

MAL Series Aluminum Alloy Mini Cylinder:



1. Ordering Code :

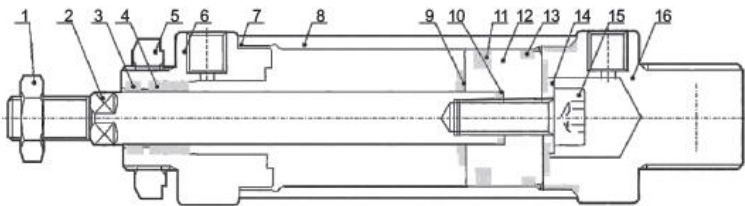
MAL	-	□	20 X	50	-	25	-	S	-	LB
↑		↑	↑	↑		↑		↑		↑
Model		Blank: Fishtail type	Bore size	Stroke		Adjust stroke 0~100mm		S: with magnet Blank: no magnet		Fixed type Blank: Basic type LB: Foot mounting type FA: Front flange mounting type SDB: Back cover fixed type

MAL: Double action type CM: Rounded type
 MSAL: Single spring return type U: Horizontal type
 MALC: With cushion type
 MALD: Two axis double action type
 MALCD: Two axis double action with damping type
 MALJ: Two axis double action type with stroke adjustable

2. Characteristics:

- 1) This series of stainless steel mini cylinder conforms to: Airtac standard
- 3) We can offer different kinds of mounting style according to standard, like Foot mounting, Front flange mounting, Rear-flange mounting, and so on.
- 4) Different thread type can be offered according to customers' requirements, e.g.: BSP, NPT etc.
- 5) Needn't lubricate on piston rod by oil

3. 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	/Seal cushion
15	Hex socket screw	16	/Back Over

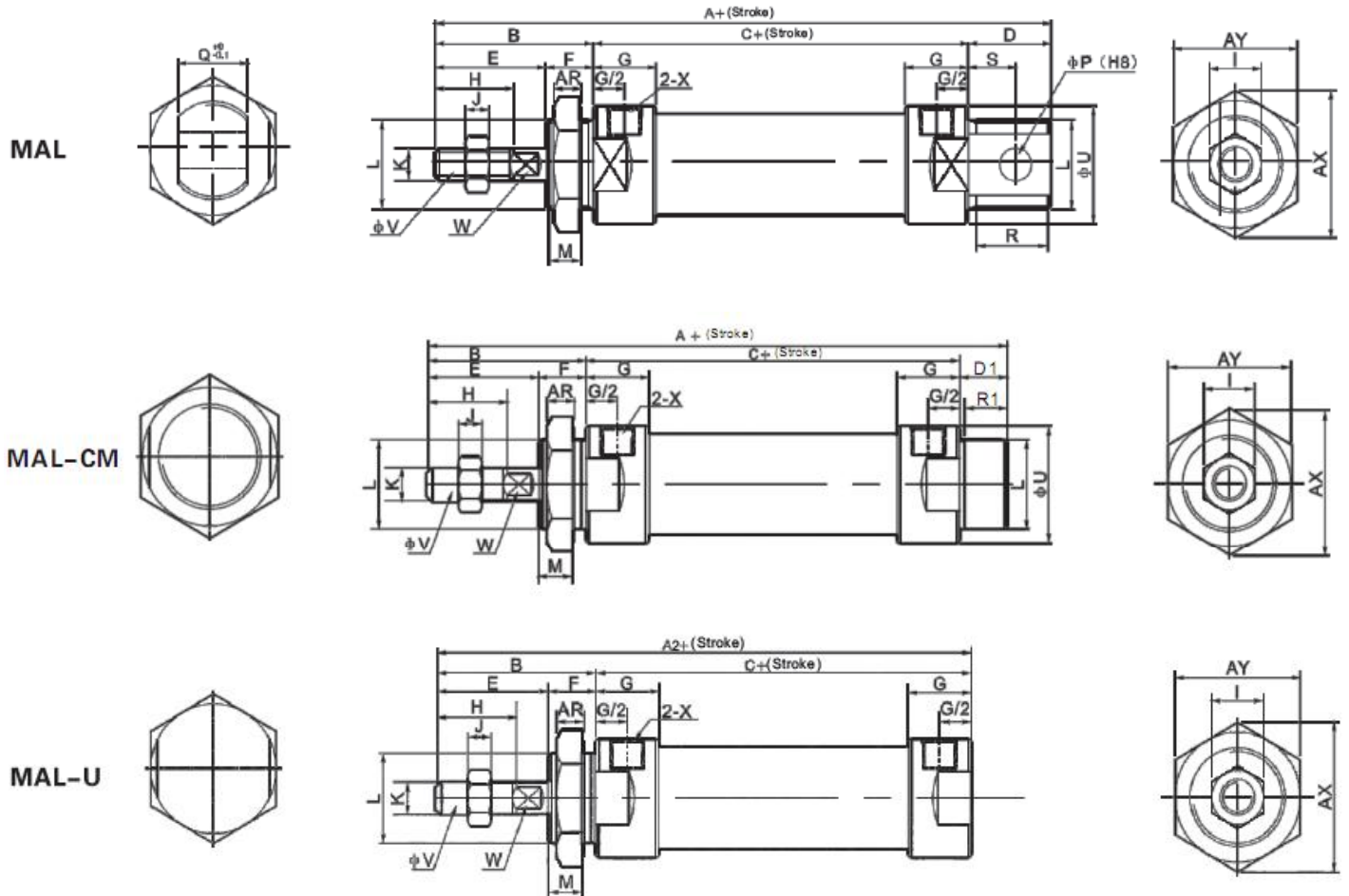
4. Specification:

Bore(mm)	16	20	25	32	40
Motion pattern	Double Action or Single Action				
Working Medium	Air				
Fixed Type	Normal Type LB Type FAType SDB Type				
Operating Voltage 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"		G1/4"

5. 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

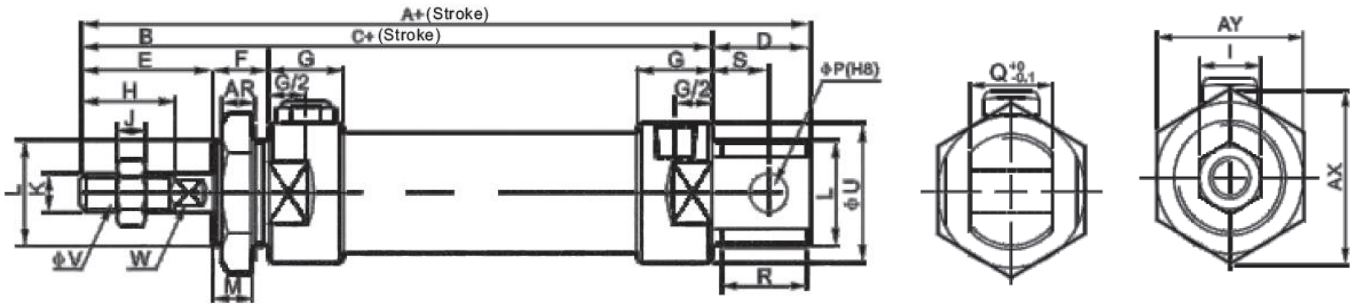
6. Overall and Dimension Sheet:



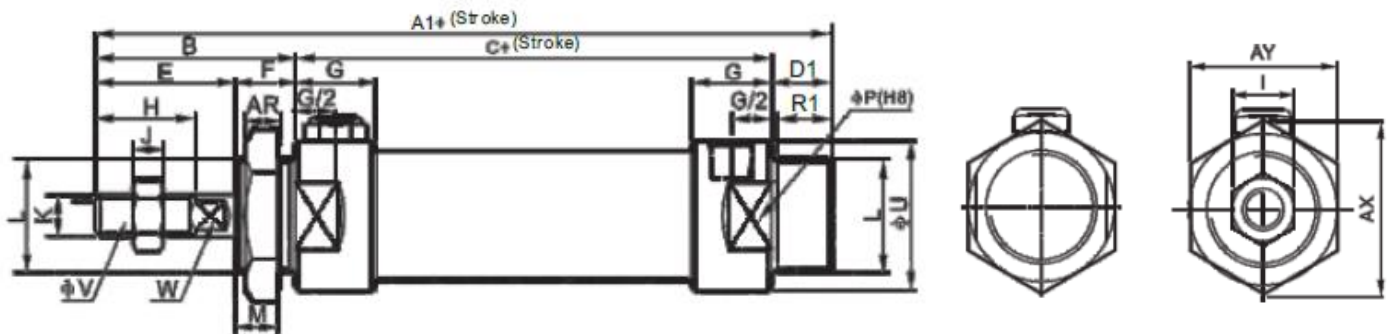
Bore/Symbol	A	A1	A2	B	C	D	D1	E	F	G	H	I	J	K
16	114	114	98	38	60	16	16	22	16	10	16	10	5	M6×1
20	131	122	110	40	70	21	12	28	12	16	20	12	6	M8×1.25
25	135	128	114	44	70	21	14	30	14	16	22	17	6	M10×1.25
32	141	128	114	44	70	27	14	30	14	16	22	17	6	M10×1.25
40	165	152	138	45	92	27	14	32	14	22	24	17	7	M12×1.25

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	21	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	12	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

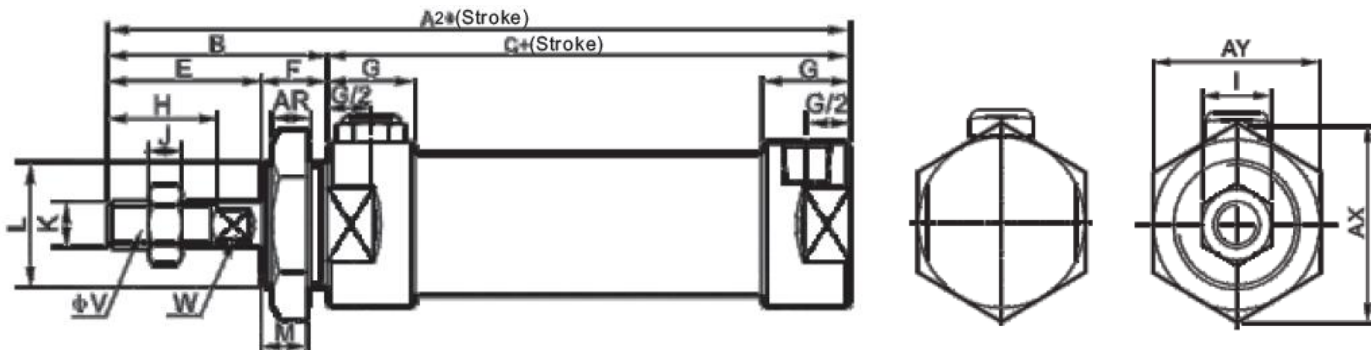
MSAL:



MSAL-CM:



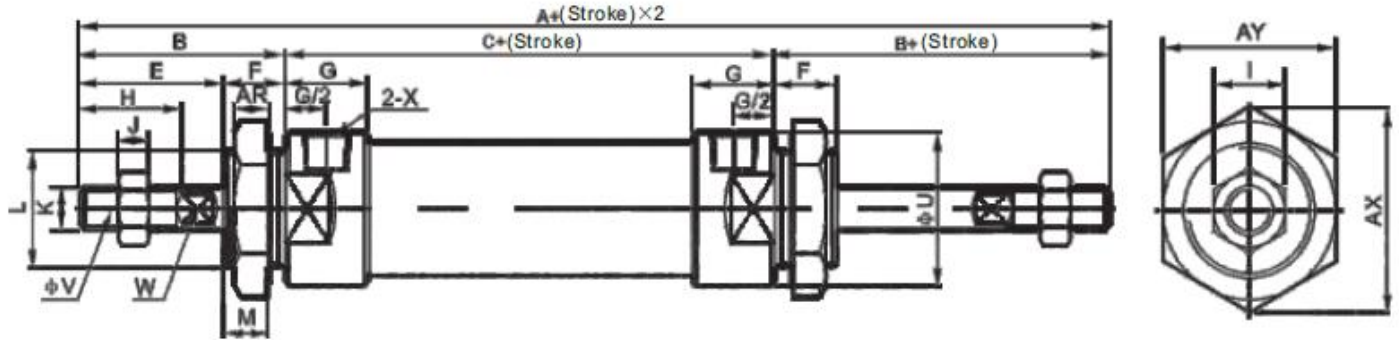
MSAL-U:



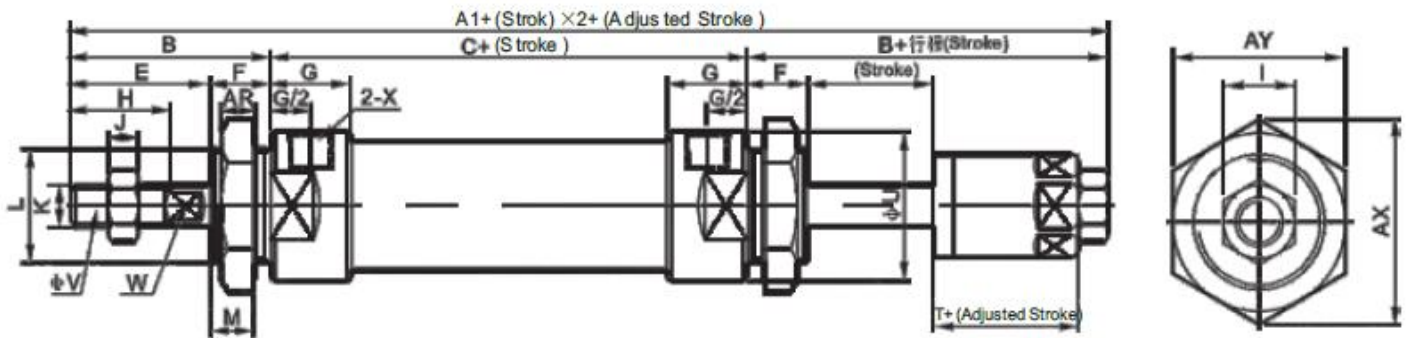
Symbol Bore/Stroke	A		A1		A2		B	C		D	D1	E	F	G	H	I	J
	0-50	51-100	0-50	51-100	0-50	51-100		0-50	51-100								
20	131	156	122	147	110	135	40	70	95	21	12	28	12	16	20	12	6
25	135	160	160	153	114	139	44	70	95	21	14	30	14	16	22	17	6
32	141	166	166	153	114	139	44	70	95	27	14	30	14	16	22	17	6
40	165	190	190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

MALD:



MALJ:



Inside Diameter/Symbol	A	A1	B	C	E	F	G	H	I	J	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