MAL Series Aluminum alloy Mini Cylinder

MAL 25×50

MALJ 25×50–25

Ordering Code

MAL □ 20 × 50 — 25 — S — □

Serise Code
MAL: Double Action type
MSAL: Single Extrusion Type
MTAL:Single Drwing-in Type
MALD: Double-shaft Double Action Type
MALCD: Double-shaft Action Damping Type
MALJ:Double-shaft And Adjustable Stroke Type
MALC:With Cushion Type

Back Cover Type
Blank:Fishtail type
CM:Rounded type
U:Horizontal type

Cylinder Bore
16mm~40mm

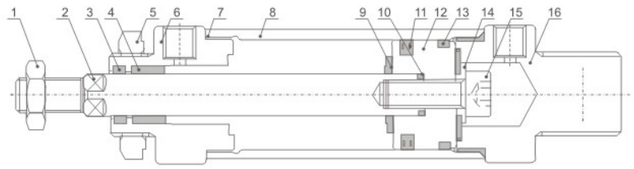
Stroke

Adjustable Stroke Type
0~100mm

Magnet Code
Blank:Without Magnet
S:With Magnet

Fixed Type
Blank:Normal type
LB:Front and back fixed type
FA:Front cover fixed type
SDB:Back cover swinging type

Internal structure



NO	Designation	NO	Designation
1	Piston Rod Nut	2	Piston Rod
3	Front Cover Seal Ring	4	Oiled Bearing
5	Front Cover Nut	6	Front Cover
7	Pipe wall O-ring	8	Aluminum tube
9	Anti-crash cushion	10	Piston rod O-Ring
11	Piston O-Ring	12	Piston
13	Wear ring	14	Back cushion
15	Hex socket screw	16	Back Cover

Specifcation

Bore(mm)		16	20	25	32	40
Motion pattern		Double Action or Single Action				
Working Medium		Air				
Fixed Type		Normal Type LB Type FA Type SDB Type				
Operating Pressure Range		0.1~0.9MPa				
Ensured Pressure Resistance		1.35MPa				
Operating Temperature Range		-5~70℃				
Operating Speed Range		30~800mm/s				
Buffer Type	Standard Type	Anti-crash cushion				
	Damping Type	-	Adjustable cushion			
Port Size		M5×0.8	G1/8"	G1/8"	G1/8"	G1/4"

■ Our Company can also make flat for cylinder covers inlet and outlet position. If you require this, it should be specified.

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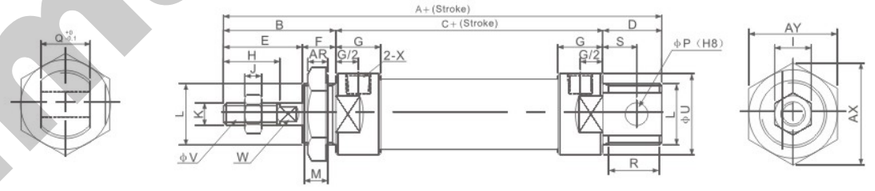
Stroke

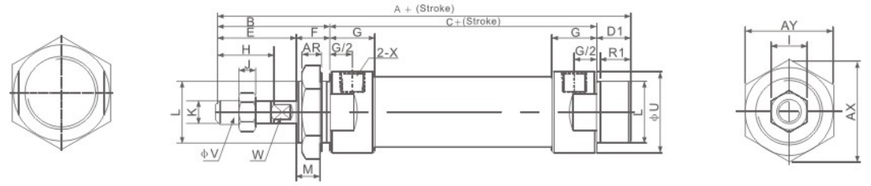
Bore(mm)	Standard Stroke	Max.Stroke	Permissible Stroke
16	25 50 75 80 100 125 160 175 200	300	500
20	25 50 75 80 100 125 160 175 200 250 300	500	650
25	25 50 75 80 100 125 160 175 200 250 300 350 400 450 500	500	650
32	25 50 75 80 100 125 160 175 200 250 300 350 400 450 500	500	650
40	25 50 75 80 100 125 160 175 200 250 300 350 400 450 500	500	650

Overall Dimensions

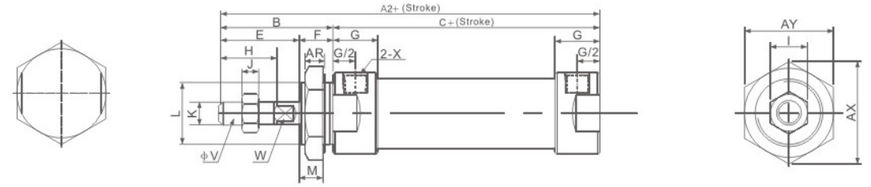
MAL



MAL–CM



MAL–U



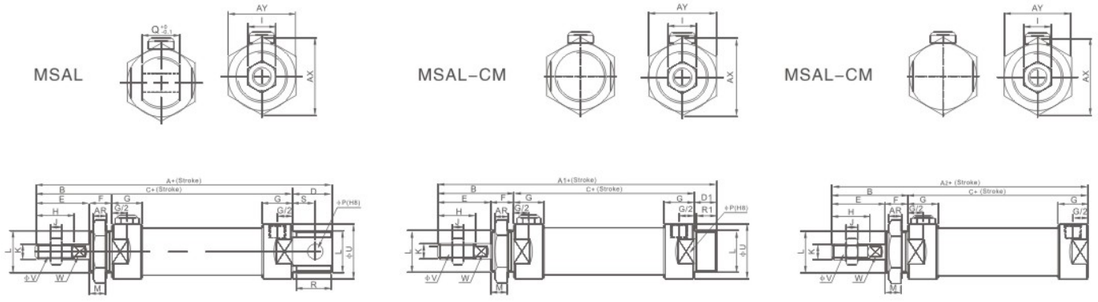
Dimension Sheet

Bore/Symbol	A	A1	A2	B	C	D	D1	E	F	G	H	I	J	K
16	110	114	98	38	56	16	16	22	16	10	16	10	5	M6×1
20	131	122	110	40	70	21	12	28	12	16	20	12	6	M8×1.25
25	135	128	114	44	70	21	14	30	14	16	22	17	6	M10×1.25
32	141	128	114	44	70	27	14	30	14	16	22	17	6	M10×1.25
40	165	152	138	46	92	27	14	32	14	22	24	17	7	M12×1.25

Bore/Symbol	L	M	P	Q	R	R1	S	U	V	W	X	AR	AX	AY
16	M16×1.5	14	6	12	14	14	9	24	6	5	M5	6	25	22
20	M22×1.5	10	8	16	19	10	12	29	8	6	G1/8"	7	33	29
25	M22×1.5	1	8	16	19	12	12	34	10	8	G1/8"	7	33	29
32	M24×2.0	12	10	16	25	12	15	39.5	12	10	G1/8"	8	37	32
40	M30×2.0	12	12	20	25	12	15	49.5	16	14	G1/4"	9	37	41

MAL Series Aluminum alloy Mini Cylinder

Overall Dimensions



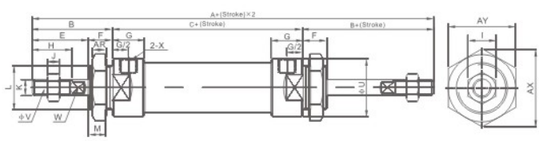
Dimension Sheet

Symbol / Bore/Stroke	A 0-50	A 51-100	A1 0-50	A1 51-100	A2 0-50	A2 51-100	B	C 0-50	C 51-100	D	D1	E	F	G	H	I	J
20	131	156	122	147	110	135	40	70	95	21	12	28	12	16	20	12	6
25	135	160	160	153	114	139	44	70	95	21	14	30	14	16	22	17	6
32	141	166	166	153	114	139	44	70	95	27	14	30	14	16	22	17	6
40	165	190	190	177	138	163	46	92	117	27	14	32	14	22	24	17	7

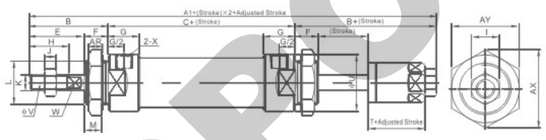
Inside Diameter/Symbol	K	L	M	P	Q	R	R1	S	U	V	W	X	AR	AX	AY
20	M8×1.25	M22×1.5	10	8	16	19	10	12	29	8	6	G1/8"	7	33	29
25	M10×1.25	M22×1.5	12	8	16	19	12	12	34	10	8	G1/8"	7	33	29
32	M10×1.25	M24×2.0	12	10	16	25	12	15	39.5	12	10	G1/8"	8	37	32
40	M12×1.25	M30×2.0	12	12	20	25	12	15	49.5	16	14	G1/4"	9	47	41

Overall Dimensions

MALD



MALJ



Dimension Sheet

Inside Diameter/Symbol	A	A1	B	C	E	F	G	H	I	I	K
20	150	147	40	70	28	12	16	20	12	6	M8×1.25
25	158	155	44	70	30	14	16	22	17	6	M10×1.25
32	158	155	44	70	30	14	16	22	17	6	M10×1.25
40	184	180	46	92	32	14	22	24	17	7	M12×1.25

Inside Diameter/Symbol	L	M	U	V	W	X	AR	AX	AY	T
20	M22×1.5	10	29	8	6	G1/8"	7	33	29	19
25	M22×1.5	12	34	10	8	G1/8"	7	33	29	21
32	M24×1.5	12	39.5	12	10	G1/8"	8	37	32	21
40	M30×2.0	12	49.5	16	14	G1/4"	9	47	41	21

CM2 Series Stainless Steel mini Cylinder

Ordering Code

CM2 — 32 × 150 — A

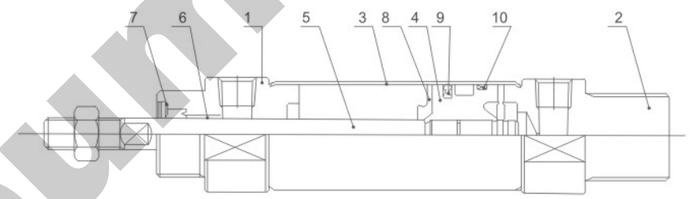
Series Code
CM2B:Normal Type
CDM2B:Attach magnet Type

Cylinder Bore
20mm-40mm

Stroke
0~1000mm

Buffer
Blank:Rubber Buffer
A:Air Buffer

Internal structure

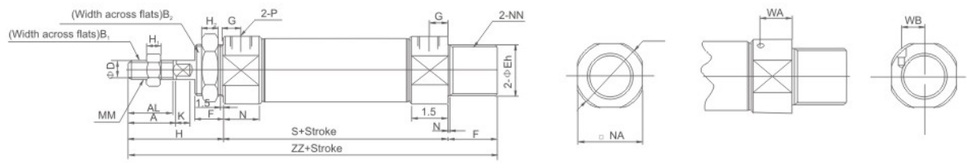


NO.	Designation
1	Front Cover
2	Back Cover
3	Barrel
4	Piston
5	Piston rod
6	Oiled Bearing
7	Front Cover Seal Ring
8	Anti-crash cushion
9	Piston Seal
10	Wear Ring

Specifcation

Bore(mm)	20	25	32	40
Working Medium	Air			
Motion Pattern	Double action			
Ensured Pressure Resistance	15.3kgf/cm²(1.5Mpa)			
Max.pressure	10.2kgf/cm²(1.0Mpa)			
Min.pressure	0.5kgf/cm²(0.05Mpa)			
Operating Temperature Range	-10~+70℃			
Operating Speed Range	50~750mm/s			
Buffering	Rubber buffer(Standard),Air buffer(Optional)			
Margin of Stroke Error(mm)	+1.4 0mm			
Port size	G1/8"	G1/8"	G1/8"	G1/4"

Overall Dimensions



Dimension Sheet

Diameter	Stroke range	A	AL	B1	B2	D	E	F	G	H	H1	H2	I	K	MM	N	NA	NN	P	S	ZZ	WA	WB
20	~300	18	15.5	13	26	8	20 $^{0}_{-0.033}$	13	8	41	5	8	28	5	M8×1.25	15	24	M20×1.5	1/8	62	116	11.5	8.5
25	~300	22	19.5	17	32	10	26 $^{0}_{-0.033}$	13	8	45	6	8	33.5	5.5	M10×1.25	15	30	M26×1.5	1/8	62	120	11.5	10
32	~300	22	19.5	17	32	12	26 $^{0}_{-0.033}$	13	8	45	6	8	37.5	5.5	M10×1.25	15	34.5	M26×1.5	1/8	64	122	11.5	11.5
40	~300	24	21	22	41	14	32 $^{0}_{-0.033}$	16	11	50	6	10	46.5	7	M14×1.5	21.5	42.5	M32×2	1/4	88	154	14	15