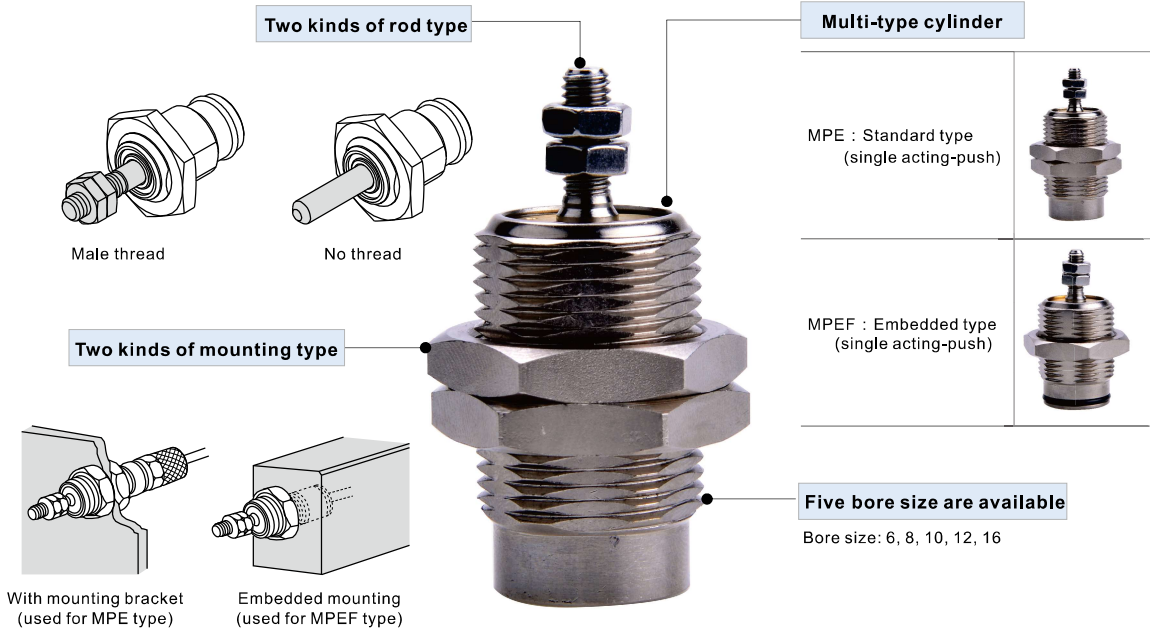




# MPE Series Threaded Cylinder

## Compendium of MPE Series



### Criteria for selection: Cylinder thrust

Unit : Newton(N)

Model	Bore size	Rod size	Acting type	Pressure area(mm <sup>2</sup> )	Operating pressure(MPa)							
					0.1	0.2	0.3	0.4	0.5	0.6	0.7	
MPE MPEF	6	3	Single acting	Push side	28.3	-	1.8	4.6	7.4	10.3	13.1	15.9
				Pull side	21.2					1.6		
	8	4	Single acting	Push side	50.3	-	4.8	9.8	14.8	19.9	24.9	29.9
				Pull side	37.7					2.7		
	10	5	Single acting	Push side	78.5	-	9.4	17.3	25.1	33.0	40.8	48.7
				Pull side	58.9					2.8		
	12	6	Single acting	Push side	113.0	-	13.3	24.6	35.9	47.2	58.5	69.8
				Pull side	84.7					3.45		
	16	6	Single acting	Push side	201.0	-	29.4	49.5	69.6	89.7	109.8	129.9
				Pull side	172.7					4.8		

### Installation and application



- When load changes in the work, the cylinder with abundant output capacity shall be selected.
- Relative cylinder with high temperature resistance or corrosion resistance shall be chosen under the condition of high temperature or corrosion.
- Necessary protection measure shall be taken in the environment with higher humidity, much dust or water drops, oil dust and welding dregs.
- Dirty substances in the pipe must be eliminated before cylinder is connected with pipeline to prevent the entrance of particles into the cylinder.
- The medium used by cylinder shall be filtered to 40μm or below.
- As both of the front cover and piston of the cylinder are short, typically too large stroke can not be selected.
- Anti-freezing measure shall be adopted under low temperature environment to prevent moisture freezing.
- The cylinder shall avoid the influence of side load in operation to maintain the normal work of cylinder and extend the service life.
- If the cylinder is dismantled and stored for a long time, please conduct anti-rust treatment to the surface. Anti-dust caps shall be added in air inlet and outlet ports. The front and back cover can not be dismantled, which shall be especially noticed.



### Specification

Bore size(mm)	6	8	10	12	16
Acting type	Single acting				
Fluid	Air(to be filtered by 40µm filter element)				
Operating pressure	0.2~0.7MPa(28~100psi)		0.15~0.7MPa(22~100psi)		
Proof pressure	1.2MPa(175psi)				
Mounting type	Embedded type, End inlet type				
Temperature °C	-20~70				
Speed range mm/s	50~500				
Stroke tolerance	+1.0 0				
Cushion type	No cushion				
Port size	M5×0.8				

### Symbol



### Product feature

1. It is compact, small and light.
2. Multi cylinders can be integrated to save space.
3. Mounting accessories are not necessary.
4. Cylinders of various specifications are optional.

### Stroke

Bore size (mm)	Standard stroke (mm)	Max.std stroke
6	5 10 15	15
8	5 10 15	15
10	5 10 15	15
12	5 10 15	15
16	5 10 15	15

[Note] Please contact the company for other special strokes.

### Ordering code

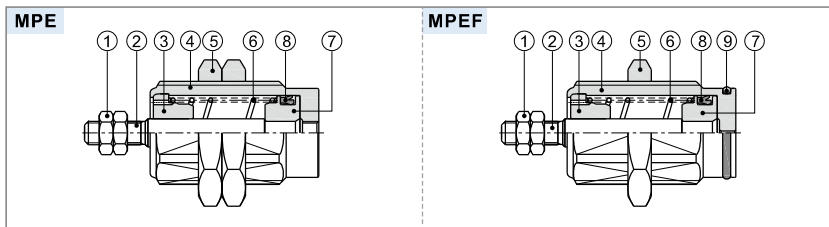
MPE 16 ×15 N

MPEF 16 ×15 N

① ② ③ ④

① Model	② Bore size	③ Stroke	④ Rod type
MPE : Standard type (single acting-push) MPEF : Embedded type (single acting-push)	6 8 10 12 16	Refer to stroke table for details	Blank: Male thread N: No thread

### Inner structure and material of major parts



NO.	Item	Material
1	Rod nut	Stainless steel
2	Piston rod	Stainless steel
3	Front cover	Brass
4	Body	Brass (nickel-plated)
5	Body nut	Carbon steel
6	Spring	Spring steel
7	Piston	Stainless steel
8	Piston seal	NBR
9	O-ring	NBR

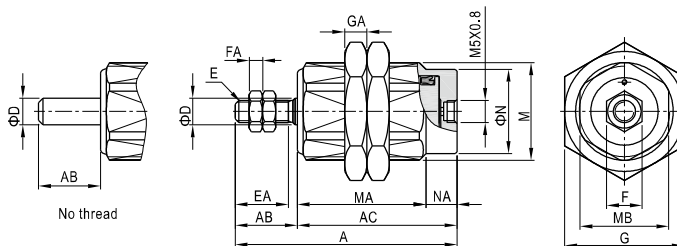
Note: inner structure & material data sheet is based on certain bore size.  
Please contact AirTAC if you need inner structure & material data sheet for specific bore size.

# Threaded cylinder

## MPE Series

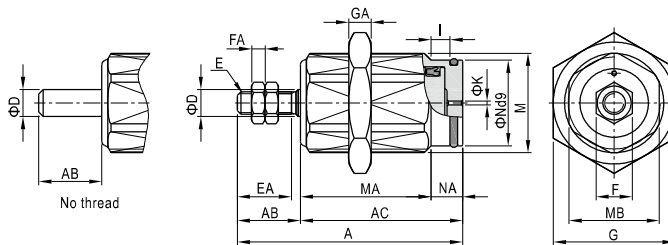
### Dimensions

#### MPE

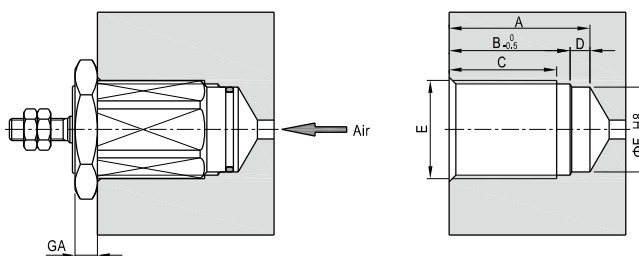


Bore size/Item Stroke	A			AB	AC			MA			D	E	EA	F	FA	G	GA	M	MB	N	NA
	5St	10St	15St		5St	10St	15St	5St	10St	15St											
6	30.5	37.5	44.5	9	21.5	28.5	35.5	15.5	22.5	29.5	3	M3×0.5	7	5.5	2.4	14	4	M10×1.0	9	8.5	6
8	34.5	41.5	48.5	12	22.5	29.5	36.5	16.5	23.5	30.5	4	M4×0.7	10	7	3	17	4	M12×1.0	11	10	6
10	35	42	49	12	23	30	37	17	24	31	5	M4×0.7	10	7	3	19	4	M16×1.5	14	12	6
12	37.5	43.5	49.5	12	25.5	31.5	37.5	19.5	25.5	31.5	6	M5×0.8	10	8	3	24	5	M18×1.5	16	15	6
16	40.5	46.5	52.5	14	26.5	32.5	38.5	19.5	25.5	31.5	6	M5×0.8	12	8	3	27	5	M22×1.5	20	19	7

#### MPEF



Bore size/Item Stroke	A			AB	AC			MA			D	E	EA	F	FA	G	GA	I	M	MB	N	NA	K
	5St	10St	15St		5St	10St	15St	5St	10St	15St													
6	28	35	42	9	19	26	33	13	20	27	3	M3×0.5	7	5.5	2.4	14	4	2.5	M10×1.0	9	8.5	6	0.6
8	32	39	46	12	20	27	34	14	21	28	4	M4×0.7	10	7	3	17	4	2.5	M12×1.0	11	10	6	0.8
10	32.5	39.5	46.5	12	20.5	27.5	34.5	14	21	28	5	M4×0.7	10	7	3	19	4	2.5	M16×1.5	14	12	6.5	1
12	35	41	47	12	23	29	35	16.5	22.5	28.5	6	M5×0.8	10	8	3	24	5	2.7	M18×1.5	16	15	6.5	1.3
16	38	44	50	14	24	30	36	17	23	29	6	M5×0.8	12	8	3	27	5	2.7	M22×1.5	20	19	7	1.7



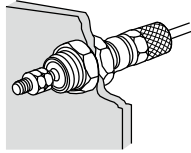
Bore size/Item Stroke	A			B			C			D	E	F	GA
	5St	10St	15St	5St	10St	15St	5St	10St	15St				
6	14.5	21.5	28.5	11	18	25	8.5	15.5	22.5	3.5	M10×1.0	8.5	4
8	15	22	29	11.5	18.5	25.5	9	16	23	3.5	M12×1.0	10	4
10	15.5	22.5	29.5	12	19	26	9	16	23	3.5	M16×1.5	12	4
12	17	23	29	13.5	19.5	25.5	10.5	16.5	22.5	3.5	M18×1.5	15	5
16	18	24	30	14	20	26	11	17	23	4	M22×1.5	19	5

[Note] Size E and F must be concentric.

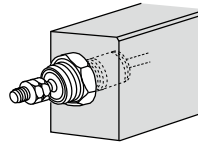
## MPE Series

### Mounting and use

1. Select applicable cylinder model and mounting method based on actual situation :



With mounting bracket (used for MPE type)



Embedded mounting (used for MPEF type)

2. MPE series are single acting cylinders. No load is allowed at the piston rod when it is on the retraction state.

3. The force of the spring of the cylinder is for retraction of the piston rod only.  
The piston rod may not retract to the bottom end if there's any load.

4. Make sure the rod end lateral load is allowable. Otherwise may cause damage to the cylinder or reduce the service life.

