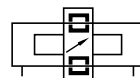




Guided rodless cylinder (Magnetic coupled / Ball bearing) — RMTL Series

Bore size: $\Phi 10$, $\Phi 16$, $\Phi 20$, $\Phi 25$, $\Phi 32$, $\Phi 40$



Ordering code

RMTL 20×100 S □ T

① ② ③ ④ ⑤ ⑥

① Model

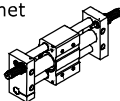
RMTL: Guided rodless cylinder
(Magnetic coupled/Ball bearing)

② Bore Size

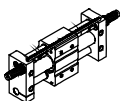
10 16 20 25 32 40

④ Magnet

Blank: Without magnet



S: With magnet



⑥ Thread type [Note3]

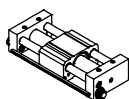
T: NPT

③ Stroke [Note1]

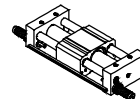
Bore size (mm)	Standard stroke (mm)										Max.std stroke	
10	50	100	150	200	250	300						500
16	50	100	150	200	250	300	350	400	450	500	750	
20											1000	
25	50	100	150	200	250	300	350	400	450	500	600	1500
32											1500	
40	50	100	150	200	250	300	350	400	450	500	600	1500
	700 750 800 900 1000											

⑤ Cushion type [Note2]

Blank: With two adjustable nuts



A: With two shock absorbers



[Note1] Consult us for non-standard stroke. [Note2] When **A** type is selected, the two adjustable nuts are added too.

[Note3] Blank on thread code means metric M thread. There is only metric thread for $\Phi 10/\Phi 16$. If NPT thread is needed, please consult.

Specification

Bore size (mm)	10	16	20	25	32	40
Acting type	Double acting					
Fluid	Air (to be filtered by 40 μ m filter element)					
Operating pressure	30~100psi (0.2~0.7MPa)					
Proof pressure	175psi (1.2MPa)					
Temperature $^{\circ}$ C	-20~70					
Speed range mm/s	50~500					
Stroke tolerance mm	0~250 ^{+1.0} ₀		251~1000 ^{+1.5} ₀		1001~ ^{+2.0} ₀	
Cushion type	Fixed cushion			Shock absorber (Available)		
Safe holding force N	55	140	220	345	560	880
Port size [Note1]	M5×0.8			1/8"		1/4"

[Note1] NPT thread is available.

Add) Refer to P535 for detail of sensor switch.



Guided rodless cylinder (Magnetic coupled / Ball bearing) **AIRTAC**

RMTL Series

Bore size: $\Phi 10$, $\Phi 16$, $\Phi 20$, $\Phi 25$, $\Phi 32$, $\Phi 40$

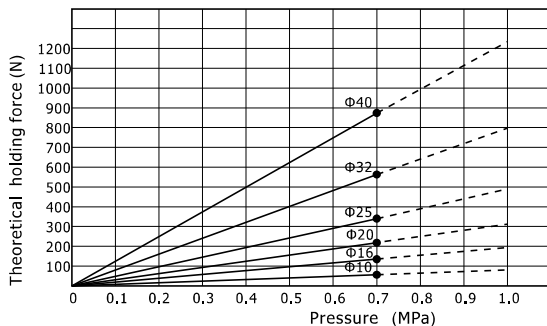
Product feature

1. This magnetic cylinder is basically a pneumatic rodless cylinder featuring a mobile piston fitted with annular magnets. The mobile carriage is also equipped with magnets to provide magnetic coupling (carriage/piston). The carriage slide freely along the main tube.
2. It is dust-proof as the isolation between the carriage and piston.
3. It is compact in space.
4. The non adjustable rubber bumpers and the adjustable pneumatic cushioning on both ends of the cylinder ensure the smooth action. If shock absorber be used, the cushioning effect is more perfection.
5. Double guides ensure high precision and can endure proper side load or offset load.
6. Non-magnetically conductive materials are recommended for workpieces fitted to the cylinder, otherwise the lifetime may be halved if magnetically conductive materials are used.

Installation and application

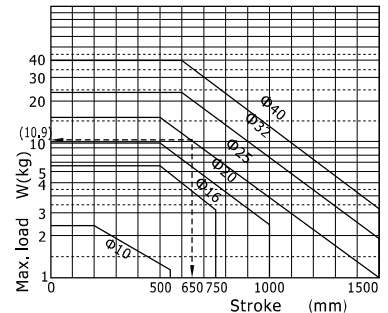
1. How to determine load

The maxi load to move must be less than the theoretical holding force.



The relation between loading and stroke as below
(Loading center and slide table center must be superposition)

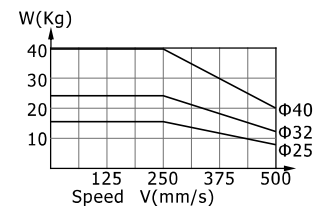
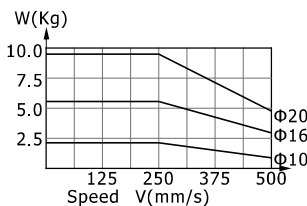
Bore size	Max. Load W(kg)	Stroke scope
10	2.4	~200mm
16	5.6	~300mm
20	9.6	~500mm
25	16	~500mm
32	24	~600mm
40	40	~600mm



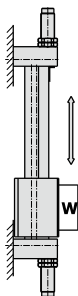
In horizontal movement, please choose proper bore size based on Load-Velocity chart

- Find required load
- Find moving velocity
- Choose proper spec based on Load-Velocity chart

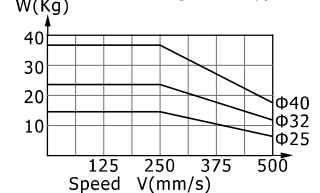
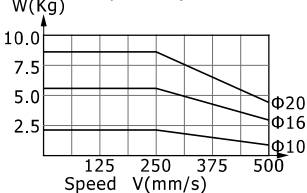
Load-Velocity chart (Load in horizontal movement and moving velocity)



1.3. Load-Velocity chart (Load in vertical movement and moving velocity)



Load-Velocity chart (Load in vertical movement and moving velocity)



Guided rodless cylinder(Magnetic coupled /Ball bearing) **AIRTAC**

RMTL Series

Bore size: $\Phi 10$, $\Phi 16$, $\Phi 20$, $\Phi 25$, $\Phi 32$, $\Phi 40$

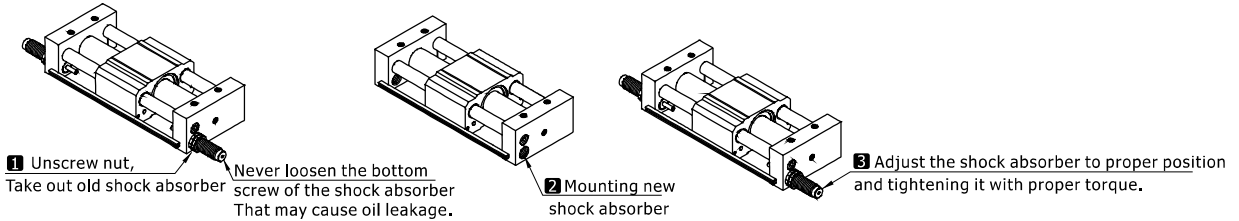
2. About shock absorber

2.1) Shock absorbers are consumable parts. When a decrease in energy absorption capacity is noticed, it must be replaced.

Refer to the table below for shock absorber type.

2.2) Never loosen the bottom screw of the shock absorber. (It is not an adjustment screw.) That may cause oil leakage.

2.3) Refer to the table below for tightening torques of the shock absorber setting nut.

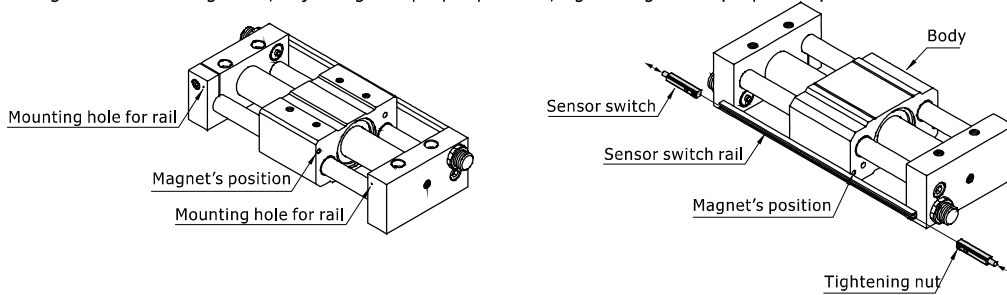


Bore size	10	16	20	25	32	40
Shock absorber type	ACA0806-1N	ACA1006-A	ACA1007-1N	ACA1412-1N	ACA2020-1N	ACA2020-1N
Tightening torque(Nm)	1.67	1.67	1.67	3.14	10.80	10.80

3. About sensor switch

3.1) Sensor switch only can be used for the cylinder with magnet . The magnet located the four corner of body's(refer below) .

The cylinder with magnet have both group mounting hole for mounting rail. please refer to below for ordering sensor switch, mounting it into the rail's groove, adjusting it to proper position, tightening it with proper torque.

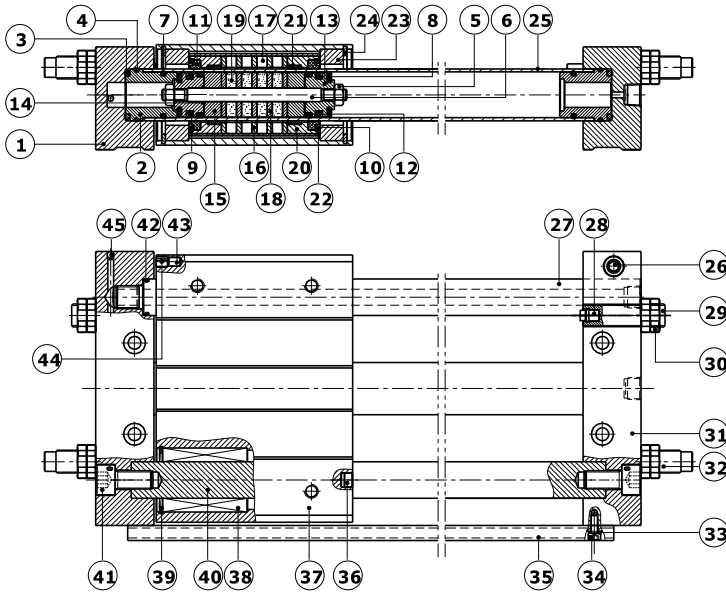


Guided rodless cylinder(Magnetic coupled /Ball bearing) **AIRTAC**

RMTL Series

Bore size: $\Phi 10, \Phi 16, \Phi 20, \Phi 25, \Phi 32, \Phi 40$

Inner structure

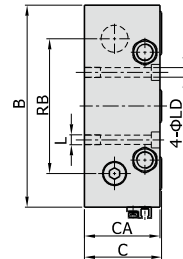
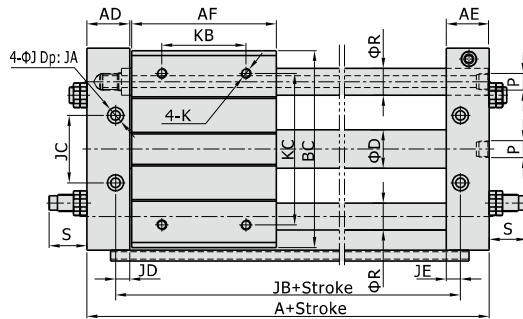


NO.	Item	NO.	Item
1	Fixing plate	24	C clip
2	Washer cover	25	Barrel
3	O-ring	26	Countersink screw
4	O-ring	27	Guide I
5	Nut	28	Bumper
6	Joint pole	29	Adjustable screw
7	O-ring	30	Nut
8	Bumper	31	Fixing plate
9	Piston seal	32	Shock absorber
10	O-ring	33	Spring washer
11	Scraping dust ring	34	Countersink screw
12	Wearing ring	35	Rail
13	Piston	36	Bumper block
14	O-ring	37	Body
15	Piston washer	38	Bushing
16	Magnet washer	39	C clip
17	Magnet	40	Guide II
18	Magnet washer	41	Countersink screw
19	Magnet	42	O-ring
20	Body cover	43	Magnet
21	Wearing ring	44	Location washer
22	Mobility iron	45	Steel ball
23	Washer		

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.

Dimensions



[Unit: mm]

Model	A	AD	AE	AF	B	BC	C	CA	D	J	JA	JB	JC	JD	JE
RMTL10	111	20.5	20.5	68	80	77	34	33	11.2	8	4	85	26	7.5	7.5
RMTL16	122	22.5	22.5	75	95	92	40	39	18	9.5	5	90	30	6.5	6.5
RMTL20	139	25.5	25.5	86	120	117	46	45	22.8	9.5	5	105	40	8.5	8.5
RMTL25	139	25.5	25.5	86	130	127	54	53	27.8	11	6.5	105	50	8.5	8.5
RMTL32	159	28.5	28.5	100	160	157	66	64	35	14	8	121	60	9.5	9.5
RMTL40	209	35.5	35.5	136	190	187	78	74	43	14	8	159	84	10.5	10.5

Model	K	KB	KC	L	LD	P	R	RB	S
RMTL10	M4X0.7Dp:8	30	60	M5X0.8Dp:9.5	4.5	M5X0.8	10	52	16.5
RMTL16	M5X0.8Dp:10	45	70	M6X1.0Dp:9.5	5.5	M5X0.8	12	65	14.5
RMTL20	M6X1.0Dp:10	50	90	M6X1.0Dp:10	5.5	1/8"	16	80	21.5
RMTL25	M6X1.0Dp:10	60	100	M8X1.25Dp:10	7	1/8"	16	90	39.5
RMTL32	M8X1.25Dp:12	70	120	M10X1.5Dp:15	8.5	1/8"	20	110	57.5
RMTL40	M8X1.25Dp:12	90	140	M10X1.5Dp:15	8.5	1/4"	25	130	49.5