

ISO 6432 Stainless Steel Mini Cylinders



Installation & Application

Cylinder should be sized according to work load.

Cylinders should be protected from dirty environments.

Dirty substances in the pipe must be cleared away before cylinder is connected with pipeline to prevent the entrance of sundries into the cylinder.

Use only clean filtered air to 40 μm (lubricated if necessary).

Anti-freezing measure shall be adopted under low temperature environments to prevent moisture freezing.

Test cylinder under no load, prior to first run, turn buffer adjustment to minimum and gradually increase to avoid damage.

In order for the cylinder to achieve long service life, do not side load cylinder.

When the cylinder with magnet is selected and used, it is suggested to use KELM sensor to avoid detecting failure.



Thrust Data

Unit: Newton (N)

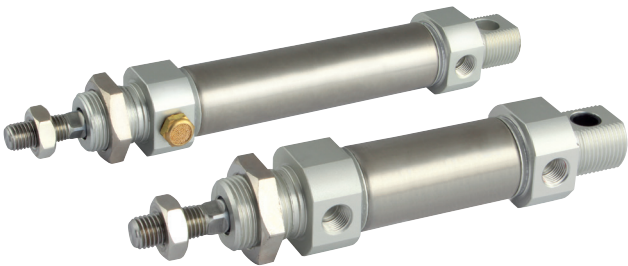
Bore mm	Rod mm	Type	Pressure area mm ²	Operating Pressure MPa						
				0.1	0.2	0.3	0.4	0.5	0.6	0.7
8	4	Single Acting-Push type	50.2	-	3.6	8.6	13.6	18.6	23.6	28.7
		Single Acting-Pull type	37.7	-	1.0	4.8	8.6	12.3	16.1	19.9
		Double Acting Push side	50.2	5.0	10.1	15.1	20.1	25.1	30.1	35.2
		Double Acting Pull side	37.7	3.8	7.5	11.3	15.1	18.8	22.6	26.4
10	4	Single Acting-Push type	78.5	-	5.9	13.8	21.6	29.5	37.3	45.2
		Single Acting-Pull type	65.9	-	3.4	10.0	16.6	23.2	29.8	36.4
		Double Acting Push side	78.5	7.9	15.7	23.6	31.4	39.3	47.1	55.0
		Double Acting Pull side	65.9	6.6	13.2	19.8	26.4	33.0	39.6	46.2
12	6	Single Acting-Push type	113.0	-	10.1	21.4	32.7	44.0	55.3	66.6
		Single Acting-Pull type	84.8	-	4.5	12.9	21.4	29.9	38.4	46.9
		Double Acting Push side	113.0	11.3	22.6	33.9	45.2	56.5	67.8	79.1
		Double Acting Pull side	84.8	8.5	17.0	25.4	33.9	42.4	50.9	59.4
16	6	Single Acting-Push type	201.0	-	14.6	34.7	54.8	74.9	95.0	115.1
		Single Acting-Pull type	172.7	-	8.9	26.2	43.5	60.8	78.0	95.3
		Double Acting Push side	201.0	20.1	40.2	60.3	80.4	100.5	120.6	140.7
		Double Acting Pull side	172.7	17.3	34.5	51.8	69.1	86.4	103.6	120.9
20	8	Single Acting-Push type	314.0	-	25.3	56.7	88.1	119.5	150.9	182.3
		Single Acting-Pull type	263.8	-	15.3	41.6	68.0	94.4	120.8	147.1
		Double Acting Push side	314.0	31.4	62.8	94.2	125.6	157.0	188.4	219.8
		Double Acting Pull side	263.8	26.4	52.8	79.1	105.5	131.9	158.3	184.6
25	10	Single Acting-Push type	490.6	-	43.1	92.2	141.3	190.3	239.3	288.4
		Single Acting-Pull type	412.1	-	27.4	68.6	109.8	151.1	192.3	233.5
		Double Acting Push side	490.6	49.1	98.1	147.2	196.3	245.3	294.4	343.4
		Double Acting Pull side	412.1	41.2	82.4	123.6	164.9	206.1	247.3	288.5
32	12	Single Acting-Push type	804.3	30.2	110.9	191.3	277.1	352.1	432.6	513.0
		Single Acting-Pull type	691.2	19.1	88.2	157.4	226.5	295.6	364.7	388.8
		Double Acting Push side	804.3	80.2	160.9	241.3	327.1	402.1	482.6	563.0
		Double Acting Pull side	691.2	69.1	138.2	207.4	276.5	345.6	414.7	438.8
40	16	Single Acting-Push type	1256.6	64.7	190.3	316.0	441.7	567.3	693.0	818.7
		Single Acting-Pull type	1055.6	44.6	150.1	255.7	361.2	466.8	572.4	677.9
		Double Acting Push side	1256.6	125.7	251.3	377.0	502.7	628.3	754.0	879.7
		Double Acting Pull side	1055.6	105.6	211.1	316.7	422.2	527.8	633.4	738.9



ISO 6432 Stainless Steel Mini Cylinders

Specification

Bore Size mm		8	10	12	16	20	25	25	25
Acting Type		Double Acting type, Single Acting Push-type, Single Acting-Pull type							
		-			Double Acting with cushion type				
Fluid		Air (to be filtered by 40µm filter element)							
Operating Pressure	Double Acting	0.1 - 1.0MPa (14 - 145psi)							
	Single Acting	0.2 - 1.0MPa (28 - 145psi)							
Proof Pressure		1.5MPa (215psi)							
Temperature		-20 to +70°C							
Speed range mm/s		Double Acting type 30-800				Single Acting type 50-800			
Stroke tolerance		0-150+ ^{1.0} ₀				>150+ ^{1.0} ₀			
Cushion type		KB Series Variable All other series Bumper							
Port		M5 x 0.8				1/8"			1/4"



G thread as standard, PT & NPT are available on request

Ordering Code

KC

—

10

X

40

—

S

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CA

1.

Model

Bore size

Stroke

Back cover

KA : Mini Cylinder (Double Acting type)

KB : Mini Cylinder (Double Acting with cushion type)

KC : Mini Cylinder (Single Acting-Push type)

KD : Mini Cylinder (Single Acting-Pull type)

Magnet

s : with magnet

Blank : Without magnet

Back cover type

Adaptable bore size

CA : Pivot type

8, 10, 12, 16, 20, 25

U : Perpendicular 90°

8, 10, 12, 16, 20, 25, 32, 40

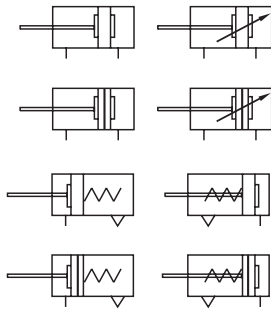
R ; Axial air-in

16, 20, 25, 32, 40

CM : Round-end type

16, 20, 25, 32, 40

Symbols



Available Strokes

Bore size mm		Standard stroke mm	Max Stroke mm
Double Acting	8	10 15 20 25 30 40 0 60 75 80 100 125 150	150
	10	10 15 20 25 30 40 0 60 75 80 100 125 150 160 175 200	200
	12	10 15 20 25 30 40 0 60 75 80 100 125 150 160 175 200 250	250
	16	10 15 20 25 30 40 0 60 75 80 100 125 150 160 175 200 250 300	300
	20		500
	25		600
	32		600
	40		600
Single Acting	8		-
	10	10 15 20 25 30 40 50	-
	12		-
	16	10 15 20 25 30 40 50 60 75 80 100	-
	20		-
	25		-
	32	10 15 20 25 30 40 50 60 75 80 100 125 150	-
	40		-

Product Features

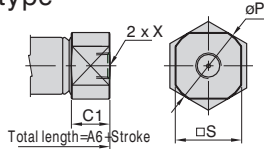
- In accordance with ISO6432 standard.
- Front and rear cap cushioning.
- There are several versions of back end cap, which makes the installation of cylinders more convenient.
- Crimped end cap design.
- Piston rod and cylinder body stainless steel.
- There are cylinders and accessories with several specifications for installation for your choice.

ISO 6432 Stainless Steel Mini Cylinders

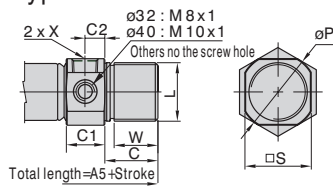
Dimensions

KA Series

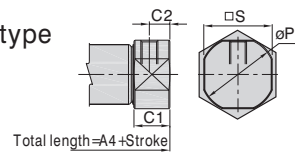
R type



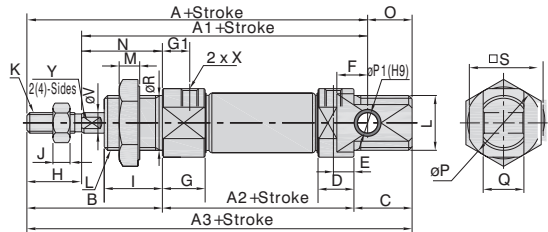
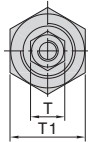
CM type



U type



CA type



Item Bore	A	A1	A2	A3	A4	A5	A6	B	C	C1	C2	D	E	F	G	G1	H	I
8	76	64	46	86	74	-	-	28	12	9.5	5	9.5	5	6	11.5	7	12	12
10	76	64	46	86	74	-	-	28	12	9.5	5	9.5	5	6	11.5	7	12	12
12	91	75	50	105	88	-	-	38	17	10.5	6	10.5	6	9	12.5	8	16	17
16	98	82	56	111	94	111	94	38	17	10.5	6	10.5	6	9	12.5	8	16	17
20	115	95	62	126	106	126	106	44	20	14.5	7.5	14.5	7.5	12	14.5	7.5	20	20
25	126	104	65	137	114.5	137	115	50	22	16	8	16	8	12	16	8	22	22
32	-	-	-	-	125	140	126	58	14	16.5	9	-	-	-	16.5	9	20	30
40	-	-	-	-	158	174	158	69	16	22	12	-	-	-	22	12	24	35

Item Bore	J	K	L	M	N	O	P	P1	Q	R	S	T	T1	X	V	W	Y
8	2.5	M4 x 0.7	M12 x 1.25	6	16	10	17	4	8	12	15	7	17	M5 x 0.8	4	-	-
10	2.5	M4 x 0.7	M12 x 1.25	6	16	10	17	4	8	12	15	7	17	M5 x 0.8	4	-	-
12	5	M6 x 1.0	M16 x 1.5	6	22	14	20	6	12	16	18	10	22	M5 x 0.8	6	-	5
16	5	M6 x 1.0	M16 x 1.5	6	22	13	22	6	12	16	20	10	22	M5 x 0.8	6	13.5	5
20	6	M8 x 1.25	M22 x 1.5	7	24	11	29	8	16	22	25	12	29	1/8"	8	16.5	6
25	6	M10 x 1.25	M22 x 1.5	7	28	11	33.5	8	16	22	30	17	29	1/8"	10	18.5	8
32	6	M10 x 1.25	M30 x 1.5	7	38	-	37.5	-	-	30	34.5	17	36	1/8"	12	10.5	10
40	7	M12 x 1.25	M38 x 1.5	8	45	-	46.5	-	-	38	42.5	17	46	1/4"	16	12.5	14

KB Series

$\phi 16 - \phi 25$

Bore/Item	A	A1	A2	A3	A4	A5	B	C	D
16	98	82	56	111	94	111	38	17	12.1
20	115	95	62	126	106	126	44	20	14.5
25	126	104	65	137	113.5	137	50	22	16

Bore/Item	D1	D2	D3	E	F	G	G1	G2
16	7	9	12.1	6	9	12.5	7.5	9.5
20	7.5	10.5	14.5	8	12	14.5	7.5	10.5
25	8	10.5	14.5	8	12	16	8	12

Bore/Item	H	I	J	K	L	M	O	N
16	16	17	5	M6 x 1.0	M16 x 1.5	6	13	22
20	20	20	6	M8 x 1.25	M22 x 1.5	7	11	24
25	22	22	6	M10 x 1.25	M22 x 1.5	7	11	28

Bore/Item	P	Q	R	S	T	T1	V	W	X
16	22	12	5	20	10	22	6	13.5	M5 x 0.8
20	29	16	6	25	12	29	8	16.5	1/8"
25	33.5	16	9	30	17	29	10	18.5	1/8"

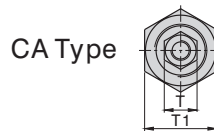
$\phi 32, \phi 40$

Bore/Item	A2	A4	A5	B	C	D	D1	D2	D3	D4
32	68	124	140	58	14	16.5	9	11.5	14.5	7.5
40	89	157.5	174	69	16	22	12	12	21.5	11.5

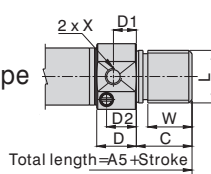
Bore/Item	D5	G	G1	G2	H	I	J	K
32	11	16.5	9	11.8	20	30	6	M10 x 1.25
40	14	22	12	12	24	35	7	M12 x 1.25

Bore/Item	L	M	N	P	S	T	T1	V	W	X
32	M30 x 1.5	7	38	37.5	34.5	17	36	12	10.5	1/8"
40	M38 x 1.5	8	45	46.5	42.5	17	46	16	12.5	1/4"

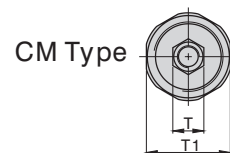
CA Type



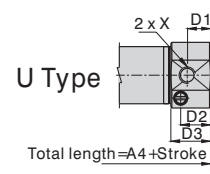
CM Type



CM Type

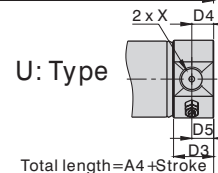


U Type



Remark : The dimensions of magnet type cylinder are the same as non-magnet type cylinder.

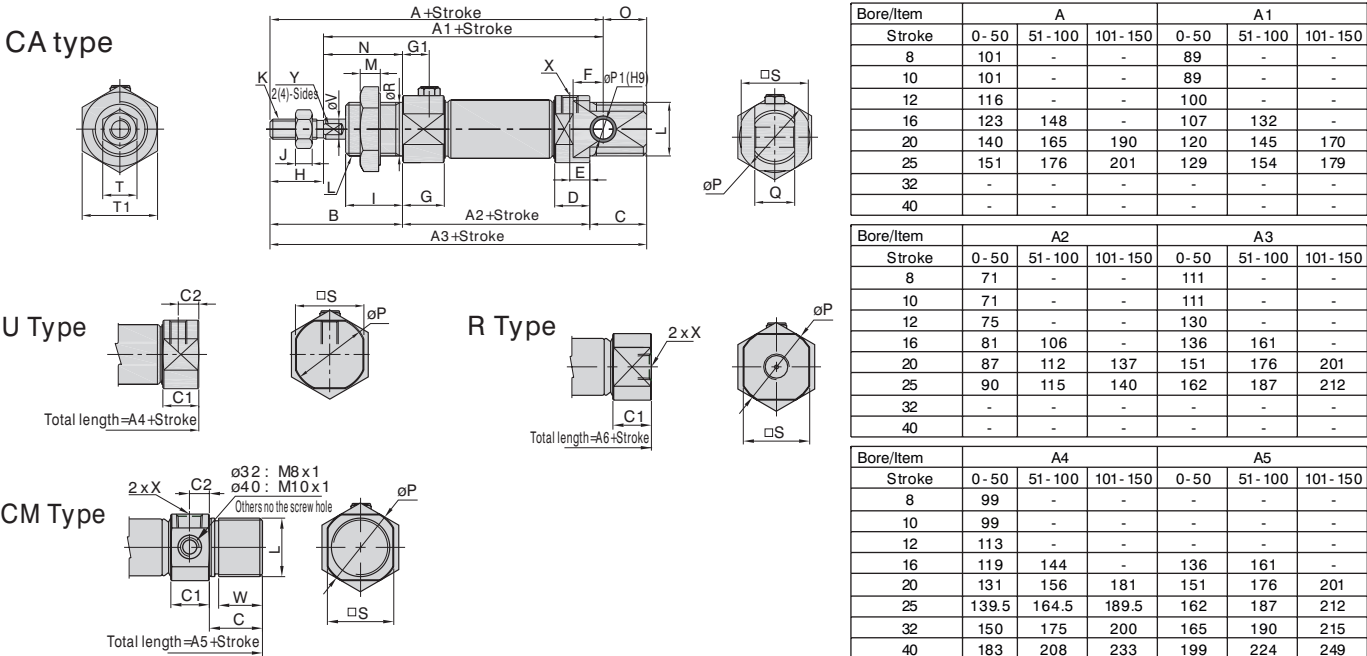
U: Type



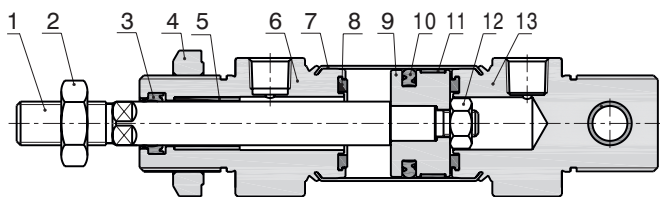
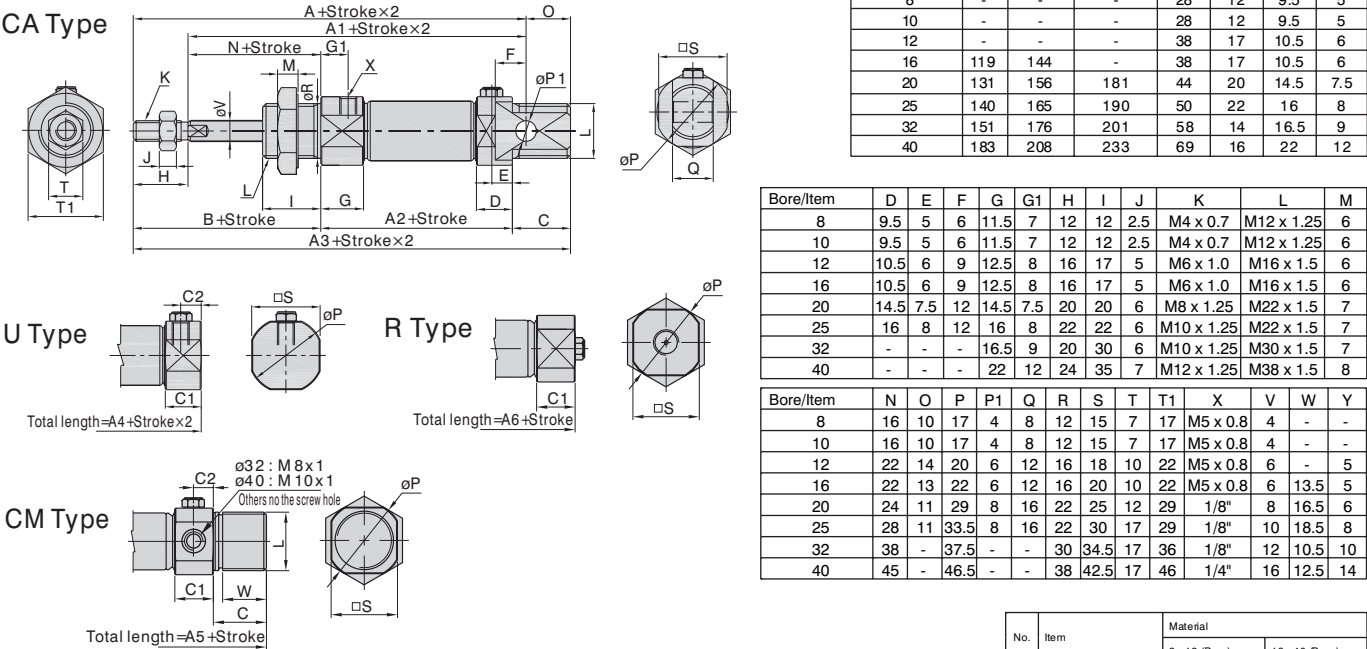
ISO 6432 Stainless Steel Mini Cylinders

Dimensions

KC Series



KD Series



No.	Item	Material	
		8 - 12 (Bore)	16 - 40 (Bore)
1	Rod	304	
2	Rod Nut	Carbon Steel	
3	Front Cover Packing	NBR	
4	Front Cover Nut	Carbon Steel	
5	Bushing	Wear Resistant Material	
6	Front Cover	Aluminum Alloy	
7	Barrel	304	
8	Bumper	TPU	
9	Piston	303	Aluminum Alloy
10	Piston O-ring	NBR	
11	Wear Ring	Wear Resistant Material	
12	Nut	Carbon Steel	
13	Back Cover	Aluminum Alloy	