

# MA LINE

**cmatic**<sup>®</sup>  
P N E U M A T I C F I T T I N G S

快插接头  
Push-in Fittings

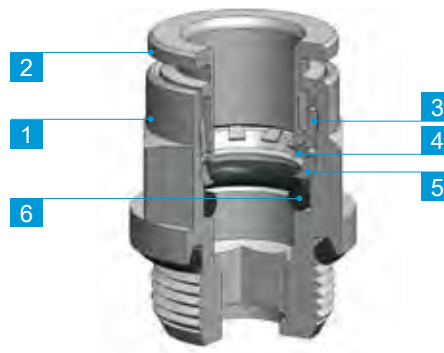
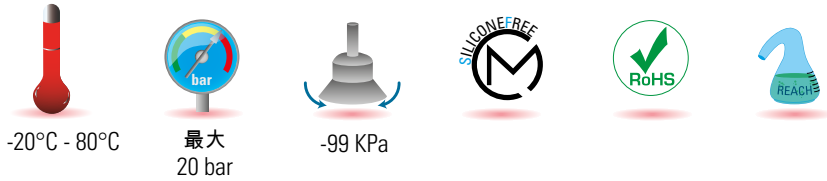


MA系列快插接头，黄铜材质，适用于各种工业应用。坚固，紧凑，经久耐用。  
所有MA系列产品，均经过电解镀镍表面处理。



The push-in Fitting of the MA line are completely made of brass and they are suitable for quick connections in different industrial applications; they are robust, compact and guarantee high performances in time.  
All MA Fitting are electrolytic nickel-plated.

MA	1 - 2	3	4	5	6
	本体与释放环 Body and Release Ring	支撑环 Holding Ring	卡爪 Gripping Collet	保护环 Protection Ring	密封圈 Seals
	镀镍黄铜 UNI EN 12164 CW614N - UNI EN 12165 CW617N Brass UNI EN 12164 CW614N - UNI EN 12165 CW617N Nickel Plated	缩醛树脂 (POM) Acetal Resin (POM)	AISI 301 不锈钢 Stainless steel AISI 301	缩醛树脂 (POM) Acetal Resin (POM)	NBR NBR



	M3x0.5	M5x0.8	M6x1	M7x1	M12x1.25	M12x1.5	G1/8	G1/4	G3/8	G1/2	G3/4	R1/8	R1/4	R3/8	R1/2	
3	•	•														
4		•	•	•			•	•				•	•			
6		•	•	•	•	•	•	•				•	•			
8							•	•	•	•		•	•	•		
10								•	•	•			•	•	•	•
12									•	•				•	•	•
14									•	•				•	•	•
16										•	•					

### 技术规格

建议的连接管路：  
PA11、PA12、PA6、PE聚乙烯、PU聚氨酯（98 Shore A）。  
可接受的管路公差：  
+/- 0.07 mm，最大直径 10 mm  
+/- 0.1 mm，直径从12到 16 mm。

应用领域：  
气动系统。

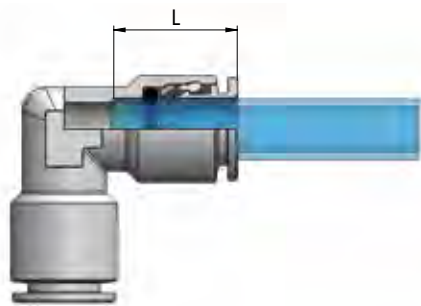
### DATA SHEET

Recommended tubings:  
PA11, PA12, PA6, Polyethylene PE, Polyurethane PU (98 Shore A).  
Acceptable Tolerances on the tubings:  
+/- 0,07 mm up to Ø 10 mm  
+/- 0,1 mm from Ø 12 up to Ø 16 mm.

Application fields:  
Pneumatic circuits.

## 管路插入深度

## Tubing insertion depth



管径 $\varnothing_e$	L
3	9.8
4	13.2
6	16.1
8	16.2
10	18.3
12	19.5
14	22.5
16	22.5

## 安装说明

## ASSEMBLY INSTRUCTIONS

1.沿管路垂直切割(使用TCUT管路切刀),确认内外管壁没有毛刺,同时注意避免管路截面呈椭圆形。使用硬管路连接时,需要通过专用设备(TINC)在管路上开槽。开槽尺寸需要考虑管路直径,以保证可靠的连接。

2.将管路插入接头,到底为止。

## 拔出管路:

垂直按压释放环,同时拔出管路即可。

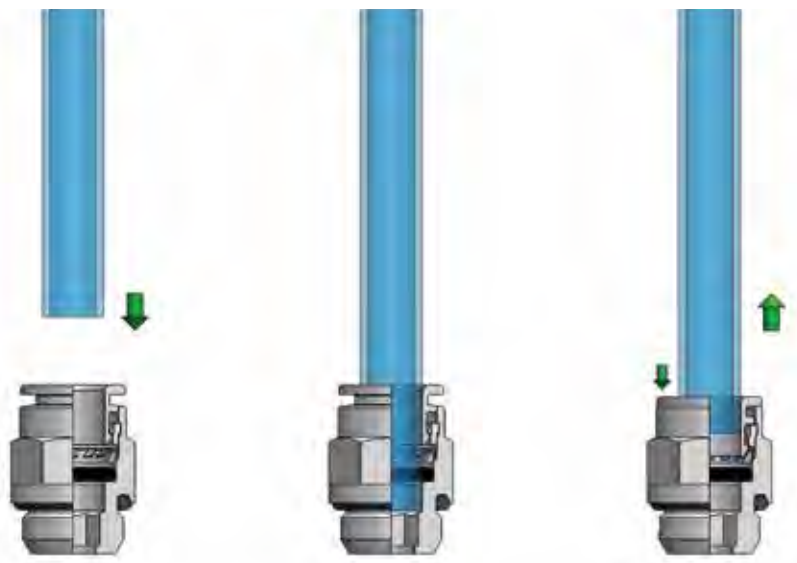
1. Cut the tube square (by means of a hose cutter i.e. our TCUT) making sure that no burrs are left and that the tube is not oval.

In case of use with metal hoses, make a groove all around the tube diameter with a suitable tool (TINC). The groove must be made according to the tube diameter so that the Fitting collect can better grip onto it.

2. Insert the tube into the Fitting until it bottoms.

## Tube release

While pressing on the release Ring, pull out the tube from the Fitting.



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。

为了避免管路意外松脱,任何物体均不要接触释放环。作用在释放环上任何外力,包括侧向力,均可能导致管路意外松脱。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).

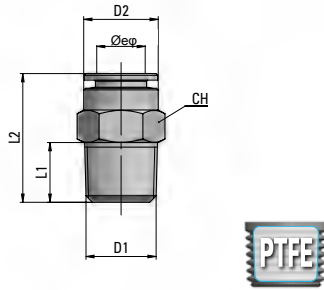
To prevent any accidental tube release, no components have to come in touch with the release Ring and exercise any unwanted pressure on the same. Indeed however lateral, any load on the release Ring may cause the tube disconnection.

To tighten threads, please check out our tightening torque chart illustrated at page 6.

## MA 11

锥螺纹直管接头

Taper Straight, male

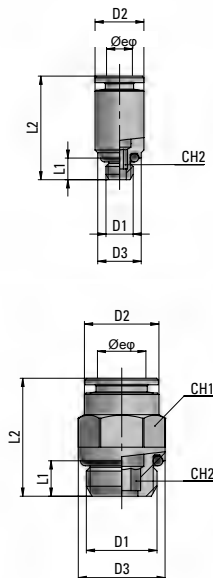


类型	管径 $\varnothing_e$	D1	D2	L1	L2	CH	g $\Delta\Delta$
11 04 18	4	R1/8	9	7.5	16	10	5.5
11 04 14	4	R1/4	9	11	20.5	14	16.1
11 06 18	6	R1/8	12	7.5	21	12	8.7
11 06 14	6	R1/4	12	11	20.5	14	14
11 08 18	8	R1/8	14	7.5	25	14	13.2
11 08 14	8	R1/4	14	11	23.5	14	13.9
11 08 38	8	R3/8	14	11.5	22.5	17	23.6
11 10 14	10	R1/4	16	11	30.5	16	20.2
11 10 38	10	R3/8	16	11.5	24	17	20.6
11 10 12	10	R1/2	16	14	27	22	47.5
11 12 14	12	R1/4	19	11	32	19	24
11 12 38	12	R3/8	19	11.5	27.5	19	24.1
11 12 12	12	R1/2	19	14	27.5	22	42.3
11 14 38	14	R3/8	22	11.5	35.5	22	40.1
11 14 12	14	R1/2	22	14	32.5	22	39.5

## MA 12

直螺纹直管接头

Parallel Straight, male

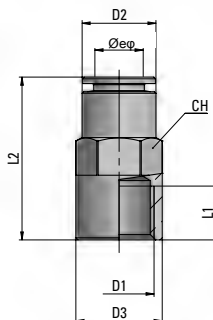


类型	管径 $\varnothing_e$	D1	D2	D3	L1	L2	CH1	CH2	g $\Delta\Delta$
12 03 M3	3	M3x0.5	7	5.5	3	14.5	-	1.5	1.4
12 03 M5	3	M5x0.8	7	8	4	15	-	2	2.3
12 04 M5	4	M5x0.8	9	8	4	19	-	2.5	4.6
12 04 M6	4	M6x1	9	9	4.5	19.5	-	3	4.3
12 04 M7	4	M7x1	9	9	5	20	-	3	5
12 06 M5	6	M5x0.8	12	8	4	22	-	2.5	8.6
12 06 M6	6	M6x1	12	9	4.5	22.5	-	3	8.9
12 06 M7	6	M7x1	12	9	5	23	-	3	9.5
12 04 18	4	G1/8	9	13	5	16.5	9	3	6
12 04 14	4	G1/4	9	16	6.5	18.5	9	3	12
12 06 M12x1.25	6	M12x1.25	12	15	6.5	21	12	4	11.8
12 06 M12x1.5	6	M12x1.5	12	15	6.5	21	12	4	12.9
12 06 18	6	G1/8	12	13.5	5	19.5	12	4	9
12 06 14	6	G1/4	12	16	6.5	19.5	12	4	12.7
12 08 18	8	G1/8	14	13	5	23.5	13	6	11.5
12 08 14	8	G1/4	14	16	6.5	21.5	14	6	13.5
12 08 38	8	G3/8	14	20	7	21	14	6	20.1
12 08 12	8	G1/2	14	25	8.5	23	14	6	34.3
12 10 14	10	G1/4	16	16	6.5	27.5	15	8	17.4
12 10 38	10	G3/8	16	20	7	25	16	8	22.6
12 10 12	10	G1/2	16	25	8.5	25.5	16	8	34.5
12 12 14	12	G1/4	19	16	6.5	28.5	19	8	26.2
12 12 38	12	G3/8	19	20	7	28.5	19	10	29
12 12 12	12	G1/2	19	25	8.5	26.5	19	10	36.1
12 14 38	14	G3/8	22	20	7	32	22	10	37.5
12 14 12	14	G1/2	22	25	8.5	32	22	12	42.4
12 16 12	16	G1/2	24	25	8.5	34.5	25	13	53.6
12 16 34	16	G3/4	24	32	9.5	32	24	13	68.2

## MA 13

内螺纹直管接头

Female Straight

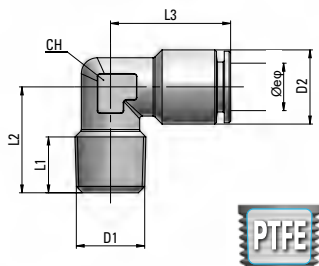


类型	管径 $\varnothing_e$	D1	D2	D3	L1	L2	CH	g $\Delta\Delta$
13 04 18	4	G1/8	9	13	7.5	23.5	9	10
13 06 18	6	G1/8	12	14	7.5	26	12	15.1
13 06 14	6	G1/4	12	16	11	30	12	18.5
13 08 18	8	G1/8	14	13	7.5	26	14	17.5
13 08 14	8	G1/4	14	16	11	30	14	20.2
13 08 38	8	G3/8	14	20	12	31	14	25.9
13 10 14	10	G1/4	16	16	11	32	16	24.4
13 10 38	10	G3/8	16	20	12	33.5	16	30.3
13 10 12	10	G1/2	16	25	13.5	36.5	16	45
13 12 38	12	G3/8	19	20	12	34	20	40.6
13 12 12	12	G1/2	19	25	13.5	37	19	55.7

## MA 14

锥外螺纹弯管接头

Taper Elbow Fitting, male

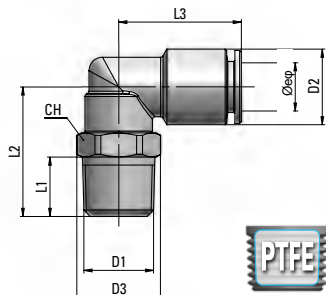


类型	管径 $\varnothing_e$	D1	D2	L1	L2	L3	CH	g $\Delta$
14 04 18	4	R1/8	9	7.5	15	17.5	9	8.1
14 04 14	4	R1/4	9	11	18.5	17.5	9	13.9
14 06 18	6	R1/8	12	7.5	15	20.5	10	13.2
14 06 14	6	R1/4	12	11	18.5	20.5	10	16.7
14 08 18	8	R1/8	14	7.5	19	22.5	12	19.6
14 08 14	8	R1/4	14	11	21	22.5	12	22.6
14 10 14	10	R1/4	16	11	22	25	14	27.1
14 10 38	10	R3/8	16	11.5	22.5	25	14	32.1

## MA 15

可调向锥外螺纹弯管接头

Taper Swivelling Elbow Fitting, male

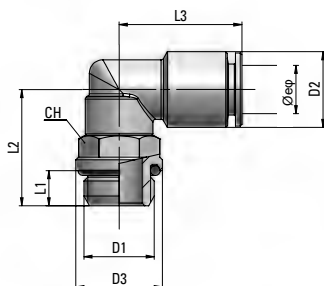


类型	管径 $\varnothing_e$	D1	D2	D3	L1	L2	L3	CH	g $\Delta$
15 04 18	4	R1/8	9	14.5	7.5	17.5	17.5	10	10.8
15 04 14	4	R1/4	9	15.5	11	24	19.5	14	20.9
15 06 18	6	R1/8	12	14.5	7.5	20	22	13	19.4
15 06 14	6	R1/4	12	15.5	11	24	22	14	23.1
15 08 18	8	R1/8	14	14.5	7.5	20	22.5	13	22.8
15 08 14	8	R1/4	14	15.5	11	24	22.5	14	26.4
15 08 38	8	R3/8	14	20	11.5	27	23	18	39.2
15 10 14	10	R1/4	16	20	11	26.5	26	18	38.6
15 10 38	10	R3/8	16	20	11.5	27	26	18	41
15 12 38	12	R3/8	19	22.5	11.5	30.5	28.5	20	61.8
15 12 12	12	R1/2	19	24.5	14	33.5	28.5	22	71.5
15 14 38	14	R3/8	22	22.5	11.5	30.5	32	20	66.2
15 14 12	14	R1/2	22	24.5	14	33.5	32	22	74.6

## MA 16

可调向直外螺纹弯管接头

Parallel Swivelling Elbow Fitting, male

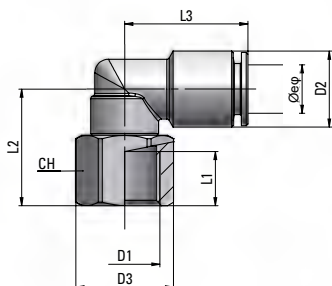


类型	管径 $\varnothing_e$	D1	D2	D3	L1	L2	L3	CH	g $\Delta$
16 03 M5	3	M5x0.8	7	10	4	14	13.5	9	7.1
16 04 M5	4	M5x0.8	9	10	4	14	17.5	9	8.8
16 04 M6	4	M6x1	9	10	4.5	14.5	17.5	9	8.7
16 04 18	4	G1/8	9	14.5	5	18	19.5	13	15.7
16 04 14	4	G1/4	9	16	6.5	21.5	19.5	13	19
16 06 M5	6	M5x0.8	12	10	4	14	20.5	9	11.9
16 06 M6	6	M6x1	12	10	4.5	14.5	20.5	9	12
16 06 M12x1.25	6	M12x1.25	12	15	6.5	21.5	22	13	22.2
16 06 M12x1.5	6	M12x1.5	12	15	6.5	21.5	22	13	22.1
16 06 18	6	G1/8	12	14.5	5	18	22	13	18.5
16 06 14	6	G1/4	12	16	6.5	21.5	22	13	21.8
16 08 18	8	G1/8	14	14.5	5	18	22.5	13	22
16 08 14	8	G1/4	14	16	6.5	21.5	22.5	13	25.3
16 08 38	8	G3/8	14	20	7	25.5	23	16	37.7
16 08 12	8	G1/2	14	25	8.5	27.5	23	16	41
16 10 14	10	G1/4	16	16	6.5	22	26	16	34
16 10 38	10	G3/8	16	20	7	25.5	26	16	39.5
16 10 12	10	G1/2	16	25	8.5	27.5	26	16	43.2
16 12 14	12	G1/4	19	16	6.5	25.5	28.5	20	58.5
16 12 38	12	G3/8	19	20	7	26	28.5	20	57
16 12 12	12	G1/2	19	25	8.5	30.5	28.5	20	65.1
16 14 38	14	G3/8	22	20	7	26	31	20	61.6
16 14 12	14	G1/2	22	25	8.5	30.5	31	20	69.9
16 16 12	16	G1/2	24	25	8.5	33	36.5	25	105.2
16 16 34	16	G3/4	24	32	9.5	35	36.5	25	113.8

## MA 17

可调向内螺纹直角接头

Swivelling Elbow Fitting, female

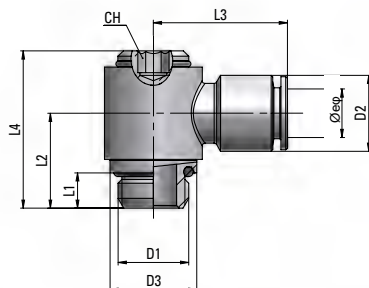


类型	管径 $\varnothing_e$	D1	D2	D3	L1	L2	L3	CH	g $\Delta$
17 04 18	4	G1/8	9	14.5	7.5	17.5	19.5	13	17.3
17 06 18	6	G1/8	12	14.5	7.5	17.5	22	13	19.7
17 06 14	6	G1/4	12	18	11	21.5	22	16	25.4
17 08 18	8	G1/8	14	14.5	7.5	17.5	22.5	13	23.1
17 08 14	8	G1/4	14	18	11	21.5	22.5	16	29.1
17 10 14	10	G1/4	16	18	11	23	26	16	35.6
17 10 38	10	G3/8	16	22.5	12	25	26	20	43.5

## MA 18

单铰接头

Swivelling Fitting with Banjo Ring

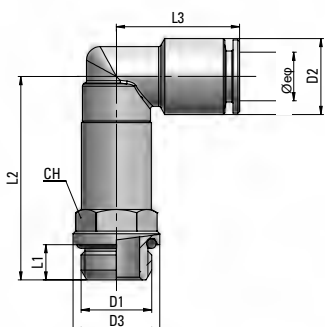


类型	管径 $\varnothing_e$	D1	D2	D3	L1	L2	L3	L4	CH	g $\Delta$
18 03 M3	3	M3x0.5	7	8	3	8.5	13	14	2	4.6
18 03 M5	3	M5x0.8	7	8	4	9.5	15	15	2	8.1
18 04 M5	4	M5x0.8	9	10	4	11	18.5	19	3	10.1
18 04 18	4	G1/8	9	14	5	15	20.5	25.5	4	22.2
18 06 M5	6	M5x0.8	12	10	4	11	21.5	19	3	13.3
18 06 18	6	G1/8	12	14	5	15	22.5	25.5	4	24.4
18 06 14	6	G1/4	12	18	6.5	17.5	24	29	5	39.3
18 08 18	8	G1/8	14	14	5	15	23.5	25.5	4	25.7
18 08 14	8	G1/4	14	18	6.5	17.5	24.5	29	5	39.1
18 10 14	10	G1/4	16	18	6.5	17.5	27	29	5	43.6
18 10 38	10	G3/8	16	22	7	19.5	29	32.5	6	62.2
18 12 38	12	G3/8	19	22	7	19.5	29.5	32.5	6	67.1
18 12 12	12	G1/2	19	27	8.5	24	31.5	39.5	8	114.8

## MA 19

可调向加长型直外螺纹弯头

Swivelling Extended Elbow Fitting, male, parallel

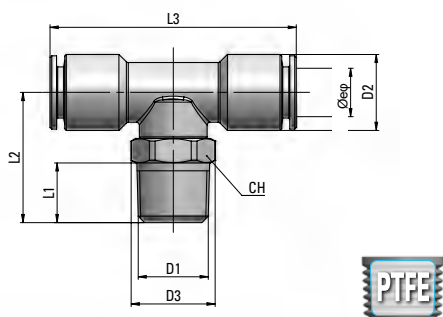


类型	管径 $\varnothing_e$	D1	D2	D3	L1	L2	L3	CH	g $\Delta$
19 04 18	4	G1/8	9	14.5	5	29	19.5	13	25.6
19 06 18	6	G1/8	12	14.5	5	32	22	13	30.5
19 06 14	6	G1/4	12	18	6.5	35.5	22	13	30.9
19 08 18	8	G1/8	14	14.5	5	34	22.5	13	35.7
19 08 14	8	G1/4	14	18	6.5	37.5	22.5	13	36

## MA 20

可调向锥螺纹正T型三通接头

Swivelling Tee Fitting, taper

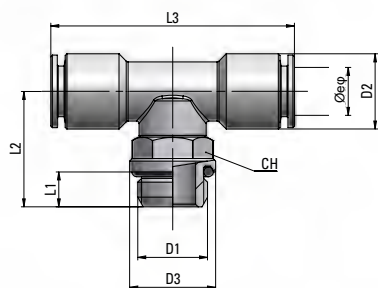


类型	管径 $\varnothing_e$	D1	D2	D3	L1	L2	L3	CH	g $\Delta$
20 04 18	4	R1/8	9	14.5	7.5	20	39	13	21.5
20 04 14	4	R1/4	9	15.5	11	24	39	14	25.6
20 06 18	6	R1/8	12	14.5	7.5	20	44	13	26.3
20 06 14	6	R1/4	12	15.5	11	24	44	14	30.4
20 08 18	8	R1/8	14	14.5	7.5	20	45	13	31.1
20 08 14	8	R1/4	14	15.5	11	24	45	14	35.3
20 08 38	8	R3/8	14	20	11.5	27	46	18	49.1
20 10 14	10	R1/4	16	20	11	26.5	49	18	50
20 10 38	10	R3/8	16	20	11.5	27	49	18	51.6
20 12 38	12	R3/8	19	22.5	11.5	30.5	57	20	80
20 12 12	12	R1/2	19	24.5	14	33.5	57	22	83.5

## MA 21

可调向直螺纹正T型三通接头

Swivelling Tee Fitting, parallel

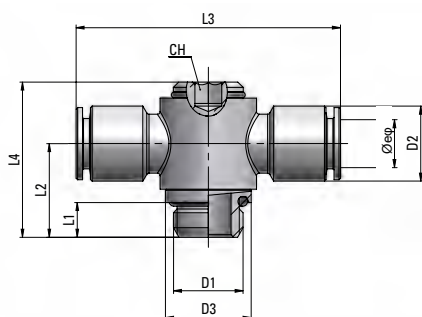


类型	管径 $\varnothing_e$	D1	D2	D3	L1	L2	L3	CH	g $\Delta$
21 04 18	4	G1/8	9	14.5	5	18	39	13	20.2
21 04 14	4	G1/4	9	16	6.5	21.5	39	13	23.9
21 06 18	6	G1/8	12	14.5	5	18	44	13	25.2
21 06 14	6	G1/4	12	16	6.5	21.5	44	13	29.1
21 08 18	8	G1/8	14	14.5	5	18	45	13	30.7
21 08 14	8	G1/4	14	16	6.5	21.5	45	13	33.6
21 08 38	8	G3/8	14	20	7	25.5	46	16	46.4
21 10 14	10	G1/4	16	16	6.5	22	49	16	44.4
21 10 38	10	G3/8	16	20	7	25.5	49	16	49.7
21 12 38	12	G3/8	19	20	7	26	57	20	75.3
21 12 12	12	G1/2	19	25	8.5	30.5	57	20	82

## MA 22

两通铰接接头

Swivelling Fitting with Double Banjo Ring

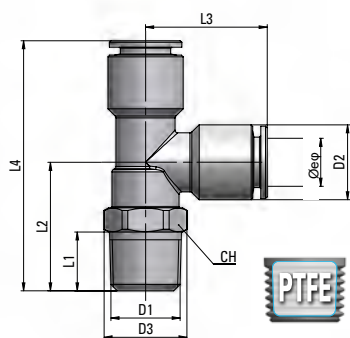


类型	管径 $\varnothing_e$	D1	D2	D3	L1	L2	L3	L4	CH	g $\Delta$
22 04 M5	4	M5x0.8	9	10	4	11	37	19	3	13.8
22 04 18	4	G1/8	9	14	5	15	41	25.5	4	27.4
22 06 M5	6	M5x0.8	12	10	4	11	43	19	3	19.9
22 06 18	6	G1/8	12	14	5	15	45	25.5	4	32.1
22 06 14	6	G1/4	12	18	6.5	17.5	48	29	5	45.8
22 08 18	8	G1/8	14	14	5	15	47	25.5	4	34.1
22 08 14	8	G1/4	14	18	6.5	17.5	49	29	5	46.5
22 10 14	10	G1/4	16	18	6.5	17.5	54	29	5	55.2
22 10 38	10	G3/8	16	22	7	19.5	58	32.5	6	72.4
22 12 38	12	G3/8	19	22	7	19.5	59	32.5	6	79
22 12 12	12	G1/2	19	27	8.5	24	63	39.5	8	124.7

## MA 23

可调向锥螺纹直T型三通接头

Lateral Swivelling Tee Fitting, taper

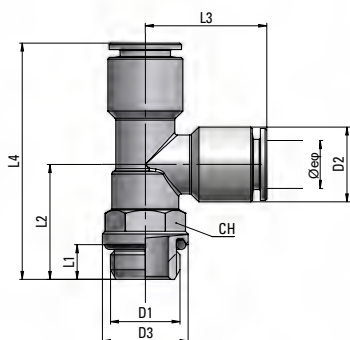


类型	管径 $\varnothing_e$	D1	D2	D3	L1	L2	L3	L4	CH	g $\Delta$
23 04 18	4	R1/8	9	14.5	7.5	19.5	19.5	39.5	13	22
23 04 14	4	R1/4	9	15.5	11	24	19.5	43.5	14	25.5
23 06 18	6	R1/8	12	14.5	7.5	20	22	42	13	27.5
23 06 14	6	R1/4	12	15.5	11	24	22	46	14	31
23 08 18	8	R1/8	14	14.5	7.5	20	22.5	42.5	13	31
23 08 14	8	R1/4	14	15.5	11	24	22.5	46.5	14	35
23 10 14	10	R1/4	16	20	11	26.5	26	52.5	18	50
23 10 38	10	R3/8	16	20	11.5	27	26	53	18	51
23 12 38	12	R3/8	19	22.5	11.5	30.5	28.5	59	20	75
23 12 12	12	R1/2	19	24.5	14	33.5	28.5	62	22	83.5

## MA 24

可调向直螺纹直T型三通接头

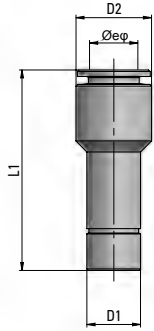
Lateral Swivelling Tee Fitting, parallel



类型	管径 $\varnothing_e$	D1	D2	D3	L1	L2	L3	L4	CH	g $\Delta$
24 04 18	4	G1/8	9	14.5	5	18	19.5	37.5	13	20.5
24 04 14	4	G1/4	9	16	6.5	21.5	19.5	41	13	24
24 06 18	6	G1/8	12	14.5	5	18	22	40	13	26
24 06 14	6	G1/4	12	16	6.5	21.5	22	43.5	13	29.5
24 08 18	8	G1/8	14	14.5	5	18	22.5	40.5	13	30
24 08 14	8	G1/4	14	16	6.5	21.5	22.5	44	13	33.5
24 10 14	10	G1/4	16	16	6.5	22	26	48	16	44
24 10 38	10	G3/8	16	20	7	25.5	26	51.5	16	49
24 12 38	12	G3/8	19	20	7	26	28.5	54.5	20	73
24 12 12	12	G1/2	19	25	8.5	30.5	28.5	59	20	77

## MA 25

减径接头

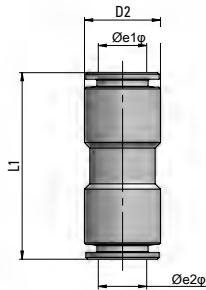


Reducer

类型	管径Øe	D1	D2	L1	g $\Delta$
25 03 04	3	4	7	27	2.5
25 04 06	4	6	9	33.5	7
25 04 08	4	8	9	33.5	10
25 04 10	4	10	10	31.5	15
25 04 12	4	12	12	32.5	24.5
25 06 04	6	4	12	35.5	10
25 06 08	6	8	12	35	11.5
25 06 10	6	10	12	36.5	16.5
25 06 12	6	12	12	35.5	22.2
25 06 14	6	14	14	37.5	25
25 08 06	8	6	14	39.5	13.5
25 08 10	8	10	14	37	15
25 08 12	8	12	14	39	23
25 08 14	8	14	14	38.5	31.5
25 10 12	10	12	16	42	20
25 10 14	10	14	16	42	29.5
25 12 14	12	14	19	43	24
25 14 16	14	16	24	49.5	91.8

## MA 26

对接接头

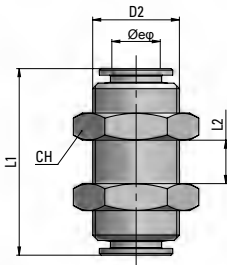


Union

类型	管径1Øe	管径2Øe D2	L1	g $\Delta$	
26 03 03	3	3	7	22	2.7
26 04 04	4	4	9	28	6.8
26 06 06	6	6	12	33.5	15
26 06 04	6	4	12	31	14.7
26 08 08	8	8	14	34	18
26 08 06	8	6	14	34	21
26 10 10	10	10	16	38.5	22.5
26 10 08	10	8	16	36.5	25.2
26 12 12	12	12	19	41	36.6
26 14 14	14	14	22	47	47.4
26 16 16	16	16	24	47	63.2

## MA 27

穿板对接接头

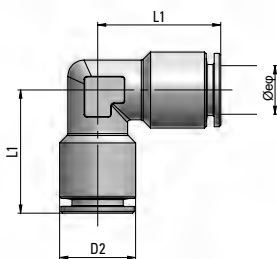


Bulkhead Union

类型	管径Øe	D2	L1	L3 最大	CH	g $\Delta$
27 03 03	3	M10x1	21.5	8	14	14.5
27 04 04	4	M12x1	28	11	16	23.5
27 06 06	6	M14x1	34	16	18	33
27 08 08	8	M16x1	34	17	20	39.5
27 10 10	10	M18x1	39	19	22	51.5
27 12 12	12	M20x1	41	20	24	60

## MA 28

直角对接接头



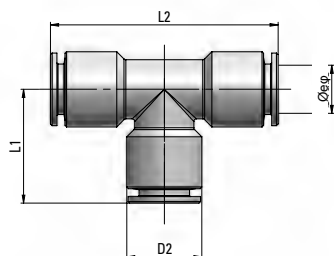
Union Elbow

类型	管径Øe	D2	L1	g $\Delta$
28 03 03	3	7	12	4.5
28 04 04	4	9	17.5	9
28 06 06	6	12	20.5	16.5
28 08 08	8	14	22.5	22
28 10 10	10	16	25	29.5
28 12 12	12	19	26.5	48.5
28 14 14	14	22	31.5	58
28 16 16	16	24	36.5	90.6



## MA 29

正T型三通接头

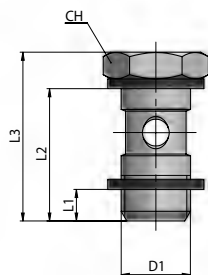


Union Tee

类型	管径 $\varnothing e$	D2	L1	L2	g $\Delta\Delta$
29 03 03	3	7	12	24	5.6
29 04 04	4	9	17.5	35	12.5
29 06 06	6	12	20	40	22.5
29 08 08	8	14	21	42	28.4
29 10 10	10	16	24.5	49	39.2
29 12 12	12	19	26	52	61.3
29 14 14	14	22	30.5	61	77.1
29 16 16	16	24	36.5	73	124

## MA 31

单层铰接螺栓

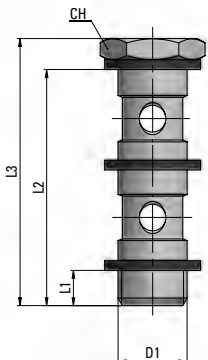


Simple Screw

类型	D1	L1	L2	L3	CH	g $\Delta\Delta$
31 00 M5	M5x0.8	4	16	19	8	2.5
31 00 18	G1/8	5	23	27	14	14
31 00 14	G1/4	6.5	26.5	31.5	17	27
31 00 38	G3/8	7	30	36	20	43
31 00 12	G1/2	8.5	35.5	41.5	26	80.5

## MA 32

双层铰接螺栓

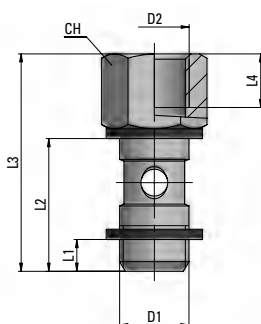


Double Screw

类型	D1	L1	L2	L3	CH	g $\Delta\Delta$
32 00 18	G1/8	5	39.5	42.5	14	19.5
32 00 14	G1/4	6.5	45	50	17	38.5
32 00 38	G3/8	7	51.5	57.5	20	63.5
32 00 12	G1/2	8.5	61	67	26	117

## MA 33

内外螺纹转接型单层铰接螺栓



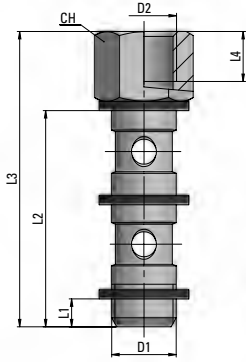
Screw, male female

类型	D1	D2	L1	L2	L3	L4	CH	g $\Delta\Delta$
33 00 18	G1/8	G1/8	5	23	35	8	14	19.5
33 00 14	G1/4	G1/4	6.5	26.5	40.5	10	17	32.5
33 00 38	G3/8	G3/8	7	30	45	11	20	47

## MA 34

内外螺纹转接型双层铰接螺栓

Double Screw, male female

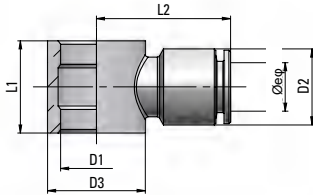


类型	D2	D2	L1	L2	L3	L4	CH	g $\Delta$
34 00 18	G1/8	G1/8	5	39.5	51.5	8	14	26
34 00 14	G1/4	G1/4	6.5	45	59	10	17	44
34 00 38	G3/8	G3/8	7	51.5	66.5	11	20	66

## MA 35

单通铰接头本体

Single Banjo Ring



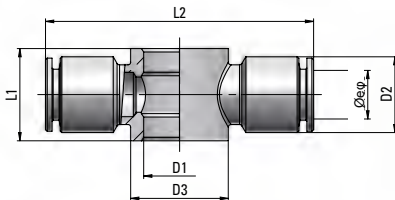
类型	管径 $\varnothing_e$	D1	D2	D3	L1	L2	g $\Delta$
35 04 M5	4	M5	9	10	10	18.5	7.7
35 04 M5/R	4	7	9	10	10	18.5	6.6
35 04 18	4	1/8	9	14	15	20.5	13.5
35 06 M5	6	M5	12	10	10	21.5	10.9
35 06 M5/R	6	7	12	10	10	21.5	10.1
35 06 18	6	1/8	12	14	15	22.5	15.5
35 06 14	6	1/4	12	18	17	24	21.6
35 08 18	8	1/8	14	14	15	23.5	16.7
35 08 14	8	1/4	14	18	17	24.5	22.8
35 08 38	8	3/8	14	22	20	26.5	32.7
35 10 14	10	1/4	16	18	17	27	27.2
35 10 38	10	3/8	16	22	20	29	39.5
35 12 38	12	3/8	19	22	20	29.5	38.8
35 12 12	12	1/2	19	27	24	31.5	56.9

/R = 仅用于流量调节器 - For flow controls only

## MA 36

两通铰接头本体

Double Banjo Ring

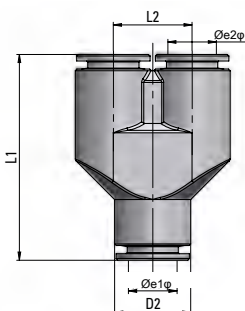


类型	管径 $\varnothing_e$	D1	D2	D3	L1	L2	g $\Delta$
36 04 M5	4	M5	9	10	10	37	10.9
36 04 18	4	1/8	9	14	15	41	18
36 06 18	6	1/8	12	14	15	45	23
36 06 14	6	1/4	12	18	17	48	28.7
36 08 18	8	1/8	14	14	15	47	25.3
36 08 14	8	1/4	14	18	17	49	29.7
36 08 38	8	3/8	14	22	20	53	42.5
36 10 14	10	1/4	16	18	17	54	37.9
36 10 38	10	3/8	16	22	20	58	44.5
36 12 38	12	3/8	19	22	20	59	51.3
36 12 12	12	1/2	19	27	24	63	67.2

## MA 37

Y型接头

Y Fitting

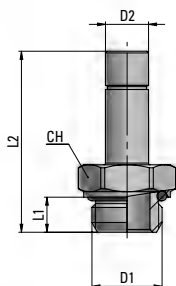


类型	管径1 $\varnothing_e$	管径2 $\varnothing_e$	D2	L1	L2	g $\Delta$
37 04 04	4	4	9	29.5	9.5	13.5
37 06 06	6	6	12	36	12.5	32
37 06 04	6	4	12	36	12.5	36.1
37 08 08	8	8	14	37.5	14.5	42.5
37 08 06	8	6	14	37.5	14.5	51.1
37 10 10	10	10	16	44.5	16.5	62.7
37 10 08	10	8	16	44	16.5	74.9
37 12 12	12	12	19	49	19.5	95.8

## MA 38

螺纹型尾管接头

Stem Adaptor

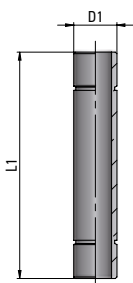


类型	D1	D2	L1	L2	CH	g $\Delta$
38 04 M5	M5x0.8	4	4	26	9	3.2
38 04 18	G1/8	4	5	28	13	7.2
38 04 14	G1/4	4	6.5	29.5	16	12.4
38 06 M5	M5x0.8	6	4	28	9	5.9
38 06 18	G1/8	6	5	30	13	8.5
38 06 14	G1/4	6	6.5	32.5	16	13.7
38 08 18	G1/8	8	5	31	13	9.4
38 08 14	G1/4	8	6.5	33.5	16	14.5
38 10 14	G1/4	10	6.5	34.5	16	15.5
38 10 38	G3/8	10	7	35	20	22
38 12 38	G3/8	12	7	38	20	23.6
38 12 12	G1/2	12	8.5	39.5	25	38

## MA 39

接头连接杆

Extention Piece

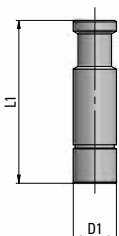


类型	D1	L1	g $\Delta$
39 00 04	4	35	2.8
39 00 06	6	40	5.5
39 00 08	8	42	7.5
39 00 10	10	50	11
39 00 12	12	53	14
39 00 14	14	54	18.5

## MA 40

堵头

Plug

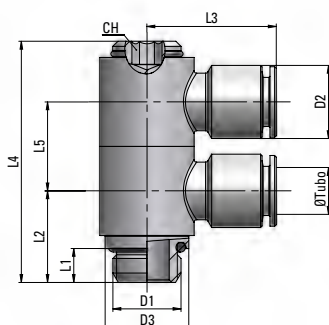


类型	D1	L1	g $\Delta$
40 00 03	3	20	1
40 00 04	4	25	2.25
40 00 06	6	25	3.7
40 00 08	8	30	7.2
40 00 10	10	35	11.8
40 00 12	12	40	18.2
40 00 14	14	40	26.2
40 00 16	16	40	32.5

## MA 41

双层单通铰接头

Swivelling Fitting with Two Banjo Rings

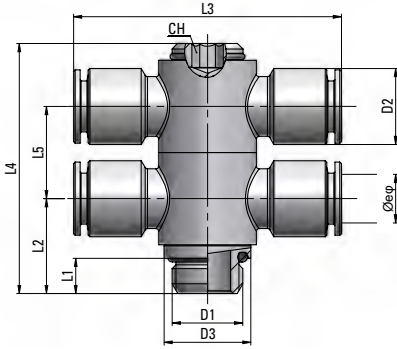


类型	管径 $\varnothing_e$	D1	D2	D3	L1	L2	L3	L4	L5	CH	g $\Delta$
41 04 M5	4	M5x0.8	9	10	4	11	18.5	29	10	3	18
41 04 18	4	G1/8	9	14	5	15	20.5	40.5	15	4	40
41 06 18	6	G1/8	12	14	5	15	22.5	40.5	15	4	46
41 06 14	6	G1/4	12	18	6.5	17.5	24	46	17	5	69.5
41 08 18	8	G1/8	14	14	5	15	23.5	40.5	15	4	50
41 08 14	8	G1/4	14	18	6.5	17.5	24.5	46	17	5	69.5

## MA 42

双层两通铰接接头

Swivelling Fitting with Two Double Banjo Rings

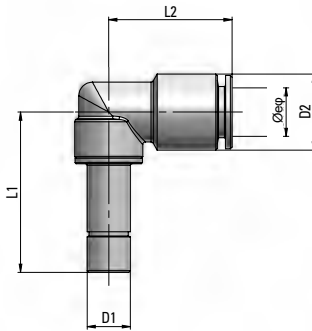


类型	管径 $\varnothing_e$	D1	D2	D3	L1	L2	L3	L4	L5	CH	g $\Delta$
42 04 M5	4	M5x0.8	9	10	4	11	37	29	10	3	25
42 04 18	4	G1/8	9	14	5	15	41	40.5	15	4	50
42 06 18	6	G1/8	12	14	5	15	45	40.5	15	4	59
42 06 14	6	G1/4	12	18	6.5	17.5	48	46	17	5	82
42 08 18	8	G1/8	14	14	5	15	47	40.5	15	4	61
42 08 14	8	G1/4	14	18	6.5	17.5	49	46	17	5	83.5

## MA 43

带尾管直角接头

Plug-in Elbow

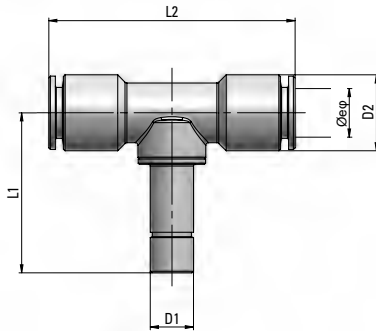


类型	管径 $\varnothing_e$	D1	D2	L1	L2	g $\Delta$
43 04 04	4	4	9	25.5	19.5	14
43 04 06	4	6	9	29.5	19.5	15
43 06 04	6	4	12	25.5	22	17
43 06 06	6	6	12	29.5	22	17
43 06 08	6	8	12	29.5	22	17.5
43 08 06	8	6	14	29.5	22.5	20.5
43 08 08	8	8	14	29.5	22.5	20.5
43 10 10	10	10	16	33.5	26	30

## MA 44

带尾管正T型接头

Plug-in Tee

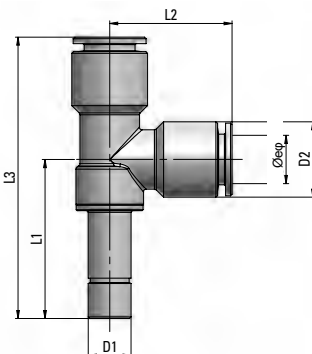


类型	管径 $\varnothing_e$	D1	D2	L1	L2	g $\Delta$
44 04 04	4	4	9	25.5	39	18.5
44 04 06	4	6	9	29.5	39	19.5
44 06 06	6	6	12	29.5	44	24.5
44 06 08	6	8	12	29.5	44	24.5
44 08 08	8	8	14	29.5	45	29
44 08 10	8	10	14	33.5	45	38.5
44 10 10	10	10	16	33.5	52	41

## MA 45

带尾管直T型接头

Plug-in Run Tee

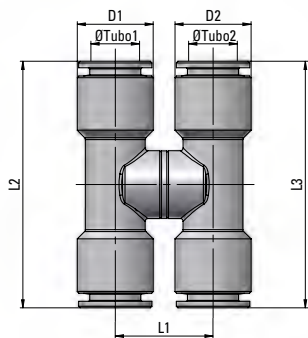


类型	管径 $\varnothing_e$	D1	D2	L1	L2	L3	g $\Delta$
45 04 04	4	4	9	25.5	19.5	45	18.5
45 04 06	4	6	9	29.5	19.5	49	20
45 06 06	6	6	12	29.5	22	51.5	25
45 06 08	6	8	12	29.5	22	51.5	25.5
45 08 08	8	8	14	29.5	22.5	52	30
45 10 10	10	10	16	33.5	26	59.5	41

## MA 46

可调向H型接头

Swivelling Cross Fitting

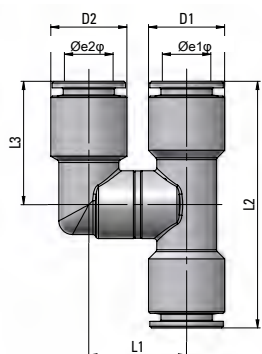


类型	管径1Øe	管径2Øe	D1	D2	L1	L2	L3	g $\Delta$
46 04 04	4	4	9	9	18	39	39	31
46 04 06	4	6	9	12	18	39	44	36
46 06 06	6	6	12	12	18	44	44	41
46 06 08	6	8	12	14	18	44	45	46.5
46 08 08	8	8	14	14	18	45	45	50

## MA 47

可调向Y型接头

Swivelling Y Fitting



类型	管径1Øe	管径2Øe	D1	D2	L1	L2	L3	g $\Delta$
47 04 04	4	4	9	9	18	39	19.5	27
47 04 06	4	6	9	12	18	39	22	29.5
47 06 06	6	6	12	12	18	44	22	34.5
47 06 08	6	8	12	14	18	44	22.5	37.5
47 08 08	8	8	14	14	18	45	22.5	42

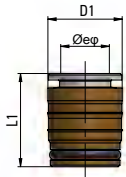
# MA 10

## 埋入式接头

M10埋入接头的优良结构设计，使得同一规格接头能够同时适用于塑料，铝和黄铜等不同基座材质。

## Press-in Cartridge

The new construction features of the cartridge MA10 allow for one single cartridge version to be assembled in plastic, aluminium as well as brass bodies.

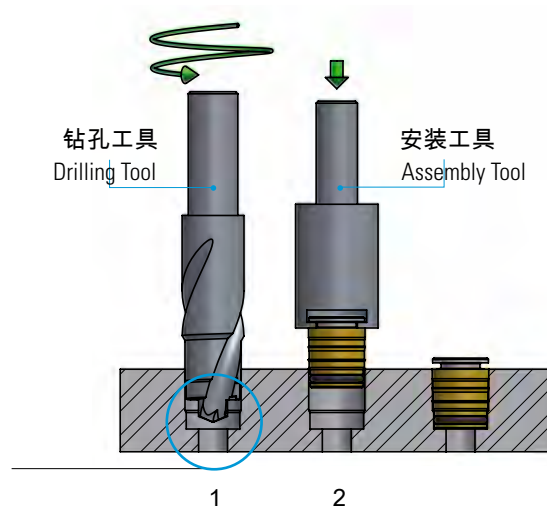
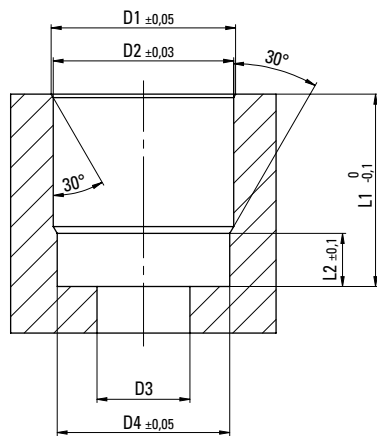


类型	管径Øe	D1	L1	g ΔΔ
10 04 00	4	9	14.5	3.6
10 06 00	6	11.5	16.5	5.7
10 08 00	8	13.5	17	7.9
10 10 00	10	15.5	18.5	10.3

## 钻孔示意图

## Cartridge Seat Drilling Plan

类型	D1	D2	D3	D4	L1	L2
4	9.5	9.2	3	8.6	12	3.2
6	11.7	11.4	5	10.8	14	4
8	13.9	13.6	7	13	14.5	4
10	16	15.7	9	15.1	16	4



1. 按照提供的说明和钻孔方法来加工埋入孔

2. 手动将接头按压入埋入孔，再使用埋入工具进行压装，直至底部，这样就确保了正确安装

可根据要求提供“钻孔和安装工具”。

1. Drill the cartridge Seat, following the instructions given

2. Manually press the cartridge into the Seat and by means of the Assembly tool push it all the way down until it bottoms; this will guarantee the proper cartridge assembly.

“Drilling and Assembly Tool” available upon request.