

### Features

1. Improving for adapting wide range applications, using precise polishing of piston rod, more sense of products quality and longer life of front seal.
2. Optima design and improve the production efficiency.
3. Combined with enterprise color planning and new structure design.
4. Using embedded gasket , increase the pressured area of pistons after collision.



### Ordering Code

MAL	U	32	x	50	-	25	-	S	-	E	-	LB	-	MT
Series	Back Form	Bore	Stroke	Adjustable stroke	Magnet	Piston rod Material	Mountings	Sensor						
MAL : Double Acting	Blank: Standard with eye mounting	16			S: With magnet	Blank: Carbon steel	Blank: Basic mountings	JEL-03R						
MSAL : Single Acting Spring-out	CM: Standard with round back cover	20			Blank: Without magnet	E: Stainless steel	LB: Front and back mounting							
MTAL : Single Acting Spring-in	U: Standard with flat back cover	25					FA: Front mounting flange							
MALD : Double-shaft		32					FB: Back mounting flange							
MALJ : Double-shaft with adjustable stroke		40					SDB: Back hinge							

### Specification

Bore(mm)	16	20	25	32	40
Operation	Double Acting or Single Acting				
Working Medium	Air				
Mountings	Basic LB FA FB SDB				
Operating Pressure Range	0.1 ~ 1.0Mpa				
Proof Pressure	1.5 Mpa				
Operating Temperature Range	-20 ~ 70°C				
Operating Speed Range	50 ~ 800mm/s				
Cushion	Gasket Cushion				
Port Size	M5×0.8"	G1/8"			G1/4"

# MAL Series

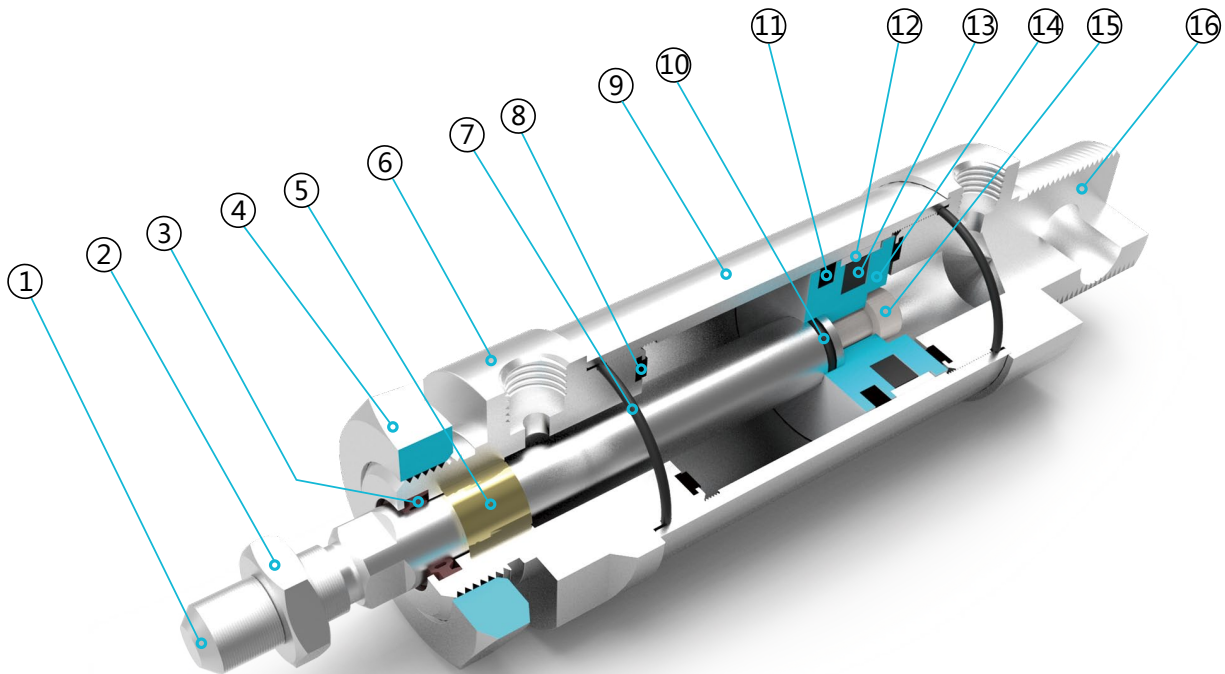
## Aluminum Alloy Mini Cylinder



We make the difference

- NEW
- 5V100
- 5V200
- 5V300
- 5V400
- JSY
- JEL10
- JEL-JN
- 551
- 4F210
- JELVD
- DN
- DSN
- DN/DSN A
- MA
- MAC
- MA/MAC A
- MAL**
- MALC
- MAL/MALC A
- SDA

### Internal Structure

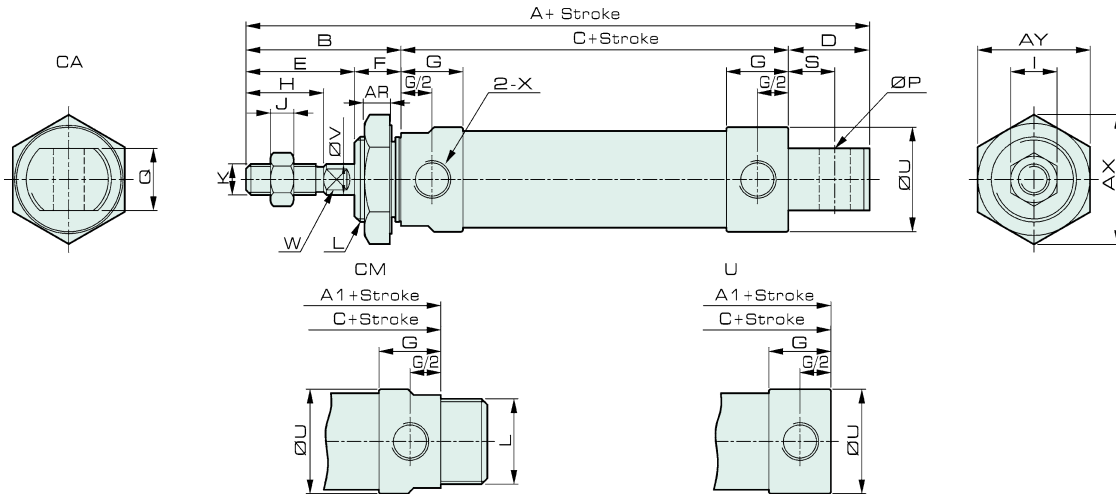


### Parts

Number	Name	Number	Name
1	Piston rod	9	Barrel
2	Hexagon nut	10	O ring
3	Shaft seal	11	Piston seal
4	Hexagon nut	12	Anti-friction seal
5	DU bearing	13	Magnet
6	Front cover	14	Piston
7	O ring	15	Socket head cap screw
8	Anti-collision gasket	16	Back cover

### Overall Dimension

#### MAL



Cylinder with or without magnet is the same size

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JELVD  
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DSN  
DN/DSN A.  
MA  
MAC  
MA/MAC A.  
MAL  
MALC  
MAL/MAC A.  
SDA

### Dimension

Bore/ Symbol	A	A1	B	C	D	D1	E	F	G	G1	H	I	J	K
16	105	90	38	52	15	12	24	14	11	6.5	16	10	5	M6×1
20	131	110	40	70	21	12	28	12	16	12	20	12	6	M8×1.25
25	135	114	44	70	21	14	30	14	16	11	22	17	6	M10×1.25
32	141	114	44	70	27	14	30	14	16	11.5	22	17	6	M10×1.25
40	165	138	46	92	27	14	32	14	22	15	24	19	7	M12×1.25

Bore/ Symbol	L	P	Q	S	U	V	W	X	AR	AX	AY	Y
16	M16×1.5	6	12	6	21	6	5	M5×0.8	6	27.8	24	6
20	M22×1.5	8	16	12	27	8	6	G1/8	7	33.5	29	9
25	M22×1.5	8	16	12	32	10	8	G1/8	7	33.5	29	9
32	M24×2	10	16	15	39.5	12	10	G1/8	9	37	32	11.5
40	M30×2	12	20	15	47	16	14	G1/4	9	46	40	14

# MAL Series

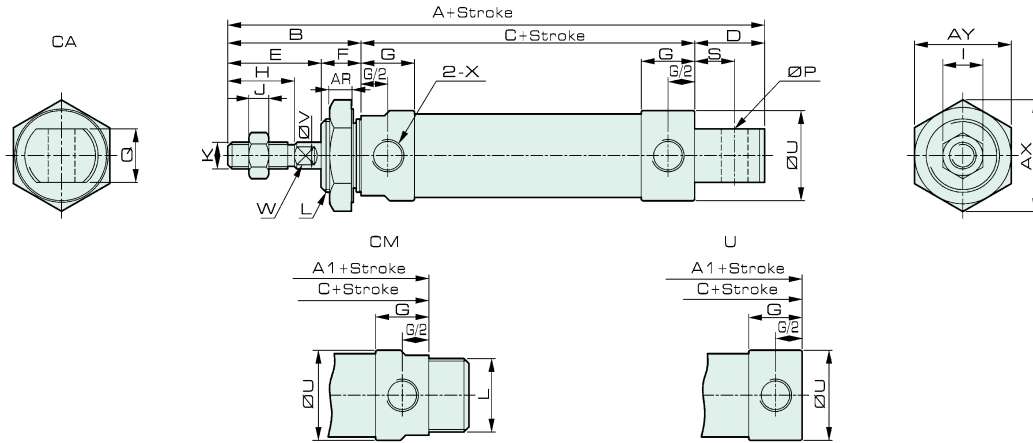
## Aluminum Alloy Mini Cylinder



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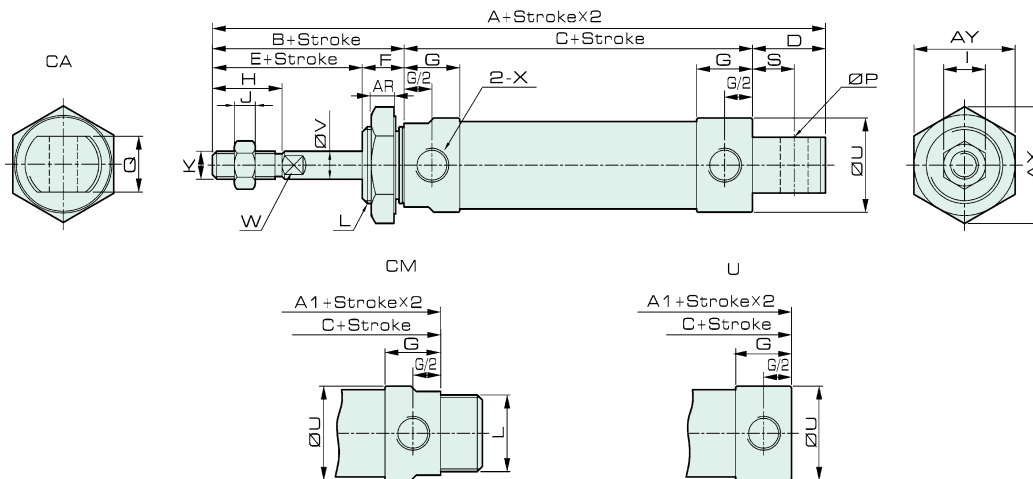
### Overall Dimension

#### MSAL



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#### MTAL



Cylinder with or without magnet is the same size

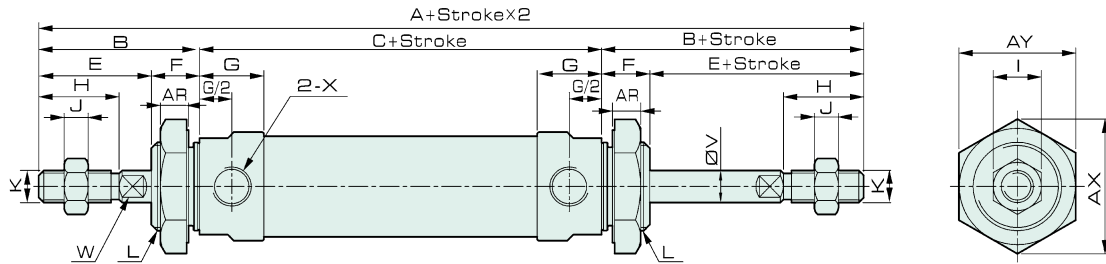
### Dimension

Symbol	A			A1			B	C			D	D1	E	F	G
	Bore/Stroke	0-50	50-100	100-150	0-50	50-100		100-150	0-50	50-100					
16	130	155	-	115	140	-	38	77	102	-	15	12	24	14	11
20	156	181	206	135	160	185	40	95	120	145	21	12	28	12	16
25	160	185	210	139	164	189	44	95	120	145	21	14	30	14	16
32	166	191	216	139	164	189	44	95	120	145	27	14	30	14	16
40	190	215	240	163	188	213	46	117	142	167	27	14	32	14	22

Bore/Symbol	H	I	J	K	L	P	Q	S	U	V	W	X	AR	AX	AY
16	16	10	5	M6×1	M16×1.5	6	12	6	21	6	5	M5×0.8	6	27.8	24
20	20	12	6	M8×1.25	M22×1.5	8	16	12	27	8	6	G1/8	7	33.5	29
25	22	17	6	M10×1.25	M22×1.5	8	16	12	32	10	8	G1/8	7	33.5	29
32	22	17	6	M10×1.25	M24×2	10	16	15	39.5	12	10	G1/8	9	37	32
40	24	19	7	M12×1.25	M30×2	12	20	15	47	16	14	G1/4	9	46	40

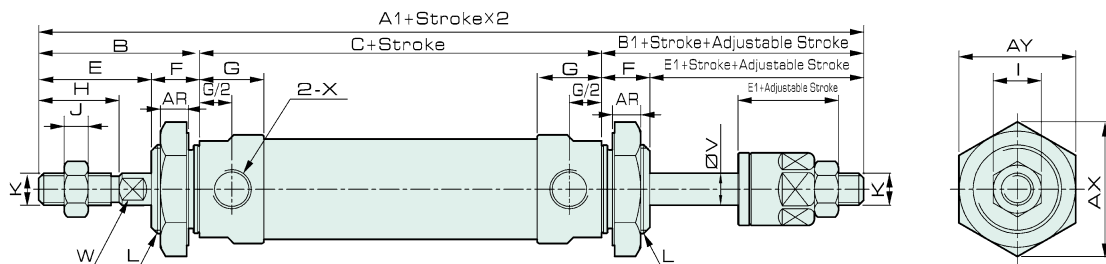
### Overall Dimension

#### MALD



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#### MALJ



Cylinder with or without magnet is the same size

### Dimension

Bore/ Symbol	A	A1	B	B1	C	E	E1	F	G	G1	H	I	J	K	L	U	V	W	X	AR	AX	AY	Y
16	128	125	38	35	52	24	21	14	11	6.5	16	10	5	M6×1	M16×1.5	21	6	5	M5×0.8	6	27.8	24	6
20	150	147	40	37	70	28	25	12	16	12	20	12	6	M8×1.25	M22×1.5	27	8	6	G1/8	7	33.5	29	9
25	158	155	44	41	70	30	27	14	16	11	22	17	6	M10×1.25	M22×1.5	32	10	8	G1/8	7	33.5	29	9
32	158	155	44	41	70	30	27	14	16	11.5	22	17	6	M10×1.25	M24×2	39.5	12	10	G1/8	9	37	32	11.5
40	184	180	46	42	92	32	28	14	22	15	24	19	7	M12×1.25	M30×2	47	16	14	G1/4	9	46	40	14

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