

THREAD SIZE(T)

R(PT) THREAD	
Code	Size
M5	M5×0.8
01	R⅛
02	R¼
03	R⅜
04	R½
06	R¾
08	R1

Uses

- Installed in the exhaust port of the equipment, it is used to reduce the noise of air exhaust.

Features

- Made of corrosion-resistant plastic, has a long-life and light-weight.
- Low unit price and high durability.
- Attached to a pneumatic exhaust, it provides excellent noise silencing effect during exhaust.
- Compact, easy to install in a narrow place.

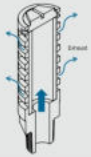
Specifications

Code	ST01	ST02	ST03	ST04	ST06	ST08
Max. operating pressure	7kgf/㎠(700kPa)/100PSI			9.9kgf/㎠(990kPa)/150PSI		

Structural drawing

Example of uses

- When assembling by screw fastening, use a spanner on the hexagonal head.
- If the element is clogged, exhaust resistance increases and the product may be damaged or its performance degraded. Replace when necessary with a new product.



CAUTIONS

- Be sure to note the safety precautions, the classification method of warning signs (p.25), and common precautions of fitting products before using them.
- If the element has become clogged by dust and foreign substances when used for a long time, exhaust resistance may increase. This may adversely affect system performance, including silencing. Replace periodically to prevent from occurring.
- Material is plastic so Teflon coating not applied on the screw thread. Applying Teflon tape before installing will be effective in preventing air leakage.

WARNINGS

- Made of plastic, so forced fastening of the screw may damage the body. Please be careful in assembling.
- Please replace product periodically to prevent damage to the device.

Product model name

ST
T

MODEL(T)
Thread **R**
ST-01
ST-02
ST-03
ST-04
ST-06
ST-08
STM-02
STM-03

Metal Silencer

Uses

- Metal filter can be used even at high temperatures and high pressures. Resistant to impact.
- Product used throughout the industry because it is easy to connect, including welding.

Features

- Excellent in noise reduction and filtering under dry conditions.

Specifications

	STBM5	STB01	STB02	STB03	STB04	STB06	STB08
Max. operating pressure	15kgf/㎠/220PSI						
Operating temperature range	0~80℃/32~176℉						
Flow rate	250	300	320	340	370	400	420

CAUTIONS

- Be sure to note the safety precautions, the classification method of warning signs (p.25), and common precautions of fitting products before using them.
- If the element has become clogged by dust and foreign substances when used for a long time, exhaust resistance may increase. This may adversely affect system performance, including silencing. Replace periodically to prevent from occurring.
- Material is plastic so Teflon coating not applied on the screw thread. Applying Teflon tape before installing will be effective in preventing air leakage.

WARNINGS

- Made of plastic, so forced fastening of the screw may damage the body. Please be careful in assembling.
- Please replace product periodically to prevent damage to the device.

Product model name

STB

T

MODEL(T)	
Thread **R**	
STB(B)-M5	STB(V)-M5
STB(B)-01	STB(V)-01
STB(B)-02	STB(V)-02
STB(B)-03	STB(V)-03
STB(B)-04	STB(V)-04
STB(B)-06	STB(V)-06
STB(B)-08	STB(V)-08

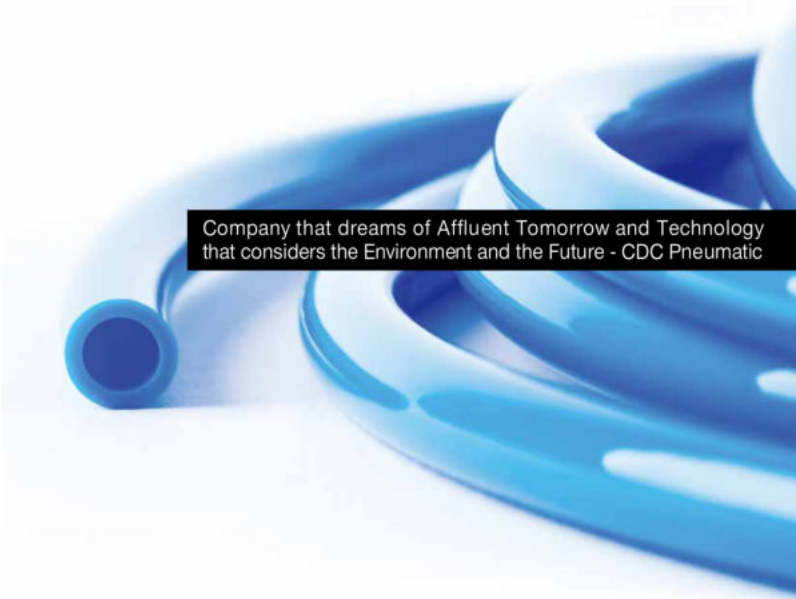
STB(V)

T

STC

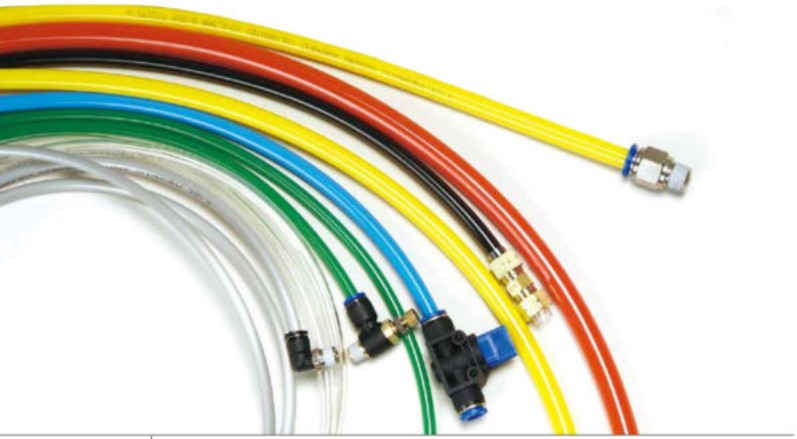
MODEL(T)
Thread **R**
STC-01
STC-02
STC-03
STC-04

POLYURETHANE TUBE / POLYETHYLENE TUBE / NYLON TUBE / COIL TUBE



Company that dreams of Affluent Tomorrow and Technology that considers the Environment and the Future - CDC Pneumatic

TUBES



Product Code System

POLYURETHANE TUBE

PU 08 50 BK

POLYURETHANE TUBE

TUBE DIA (O.D & I.D)

METRIC TUBE			INCH TUBE	
CODE	O.D	I.D	CODE	O.D
0320	Ø3	Ø2	1/8	1/8"
0420	Ø4	Ø2	5/64	5/64"
0425	Ø4	Ø2.5	3/16	3/16"
0640	Ø6	Ø4	1/4	1/4"
0850	Ø8	Ø5	5/16	5/16"
0855	Ø8	Ø5.5	3/8	3/8"
1065	Ø10	Ø6.5	1/2	1/2"
1280	Ø12	Ø8		
1290	Ø12	Ø9		
1611	Ø16	Ø11		
1612	Ø16	Ø12		

TUBE COLOR

COLOR	CODE
White	WT
Black	BK
Red	RD
Blue	BU
Yellow	YL
Green	GN
Clear	CR
Translucent Blue	TB
Silver	SL

POLYURETHANE COIL TUBE

UC 08 50 – 5 BK

POLYURETHANE COIL TUBE

TUBE DIA (O.D & I.D)

METRIC TUBE		
CODE	O.D	I.D
0640	Ø6	Ø4
0850	Ø8	Ø5
1065	Ø10	Ø6.5
1280	Ø12	Ø8

LENGTH

TUBE COLOR

COLOR	CODE
Yellow	YL
Blue	BU
Black	BK

Uses

- Applicable for piping of various pneumatic devices.

Features

- Flexible at low temperatures.
- Light weight, excellent abrasion and chemical resistance, low price.
- More flexible than nylon tubes for easier piping work.
- Possible to select various colored tubes and use according to the work environment.

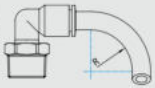
Specifications

Applicable fluid	compressed air (Not applicable to gases or liquids)
Operating pressure	0~150PSI / 0~9.9kgf/cm² (0~990kPa).
Negative pressure	-29.5in Hg / -750mmHg(-750Torr)
Operating temperature range	32~140°F / 0~60℃

Structural drawing

Example of uses

- If the tube is forcedly pulled or folded after piping work is completed, it will adversely affect the product. Please refer to the radius of curvature below to proceed with the work.



PU Minimum bending radius at 23℃ (mm)

Tube size	Ø3	Ø4	Ø6	Ø8	Ø10	Ø12	Ø14	Ø16
Bending radius	8	12	15	20	25	35	45	50
Tube size	Ø1/8	Ø5/32	Ø3/16	Ø1/4	Ø5/16	Ø3/8	Ø1/2	
Bending radius	8	12	12	15	20	25	35	

TUBE COLOR

COLOR	White	Black	Red	Blue	Yellow	Green	Clear	Silver	Translucent Blue
CODE	WT	BK	RD	BU	YL	GR	CL	SL	TB

CAUTIONS

- Make sure that the tube is pushed to the end of the fitting before using it. Otherwise, air may leak and the tube may fall out.
- When mounting the tube to the fitting, cut the tube at right angles and insert it inside. Make sure the tube does not fall out when gently pulled.
- Give some allowance when piping a tube, taking into account length change in the future.
- Where the tube may fall out to cause damage to people or property, be sure to fix in place.

WARNINGS

- Do not use for fluids other than air and water (in the case of some products only). If needed for other fluids, please contact us beforehand.
- Check the tube for oval shape, damage to the outside diameter, or scratches. They may cause air leakage or tube falling out.
- Do not use for hot fluids such as water above 60°C. Heat and hydrolysis of tube materials may cause problems, including tube deformation.
- Do not apply in places where spatters occur. High fire risk caused by spatters.
- Tube may be destroyed by surge pressure when used in water.
- Do not apply in direct contact with liquids, such as cutting oil, lubricating oil, or coolant oil.
- Do not use in places where static electricity occurs or antistatic finishing is provided.
- Inappropriate for activated gases such as oxygen, hydrogen, and LPG. Do not use.

PU

Polyurethane tube

MODEL(Outer-Inner)

Tube **Metric**		Tube **Inch**
PU 0320	PU 1065	PU 1/8
PU 0420	PU 1280	PU 5/32
PU 0425	PU 1290	PU 3/16
PU 0640	PU 1410	PU 1/4
PU 0850	PU 1612	PU 5/16
PU 0855		PU 3/8
		PU 1/2

PE

Polyethylene tube

MODEL(Outer-Inner)

Tube **Metric**	Tube **Inch**
PE 0425	PE 5/32
PE 0640	PE 3/16
PE 0860	PE 1/4
PE 1070	PE 5/16
PE 1290	PE 3/8
	PE 1/2

PA

Polyamide tube

MODEL(Outer-Inner)

Tube **Metric**
PA 0420
PA 0425
PA 0640
PA 0860
PA 1008
PA 1209

ETC

Tube Cutter

MODEL
ETC-20

SCPW

MODEL
SCPW 06
SCPW 08
SCPW 10
SCPW 12

UC

Coil tube

UC C

MODEL(Outer-Inner-Length)

Tube **Metric** -Meters		
w/o coupler		with coupler
UC 0640-3	UC 1065-10	UC 0850-5
UC 0640-5	UC 1280-5	UC 0850-7.5
UC 0640-7.5	UC 1280-7.5	UC 0850-10
UC 0640-10	UC 1280-10	UC 1065-5
UC 0850-5		UC 1065-7.5
UC 0850-7.5		UC 1065-10
UC 0850-10		UC 1280-5
UC 1065-5		UC 1280-7.5
UC 1065-7.5		UC 1280-10

Tube connecting method

Preparation	Prepare tube for application and a tube cutter and fitting connecting tool (spanner or wrench).
↓	
Cutting of tube	Cut the tube perpendicular to the axial direction using a tube cutter.
↓	
Connect with fitting	Using a spanner or wrench, tighten firmly within the recommended tightening torque range below.
↓	
Inserting of tube	Mark the tube insertion length on the tube and insert in a straight line relative to the fitting body. Now check whether the marking position is in the open sleeve section.

AIR GUNS

Product Code System

CA 01 F

- CA → AIR GUN
- 01 → NOZZLE SIZE(L)
- F → COUPLING FORM

NOZZLE SIZE(L) METRIC TYPE	
Code	Length
00	0mm
01	100mm
02	200mm
03	300mm

COUPLING FORM	
CODE	TYPE
Blank	PLUG
F	Rc¼
G	G¼

Uses

- Frequently used to clean mechanical facilities, products, and corners in workplaces.

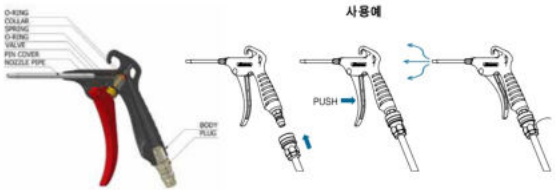
Features

- Simple product design.
- Designed for user convenience, easy to adjust air injection.
- Nozzle of various lengths for wide use.
- Made of engineering plastic to be lightweight and shock resistant.

Specifications

Applicable fluid	compressed air (Not applicable to gases or liquids
Operating pressure	0~150PSI / 0~9.9kgf/cm² (0~990kPa).
Negative pressure	-29.5in Hg / -750mmHg(-750Torr)
Operating temperature range	32~140°F / 0~60℃

Structural drawing



CAUTIONS

- Be sure to note the safety precautions, the classification method of warning signs (p.25), and common precautions for fitting products (p.26) before using them.
- The product body is made of plastic. Be careful of excessive impact, rotation, and bending.
- Used for cleaning products and removing foreign substances and dust from machines. When cleaning various machines, stop operating the machine completely before using it.

WARNINGS

- When cleaning machines, stop operating the machine completely and use holding the body.
- Do not give strong impact to the body. Leakage may occur due to damage.

Product model name

CA

MODEL(L-T)		
CA-50	CA-50G	CA-50F
CA-100	CA-100G	CA-100F
CA-200	CA-200G	CA-200F
CA-300	CA-300G	CA-300F

CAF

CB01

MODEL(L-T)		
CB 01-100	CB 01-100G	CB 01-100F
CB 01-200	CB 01-200G	CB 01-200F
CB 01-300	CB 01-300G	CB 01-300F

CB01F

OIL EJECTOR LINES

Product Code System

OEL 01 R

- OIL EJECTOR LINE
- THREAD SIZE(T)

R(PT) THREAD	
CODE	SIZE
01	R⅛
02	R¼
03	R⅜
04	R½
06	R¾

- NOZZLE TYPE(L)

CODE	TYPE
R	Round
F	Flare

Product model name

OEL

MODEL(T-L)
OEL 01
OEL 02
OEL 03
OEL 04
OEL 06

Uses

- Mounted onto a machine tool, it directs the flow of cutting oil.

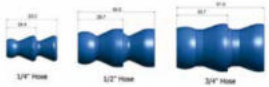
Features

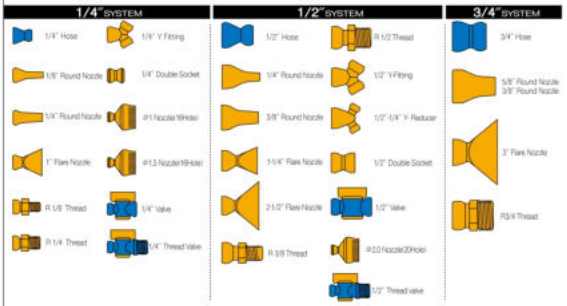
- Effective in corrosion and chemical resistance. Non-conductive.
- Possible to change fluid flow to several directions.
- Made of plastic, semi-permanent, and light.
- Many types of products. Apply according to purpose.

CAUTIONS

- Be sure to note the safety precautions, the classification method of warning signs (p.25), and the common precautions for fitting products (p.24) before using them.
- The product body is made of plastic, so be careful of excessive impact, rotation, and bending when using.
- Use for supplying cutting oil and in the cleaning process during maintenance and inspection. Completely stop operation of the machine first.

Structural drawing





COUPLERS / KOREA COUPLERS / SP COUPLERS / TSP COUPLERS / CAM-LOCK COUPLER

COUPLERS

Product Code System

OSH 20

- H : KOREA COUPLER
- O : ONE TOUCH COUPLER
- B : BRASS COUPLER

COUPLING FORM

CODE	TYPE
S	Socket
P	Plug

SCREW FORM

CODE	TYPE
H	Hose Stem
M	Male Thread
F	Female Thread
N	Nut

THREAD SIZE

SIZE	H	M	F	N
20	9	R¼	Rc ¼	-
30	11	R⅜	Rc ⅜	-
40	15	R½	Rc ½	-
400	15	R½	Rc ½	-
600	21	R¾	Rc ¾	-
800	27	R1	Rc 1	-
08	-	-	-	8×5
10	-	-	-	10×6.5
12	-	-	-	12×8

Uses

- Used to connect pipe for compressed air.
- May be used widely, e.g., for connecting the pneumatic tool hose and air piping in the factory.

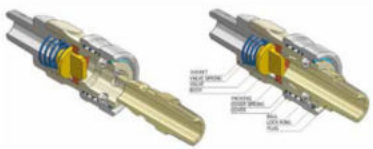
Features

- One-way on-off coupler with an automatic on-off valve built into the hole.
- Of various materials and shapes, the coupler can be selected according to purpose and environment.
- Easy to use with plug and socket smoothly fastened and disconnected.

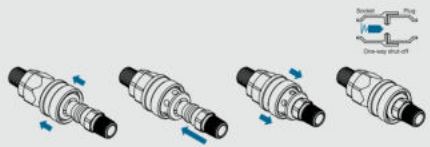
Specifications

Applicable fluid	compressed air (Not applicable to gases or liquids)
Material	Steel, brass
Operating pressure	0~150PSI / 0~9.9kgf/cm (0~990kPa).
Operating temperature range	32~140°F / 0~60℃

Structural drawing



Example of uses



CAUTIONS

- If air leaks due to wear or aging of the packing, replace the main body with a new one.
- Note that foreign substances and dust on the packing surface may cause water leakage.
- Wrongly selected packing material may cause leakage. After considering the suitability of rubber material for fluid type and temperature, select product to use.
- Be careful that fastening the coupler with excessive force may cause damage to the device or product.
- Do not apply where there is metal powder, sand, and dust. They may be a cause for defective coupler and equipment breakdown.

WARNINGS

- Avoid attaching or detaching the coupler under pressurized conditions. Please note that it may cause damage to the device and human life.
- Be aware that artificially applied curvature, tension, and impact may cause damage.
- Do not rotate the coupler in order to use as a replacement for the rotary or swivel joints.
- Avoid using a coupler when big vibration or impact applied by tools or devices could cause shock.
- May be difficult to fasten a coupler under residual pressure, so completely release the residual pressure before fastening.
- Do not arbitrarily disassemble the coupler.

Steel Coupler

SH

MODEL(T)
Hose Stem
SH 20
SH 30
SH 40
SH 400
SH 600
SH 800

SM

MODEL(T)
Thread **R**
SM 20
SM 30
SM 40
SM 400
SM 600
SM 800

SF

MODEL(T)
Thread **Rc**
SF 20
SF 30
SF 40
SF 400
SF 600
SF 800

SN

MODEL(T)
Hose Nut(ΦT)
SN 08
SN 10
SN 12

PH

MODEL(T)
Hose Stem
PH 20
PH 30
PH 40
PH 400
PH 600
PH 800

PM

MODEL(T)
Thread **R**
PM 20
PM 30
PM 40
PM 400
PM 600
PM 800

PF

MODEL(T)
Thread **Rc**
PF 20
PF 30
PF 40
PF 400
PF 600
PF 800

PN

MODEL(T)
Hose Nut(ΦT)
PN 08
PN 10
PN 12

Steel One - Touch Coupler

OSH

MODEL(T)
Hose Stem
OSH 20
OSH 30
OSH 40

OSM

MODEL(T)
Thread **R**
OSM 20
OSM 30
OSM 40

OSF

MODEL(T)
Thread **Rc**
OSF 20
OSF 30
OSF 40

OSN

MODEL(T)
Hose Nut(ΦT)
OSN 08
OSN 10
OSN 12

Coupler BSBM

BSH

MODEL(T)
Hose Stem
BSH 20
BSH 30
BSH 40

BSM

MODEL(T)
Thread **R**
BSM 20
BSM 30
BSM 40

BSF

MODEL(T)
Thread **Rc**
BSF 20
BSF 30
BSF 40

BPH

MODEL(T)
Hose Stem
BPH 20
BPH 30
BPH 40

BPM

MODEL(T)
Thread **R**
BPM 20
BPM 30
BPM 40

BPF

MODEL(T)
Thread **Rc**
BPF 20
BPF 30
BPF 40

Mold Coupler BSBM

KSH

MODEL(T)
Hose Stem
KSH 20
KSH 30A
KSH 30

KSM

MODEL(T)
Thread **R**
KSM 10
KSM 20
KSM 30

KSF

MODEL(T)
Thread **Rc**
KSF 10
KSF 20
KSF 30

KPH

MODEL(T)
Hose Stem
KPH 20
KPH 30A
KPH 30

KPM

MODEL(T)
Thread **R**
KPM 10
KPM 20
KPM 30

KPF

MODEL(T)
Thread **Rc**
KPF 20
KPF 20
KPF 30

Steel Line Coupler

LC2A

MODEL(T)
Thread(Rc 1/4)
LC 2A

LC3A

MODEL(T)
Thread(Rc 1/4)
LC 3A

LC03

MODEL(T)
Thread(Rc 1/4)
LC 03

OLC 2A

MODEL(T)
Thread(Rc 1/4)
OLC 2A

OLC 3A

MODEL(T)
Thread(Rc 1/4)
OLC 3A

Korea Coupler

HPH

MODEL(T)
Hose Stem
HPH 20
HPH 30
HPH 40

HPM

MODEL(T)
Thread **R**
HPM 20
HPM 30
HPM 40

HPF

MODEL(T)
Thread **Rc**
HPF 20
HPF 30
HPF 40

HPN

MODEL(T)
Hose Stem
HPN 08
HPN 10
HPN 12

HSH

MODEL(T)
Thread **R**
HSH 20
HSH 30
HSH 40

HSM

MODEL(T)
Thread **Rc**
HSM 20
HSM 30
HSM 40

HSF

MODEL(T)
Hose Stem
HSF 20
HSF 30
HSF 40

HSN

MODEL(T)
Thread **R**
HSN 08
HSN 10
HSN 12

SP COUPLERS

Product Code System

SP 01 S

- SP COUPLER
- THREAD SIZE

SIZE	S	P
01	Rc⅛	Rc⅛
02	Rc¼	Rc¼
03	Rc⅜	Rc⅜
04	Rc½	Rc½
06	Rc¾	Rc¾
08	Rc1	Rc1

- COUPLING FORM

CODE	TYPE
S	Socket
P	Plug

Uses

- This coupler is to be applied to piping and equipment for steam, oil, chemicals, and air.

Features

- Widely used for vacuum applications. Easily handles fluids and vacuum resistant at 10mmHg when separated.
- On-off valves are built into both the socket and the plug. This medium-to-high pressure coupler is durable and hermetic compared to existing couplers.
- High safety, two-way on-off type coupler.

Specifications

Operating fluids	Air, Water, Gasoline, Oil, Steam
Material	Brass
Operating pressure	Rc 1/8~Rc 3/8 : 0~50kgf/㎠ (5000kPa) Rc 1/2~Rc 1 : 0~30kgf/㎠ (3000kPa)
Operating temperature range	-20 ~ 80℃

Structural drawing

Example of uses

▶ **Compatibility** : Coupler of different sizes cannot be connected.

▶ **Direction of attaching and fastening of coupler:**
Fluid flows through either plug or socket.
Minimum cross-sectional area (㎟)

Minimum cross-sectional area (㎟)

Product name	01 SP	02 SP	03 SP	04 SP	06 SP	08 SP	Note
Minimum cross-sectional area	10	25	43	90	180	305	FKM(Viton)

CAUTIONS

- Be sure to note the precautions and warnings of the coupler before use.
- The SP coupler may not be fastened due to manufacture to different specifications. Please contact us to select and use the product.

WARNINGS

- Avoid attaching or detaching the coupler under pressurized conditions. Please note that this may cause damage to the device and human life.
- Be aware that artificially applied curvature, tension, and impact may cause damage.
- Do not rotate the coupler in order to use as a replacement for the rotary or swivel joints.
- Avoid using a coupler when a big vibration or impact applied by tools or devices may cause shock.
- May be difficult to fasten a coupler under residual pressure, so completely release the residual pressure before fastening.
- Do not arbitrarily disassemble the coupler.

Product model name

S

MODEL(T)	MODEL(T)
Thread **Rc**	Thread **Rc**
SP 01S	SP 01P
SP 02S	SP 02P
SP 03S	SP 03P
SP 04S	SP 04P
SP 06S	SP 06P
SP 08S	SP 08P
Thread **Rc**	Thread **Rc**
SUS-SP 01S	SUS-SP 01P
SUS-SP 02S	SUS-SP 02P
SUS-SP 03S	SUS-SP 03P
SUS-SP 04S	SUS-SP 04P
SUS-SP 06S	SUS-SP 06P
SUS-SP 08S	SUS-SP 08P

P

SP Couplers

TSP COUPLERS

Product Code System

TSP 01 TS

TSP COUPLER

THREAD SIZE		
SIZE	TS	TP
01	Rc⅛	Rc⅛
02	Rc¼	Rc¼
03	Rc⅜	Rc⅜
04	Rc½	Rc½
06	Rc¾	Rc¾
08	Rc1	Rc1

COUPLING FORM	
CODE	TYPE
S	Socket
P	Plug

Uses

- This coupler is to be applied to piping and equipment for steam, oil, chemicals, and air.
- Widely used for vacuum applications. Easily handles fluids and is vacuum resistant at 10mmHg when separated.

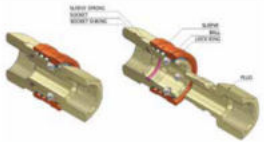
Features

- On-off valves are built into both the socket and the plug. This medium-to-high pressure coupler is very durable and hermetic compared to existing couplers.
- High safety, two-way on-off type coupler.

Specifications

Operating fluids	Air, Water, Gasoline, Oil, Steam
Material	Brass
Operating pressure	Rc 1/8 to Rc 3/8: 0 to 50kgf/cm2 (5,000kPa) Rc 1/2 to Rc 1: 0 to 30kgf/cm2 (3,000kPa)
Operating temperature range	-20°C to 80°C

Structural drawing



Example of uses

▶ **Compatibility** : Coupler of different sizes cannot be connected

▶ **Direction of attaching and fastening of coupler**:
Fluid flows through either plug or socket.

Minimum cross-sectional area (㎟)

Product name	01 SP	02 SP	03 SP	04 SP	06 SP	08 SP	Note
Minimum cross-sectional area	10	25	43	90	180	305	FKM(Viton)

CAUTIONS

- Be sure to note the precautions and warnings of the coupler product before use.
- The SP coupler may not be fastened due to manufacture to different specifications. Please contact us to select and use the product.

WARNINGS

- Avoid attaching or detaching the coupler under pressurized conditions. Please note that this may cause damage to the device and human life.
- Be aware that artificially applied curvature, tension, and impact may cause damage.
- Do not rotate the coupler in order to use as a replacement for the rotary or swivel joints.
- Avoid using a coupler when a big vibration or impact applied by tools or devices may cause shock.
- May be difficult to fasten a coupler under residual pressure, so completely release the residual pressure before fastening.
- Do not arbitrarily disassemble the coupler.

Product model name

TS

MODEL(T)

Thread Rc	
TSP 01TS	SUS-TSP 01TS
TSP 02TS	SUS-TSP 02TS
TSP 03TS	SUS-TSP 03TS
TSP 04TS	SUS-TSP 04TS
TSP 06TS	SUS-TSP 06TS
TSP 08TS	SUS-TSP 08TS

TP

MODEL(T)

Thread Rc	
TSP 01TP	SUS-TSP 01TP
TSP 02TP	SUS-TSP 02TP
TSP 03TP	SUS-TSP 03TP
TSP 04TP	SUS-TSP 04TP
TSP 06TP	SUS-TSP 06TP
TSP 08TP	SUS-TSP 08TP

TM

MODEL(T)

Thread R	
TSP 01TM	SUS-TSP 01TM
TSP 02TM	SUS-TSP 02TM
TSP 03TM	SUS-TSP 03TM
TSP 04TM	SUS-TSP 04TM
TSP 06TM	SUS-TSP 06TM
TSP 08TM	SUS-TSP 08TM

TWO-TOUCH FITTINGS BSBM

Product Code System

METRIC - BSPT(R)

CC 6×4-01

- CC: TWO TOUCH FITTING BRASS
- 6×4: TUBE DIA
- 01: THREAD SIZE

CODE	O.D	I.D
4×2	Φ4	Φ2
4×2.5	Φ4	Φ2.5
6×4	Φ6	Φ4
8×5	Φ8	Φ5
8×6	Φ8	Φ6
10×6.5	Φ10	Φ6.5
10×8	Φ10	Φ8
12×8	Φ12	Φ8
12×9	Φ12	Φ9
16×12	Φ16	Φ12
16×13	Φ16	Φ13

CODE	SIZE
01	R¼
02	R⅜
03	R½
04	R¾

INCH - BSPT(R)

CC ¼-01

- CC: TWO TOUCH FITTING BRASS
- ¼: TUBE DIA(Nylon Tube)
- 01: THREAD SIZE

CODE	O.D	I.D
1/8	Φ3.18	Φ2.0
3/16	Φ4.76	Φ3.0
1/4	Φ6.35	Φ4.57
5/16	Φ8.0	Φ5.0
3/8	Φ9.53	Φ6.99
1/2	Φ12.7	Φ9.56

CODE	SIZE
01	R¼
02	R⅜
03	R½
04	R¾

Uses

- Screw tightening type fitting with a high tube retaining force, which can be easily attached and detached in a compact piping space.
- Easy to use in shock- and vibration-prone equipment and piping environments.

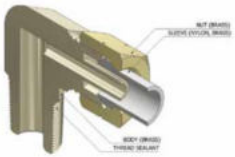
Features

- Has insert attached for high pressure and vibration resistance.
- Two-touch fitting to connect and fix tube more securely.
- Screw threads are coated for efficient piping work.

Specifications

Applicable fluid	Air, Oil, Water
Operating pressure	0~150PSI / 0~9.9kgf/cm(0~990kPa).
Negative pressur	-750mmHg(-750 Torr)
Operating temperature range	Air: -40℃~+80℃ Water : 0℃~+70℃ Oil : -40℃~+80℃

Structural drawing



Example of uses

CAUTIONS

- Be sure to note the safety precautions, the classification method of warning signs (25p), and the common precautions for fitting products (P24) before using them.
- Assemble with reference to the proper fastening torque for fittings. (26p)
- The standard is to fasten by hand and rotate 2-3 turns using the tool. Assembling too hard may break the screw thread.
- If insertion section of the tube is dirty, wipe off the dirt from the surface before use.
- The sleeve of this product should not be reused. After using once, replace with a new one.

WARNINGS

- Do not use any products that have been processed secondarily or dismantled or modified.
- Avoid piping under tension or piping with sudden curvature change at the tube insertion section of the fitting.
- Do not use in environments with inflammable or corrosive gas.
- Do not allow hot fluid to be in contact with the tube and fittings. May cause burns to the human body.

CC

CC INCH

MODEL(ΦD-T)

Tube **Metric** -Thread **R**			Tube **Inch** -Thread **R**	
CC 4×2-01	CC 8×6-02	CC 12×8-04	CC 1/4-01	CC 3/8-01
CC 4×2- 02	CC 8×6-03	CC 12×9-02	CC 1/4-02	CC 3/8-02
CC 4×2.5-01	CC 10×6.5-02	CC 12×9-03	CC 1/4-03	CC 3/8-03
CC 6×4- 01	CC 10×6.5-03	CC 12×9-04	CC 1/4-04	CC 3/8-04
CC 6×4-02	CC 10×6.5-04	CC 16×12-03	CC 5/16-01	CC 1/2-02
CC 6×4-03	CC 10×8-02	CC 16×12-04	CC 5/16-02	CC 1/2-03
CC 8×5-01	CC 10×8-03	CC 16×13-03	CC 5/16-03	CC 1/2-04
CC 8×5-02	CC 10×8-04	CC 16×13-04	CC 5/16-04	
CC 8×5-03	CC 12×8-02			
CC 8×6-01	CC 12×8-03			

CL

CL INCH

MODEL(ΦD-T)

Tube **Metric** -Thread **R**			Tube **Inch** -Thread **R**	
CL 4×2-01	CL 8×6-02	CL 12×8-04	CL 1/4-01	CL 3/8-01
CL 4×2-02	CL 8×6-03	CL 12×9-02	CL 1/4-02	CL 3/8-02
CL 4×2.5-01	CL 10×6.5-02	CL 12×9-03	CL 1/4-03	CL 3/8-03
CL 6×4-01	CL 10×6.5-03	CL 12×9-04	CL 1/4-04	CL 3/8-04
CL 6×4-02	CL 10×6.5-04	CL 16×12-03	CL 5/16-01	CL 1/2-02
CL 6×4-03	CL 10×8-02	CL 16×12-04	CL 5/16-02	CL 1/2-03
CL 8×5-01	CL 10×8-03	CL 16×13-03	CL 5/16-03	CL 1/2-04
CL 8×5-02	CL 10×8-04	CL 16×13-04	CL 5/16-04	
CL 8×5-03	CL 12×8-02			
CL 8×6-01	CL 12×8-03			

CT

MODEL(ΦD-T)

Tube **Metric** -Thread **R**	
CT 4×2-01	CT 10×6.5-02
CT 4×2-02	CT 10×6.5-03
CT 4×2.5-01	CT 10×6.5-04
CT 6×4-01	CT 10×8-02
CT 6×4-02	CT 10×8-03
CT 6×4-03	CT 10×8-04
CT 8×5-01	CT 12×8-02
CT 8×5-02	CT 12×8-03
CT 8×5-03	CT 12×8-04
CT 8×6-01	CT 12×9-02
CT 8×6-02	CT 12×9-03
CT 8×6-03	CT 12×9-04

CUC

CUC INCH

MODEL(ΦD)

Tube **Metric**	Tube **Inch**
CUC 4×2	CUC 1/4
CUC 4×2.5	CUC 3/8
CUC 6×4	CUC 1/2
CUC 8×5	
CUC 8×6	
CUC 10×6.5	
CUC 10×8	
CUC 12×8	
CUC 12×9	

Two-Touch Fittings BSBM
CDC PNEUMATICS

CUL

MODEL(ΦD)

Tube **Metric**	Tube **Inch**
CUL 4×2	
CUL 4×2.5	
CUL 6×4	
CUL 8×5	
CUL 8×6	
CUL 10×6.5	
CUL 10×8	
CUL 12×8	
CUL 12×9	

CUT

CUT INCH

MODEL(ΦD)

Tube **Metric**	Tube **Inch**
CUT 4×2	CUT 1/4
CUT 4×2.5	CUT 3/8
CUT 6×4	CUT 1/2
CUT 8×5	
CUT 8×6	
CUT 10×6.5	
CUT 10×8	
CUT 12×8	
CUT 12×9	

CSM

MODEL(ΦD)

Tube **Metric**	Tube **Inch**
CSM 4	
CSM 6	
CSM 8	
CSM 10	
CSM 12	
CSM 16	

CSN

CSN INCH

MODEL(ΦD)

Tube **Metric**	Tube **Inch**
CSN 4	CSN 1/8
CSN 6	CSN 3/16
CSN 8	CSN 1/4
CSN 10	CSN 5/16
CSN 12	CSN 3/8
CSN 16	CSN 1/2

NUT

NUT INCH

MODEL(ΦD)

Tube **Metric**	Tube **Inch**
NUT 4	NUT 3/16
NUT 6	NUT 1/4
NUT 8	NUT 5/16
NUT 10	NUT 3/8
NUT 12	NUT 1/2
NUT 16	

BARB FITTINGS

Product Code System

BCC 04-M5

BARB FITTINGS

튜브 직경

CODE	SIZE
03	Φ3×Φ2
04	Ø4×Φ2.5
06	Ø6×Φ4

나사 규격

CODE	SIZE
M5	M5×0.8
01	R⅛
02	R¼

Uses

- This product is used together with tubes in equipment that has been vacuum generated.

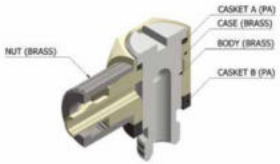
Features

- Compact product that can be used when piping in small spaces.
- Two-touch type can be installed without tools.
- Tubes made of PA and PU are available.
- The body is treated with electroless nickel plating.

Specifications

Operating fluid	Air
Operating pressure	10Bar
Vacuum pressure	-100kPa
Operating temperature range	-5 ~ 60℃

Structural drawing



Example of uses

CAUTIONS

- Do not arbitrarily modify product.
- Barb fitting product line should not be used for water.

BCC

MODEL(T)
Thread **M**
BCC 04M5
BCC 06M5
BCC 0401
BCC 0601

BCLL

MODEL(T)
Thread **M**
BCLL 04-M5
BCLL 04-M5

BCL

MODEL(T)
Thread **M**
BCL 04-M5
BCL 06-M5

BP

MODEL(T)
Thread **M.R**
BP M5
BP 01
BP 02

BHC

MODEL(T)
Thread **M**
BHC 04-M5
BHC 06-M5

BHLL

MODEL(T)
Thread **M**
BHLL 03-M5
BHLL 04-M5
BHLL 06-M5

BHL

MODEL(T)
Thread **M**
BHL 03-M5
BHL 04-M5
BHL 06-M5

- Although the compatibility is proved as Excellent or Good, it maynot suitable in some purposes of applications.
- Be sure to refer in actual using condition.

Judgement Standard	◎ : Excellent	○ : Good	△ : Require confirmation	× : Incompatible	- : No data

Chemical name	Fitting						Tube Type				Seal material		
Density(%), Temperature(℃)	BRASS	SUS304	SUS316	POM	PBT	PP	Urethane	Nylon	Polyolefin	Fluorine	NBR	EPDM	FKM
Caustic soda (10% 20℃)	△	△	○	◎	△	○	×	○	○	◎	○	◎	○
Caustic soda (30% 20℃)	-	-	-	◎	×	○	×	○	○	◎	-	-	-
Caustic soda (30% 70℃)	-	-	-	○	×	△	×	×	△	○	-	-	-
Gasoline	○	○	○	◎	◎	△	○	◎	△	◎	◎	×	◎
Air	◎	◎	◎	◎	◎	◎	○	○	○	○	◎	◎	◎
Sodium perborate	×	–	○	○	○	○	-	○	○	◎	○	◎	◎
Sodium peroxide	×	–	○	–	–	○	-	×	○	◎	○	◎	◎
Hydrogen peroxide (5%,20℃)	×	○	○	○	○	◎	○	◎	◎	◎	–	–	–
Hydrogen peroxide (5%,20℃)	×	○	○	△	○	◎	△	△	◎	◎	–	–	–
Hydrogen peroxide (30%,20℃)	×	○	○	×	○	○	×	×	○	◎	–	–	–
Perchloric acid	×	×	×	×	○	○	×	×	○	○	–	○	◎
Grease	○	◎	◎	◎	◎	△	○	◎	△	◎	◎	×	◎
Sodium silicate	△	–	○	◎	○	◎	◎	◎	◎	◎	◎	◎	◎
Glycerin 글리세린	○	◎	◎	◎	◎	◎	○	◎	◎	◎	◎	◎	◎
Naphtha	△	○	○	◎	○	△	△	○	△	◎	△	×	◎
Naphthaline	△	–	△	◎	○	○	△	◎	△	◎	×	×	◎
Nitropropane	–	–	–	○	–	○	-	-	○	○	–	–	–
Kerosene	◎	◎	◎	◎	◎	△	◎	◎	△	◎	◎	×	◎
Dichloro benzene	△	–	–	△	△	△	×	△	×	◎	–	–	–
Linoleic acid	–	–	–	○	–	△	-	△	△	○	○	×	○
Maleic acid	–	△	△	–	–	◎	△	◎	◎	◎	–	△	◎
Cottonseed oil	△	○	○	◎	–	○	◎	◎	○	◎	◎	◎	◎
Methane	○	–	△	◎	◎	◎	◎	◎	◎	◎	◎	×	◎
Methyl alcohol(Methanol)	◎	△	○	○	○	○	△	○	○	◎	◎	◎	△
Methyl ethyl ketone(MEK)	◎	△	○	○	○	○	×	○	○	○	×	◎	×
Methyl isobutyl ketone(MIBK)	△	–	△	○	○	○	×	○	○	◎	×	△	×
Monoethanolamine	–	–	△	○	–	○	-	○	△	○	×	○	×
Monochlorobenzene	–	–	–	○	–	×	×	×	×	○	×	×	◎
Chloroacetic acid	–	–	–	△	△	×	×	×	×	○	–	–	–
Hydrofluoric acid Anhydride	×	–	×	×	–	×	×	×	×	○	–	○	–
Acetic Anhydride	×	○	○	×	–	△	×	×	△	○	△	○	×
Water (24℃)	○	○	○	◎	○	◎	◎	◎	◎	◎	◎	◎	◎
Water (100℃)	×	○	○	△	×	△	△	△	△	◎	–	–	–
Sea Water	△	○	○	◎	○	◎	◎	◎	◎	◎	–	–	–
Bunker oil	△	–	○	–	–	○	–	○	○	–	◎	–	◎
Benzene(Benzol)	×	△	△	○	○	△	×	○	×	◎	×	×	◎
Butane	◎	◎	◎	◎	◎	◎	–	○	△	◎	◎	×	◎
Fluorine	×	×	△	×	–	×	×	–	×	×	–	△	○
Borax	×	–	○	–	–	◎	◎	◎	◎	◎	○	◎	◎
Boric acid	○	○	○	○	○	◎	◎	◎	◎	◎	◎	◎	◎
Amyl borate	–	–	–	○	–	△	–	–	△	○	◎	×	◎
Bromine	×	–	×	×	×	△	×	×	×	◎	–	–	◎
Arsenic acid	△	○	○	–	–	○	–	△	○	○	–	–	–
Carbon tetrachloride	△	△	△	○	○	△	×	△	×	◎	△	×	◎
Oxygen	◎	◎	◎	○	○	○	○	○	○	◎	○	◎	◎
Petroleum	–	–	–	○	○	×	◎	◎	×	◎	◎	×	◎

Chemical name	Fitting						Tube Type				Seal material		
Density(%), Temperature(℃)	BRASS	SUS304	SUS316	POM	PBT	PP	Urethane	Nylon	Polyolefin	Fluorine	NBR	EPDM	FKM
Salt Water	×	△	△	◎	○	○	–	○	○	○	–	–	–
Soda water	–	–	–	◎	○	○	○	○	○	○	–	–	–
Soda ash→Sodium carbonate	○	△	△	◎	○	◎	◎	◎	◎	◎	◎	◎	◎
Pine oil	△	○	◎	–	○	○	–	×	○	○	○	×	◎
Oxalic acid	△	△	△	×	○	◎	△	◎	◎	◎	○	◎	◎
Ethyl oxalate	–	–	–	○	○	×	×	○	×	○	×	◎	◎
Magnesium hydroxide	△	–	△	◎	×	○	△	◎	◎	◎	○	◎	◎
Barium hydroxide	×	–	◎	◎	△	○	–	○	○	◎	◎	◎	◎
Ammonium hydroxide	×	△	○	◎	×	◎	△	○	◎	◎	×	◎	○
Potassium hydroxide	△	△	△	◎	×	○	△	△	◎	◎	○	◎	○
Calcium hydroxide	△	△	△	◎	×	○	△	◎	◎	◎	◎	◎	◎
Hydrogen	△	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎
Mercury	×	–	△	–	–	◎	–	○	○	○	◎	◎	◎
Steam (150℃ or less)	○	–	○	△	△	×	×	×	×	○	×	◎	×
Steam (150℃ or higher)	–	–	–	×	×	△	×	×	×	○	×	○	×
Vegetable oil	–	–	–	○	○	○	–	○	○	○	◎	◎	◎
Salt water	△	△	△	◎	○	◎	○	◎	◎	◎	–	–	–
Silicone greases	–	–	–	◎	◎	△	–	○	△	○	◎	◎	◎
Silicone oil	–	–	–	◎	◎	△	–	○	△	○	◎	◎	◎
Glue	△	–	△	–	–	◎	–	○	○	◎	–	–	–
Aniline 이	×	△	△	○	○	△	×	×	×	○	×	○	△
Amyl naphtalene	–	–	–	◎	◎	△	–	–	△	○	×	×	◎
Amyl alcohol	○	△	△	◎	◎	○	○	○	○	○	○	◎	○
Acetone	◎	△	○	○	○	△	×	○	△	○	×	◎	×
Acetamide	–	–	–	○	○	△	–	–	△	○	◎	◎	○
Acetaldehyde	◎	○	◎	○	○	○	○	○	△	○	×	◎	×
Acetylence	×	○	◎	○	◎	◎	◎	◎	◎	◎	○	◎	◎
Sulfurous acid	×	△	△	×	○	○	×	×	○	◎	○	○	◎
Sulfurous acid gas	–	–	○	△	○	○	×	×	△	◎	○	○	◎
Sodium suffite	○	○	◎	◎	○	○	–	△	○	◎	–	–	–
Ammonia (No water)	△	◎	◎	○	△	○	–	○	○	◎	◎	◎	×
Ammonia gas (Cold)	×	○	○	○	△	△	×	△	△	○	◎	◎	×
Ammonia gas (heat)	×	○	○	○	×	×	×	×	×	○	◎	◎	×
Liquid Ammonia	○	◎	◎	○	△	○	–	○	○	○	–	–	–
Chlorine Liquide	–	–	–	×	○	×	×	×	×	○	–	–	–
Liquefied petroleum gas(LPG)	◎	◎	◎	◎	◎	△	–	○	△	○	◎	×	◎
Ethanolamine	–	–	–	◎	△	△	–	△	△	○	○	○	×
Ethylene glycol	△	△	△	◎	○	◎	◎	◎	◎	◎	◎	◎	◎
Ethyl cellulose	–	–	△	◎	◎	◎	–	–	○	◎	–	○	×
Ethyl alcohol(Ethanol)	◎	○	◎	◎	◎	○	△	○	○	◎	◎	◎	◎
Lye solution	–	–	–	◎	○	○	–	○	○	○	○	◎	○
Hydrochloric acid (10%, 20℃)	×	×	×	×	○	◎	△	○	◎	◎	–	–	–
Hydrochloric acid (20%, 20℃)	×	×	×	×	△	○	×	×	○	◎	–	–	–
Hydrochloric acid (20%, 80℃)	×	×	×	×	×	×	×	×	×	○	×	△	◎
Hydrochloric acid (38%, 20℃)	×	×	×	×	△	○	×	×	○	◎	○	◎	◎
Magnesium chloride	△	△	○	◎	○	◎	◎	◎	◎	◎	◎	◎	◎

- Although the compatibility is proved as Excellent or Good, it maynot suitable in some purposes of applications.
- Be sure to refer in actual using condition.

Judgement Standard	◎ : Excellent	○ : Good	△ : Require confirmation	× : Incompatible	- : No data

Chemical name	Fitting						Tube Type				Seal material		
Density(%), Temperature(℃)	BRASS	SUS304	SUS316	POM	PBT	PP	Urethane	Nylon	Polyolefin	Fluorine	NBR	EPDM	FKM
Methyle chloride	○	○	◎	◎	–	×	×	△	×	○	×	△	◎
Barium chloride	×	–	○	–	○	◎	◎	◎	◎	◎	◎	◎	◎
Zinc chloride	×	△	○	×	○	◎	◎	○	◎	◎	◎	◎	◎
Acetyl chloride	–	–	△	×	–	×	×	×	×	–	–	–	◎
Aluminium chloride	×	×	×	–	○	◎	–	△	○	◎	◎	◎	◎
Ammounium chloride	×	△	△	◎	○	◎	○	◎	◎	◎	◎	◎	◎
Etyle chloride	○	◎	◎	◎	–	×	×	◎	×	–	◎	◎	◎
Sulfur chloride	×	–	△	–	–	△	–	–	△	◎	△	×	◎
Kalium chloride	△	△	○	◎	○	◎	○	◎	◎	◎	◎	◎	◎
Calcium chloride	○	△	△	◎	○	◎	○	◎	◎	◎	◎	◎	◎
Ozone	○	○	○	△	◎	△	△	○	△	◎	○	◎	◎
Oleic acid	△	△	△	△	◎	○	△	○	△	◎	△	○	○
Olive oil	△	◎	◎	○	◎	○	○	○	○	◎	◎	○	◎
Uric acid	–	–	–	○	○	–	×	○	–	○	–	–	–
Aqua acid	–	–	–	×	–	△	×	×	×	○	–	△	○
Lactic acid	×	△	△	○	○	◎	–	○	○	◎	◎	◎	◎
Sulfur	×	○	○	◎	–	◎	△	○	◎	◎	×	◎	◎
Lubricating oil(Pertroleum base)	◎	◎	◎	◎	◎	×	◎	◎	×	◎	◎	×	◎
Lubricating oil(Easter base)	◎	◎	◎	◎	○	×	×	○	×	○	–	–	–
Isooctane	◎	○	○	◎	◎	×	△	○	×	○	◎	×	◎
Isopropyl alchol	○	○	○	◎	○	◎	–	△	◎	◎	○	◎	◎
Isopropyl ether	◎	○	○	◎	○	○	–	△	△	○	○	×	×
Carbon disulfide	○	○	○	○	–	×	×	○	×	○	△	×	◎
Phenyle disulfide	–	–	–	–	–	–	△	○	–	○	–	–	–
Carbon monoxide	◎	◎	◎	◎	○	◎	◎	◎	◎	◎	◎	◎	◎
Gelatin	◎	◎	◎	◎	○	○	○	○	○	○	◎	◎	◎
Heavy water	–	–	–	◎	○	◎	◎	◎	◎	◎	–	–	–
Soap soultions	◎	◎	◎	◎	○	○	○	◎	△	◎	◎	◎	◎
Sodium nitrate	○	○	◎	○	○	◎	○	◎	◎	◎	○	◎	–
Aluminium nitric	–	–	△	○	○	○	△	○	○	◎	◎	◎	–
Ammonium nitric	×	○	○	○	○	◎	○	◎	◎	◎	◎	◎	–
Kalium nitric	△	△	△	○	○	◎	◎	○	◎	◎	◎	◎	◎
Calcium nitric	–	–	–	○	○	◎	–	○	○	◎	◎	◎	◎
Nitrogen	○	◎	◎	◎	○	◎	○	○	○	◎	◎	◎	◎
Natural gas	◎	◎	◎	◎	◎	○	–	○	○	○	◎	×	◎
Acetic acid (10%, 20℃)	×	○	◎	△	○	◎	×	△	◎	◎	○	◎	○
Acetic acid (50%, 20℃)	×	○	○	×	○	○	×	×	○	○	–	–	–
Acetic acid (50%, 70℃)	×	○	○	×	△	×	×	×	×	○	–	–	–
Acetic acid (100%, 20℃)	×	△	△	×	△	×	×	×	×	○	–	–	–
Lead acetate	–	△	–	–	○	○	–	○	○	○	○	◎	–
Nickel acetate	–	–	△	–	○	◎	–	○	○	◎	○	◎	×
Zinc acetate	–	–	–	○	○	○	–	○	○	○	○	◎	×
Aluminium acetate	–	–	–	○	○	○	–	○	○	○	○	◎	–
Calcium acetate	△	–	△	○	○	◎	○	○	○	◎	○	◎	×
Cresol	○	△	◎	△	○	○	×	×	△	◎	△	×	◎
Chlorosulfonic acid	△	×	×	×	○	×	–	×	×	○	×	×	△

Chemical name	Fitting						Tube Type				Seal material		
Density(%), Temperature(℃)	BRASS	SUS304	SUS316	POM	PBT	PP	Urethane	Nylon	Polyolefin	Fluorine	NBR	EPDM	FKM
Chloroacetone	–	–	–	–	–	×	–	–	×	–	×	◎	×
Chlorotoluene	–	–	–	○	○	×	–	×	×	○	×	×	◎
Chloroform	○	○	○	△	△	×	×	○	×	◎	×	×	◎
Soybean oil	△	○	○	◎	◎	○	–	○	○	◎	◎	△	◎
Tannic acid	×	△	△	○	–	◎	△	◎	◎	◎	◎	◎	◎
Tar	△	◎	◎	–	–	○	◎	◎	○	◎	○	×	◎
Carbonic acid	○	△	△	–	–	○	△	◎	○	◎	◎	◎	◎
Carbon dioxide	○	○	○	◎	◎	◎	○	○	○	◎	–	–	–
Sodium carbonate	○	△	△	◎	○	◎	◎	◎	◎	◎	–	–	–
Ammonium carbonate	–	△	△	◎	○	○	–	○	○	◎	×	◎	–
Toluene	◎	◎	◎	○	△	△	△	○	△	○	×	×	◎
Triacetin	–	–	–	–	–	○	–	–	○	–	○	◎	×
Phenol	○	○	○	×	○	○	×	×	○	◎	–	○	◎
Glucose	◎	◎	◎	◎	◎	◎	○	◎	◎	◎	◎	◎	◎
Freon11	◎	◎	◎	◎	◎	–	–	○	–	○	◎	×	◎
Freon12	◎	◎	◎	◎	◎	–	–	○	–	○	◎	○	○
Freon21	◎	◎	◎	◎	◎	–	–	○	–	○	×	×	×
Freon22	◎	◎	◎	◎	◎	–	–	○	–	○	×	◎	×
Freon113	◎	◎	◎	◎	◎	–	–	○	–	○	◎	×	○
Freon114	◎	◎	◎	◎	◎	–	–	○	–	○	◎	◎	○
Propane	◎	◎	◎	◎	◎	◎	○	◎	◎	◎	◎	×	◎
Propylene	◎	◎	◎	◎	◎	–	–	○	–	○	×	×	◎
Castor oil	○	○	○	○	○	◎	△	◎	◎	◎	◎	○	◎
Hexane	○	○	○	◎	◎	△	○	◎	×	◎	◎	×	◎
Sulfuric acid (10%, 20℃)	×	×	×	×	○	○	×	○	○	◎	×	○	◎
Sulfuric acid (10%, 70℃)	×	×	×	×	×	△	×	×	△	◎	–	–	–
Sulfuric acid (30%, 20℃)	×	×	×	×	△	○	×	×	○	◎	–	–	–
Sulfuric acid (30%, 70℃)	×	×	×	×	×	△	×	×	△	○	–	–	–
Sulfuric acid (98%, 20℃)	×	×	×	×	×	×	×	×	×	○	–	–	–
Sulfuric acid (smoke, 70℃)	×	×	×	×	×	×	×	×	×	○	–	–	–
Sodium sulfate	○	△	○	◎	○	◎	◎	◎	◎	◎	◎	◎	◎
Nickel sulfate	–	△	○	–	○	○	–	○	○	◎	◎	◎	◎
Copper sulfate	○	△	○	◎	○	◎	◎	◎	◎	◎	◎	◎	◎
Magnesium sulfate	○	○	◎	–	○	◎	◎	◎	◎	◎	◎	◎	◎
Metyl sulfate	–	–	–	–	○	×	×	△	×	◎	–	–	–
Barium sulfate	△	○	○	–	○	○	–	○	○	◎	◎	◎	◎
Aluminium sulfate	×	○	○	◎	○	◎	–	◎	◎	◎	◎	◎	◎
Ammonium sulfate	△	△	△	◎	○	◎	◎	◎	◎	◎	◎	◎	–
Lead sulfate	△	–	△	–	○	○	○	○	○	◎	–	–	–
Sodium sulfide	×	△	△	○	○	○	○	○	○	◎	○	◎	◎
Barium sulfide	–	–	○	○	○	○	–	○	○	◎	◎	◎	◎
Zinc sulfide	△	○	○	○	○	◎	△	×	◎	◎	–	–	–
Calcium sulfide	–	–	△	○	○	○	–	○	○	◎	○	◎	◎