MO LINE

cmatic®
PNEUMATIC FITTINGS

黄铜镀镍卡套接头
Brass Nickel-Plated Compression Fittings

MO系列卡套接头通过卡箍，螺母和管路的迫紧力来保证气动或者液压系统的密封性。本体，卡箍和螺母均按照ISO8434/DIN2353要求生产制造。
MO系列所有接头均经过电解镀镍表面处理。

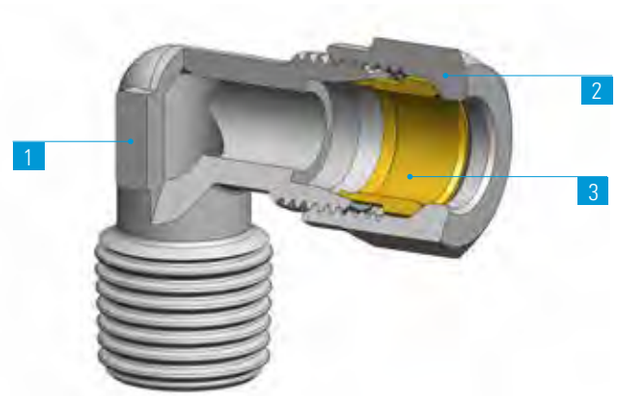
The compression Fittings of the MO line ensure the pneumatic/hydraulic tightness of the tubing by compression of an olive ring on the tubing. The olive seats, the olives and the nuts are all manufactured according to ISO8434/DIN 2353 norm.
All MO Fitting are electrolytic nickel plated.

MO

1	2	3
本体 Body	螺母 Nut	卡箍 Olive
镀镍黄铜UNI EN 12164 CW614N - UNI EN 12165 CW617N Brass UNI EN 12164 CW614N - UNI EN 12165 CW617N Nickel Plated	UNI EN 12164 CW614N镀镍黄铜 Brass UNI EN 12164 CW614N Nickel Plated	黄铜UNI EN 12164 CW614N Brass UNI EN 12164 CW614N

-40°C - 150°C

最大60 bar



	M5x0.8	G1/8	G1/4	G3/8	G1/2	R1/8	R1/4	R3/8	R1/2
4	●	●				●			
5		●				●			
6		●	●			●	●	●	
8		●	●	●		●	●	●	
10			●	●			●	●	
12				●	●			●	●
15					●				●

技术规格

建议的连接管路：
黄铜管、铝管，是可以使用专用内部强化（MO 23）的PA11和PA6管路。
可接受的管路公差：
+/- 0.07 mm，最大直径 10 mm
+/– 0.1 mm，最大直径Ø 15 mm。

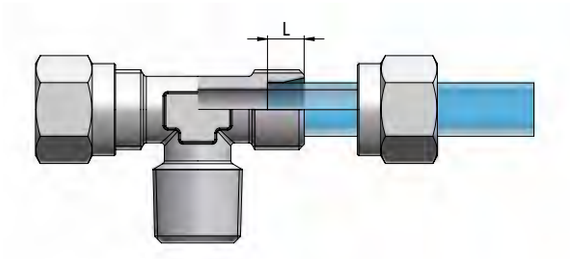
应用领域：
气动、液压和油压系统。

DATA SHEET

Recommended tubings:
Copper and alluminium tubings. PA11 and PA6 tubings are to be used with our MO 23 reinforcement part.
Acceptable Tolerances on the tubings:
+/– 0,07 mm up to Ø 10 mm
+/– 0,1 mm up to Ø 15 mm

Application fields:
Pneumatic, hydraulic and oleodynamic circuits.

管路插入深度 Tubing insertion depth



管径Øe	L
4	4
5	5.5
6	5.5
8	5.5
10	7
12	7
15	7

安装说明

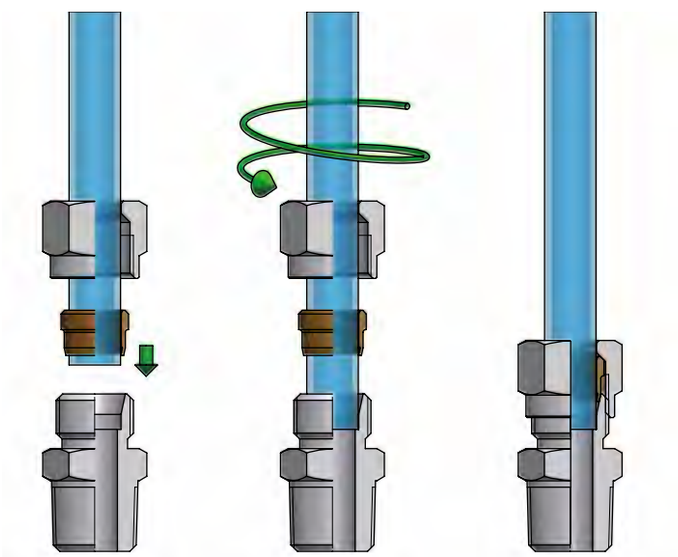
1 垂直切割管路，确保内外壁无毛刺
2 将螺母与卡箍套在管路上，注意卡箍的刃口要朝向管路末端;
3. 用手拧紧螺母，直到感觉拧不动为止。
4. 确认管路位置正确之后，用扳手拧紧螺母，根据接头类型，大约旋转1 1/2 - 2 转；
5. 仅在检查时，拧松螺母，并确认卡箍是否卡紧在管路上；
6. 重新拧紧螺母，强力拧1/4圈，确保系统密封。

注意:如果要连接弯管，请确保弯管端长度至少为2倍的螺母长度。

ASSEMBLY INSTRUCTIONS

1. Cut the tube square and make sure that no burr (internally and externally) is left;
2. Insert the tube through the nut and olive. The olive edge is to be placed towards the tube ending;
3. Finger tighten the nut until resistance;
4. Check the tube is well positionned, and tighten the nut with a spanner 1 1/2 - 2 more turns according to the Fitting used;
5. Just for safety, screw-off the nut and check that the olive is evenely gripping on the tubing;
6. Screw-on the nut a further 1/4 of a turn to grant the system tightness.

Remark: Should curved tubings, need to be connected, pls make sure that the tube curving be at least at twice the nut height distance.



完成连接后，请确保管路上不承受外力；此外，请确保管路连接的最小弯曲半径符合本样册第335页之规定。

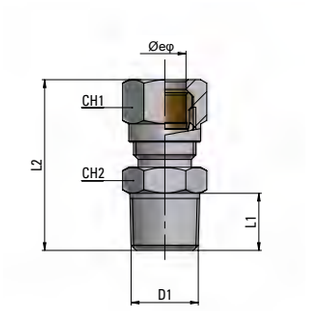
螺纹拧紧时，请参考第六页列出的建议扭矩。

Once the tubing is connected to the fitting, make sure that the tubing is not subject to any tensile strength and that the min. recommended bending radius stated in the tubing section of this catalogue is complied with (see page 335). To tighten threads, please check out our tightening torque chart illustrated at page 6.

MO 11

锥螺纹直管接头

Taper Straight, male

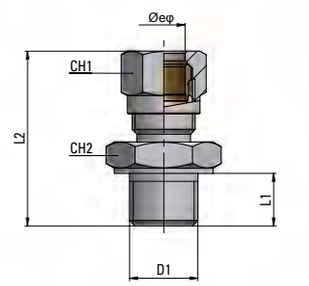


类型	管径Øe	D1	L1	L2	CH1	CH2	g ⚖
11 04 18	4	R1/8	8	27	10	10	12
11 05 18	5	R1/8	8	28	12	11	16.5
11 06 18	6	R1/8	8	28	12	12	16
11 06 14	6	R1/4	11	32.5	12	14	26
11 08 18	8	R1/8	8	29.5	14	12	19
11 08 14	8	R1/4	11	33	14	14	24
11 08 38	8	R3/8	11.5	33	14	17	40
11 10 14	10	R1/4	11	37.5	19	17	46
11 10 38	10	R3/8	11.5	38	19	17	56
11 12 38	12	R3/8	11.5	39	22	19	60
11 12 12	12	R1/2	14	41	22	22	83
11 15 12	15	R1/2	14	42.5	27	22	104

MO 12

直螺纹直管接头

Parallel Straight, male

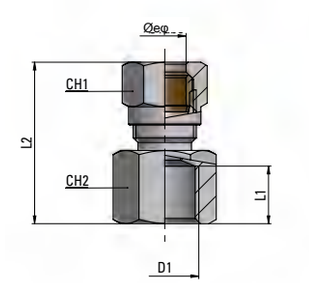


类型	管径Øe	D1	L1	L2	CH1	CH2	g ⚖
12 04 M5	4	M5x0.8	5	26	10	9	9
12 04 18	4	G1/8	6	25	10	14	17
12 05 18	5	G1/8	8	29	12	14	20
12 06 18	6	G1/8	6	26	12	14	18
12 06 14	6	G1/4	8	29.5	12	17	24.5
12 08 18	8	G1/8	6	27.5	14	14	22
12 08 14	8	G1/4	8	30	14	17	33
12 10 14	10	G1/4	8	34.5	19	17	50
12 10 38	10	G3/8	9	36	19	19	62
12 12 38	12	G3/8	10	39	22	22	68
12 12 12	12	G1/2	12	42	22	27	98
12 15 12	15	G1/2	12	43	27	27	118

MO 13

内螺纹直管接头

Female Straight

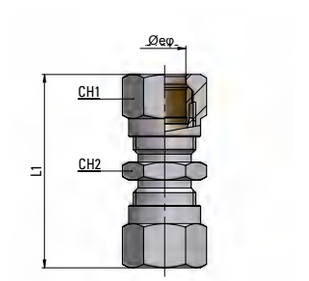


类型	管径Øe	D1	L1	L2	CH1	CH2	g ⚖
13 04 18	4	G1/8	8	24.5	10	14	18
13 05 18	5	G1/8	10	29	12	14	22
13 06 18	6	G1/8	8	26	12	14	22
13 06 14	6	G1/4	11	30.5	12	17	35
13 08 18	8	G1/8	8	26.5	14	14	24
13 08 14	8	G1/4	11	31	14	17	38
13 10 14	10	G1/4	11	35.5	19	17	56
13 10 38	10	G3/8	11.5	36.5	19	20	66

MO 14

对接接头

Union

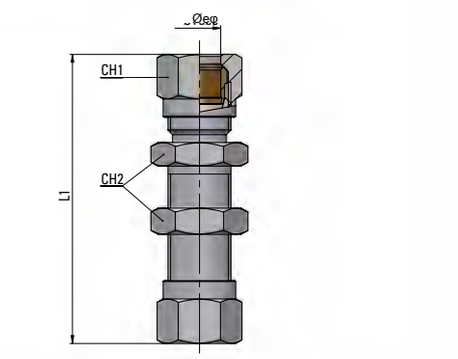


类型	管径Øe	L1	CH1	CH2	g ⚖
14 04 04	4	33.5	10	10	12
14 05 05	5	36	12	11	23
14 06 06	6	36.5	12	12	21
14 08 08	8	38.5	14	14	28
14 10 10	10	47.5	19	17	70
14 12 12	12	50.5	22	19	89
14 15 15	15	55.5	27	24	148

MO 15

穿板对接接头

Bulkhead Union

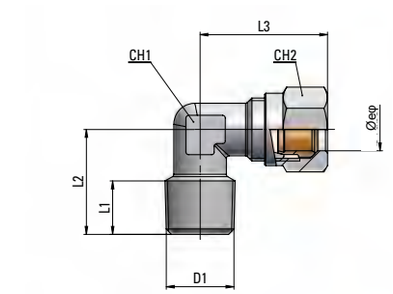


类型	管径Øe	L1	CH1	CH2	g ⚖
15 04 04	4	57	10	12	27
15 05 05	5	60	12	14	41
15 06 06	6	51.5	12	14	39
15 08 08	8	55.5	14	16	55
15 10 10	10	62.5	19	19	104
15 12 12	12	64.5	22	22	136
15 15 15	15	69.5	27	25	183

MO 16

锥外螺纹弯管接头

Taper Elbow Fitting, male

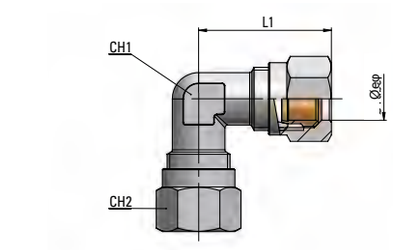


类型	管径Øe	D1	L1	L2	L3	CH1	CH2	g ⚖
16 04 18	4	R1/8	8	16	21	9	10	15
16 05 18	5	R1/8	8	17	23	9	12	17.5
16 06 18	6	R1/8	8	16	22	9	12	16
16 06 14	6	R1/4	11	20	24.5	11	12	20
16 08 18	8	R1/8	8	17	24	11	14	22
16 08 14	8	R1/4	11	20	24	11	14	25.5
16 10 14	10	R1/4	11	23.5	32	13	19	52
16 10 38	10	R3/8	11.5	24	32	13	19	52
16 12 38	12	R3/8	11.5	25.5	34.5	15	22	67
16 12 12	12	R1/2	14	28.5	34.5	15	22	78
16 15 12	15	R1/2	14	30	38	17	27	102

MO 17

直角对接接头

Union Elbow

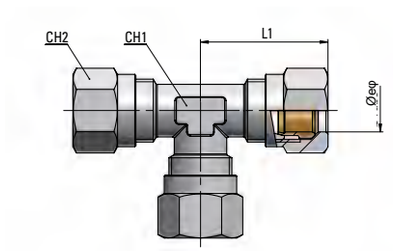


类型	管径Øe	L1	CH1	CH2	g ⚖
17 04 04	4	21	9	10	19
17 05 05	5	23	9	12	22
17 06 06	6	23	9	12	22
17 08 08	8	24	11	14	32
17 10 10	10	32	13	19	76
17 12 12	12	34.5	15	22	98
17 15 15	15	38	17	27	145

MO 18

正T型三通接头

Union Tee

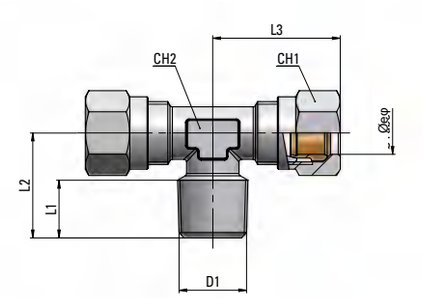


类型	管径Øe	L1	CH1	CH2	g ⚖
18 04 04	4	21	9	10	21
18 05 05	5	23	9	12	36
18 06 06	6	23	9	12	34
18 08 08	8	24	11	14	42
18 10 10	10	32	13	19	112
18 12 12	12	34.5	15	22	144
18 15 15	15	38	17	27	212

MO 19

锥螺纹正T型三通接头

Taper Male Tee

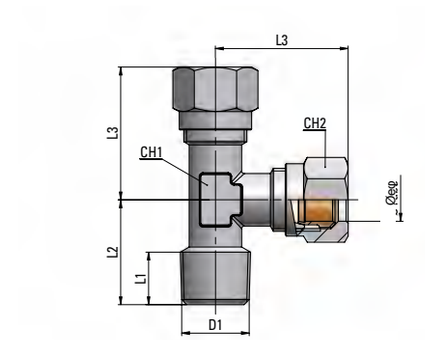


类型	管径Øe	D1	L1	L2	L3	CH1	CH2	g ⚖
19 04 18	4	R1/8	8	16	21	9	10	22
19 05 18	5	R1/8	8	17	23	9	12	28
19 06 18	6	R1/8	8	16	23	9	12	28
19 06 14	6	R1/4	11	20	24	11	12	29
19 08 18	8	R1/8	8	17	24	11	14	38
19 08 14	8	R1/4	11	20	24	11	14	40
19 10 14	10	R1/4	11	23.5	32	13	19	87
19 10 38	10	R3/8	11.5	24	32	13	19	92
19 12 38	12	R3/8	11.5	25.5	34.5	15	22	118
19 12 12	12	R1/2	14	28.5	34.5	15	22	128
19 15 12	15	R1/2	14	30	38	17	27	168

MO 20

锥螺纹直T型三通接头

Taper Lateral Tee

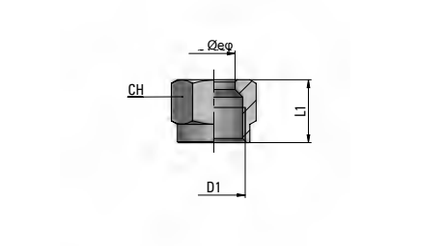


类型	管径Øe	D1	L1	L2	L3	CH1	CH2	g ⚖
20 04 18	4	R1/8	8	16	21	9	10	23
20 05 18	5	R1/8	8	17	23	9	12	30
20 06 18	6	R1/8	8	16	23	9	12	27
20 06 14	6	R1/4	11	20	24.5	11	12	29
20 08 18	8	R1/8	8	17	24	11	14	38
20 08 14	8	R1/4	11	20	24	11	14	42
20 10 14	10	R1/4	11	23.5	32	13	19	88
20 10 38	10	R3/8	11.5	24	32	13	19	94
20 12 38	12	R3/8	11.5	25.5	34.5	15	22	122
20 12 12	12	R1/2	14	28.5	34.5	15	22	132
20 15 12	15	R1/2	14	30	38	17	27	180

MO 21

螺母

Nut

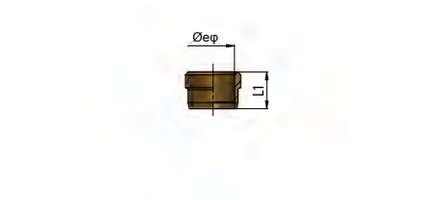


类型	管径Øe	D1	L1	CH	g ⚖
21 04 08	4	M8x1	11	10	4
21 05 10	5	M10x1	11.5	12	6
21 06 10	6	M10x1	11.5	12	6
21 08 12	8	M12x1	12	14	7
21 10 16	10	M16x1.5	15.5	19	19
21 12 18	12	M18x1.5	15.5	22	26
21 15 22	15	M22x1.5	17	27	43

MO 22

卡箍

Olive

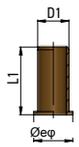


类型	管径Øe	L1	g ⚖
22 04 65	4	6	0.5
22 05 75	5	7.5	1
22 06 75	6	7	2
22 08 75	8	7	2
22 10 95	10	10	2
22 12 95	12	10	3
22 15 10	15	10	3

MO 23

加强管塞

Inner Reinforcement Piece for Tubings

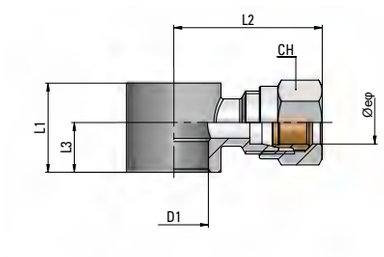


类型	管径Øe	D1	L1	g ⚖
23 06 12	**6**	4	12	1
23 08 14	**8**	6	13	1
23 10 16	**10**	8	14	2
23 12 18	**12**	10	16	3
23 15 20	**15**	12.5	17	4

MO 25

单通铰接接头本体

Single Banjo Ring



类型	管径Øe	D1	L1	L2	L3	CH	g ⚖
25 06 18	**6**	10	15	26	9	12	19
25 06 14	**6**	13.2	17	28	9.5	12	26
25 08 18	**8**	10	15	27	9	14	21
25 08 14	**8**	13.2	17	29	9.5	14	28