

⦿ Please read carefully the important notes listed below before using.

Warning

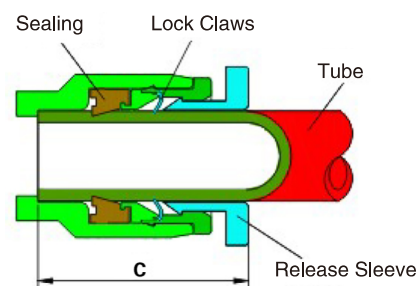
- 1.Except air and water(Tap water can be used. Consult with E·MC for using other kind of water), never attempt to use the tube fitting in other fluids.
- 2.The tube fitting application is prohibited where spark and fire might be occurred.
- 3.The tube fitting application is prohibited if water temperature is above 60°C because resin might be decomposed and damaged in water under a high temperature.
- 4.The tube fitting is not designed for application where there is static charge.
- 5.Never apply tube fitting with additional external load (bending, twist or pulling), otherwise damage or leakage will be occurred.

Caution

- 1.If you use other supplier tubing, the different tubing tolerance might cause leakage or incorrect connection and disassembly. It must check if tubing OD is in compliance with the specification as listed in following table

Tubing outer diameter tolerance					
Size	Nylon Tube	Polyurethane Tube	Size	Nylon Tube	Polyurethane Tube
φ 3mm	±0.08	±0.08	φ 1/8	±0.08	±0.08
φ 4mm	±0.1	±0.1	φ 5/32	±0.1	±0.1
φ 6mm	±0.1	±0.1	φ 3/16	±0.1	±0.1
φ 8mm	±0.1	±0.1	φ 1/4	±0.1	±0.1
φ 10mm	±0.15	±0.1	φ 5/16	±0.1	±0.1
φ 12mm	±0.15	±0.1	φ 3/8	±0.15	±0.1
φ 14mm	±0.15	±0.1	φ 1/2	±0.15	±0.1
φ 16mm	±0.15	±0.1			

- 2.Always check the end of tubing for a right angle cutting and check the external surface of tubing for any damage or scratch. Please refer to following instruction in connection of tubing. When you insert the air tubing into the fitting, you will have two-step feeling. Section One is locking claw ,while Section Two is sealing ring. You must insert the tube into Section Two. After connection of fitting and tubing, always try to pull tubing and ensure its firm connection.
The minimum insertion length of tubing is as listed, however, the tubing length tolerance as listed is necessary in practice.



Depth of Assembling tube with Fitting						
Tube Size	φ 4	φ 6	φ 8	φ 10	φ 12	φ 16
C(mm)	16	17	18.5	21	22.5	25
Tube Size	φ 5/32	φ 3/16	φ 1/4	φ 5/16	φ 3/8	φ 1/2
C(mm)	15.5	17	17.2	18.5	21	22.5

3.Cautions during disassembly of tubing

Before disconnection of tubing, always check tubing internal pressure at zero.

For disconnection of tubing, always press release sleeve heavily and then pull out tubing. If release sleeve is not pressed with enough force, it is hard to pull out tubing and external surface scratch might be resulted by locking claw, which is the cause of air leakage.

Don't swing or rotate tubing in disconnection otherwise groove might be resulted on the tubing surface by locking claw to prevent tubing from pulling. After disconnection the fittings , please clean the thread glue on the equipment , otherwise the thread glue will enter the equipment and cause damage.

4.Always use proper tool to tighten external hexagonal and internal hexagonal parts of the tube fittings.

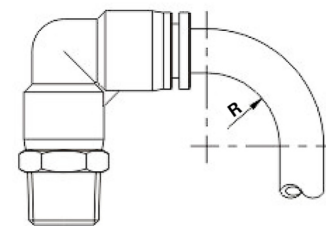
Always apply recommended torque on screws otherwise extra torque might damage thread and cause air leakage while insufficient torque might cause loose screws and air leakage.

After screws are tightened, you may adjust the direction of tubing with most of our tube fitting. If it is hard in adjustment, you may use recommended torque to turn screw to adjust direction of tubing.

⦿ Recommended Torque for Different Thread Specification

Thread Type	Thread Specification	Torque(kgf.cm)
Metric Thread	M3	7
	M5	15-19
	M6	20-27
R/Rc Thread	R/Rc 1/8	70-90
	R/Rc 1/4	120-140
	R/Rc 3/8	220-240
	R/Rc 1/2	280-300
Thread	NO.10-32 UNF	
NPT Thread	1/16	70-90
	1/8	70-90
	1/4	120-140
	3/8	220-240
	1/2	280-300

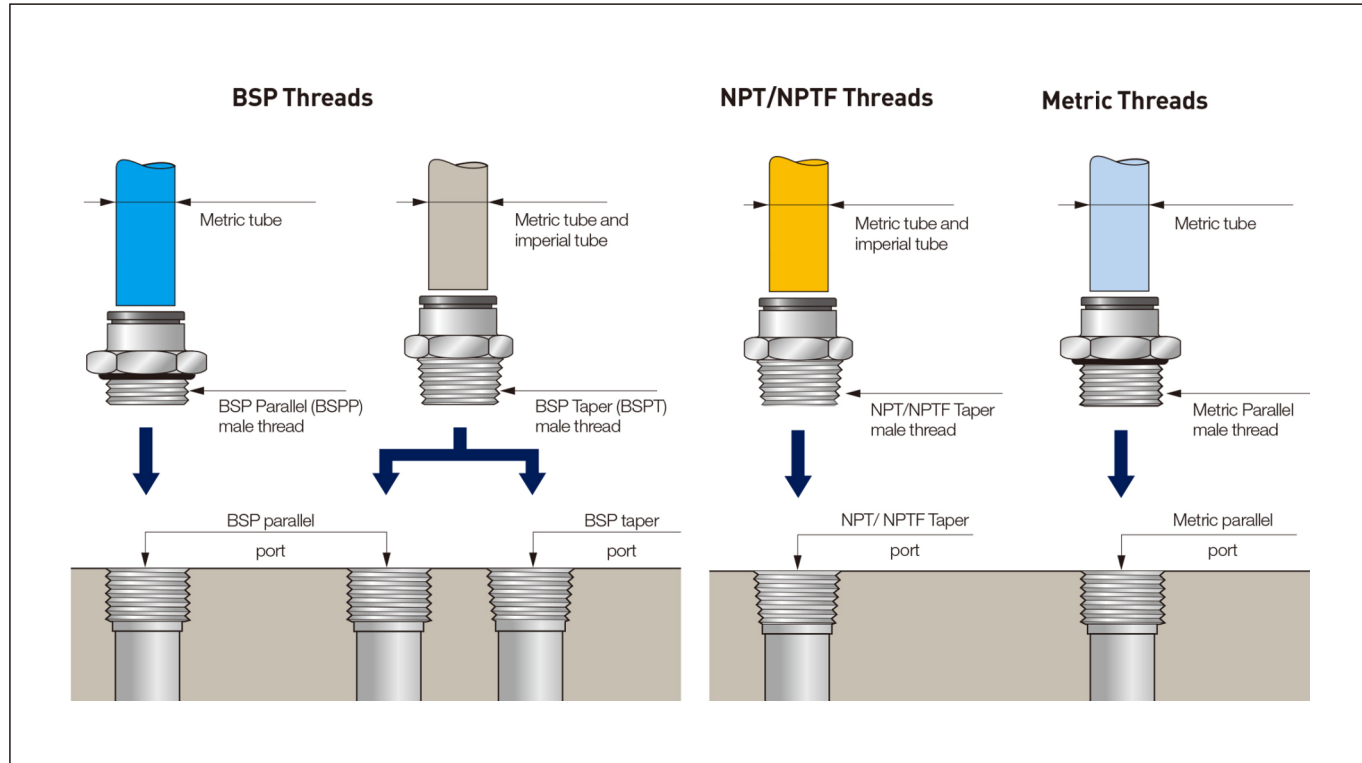
⦿ The Radius of Curvature for the tubing per Size



The tube must not be bent excessively near the joint. For installation of the tube, use the data table below.

Tube Size(Metric)	Standard Type Fitting						
	φ 4	φ 6	φ 8	φ 10	φ 12	φ 14	φ 16
R	20	30	50	80	150	230	350

Tube Size(Inch)	Standard Type Fitting					
	φ 5/32	φ 3/16	φ 1/4	φ 5/16	φ 3/8	φ 1/2
R	20	25	30	50	80	150



◎ BSP Threads (British Standard Pipe)

There are two types of "Pipe" profile threads:

- Parallel (BSPP): these threads fit in matching parallel ports. Sealing is provided by an O-ring gasket or a sealing washer.
- Taper (BSPT): these threads fit in matching parallel or taper ports. Sealing is provided by a pre-coating on the thread.

Thread designation

• **BSP Parallel (BSPP):**

G followed by the denomination, according to standard ISO228-1. Example: 1/8 BSP parallel thread = G1/8

• **BSP Taper (BSPT):**

R followed by the denomination, according to standard ISO7-1. Example: 1/8 BSP taper (BSPT) thread = R1/8

• **Female threads:**

BSP parallel: G followed by the designation
BSP taper: R followed by the designation

◎ NPT Threads (National Pipe Thread)

This is an American standard taper thread which fits into the matching taper port. Sealing is provided by a pre-coating on the thread.

Example: 1/8 NPT thread = 1/8 NPT

◎ NPTF Threads (National Pipe Thread Fuel)

This is an American standard taper thread which fits into the same taperport with no additional sealing or into a taper port with a sealant.

◎ Metric Threads

These ISO-profile threads are parallel and are fit into the matching parallel port. Sealing is provided by an O-ring or a sealing washer.

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These ISO-profile threads are parallel and are fit into the matching parallel port. Sealing is provided by an O-ring or a sealing washer.

Thread designation

- M depending on the diameter and pitch in millimetres, separated by a multiplication sign, in accordance with standards ISO 68-1 and ISO 965-1. Example: metric thread diameter 7 with a pitch of 1 mm = M7x1

◎ Tube Type and Size

Metric Tube													
CodeTube	4	5	6	7	8	9	10	11	12	13	14	15	16
Outer Dia.(mm)	φ4	φ5	φ6	φ7	φ8	φ9	φ10	φ11	φ12	φ13	φ14	φ15	φ16

Inch Tube						
Code	5/32	3/16	1/4	5/16	3/8	1/2
Tube Outer Dia.(inch)	φ 5/32	φ 3/16	φ 1/4	φ 5/16	φ 3/8	φ 1/2
Size(mm)	3.97	4.76	6.35	7.94	9.53	12.7

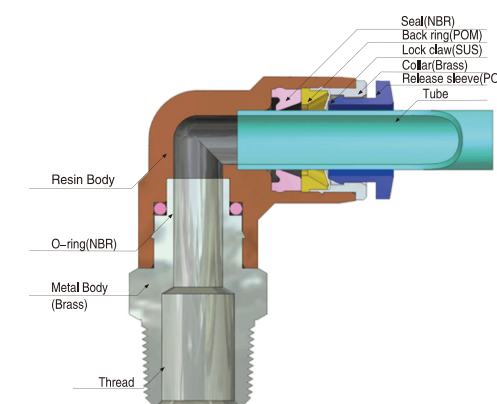
◎ Thread Type and Size

Metric Thread									
Code	M5	M6	M8	M10	M12	M12A	M14	M16	M20
Thread	M5*0.8	M6*1	M8*1	M10*1	M12*1.25	M12*1.5	M14*1.5	M16*1.5	M20*1.5

Code	55° Taper Pipe Thread(BSPT/R/Rc)					55° Parallel Pipe Thread (BSPP/G)				
	Thread	01G	02G	03G	04G	06G	01P	02P	03P	04P
	R1/8	R1/4	R3/8	R1/2	R3/4	PT1/8	PT1/4	PT3/8	PT1/2	PT3/4

60° America Standard Taper Pipe Thread						
Code	10-32	01T	02T	03T	04T	06T
Thread	10-32UNF	NPT1/8	NPT1/4	NPT3/8	NPT1/2	NPT3/4

◎ Internal Structure



◎ Application

One-touch tube fitting is for the application of air pressure tubing. However, it applies to other application depend upon the user condition.

◎ Feature

1. Quick installation, simple and flexible, space-saving.
2. The tube fitting comes in a wide variety of models to meet all your needs in pneumatic piping.
3. Even after installation, the direction of tubing can be changed freely.
4. All taper pipe threads are pre-coated with Teflon and G thread with O-ring.
5. All fittings are equipped with the internal hexagonal holes. It is easy for them to be mounted in the narrow places.
6. Nickel-plated metallic ensures anti-contamination for an extended working life.
7. Metric and imperial are available.

◎ Specifications

Working medium	Air, Vacuum
Working pressure (MPa)	0 ~ 0.8
Guaranteed pressure (MPa)	1.2
Working temperature (°C)	0 ~ 60
Tube material	Nylon / PU tube

⦿ Tips for using fittings

Please Read follow information before using the product

⚠ Warning

1. Do not use the fittings to fluid except water, air, confirm before using to other fluid.
2. Do not use other fittings in condition that sputter is existing, anti-sputter fitting are only permitted, or it may cause the danger of fire.
3. Do not use fittings except rotary fitting, high speed rotary fitting or multi-way rotary fitting in condition that require rotary at the thread side or hose side, it will cause damage to rotate or press the un-rotary fittings.
4. Do not use fitting except EG fittings in condition that requires no static electric. Or it will cause the damage to system for existing of static electric.
5. Avoid external impact such as bending, twisting or drawing on fittings, as these external impact will cause damage to the fittings.

⚠ Caution

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

⦿ Table 1 to check tolerance

Metric Size	Nylon Tube	Polyurethane Tube	Inch Size	Nylon Tube	Polyurethane Tube
φ 3mm	-	±0.08	φ 1/8	±0.08	±0.08
φ 4mm	±0.1	±0.1	φ 5/32	±0.1	±0.1
φ 6mm	±0.1	±0.1	φ 3/16	±0.1	±0.1
φ 8mm	±0.1	±0.1	φ 1/4	±0.1	±0.1
φ 10mm	±0.1	±0.1	φ 5/16	±0.1	±0.1
φ 12mm	±0.15	±0.1	φ 3/8	±0.15	±0.1
φ 14mm	±0.15	±0.1	φ 1/2	±0.15	±0.1
φ 16mm	±0.15	±0.1	φ 5/8	±0.15	±0.1

⦿ Cautions for installing tube

1. Be sure that the section of tube is cut at a right angle .make sure there is no indication of damage to the outside of tube .
2. Try to pull the tube out to check if it has inserted tightly.

⦿ Cautions for disconnecting tube

1. Be sure the pressure inside tube is at 0 before disconnecting tube.
2. Pull the tube out after press the sleeve at both end.It may cause scratch, damage on tube or could not pull it out if the sleeve is not pressed rightly. The scratch may left inside fitting and cause air leakage.

⦿ Caution for installing equipment body

1. Choose the correct tool and size to install the fitting onto equipment by its hexagon head or hexagon socket design.
2. When fastening the thread, please refer to table 2 for the specific torque range, if torque is high than recommended, this may cause damage or air leakage, if torque is lower than the recommended, this may cause leakage.
3. After fastening the quick connect fitting, the direction of it should not be changed, if adjusting, please refer to the range of torque.

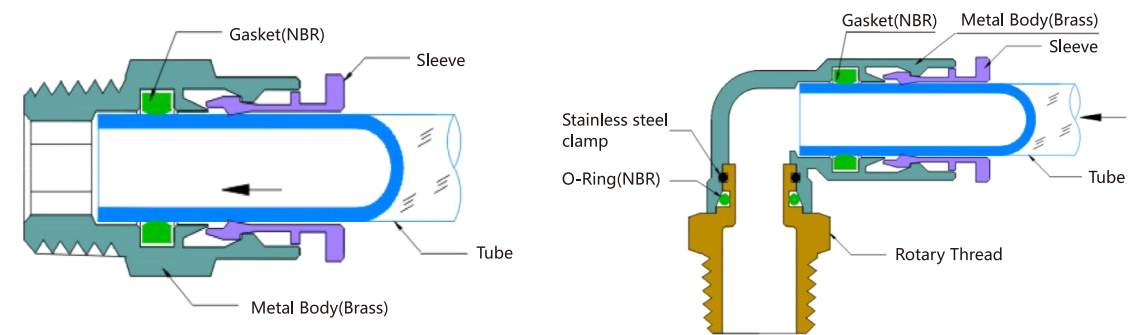
⦿ Table 2 suggested torque, coating or gaskets

Thread Type	Thread Size	Torque	Coating Sealant Color	Gasket Materia
Metric Thread	M3x0.5	0.7N · m(7kgf · cm)	-	NBR
	M5x0.8	1-1.5N · m (10-15kgf · cm)		
	M6x1.0	1.8-2.3N · m(18-23kgf · cm)		
BSPT thread	R1/8	7-9N · m(70-90kgf · cm)	White	-
	R1/4	12-14N · m(120-140kgf · cm)		
	R3/8	22-24N · m (220-240kgf · cm)		
	R1/2	28-30N · m (280-300kgf · cm)		
Unified inch screw thread	No.10-32 UNF	1.5-1.9N · m (15-19kgf · cm)	-	NBR
	1/6-28NPT	7-9N · m (70-90kgf · cm)		
NPT Thread	1/8-27NPT	7-9N · m(70-90kgf · cm)	White	-
	1/4-18NPT	12-14N · m(120-140kgf · cm)		
	3/8-18NPT	22-24N · m (220-240kgf · cm)		
	1/2-14NPI	28-30N · m (280-300kgf · cm)		
	1/2-14NPI	28-30N · m (280-300kgf · cm)		

⦿ Features

1. Metal push in fittings are specially wide used in pneumatic hose related system, with wide varieties to meet all kind of requirements.
2. Rotary body to make pipe connection available at 360° even after installed.
3. Nickle-plated body make the fitting resist to more corrosive and polluted condition.
4. All taped thread fittings are coated with sealant.
5. All parallel thread fittings are fitted with O-ring.

⦿ Structure chart



⦿ Specifications

Fluid	Air/water (conditional)
U/Operating Pressure	0.095-2.5MPa
Negative Pressure	1.6MPa
Max Pressure	-100KPa (10 Torr)
E/Applicable Tube	-30-120°C

⚠ Warning

1. Working temperature: -30~20°C
2. Working pressure: 0.095-2.5MPa
3. No water hammer(or flow slam)allowed
4. Must connect with hose
5. Water is allowed in some conditions

How to Order?

Series No.	O.D. of Tube	Port Size	Thread Type
EMC	04: 4mm	M8: M8	P: PT
EML	06: 6mm	01: 1/8"	G: G
EMB	08: 8mm	02: 1/4"	T: NPT
...	10: 10mm	03: 3/8"	
	12: 12mm	04: 1/2"	

Order example:

E.MC Series Nickel Plated Brass Fittings, for 4mm O.D. Tube, PT1/8" port size, ERP code is: EMC04-01P.

EMC	D2 Tube	Model	L1	S1	H	S	T	D1
	φ4	EMC04-M5-A	19	2	3,6	8	M5	φ8
		EMC04-01P-A	16	2,5	7	10	1/8	
		EMC04-02P-A	18	2,5	9	14	1/4	
		EMC04-03P-A	19	2,5	9,5	17	3/8	
	φ6	EMC06-M5-A	25	2	4	12	M5	φ12
		EMC06-01P-A	24	5	7	12	1/8	
		EMC06-02P-A	19	5	9	14	1/4	
		EMC06-03P-A	19	5	9,5	17	3/8	
	φ8	EMC08-M5-A	27	2	4	14	M5	φ14
		EMC08-01P-A	27,5	5	7	14	1/8	
		EMC08-02P-A	27,5	6	9	14	1/4	
		EMC08-03P-A	21	6	9,5	17	3/8	
	φ10	EMC10-M5-A	21	6	11	21	1/2	φ16
		EMC10-01P-A	29,5	5	7	17	1/8	
		EMC10-02P-A	29	6	9	17	1/4	
		EMC10-03P-A	24	8	9,5	17	3/8	
	φ12	EMC12-M5-A	23	8	11	21	1/2	φ18
		EMC12-01P-A	30	5	7	19	1/8	
		EMC12-02P-A	32	6	9	19	1/4	
		EMC12-03P-A	30	10	9,5	19	3/8	
	φ14	EMC14-M5-A	23	10	11	21	1/2	φ21
		EMC14-02P-A	36	6	4	21	1/4	
		EMC14-03P-A	36	8	9,5	21	3/8	
		EMC14-04P-A	35	10	11	21	1/2	
φ16	EMC16-M5-A	37	12	13	27	3/4	φ23	
	EMC16-02P-A	36	6	9	24	1/4		
	EMC16-03P-A	37	10	9,5	24	3/8		
	EMC16-04P-A	37	12	11	24	1/2		
EMC16-06P-A	37	12	13	27	3/4			

EMOC	D2 Tube	Model	L1	H	S	T	D1
	φ4	EMOC04-M5-A	19	3,6	2	M5	φ8
		EMOC04-01P-A	18,5	7	2,5	1/8	
		EMOC04-02P-A	18,5	9	2,5	1/4	
		EMOC04-03P-A	18,5	9	2,5	1/4	
	φ6	EMOC06-M5-A	25	3,6	2	M5	φ12
		EMOC06-01P-A	24	7	5	1/8	
		EMOC06-02P-A	25	9	5	1/4	
		EMOC06-03P-A	26	9,5	5	3/8	
	φ8	EMOC08-M5-A	27	11,5	5	1/2	φ14
		EMOC08-01P-A	27,5	7	5	1/8	
		EMOC08-02P-A	26,5	9	6	1/4	
		EMOC08-03P-A	27	9,5	6	3/8	
	φ10	EMOC10-M5-A	28	11,5	6	1/2	φ16
		EMOC10-01P-A	32	7	5	1/8	
		EMOC10-02P-A	29	9	6	1/4	
		EMOC10-03P-A	28	9,5	8	3/8	
	φ12	EMOC12-M5-A	29	11,5	8	1/2	φ18
		EMOC12-01P-A	30	7	5	1/8	
		EMOC12-02P-A	32	9	6	1/4	
		EMOC12-03P-A	30	9,5	10	3/8	
	φ14	EMOC14-M5-A	29	11,5	10	1/2	φ21
		EMOC14-02P-A	36	9	6	1/4	
		EMOC14-03P-A	36	9,5	8	3/8	
		EMOC14-04P-A	35	11,5	10	1/2	
φ16	EMOC16-M5-A	37	13	12	3/4	φ23	
	EMOC16-02P-A	36	9	6	1/4		
	EMOC16-03P-A	37	9,5	10	3/8		
	EMOC16-04P-A	37	11,5	12	1/2		
EMOC16-06P-A	37	13	12	3/8			

EMCF	D2 Tube	Model	L1	L2	H	S	T	D1
	φ4	EMCF04-M5-A	20	6	5	8	M5	φ8
		EMCF04-01G-A	24	10	8	12	G1/8	
		EMCF04-02G-A	26	12	10	17	G1/4	
		EMCF04-03G-A	26	13	10,5	19	G3/8	
	φ6	EMCF06-M5-A	24,5	7	5	12	M5	φ12
		EMCF06-01G-A	28,5	8,5	8	12	G1/8	
		EMCF06-02G-A	30,5	12	10	17	G1/4	
		EMCF06-03G-A	31	13	10,5	19	G3/8	
	φ8	EMCF08-M5-A	32	14	12	24	G1/2	φ14
		EMCF08-01G-A	30,5	8,5	8	14	G1/8	
		EMCF08-02G-A	32,5	12	10	17	G1/4	
		EMCF08-03G-A	33	13	10,5	19	G3/8	
	φ10	EMCF10-M5-A	34	14	12	24	G1/2	φ16
		EMCF10-01G-A	31,5	8,5	8	17	G1/8	
		EMCF10-02G-A	34	11	10	17	G1/4	
		EMCF10-03G-A	34,5	13	10,5	19	G3/8	
	φ12	EMCF12-M5-A	35,5	14	12	24	G1/2	φ18
		EMCF12-01G-A	31	8,5	8	19	G1/8	
		EMCF12-02G-A	34	11	10	19	G1/4	
		EMCF12-03G-A	34,5	13	10,5	19	G3/8	
	EMCF12-04G-A	35,5	14	12	24	G1/2		

EMMF	D2 Tube	Model	L1	L2	L3	H	S	T	M	D1
	φ4	EMMF04-M5-A	20	6	11	5	12	M5	M10x 1	φ8
		EMMF04-01G-A	24	10	11	8	12	G1/8	M10x 1	
		EMMF04-02G-A	26	12	11	10	17	G1/4	M10x 1	
		EMMF04-03G-A	26	13	11	10,5	19	G3/8	M10x 1	
	φ6	EMMF06-M5-A	24,5	7	15,5	5	12	M5	M14 x 1	φ12
		EMMF06-01G-A	28,5	8,5	18	8	12	G1/8	M14 x 1	
		EMMF06-02G-A	30,5	12	16,5	10	17	G1/4	M14 x 1	
		EMMF06-03G-A	31	13	16	10,5	19	G3/8	M14x 1	
	φ8	EMMF08-M5-A	32	14	16	12	24	G1/2	M14 x 1	φ14
		EMMF08-01G-A	30,5	8,5	20	8	14	G1/8	M16x 1	
		EMMF08-02G-A	32,5	12	18,5	10	17	G1/4	M16x 1	
		EMMF08-03G-A	33	13	18	10,5	19	G3/8	M16x 1	
	φ10	EMMF10-M5-A	34	14	18	12	24	G1/2	M16x 1	φ16
		EMMF10-01G-A	31,5	8,5	21	8	17	G1/8	M18x 1	
		EMMF10-02G-A	34	11	21	10	17	G1/4	M18x 1	
		EMMF10-03G-A	34,5	13	18,5	10,5	19	G3/8	M18x 1	
	φ12	EMMF12-M5-A	35,5	14	19,5	12	24	G1/2	M18x 1	φ18
		EMMF12-01G-A	31	8,5	20,5	8	19	G1/8	M20x 1	
		EMMF12-02G-A	34	11	21	10	19	G1/4	M20x 1	
		EMMF12-03G-A	34,5	13	19,5	10,5	19	G3/8	M20x 1	
	EMMF12-04G-A	35,5	14	19,5	12	24	G1/2	M20x 1		

EML	D2 Tube	Model	L1	S1	H	S	T	D1
	φ4	EML04-M5-A	17,5	18	3,6	8	M5	φ8
		EML04-01P-A	17,5	19,5	7	10	1/8	
		EML04-02P-A	17,5	21,5	9	14	1/4	
		EML04-03P-A	17,5	22	9,5	17	3/8	
	φ6	EML06-M5-A	23	19	3,6	10	M5	φ12
		EML06-01P-A	23	22	7	10	1/8	
		EML06-02P-A	23	24	9	14	1/4	
		EML06-03P-A	23	24,5	9,5	17	3/8	
	φ8	EML08-M5-A	23	26,5	11,5	21	1/2	φ14
		EML08-01P-A	25,5	21	3,6	12	M5	
		EML08-02P-A	25,5	23	7	12	1/8	
		EML08-03P-A	25,5	25,5	9,5	17	3/8	
	φ10	EML10-M5-A	25,5	27,5	11,5	21	1/2	φ16
		EML10-01P-A	30	24	7	14	1/8	
		EML10-02P-A	30	26	9	14	1/4	
		EML10-03P-A	30	28	9,5	17	3/8	
	φ12	EML12-M5-A	30	30	11,5	21	1/2	φ18
		EML12-01P-A	31,5	27,5	7	17	1/8	
		EML12-02P-A	31,5	29,5	9	17	1/4	
		EML12-03P-A	31,5	30	9,5	17	3/8	
	φ14	EML14-M5-A	31,5	32	11,5	21	1/2	φ21
		EML14-02P-A	35	34	9	21	1/4	
		EML14-03P-A	35	34,5	9,5	21	3/8	
		EML14-04P-A	35	37	11,5	21	1/2	
φ16	EML16-M5-A	35	39	13	27	3/4	φ23	
	EML16-02P-A	35	34	9	21	1/4		
	EML16-03P-A	35	34,5	9,5	21	3/8		
	EML16-04P-A	35	37	11,5	21	1/2		
EML16-06P-A	35	39	13	21	3/4			

EMU	D2 Tube	Model	L1	D1
	Φ4	EMU04-A	30	Φ8
	Φ6	EMU06-A	38	Φ12
	Φ8	EMU08-A	41	Φ14
	Φ10	EMU10-A	46	Φ16
	Φ12	EMU12-A	46	Φ18
	Φ14	EMU14-A	56	Φ21
Φ16	EMU16-A	56	Φ23	

EME	D2 Tube	Model	L1	L2	D1
	Φ4	EME04-A	35	17.5	Φ8
	Φ6	EME06-A	46	23	Φ12
	Φ8	EME08-A	52	25.5	Φ14
	Φ10	EME10-A	60	30	Φ16
	Φ12	EME12-A	63	31.5	Φ18
	Φ14	EME14-A	74	37	Φ21
Φ16	EME16-A	74	37	Φ23	

EMM	D2 Tube	Model	L1	L2	M	D1
	Φ4	EMM04-A	30	17.5	M10x1	Φ8
	Φ6	EMM06-A	38	24	M14x1	Φ12
	Φ8	EMM08-A	41	26.5	M16x1	Φ14
	Φ10	EMM10-A	46	31	M18x1	Φ16
	Φ12	EMM12-A	46	32.5	M20x1	Φ18
	Φ14	EMM14-A	56	38	M22x1	Φ21
	Φ16	EMM16-A	56	38	M24x1	Φ23

EMY	D2 Tube	Model	L1	L2	D1
	Φ4	EMY04-A	33	8.6	Φ8
	Φ6	EMY08-A	40	12.6	Φ10
	Φ8	EMY06-A	48	14.5	Φ12
	Φ10	EMY10-A	50	17	Φ14
	Φ12	EMY12-A	56	20	Φ16


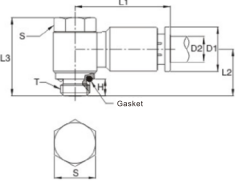
EMV	D2 Tube	Model	L1	D1
	Φ4	EMV04-A	17.5	Φ8
	Φ6	EMV06-A	23	Φ12
	Φ8	EMV08-A	25.5	Φ14
	Φ10	EMV10-A	30	Φ16
	Φ12	EMV12-A	31.5	Φ18
	Φ14	EMV14-A	37	Φ21
	Φ16	EMV16-A	37	Φ23


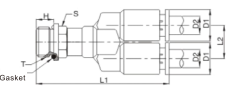
EMZA	D2 Tube	Model	L1	D1
	Φ4	EMZA04-A	30	Φ8
	Φ6	EMZA06-A	46	Φ12
	Φ8	EMZA08-A	51	Φ14
	Φ10	EMZA10-A	60	Φ16
	Φ12	EMZA12-A	63	Φ18

EMG	D2 Tube	d2 Tube	Model	L1	D1	d1
	Φ6	Φ4	EMG06-04-A	34	Φ12	Φ8
	Φ8	Φ4	EMG08-04-A	36	Φ14	Φ8
	Φ8	Φ6	EMG08-06-A	39.5	Φ14	Φ12
	Φ10	Φ4	EMG10-04-A	38.5	Φ10	Φ8
	Φ10	Φ6	EMG10-06-A	40	Φ16	Φ12
	Φ10	Φ8	EMG10-08-A	43.5	Φ16	Φ14
	Φ12	Φ6	EMG12-06-A	42	Φ18	Φ12
	Φ12	Φ8	EMG12-08-A	44.5	Φ18	Φ14
	Φ12	Φ10	EMG12-10-A	44.5	Φ18	Φ18
	—	—	EMG14-10-A	—	—	—
	—	—	EMG14-12-A	—	—	—
	—	—	EMG16-12-A	—	—	—
	—	—	EMG16-14-A	—	—	—

EMEG/EMEW	D2 Tube	d2 Tube	Model	L1	L2	D1	d1
	Φ6	Φ4	EMEG06-04-A	46	18	Φ12	Φ8
	Φ8	Φ4	EMEG08-04-A	51	20.5	Φ14	Φ8
	Φ8	Φ6	EMEG08-06-A	51	23.5	Φ14	Φ12
	Φ10	Φ4	EMEG10-04-A	60	22.5	Φ16	Φ8
	Φ10	Φ6	EMEG10-06-A	60	21	Φ16	Φ12
	Φ10	Φ8	EMEG10-08-A	60	26	Φ16	Φ14
	Φ12	Φ6	EMEG12-06-A	63	26	Φ18	Φ12
	Φ12	Φ8	EMEG12-08-A	63	28	Φ18	Φ14
	Φ12	Φ10	EMEG12-10-A	63	30	Φ18	Φ16
	Φ14	Φ8	EMEG14-08-A	70	28	Φ21	Φ14
	Φ14	Φ10	EMEG14-10-A	70	30	Φ21	Φ16
	Φ14	Φ12	EMEG14-12-A	70	32	Φ21	Φ18
	Φ16	Φ10	EMEG16-10-A	70	30	Φ23	Φ16
	Φ16	Φ12	EMEG16-12-A	70	32	Φ23	Φ18
	Φ16	Φ14	EMEG16-14-A	70	35	Φ23	Φ21
	Φ4	Φ6	EMEW04-06-A	44	19	Φ12	Φ8
	Φ4	Φ8	EMEW04-08-A	41	25.5	Φ14	Φ8
	Φ6	Φ8	EMEW06-08-A	48	25.5	Φ14	Φ12
	Φ4	Φ10	EMEW04-10-A	45	29	Φ16	Φ8
	Φ6	Φ10	EMEW06-10-A	48	29	Φ16	Φ12
	Φ8	Φ10	EMEW08-10-A	52	29	Φ16	Φ14
	Φ8	Φ12	EMEW06-12-A	52	31.5	Φ18	Φ12
	Φ8	Φ12	EMEW08-12-A	54	31.5	Φ18	Φ14
	Φ10	Φ12	EMEW10-12-A	50	31.5	Φ18	Φ16
Φ8	Φ14	EMEW08-14-A	—	—	—	—	
Φ10	Φ14	EMEW10-14-A	—	—	—	—	
Φ12	Φ14	EMEW12-14-A	—	—	—	—	
Φ10	Φ16	EMEW10-16-A	—	—	—	—	
Φ12	Φ16	EMEW12-16-A	—	—	—	—	
Φ14	Φ16	EMEW14-16-A	—	—	—	—	

EMC	D2 Tube	Model	L	L1	S	T	M	D1
	Φ4	EMC04-01G-A	19	5	G1/8	2.5	12	Φ8
		EMC04-02G-A	18.5	7.0	G1/4	2.5	14	
		EMC04-03G-A	17	7.5	G3/8	2.5	14	
	Φ6	EMC06-01G-A	22.5	5	G1/8	5	12	Φ12
		EMC06-02G-A	21	7.0	G1/4	5	12	
		EMC06-03G-A	21	7.5	G3/8	5	19	
	Φ8	EMC08-04G-A	21	9	G1/2	5	24	Φ14
		EMC08-01G-A	27	5	G1/8	5	14	
		EMC08-02G-A	25	7.0	G1/4	6	14	
	Φ10	EMC08-03G-A	23	7.5	G3/8	6	19	Φ16
		EMC08-04G-A	23	9	G1/2	6	24	
		EMC10-01G-A	29	5	G1/8	5	17	
	Φ12	EMC10-02G-A	31	7	G1/4	6	17	Φ18
		EMC10-03G-A	27.5	7.5	G3/8	8	19	
		EMC10-04G-A	25.5	9	G1/2	8	24	
	Φ14	EMC12-01G-A	29	5	G1/8	5	19	Φ21
		EMC12-02G-A	31	7	G1/4	8	19	
		EMC12-03G-A	28	9.5	G3/8	8	19	
	Φ16	EMC12-04G-A	25	9	G1/2	8	24	Φ23
		EMC14-02G-A	34	7	G1/4	8	21	
		EMC14-03G-A	35	7.5	G3/8	10	21	
	Φ16	EMC14-04G-A	32.5	9	G1/2	10	24	Φ23
		EMC16-02G-A	36	7	G1/4	8	24	
		EMC16-03G-A	37	7.5	G3/8	10	24	
		EMC16-04G-A	39	9	G1/2	12	24	
		EMC16-06G-A	30	10	G3/4	14	30	

EMH	D2 Tube	Model	L1	L2	L3	H	S	T	D1
 	Φ4	EMH4-01G-A	21	15	24.5	5	14	G1/8	Φ8
		EMH4-02G-A	23	18	27	7.0	16	G1/4	
	Φ6	EMH6-01G-A	23	15	24.5	5	14	G1/8	Φ12
		EMH6-02G-A	24	18	27	7.0	16	G1/4	
		EMH6-03G-A	26	20	32	7.5	21	G3/8	
		EMH6-04G-A	28	22.5	35	9	24	G1/2	
	Φ8	EMH8-01G-A	24.5	15	24.5	5	14	G1/8	Φ14
		EMH8-02G-A	25.5	18	27	7.0	16	G1/2	
		EMH8-03G-A	27.5	20	32	7.5	21	G3/8	
		EMH8-04G-A	30	22.5	35	9	24	G1/2	
	Φ10	EMH10-01G-A	26.5	16	24.5	5	14	G1/8	Φ16
		EMH10-02G-A	27.5	19	27	7	16	G1/4	
		EMH10-03G-A	29.5	20	32	7.5	21	G3/8	
		EMH10-04G-A	29.5	22.5	35	9	24	G1/2	
	Φ12	EMH12-01G-A	28	17	24.5	5	14	G1/8	Φ18
		EMH12-02G-A	29	20	27	7	16	G1/4	
EMH12-03G-A		31	21	32	7.5	21	G3/8		
EMH12-04G-A		32	22.5	35	9	24	G1/2		
Φ14	EMH14-03G-A	40	22.5	32	7.5	21	G3/8	Φ21	
	EMH14-04G-A	40	24	35	9	24	G1/2		
Φ16	EMH16-03G-A	40	22.5	32	7.5	21	G3/8	Φ23	
	EMH16-04G-A	40	24	35	9	24	G1/2		

EMW	D2 Tube	Model	L1	L2	H	S	T	D1
 	Φ4	EMW04-01G-A	34	8.6	5	12	G1/8	Φ8
		EMW04-02G-A	35	8.6	7	16	G1/4	
	Φ6	EMW06-01G-A	38	12.6	5	12	G1/8	Φ12
		EMW06-02G-A	40	12.6	7	16	G1/4	
		EMW06-03G-A	40.5	12.6	7.5	19	G3/8	
		EMW06-04G-A	42.5	12.6	9	24	G1/2	
	Φ8	EMW08-01G-A	48	14.5	5	13	G1/8	Φ14
		EMW08-02G-A	49	14.5	7	16	G1/4	
		EMW08-03G-A	49.5	14.5	7.5	19	G3/8	
		EMW08-04G-A	51.5	14.5	9	24	G1/2	
	Φ10	EMW10-01G-A	50	17	5	14	G1/8	Φ16
		EMW10-02G-A	53	17	7	16	G1/4	
		EMW10-03G-A	53.5	17	7.5	19	G3/8	
		EMW10-04G-A	54	17	9	24	G1/2	
	Φ12	EMW12-01G-A	57	20	5	19	G1/8	Φ18
		EMW12-02G-A	58	20	7	19	G1/4	
EMW12-03G-A		58.5	20	7.5	19	G3/8		
EMW12-04G-A		60	20	9	24	G1/2		