

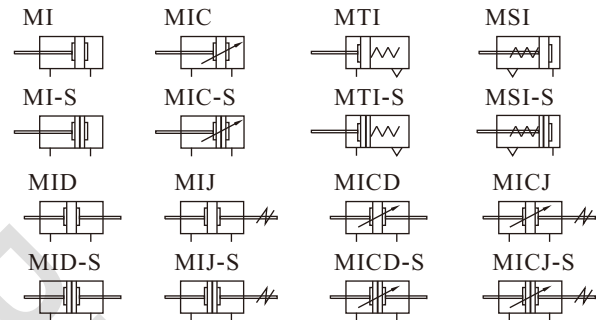
Stainless steel mini cylinder——MI Series **BITEBI**[®]



Product feature

1. In accordance with ISO6432 standard(Φ8~Φ25).
2. Front and back cover owns fixed bumper pad which can reduce the impact of direction-change of the cylinder.
3. There are several mode of back cover, which makes the installation of cylinder more convenient.
4. Front and back cover and stainless steel block adopt riveted rolling packed structure to form a reliable connection.
5. Piston rod and cylinder body with the material of stainless steel make the cylinder adapt general working environment with corrosivity.
6. There are cylinders and accessories with several specifications for installation for your choice.

Symbol



Specification

Bore size(mm)		8	10	12	16	20	25	32	40
Acting type		Double acting, Single acting_Push, Single acting_Pull							
		-				Double acting with cushion			
Fluid		Air(to be filtered by 40μm filter element)							
Operating pressure	Double acting	0.15~1.0MPa(22~145psi)(1.5~10.0bar)							
	Single acting	0.2~1.0MPa(28~145psi)(2.0~10.0bar)							
Proof pressure		1.5MPa(215psi)(15bar)							
Temperature °C		-20~70							
Speed range mm/s		Double acting:30~800				Single acting:50~800			
Stroke tolerance		0~150 ^{+1,0}				>150 ^{+1,5}			
Cushion type		MIC Series: Variable cushion				Other series: Bumper			
Port size [Note1]		M5×0.8				G1/8			G1/4

[Note1] The standard thread type is G thread, Please control us for other thread type.

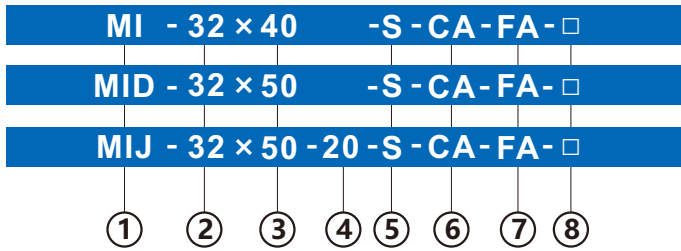
Standard Stroke

Bore size (mm)		Standard stroke (mm)													Max.std stroke	Max. stroke
MI	8	10 15 20 25 30 40 50 60 75 80 100 125 150													150	200
	10	10 15 20 25 30 40 50 60 75 80 100 125 150 160 175 200													200	200
	12	10 15 20 25 30 40 50 60 75 80 100 125 150 160 175 200 250													250	500
MI MIC	16	10 15 20 25 30 40 50 60 75 80 100 125 150 160 175 200 250 300 350 400													500	600
	20 25 32 40	450 500													500	800
MID MIJ	8 10	10 15 20 25 30 40 50 60 75 80 100													100	-
	12	10 15 20 25 30 40 50 60 75 80 100 125 150 160 175 200													200	-
MID, MIJ MICD, MICJ	16 20 25	10 15 20 25 30 40 50 60 75 80 100 125 150 160 175 200 250 300													300	-
	32 40	10 15 20 25 30 40 50 60 75 80 100 125 150 160 175 200 250 300 350 400 450 500													500	-
MSI MTI	8 10 12	10 15 20 25 30 40 50													-	-
	16	10 15 20 25 30 40 50 60 75 80 100													-	-
	20 25 32 40	10 15 20 25 30 40 50 60 75 80 100 125 150													-	-

[Note] Consult us for non-standard stroke.

Stainless steel mini cylinder——MI Series **BITEBI**[®]

Ordering code



⑥ Back cover

Back cover	Series	Bore size
CA: Pivot type	MI MSI MTI	Φ8~Φ25
U: Perpendicular 90°		Φ8~Φ40
R: Axial air-in		Φ16~Φ40
CM: Round-end type	MIC	Φ16~Φ40
CA: Pivot type		Φ16~Φ25
U: Perpendicular 90°		Φ16~Φ40
CM: Round-end type	Others	Φ16~Φ40
No this code		

⑦ Mounting type

Mounting type	Series
Blank: No accessories	MI MIC MSI MTI
FA: FA type	
SDB: SDB type	
LB: LB type	
TC: TC type	
Blank: No accessories	MID MICD MIJ MICJ
FA: FA type	
LB: LB type	
TC: TC type	

⑧ Thread type

Blank: G thread
PT: PT thread

① Model

MI: Mini cylinder(Double acting)
MIC: Mini cylinder (Double acting with cushion)
MSI: Mini cylinder(Single acting_push)
MTI: Mini cylinder(Single acting_pull)
MID: Mini cylinder(Double rod)
MICD: Mini cylinder (Double rod with cushion)
MIJ: Mini cylinder(Adjustable stroke)
MICJ: Mini cylinder(Adjustable stroke with cushion)

② Bore size

Bore size	Series
8 10 12 16 20 25 32 40	MI
16 20 25 32 40	MIC
8 10 12 16 20 25 32 40	MSI
16 20 25 32 40	MTI
8 10 12 16 20 25 32 40	MID
16 20 25 32 40	MICD
8 10 12 16 20 25 32 40	MIJ
16 20 25 32 40	MICJ

③ Stroke

Refer to stroke table for details

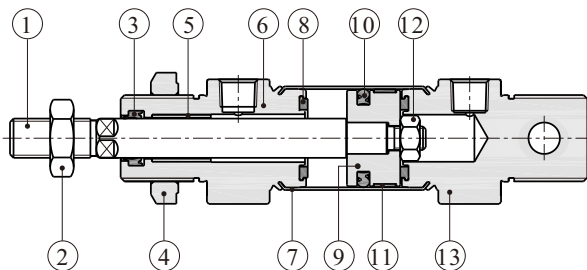
⑤ Magnet

Blank: Without magnet
S: With magnet

④ Adjustable stroke

Series	Adjustable stroke
MIJ series MICJ series	10: 10mm
	20: 20mm
	30: 30mm
	40: 40mm
	50: 50mm
	75: 75mm
	100: 100mm
Others series	No this code

Inner structure and material of major parts



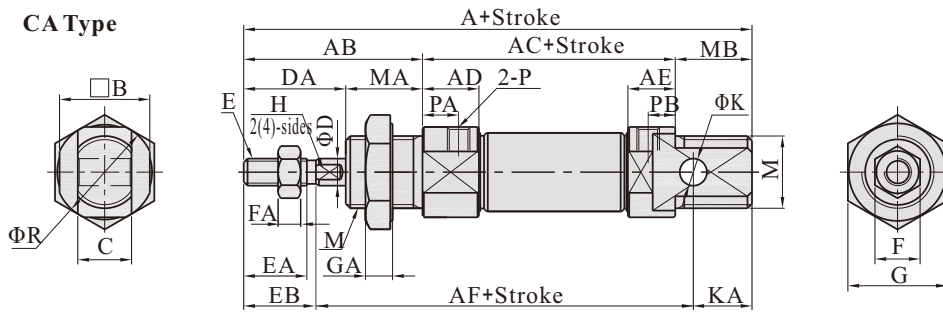
NO.	Item	Material
1	Rod	SUS304
2	Rod nut	Carbon steel
3	Front cover packing	NBR
4	Front cover nut	Carbon steel
5	Bushing	Wear resistant material
6	Front cover	Aluminum alloy
7	Barrel	SUS304(Φ8~Φ12)\SUS316L(Others)
8	Bumper	TPU
9	Piston	SUS304(Φ8~Φ12)\Aluminum alloy(Others)
10	Piston seal	NBR
11	Wear ring	Wear resistant material
12	Nut	Carbon steel
13	Back cover	Aluminum alloy

Stainless steel mini cylinder——MI Series **BITEBI**[®]

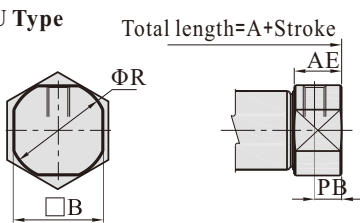
Dimensions

MI

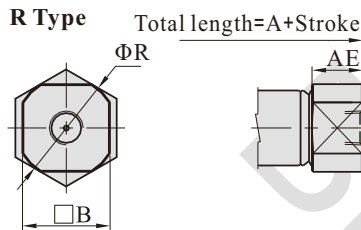
CA Type



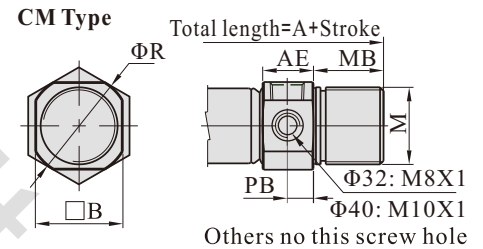
U Type



R Type



CM Type



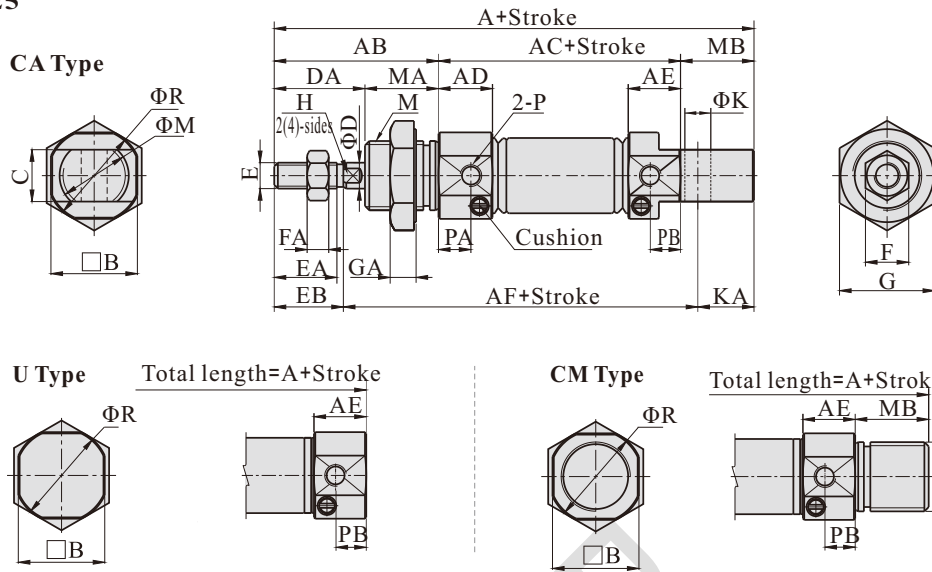
Bore size/Item	A				AB	AC	AD	AE		AF	B	C	D	DA	E	EA	EB	F	FA
	CA	U	R	CM				CA	U/R/CM										
8	86	74	-	-	28	46	11.5	9.5	9.5	64	15	8	4	16	M4×0.7	10.5	12	7	3
10	86	74	-	-	28	46	11.5	9.5	9.5	64	15	8	4	16	M4×0.7	10.5	12	7	3
12	105	88	-	-	38	50	12.5	10.5	10.5	75	18	12	6	21	M6×1.0	14.5	16	10	5
16	111	94	94	111	38	56	12.5	10.5	10.5	82	20	12	6	21	M6×1.0	14.5	16	10	5
20	126	106	106	126	44	62	14.5	14.5	14.5	95.5	25	16	8	24	M8×1.25	18	19.5	12	6
25	137	114.5	115	137	50	65	16	16	16	104.5	30	16	10	28	M10×1.25	20	21.5	17	6
32	-	125	126	140	58	-	16.5	-	16.5	-	34.5	-	12	28	M10×1.25	18.5	20	17	6
40	-	158	158	174	69	-	22	-	22	-	42.5	-	16	34	M12×1.25	22.5	24	17	7

Bore size/Item	G	GA	H	K	KA	M	MA	MB	P	PA	PB		R
											CA	U/CM	
8	17	6	-	4	10	M12×1.25	12	12	M5×0.8	7	5	5	17
10	17	6	-	4	10	M12×1.25	12	12	M5×0.8	7	5	5	17
12	22	6	5(2-Sides)	6	14	M16×1.5	17	17	M5×0.8	8	6	6	20
16	22	6	5(2-Sides)	6	13	M16×1.5	17	17	M5×0.8	8	6	6	22
20	29	7	6(2-Sides)	8	11	M22×1.5	20	20	G1/8	7.5	7.5	7.5	29
25	29	7	8(4-Sides)	8	11	M22×1.5	22	22	G1/8	8	8	8	33.5
32	36	7	10(4-Sides)	-	-	M30×1.5	30	14	G1/8	9	-	8/9	37.5
40	46	8	14(4-Sides)	-	-	M38×1.5	35	16	G1/4	12	-	11.5/12	46.5

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

Stainless steel mini cylinder——MI Series **BITEBI**[®]

MIC $\Phi 16\sim\Phi 25$

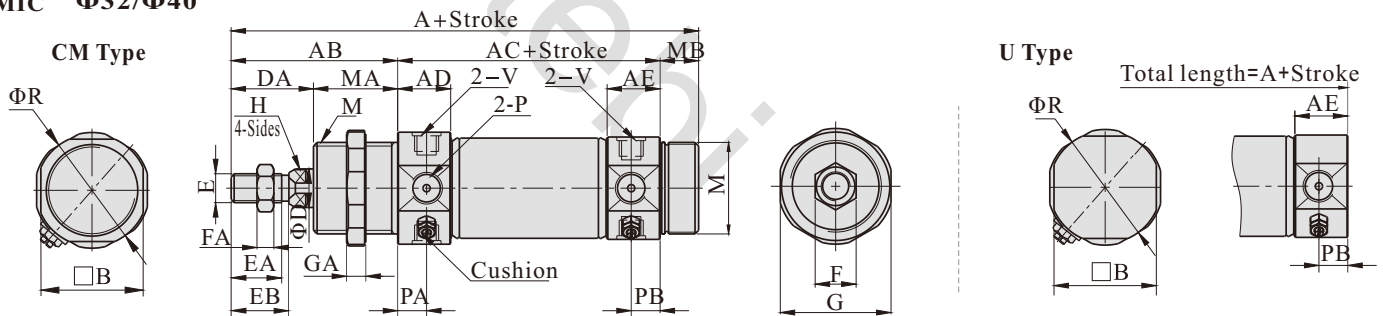


Bore size/Item	A		AB	AC	AD	AE		AF	B	C	D	DA	E	EA	EB	F	FA
	CA/CM	U				CA/CM	U										
16	111	94	38	56	12.5	12	12	82	20	12	6	21	M6×1.0	14.5	16	10	5
20	126	106	44	62	14.5	14.5	14.5	95.5	25	16	8	24	M8×1.25	18	19.5	12	6
25	137	113.5	50	65	16	16	14.5	104.5	30	16	10	28	M10×1.25	20	21.5	17	6

Bore size/Item	G	GA	H	K	KA	M	MA	MB	P	PA	PB	R
16	22	6	5(2-Sides)	6	13	M16×1.5	17	17	M5×0.8	7.5	7	22
20	29	7	6(2-Sides)	8	11	M22×1.5	20	20	G1/8	7.5	7.5	29
25	29	7	8(4-Sides)	8	11	M22×1.5	22	22	G1/8	8	8	33.5

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

MIC $\Phi 32/\Phi 40$



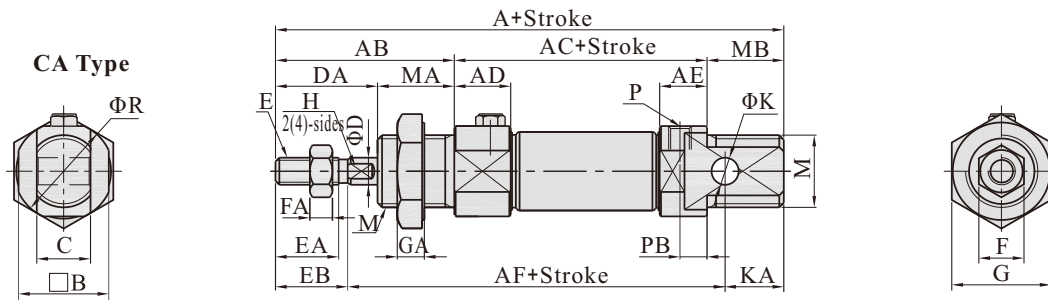
Bore size/Item	A		AB	AC	AD	AE		B	D	DA	E	EA	EB	F	FA	G	GA
	U	CM				U	CM										
32	124	140	58	68	16.5	14.5	16.5	34.5	12	28	M10×1.25	18.5	20	17	6	36	7
40	157.5	174	69	89	22	21.5	22	42.5	16	34	M12×1.25	22.5	24	17	7	46	8

Bore size/Item	H	M	MA	MB	P	PA	PB		R	V
							U	CM		
32	10(4-Sides)	M30×1.5	30	14	G1/8	9	7.5	9	37.5	M8X1
40	14(4-Sides)	M38×1.5	35	16	G1/4	12	11.5	12	46.5	M10X1

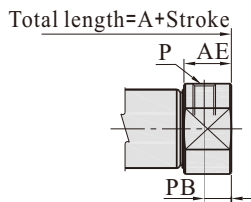
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Stainless steel mini cylinder——MI Series **BITEBI**®

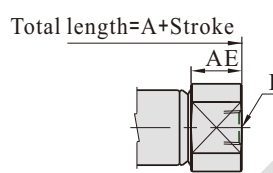
MSI



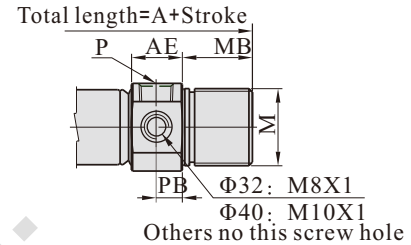
U Type



R Type



CM Type



Item	A												AB
	CA			U			R			CM			
Bore size\Stroke	0~50	51~100	101~150	0~50	51~100	101~150	0~50	51~100	101~150	0~50	51~100	101~150	
8	111	-	-	99	-	-	-	-	-	-	-	-	28
10	111	-	-	99	-	-	-	-	-	-	-	-	28
12	130	-	-	113	-	-	-	-	-	-	-	-	38
16	136	161	-	119	144	-	119	144	-	136	161	-	38
20	151	176	201	131	156	181	131	156	181	151	176	201	44
25	162	187	212	139.5	164.5	189.5	140	165	190	162	187	212	50
32	-	-	-	150	175	200	151	176	201	165	190	215	58
40	-	-	-	183	208	233	183	208	233	199	224	249	69

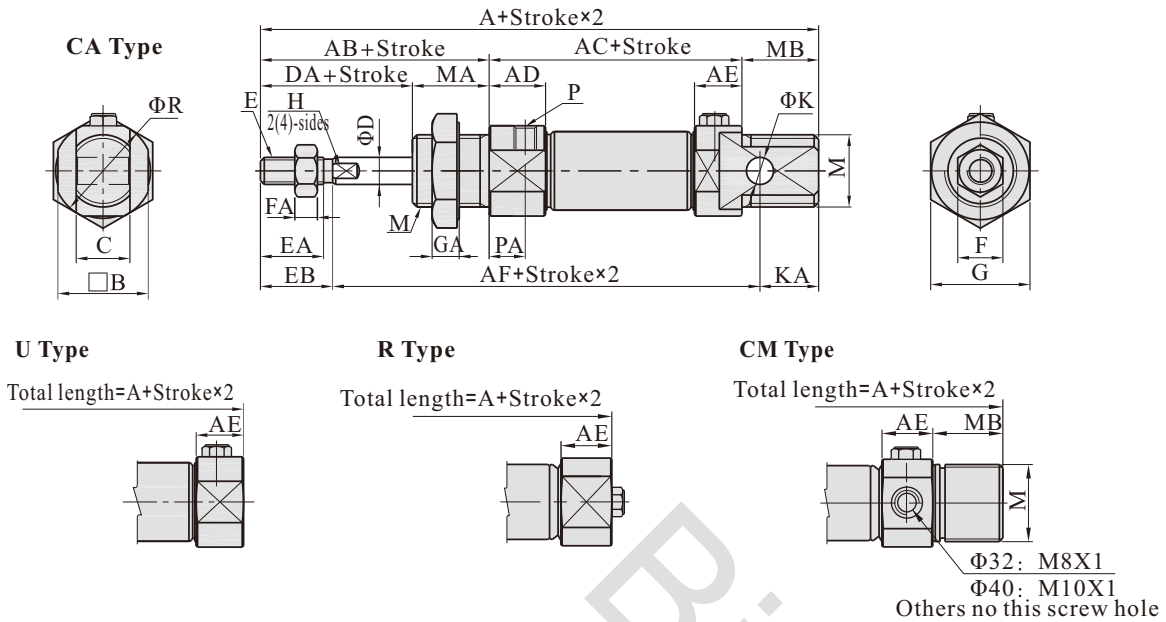
Item	AC			AD	AF			AE		B	C	D	DA	E
	Back cover	0~50	51~100		101~150	0~50	51~100	101~150	CA					
Bore size\Stroke	0~50	51~100	101~150	0~50	51~100	101~150	-	-						
8	71	-	-	11.5	89	-	-	9.5	9.5	15	8	4	16	M4×0.7
10	71	-	-	11.5	89	-	-	9.5	9.5	15	8	4	16	M4×0.7
12	75	-	-	12.5	100	-	-	10.5	10.5	18	12	6	21	M6×1.0
16	81	106	-	12.5	107	132	-	10.5	10.5	20	12	6	21	M6×1.0
20	87	112	137	14.5	120.5	145.5	170.5	14.5	14.5	25	16	8	24	M8×1.25
25	90	115	140	16	129.5	154.5	179.5	16	16	30	16	10	28	M10×1.25
32	-	-	-	16.5	-	-	-	-	16.5	34.5	-	12	28	M10×1.25
40	-	-	-	22	-	-	-	-	22	42.5	-	16	34	M12×1.25

Bore size\Item Back cover	EA	EB	F	FA	G	GA	H	K	KA	M	MA	MB	P	PA	PB		R
	CA	U/CM															
8	10.5	12	7	3	17	6	-	4	10	M12×1.25	12	12	M5×0.8	7	5	5	17
10	10.5	12	7	3	17	6	-	4	10	M12×1.25	12	12	M5×0.8	7	5	5	17
12	14.5	16	10	5	22	6	5(2-Sides)	6	14	M16×1.5	17	17	M5×0.8	8	6	6	20
16	14.5	16	10	5	22	6	5(2-Sides)	6	13	M16×1.5	17	17	M5×0.8	8	6	6	22
20	18	19.5	12	6	29	7	6(2-Sides)	8	11	M22×1.5	20	20	G1/8	7.5	7.5	7.5	29
25	20	21.5	17	6	29	7	8(4-Sides)	8	11	M22×1.5	22	22	G1/8	8	8	8	33.5
32	18.5	20	17	6	36	7	10(4-Sides)	-	-	M30×1.5	30	14	G1/8	9	-	8/9	37.5
40	22.5	24	17	7	46	8	14(4-Sides)	-	-	M38×1.5	35	16	G1/4	12	-	11.5/12	46.5

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

Stainless steel mini cylinder——MI Series **BITEBI**[®]

MTI



Item	A												AB
	CA			U			R			CM			
Back cover	CA			U			R			CM			AB
Bore size\Stroke	0~50	51~100	101~150	0~50	51~100	101~150	0~50	51~100	101~150	0~50	51~100	101~150	
8	111	-	-	99	-	-	-	-	-	-	-	-	28
10	111	-	-	99	-	-	-	-	-	-	-	-	28
12	130	-	-	113	-	-	-	-	-	-	-	-	38
16	136	161	-	119	144	-	119	144	-	136	161	-	38
20	151	176	201	131	156	181	131	156	181	151	176	201	44
25	162	187	212	139.5	164.5	189.5	140	165	190	162	187	212	50
32	-	-	-	150	175	200	151	176	201	165	190	215	58
40	-	-	-	183	208	233	183	208	233	199	224	249	69

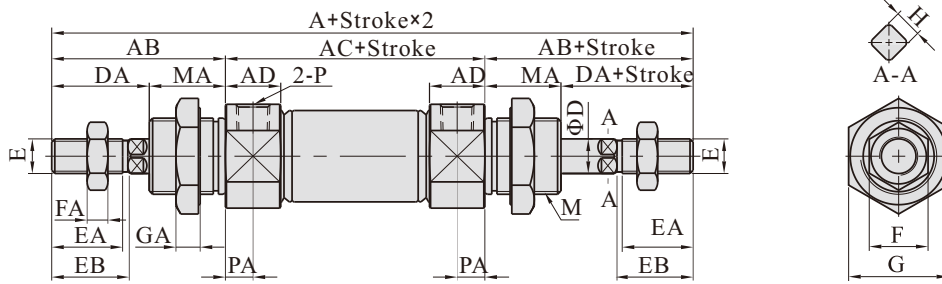
Item	AC			AD	AF			AE		B	C	D	DA	E
	Back cover	AC			AF			CA	U/R/CM					
Bore size\Stroke	0~50	51~100	101~150	0~50	51~100	101~150	-	-						
8	71	-	-	11.5	89	-	-	9.5	9.5	15	8	4	16	M4×0.7
10	71	-	-	11.5	89	-	-	9.5	9.5	15	8	4	16	M4×0.7
12	75	-	-	12.5	100	-	-	10.5	10.5	18	12	6	21	M6×1.0
16	81	106	-	12.5	107	132	-	10.5	10.5	20	12	6	21	M6×1.0
20	87	112	137	14.5	120.5	145.5	170.5	14.5	14.5	25	16	8	24	M8×1.25
25	90	115	140	16	129.5	154.5	179.5	16	16	30	16	10	28	M10×1.25
32	-	-	-	16.5	-	-	-	-	16.5	34.5	-	12	28	M10×1.25
40	-	-	-	22	-	-	-	-	22	42.5	-	16	34	M12×1.25

Bore size\Item	EA	EB	F	FA	G	GA	H	K	KA	M	MA	MB	P	PA	PB		R
															CA	U/CM	
8	10.5	12	7	3	17	6	-	4	10	M12×1.25	12	12	M5×0.8	7	5	5	17
10	10.5	12	7	3	17	6	-	4	10	M12×1.25	12	12	M5×0.8	7	5	5	17
12	14.5	16	10	5	22	6	5(2-Sides)	6	14	M16×1.5	17	17	M5×0.8	8	6	6	20
16	14.5	16	10	5	22	6	5(2-Sides)	6	13	M16×1.5	17	17	M5×0.8	8	6	6	22
20	18	19.5	12	6	29	7	6(2-Sides)	8	11	M22×1.5	20	20	G1/8	7.5	7.5	7.5	29
25	20	21.5	17	6	29	7	8(4-Sides)	8	11	M22×1.5	22	22	G1/8	8	8	8	33.5
32	18.5	20	17	6	36	7	10(4-Sides)	-	-	M30×1.5	30	14	G1/8	9	-	8/9	37.5
40	22.5	24	17	7	46	8	14(4-Sides)	-	-	M38×1.5	35	16	G1/4	12	-	11.5/12	46.5

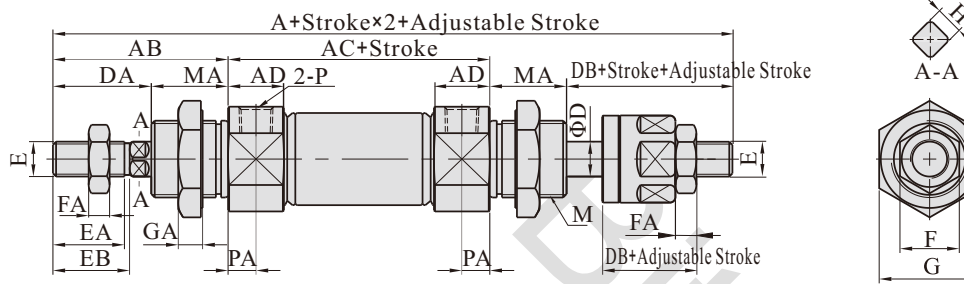
Remark: The dimensions of magnet type cylinder are the same as non-magnet type cylinder.

Stainless steel mini cylinder——MI Series **BITEBI**[®]

MID



MIJ



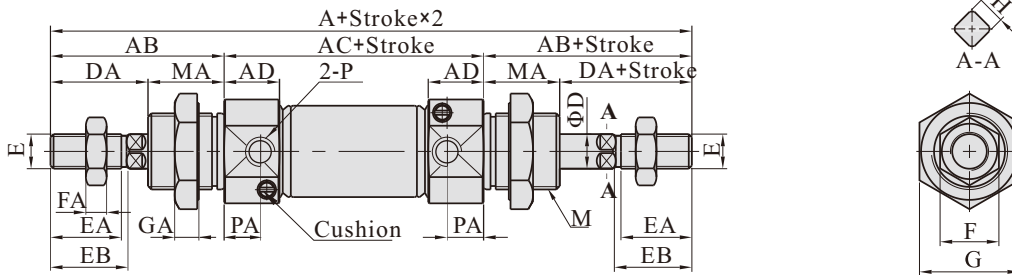
Bore size/Item	A(MID)	A(MIJ)	AB	AC	AD	D	DA	DB	E	EA	EB	F	FA	G	GA
8	104	103	28	48	11.5	4	16	15	M4×0.7	10.5	12	7	3	17	6
10	104	103	28	48	11.5	4	16	15	M4×0.7	10.5	12	7	3	17	6
12	128	128	38	52	12.5	6	21	21	M6×1.0	14.5	16	10	5	22	6
16	134	134	38	58	12.5	6	21	21	M6×1.0	14.5	16	10	5	22	6
20	150	151	44	62	14.5	8	24	25	M8×1.25	18	19.5	12	6	29	7
25	165	164	50	65	16	10	28	27	M10×1.25	20	21.5	17	6	29	7
32	184	183	58	68	16.5	12	28	27	M10×1.25	18.5	20	17	6	36	7
40	227	222	69	89	22	16	34	29	M12×1.25	22.5	24	17	7	46	8

Bore size/Item	H	M	MA	P	PA
8	-	M12×1.25	12	M5×0.8	7
10	-	M12×1.25	12	M5×0.8	7
12	5(2-Sides)	M16×1.5	17	M5×0.8	8
16	5(2-Sides)	M16×1.5	17	M5×0.8	8
20	6(2-Sides)	M22×1.5	20	G1/8	7.5
25	8(4-Sides)	M22×1.5	22	G1/8	8
32	10(4-Sides)	M30×1.5	30	G1/8	9
40	14(4-Sides)	M38×1.5	35	G1/4	12

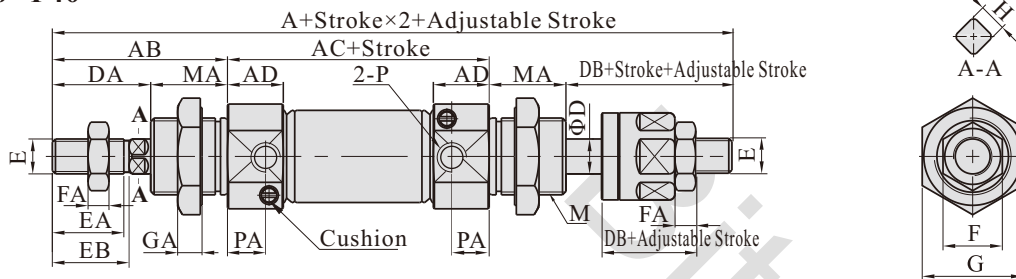
Remark: The dimensions of magnet type cylinder are the same as non-magnet type cylinder.

Stainless steel mini cylinder——MI Series **BITEBI**[®]

MICDΦ16~Φ40



MICJΦ16~Φ40



Bore size\Item	A(MICD)	A(MICJ)	AB	AC	AD	D	DA	DB	E	EA	EB	F	FA	G	GA
16	132.5	132.5	38	56.5	12.5	6	21	21	M6×1.0	14.5	16	10	5	22	6
20	150	151	44	62	14.5	8	24	25	M8×1.25	18	19.5	12	6	29	7
25	165	164	50	65	16	10	28	27	M10×1.25	20	21.5	17	6	29	7
32	184	183	58	68	16.5	12	28	27	M10×1.25	18.5	20	17	6	36	7
40	227	222	69	89	22	16	34	29	M12×1.25	22.5	24	17	7	46	8

Bore size\Item	H	M	MA	P	PA
16	5(2-Sides)	M16×1.5	17	M5×0.8	7.5
20	6(2-Sides)	M22×1.5	20	G1/8	7.5
25	8(4-Sides)	M22×1.5	22	G1/8	8
32	10(4-Sides)	M30×1.5	30	G1/8	9
40	14(4-Sides)	M38×1.5	35	G1/4	12

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

List for ordering code of accessories

Accessories Bore size	Mounting accessories				Knuckle				Sensor switch	
	LB	FA	SDB	TC	I	Y	F	U	CS1-G	DS1-G
8	F-MI10LB	F-MI8FA	F-MI8SDB	F-MI10TC	F-M4X070I	F-M4X070Y	F-M4X070F	F-M4X070U	CS1-G	DS1-G
10										
12	F-MI12LB	F-MI12FA	F-MI12SDB	F-MI12TC	F-M6X100I	F-M6X100Y	F-M6X100F	F-M6X100U		
16										
20	F-MI20LB	F-MI20FA	F-MI20SDB	F-MI20TC	F-M8X125I	F-M8X125Y	F-M8X125F	F-M8X125U		
25										
32	F-MI32LB	-	F-MI32SDB	F-MI32TC	F-M10X125I	F-M10X125Y	F-M10X125F	F-M10X125U		
40	F-MI40LB	-	F-MI40SDB	F-MI40TC	F-M12X125I	F-M12X125Y	F-M12X125F	F-M12X125U		

Accessory selection

Accessories Cylinder model		Mounting accessories				Knuckle				Sensor switch	
		LB	FA	SDB	TC	I	Y	U	F	CS1-G	DS1-G
MI	Standard	●	●	●	●	●	●	●	●	×	×
MIC	With magnet	●	●	●	●	●	●	●	●	●	●
MSI	Standard	●	●	●	●	●	●	●	●	×	×
MTI	With magnet	●	●	●	●	●	●	●	●	●	●
MID	Standard	●	●	×	●	●	●	●	●	×	×
MICD	With magnet	●	●	×	●	●	●	●	●	●	●
MIJ	Standard	●	●	×	●	●	●	●	●	×	×
MICJ	With magnet	●	●	×	●	●	●	●	●	●	●

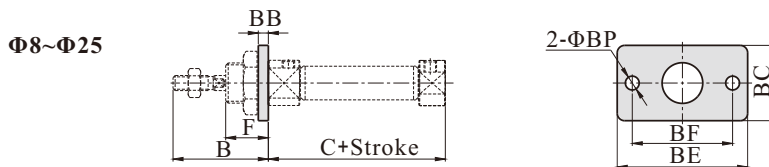
Accessory selection

Accessories Bore size	Mounting accessories				Knuckle			
	LB	FA	SDB	TC	I	Y	F	U
8~40	△	△	△	▲	□	□	□	□

▲—SUS304 —SPCC □—Carbon steel

Dimensions

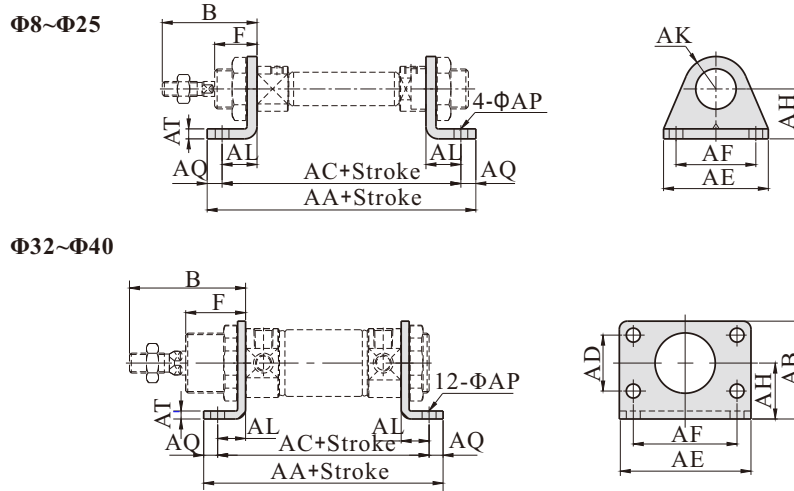
FA type



Bore size/Item	B	C	BB	BC	BE	BF	BP	F
8	28	46	2	22	40	30	4.5	12
10	28	46	2	22	40	30	4.5	12
12	38	50	3	26	52	40	5.5	17
16	38	56	3	26	52	40	5.5	17
20	44	62	3.5	38	64	50	7	20
25	50	65	3.5	38	64	50	7	22

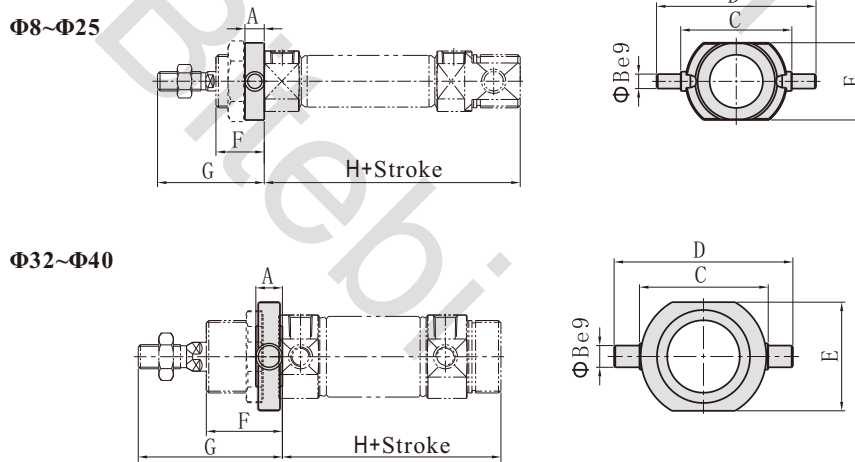
Stainless steel mini cylinder——MI Series **BITEBI**[®]

LB type



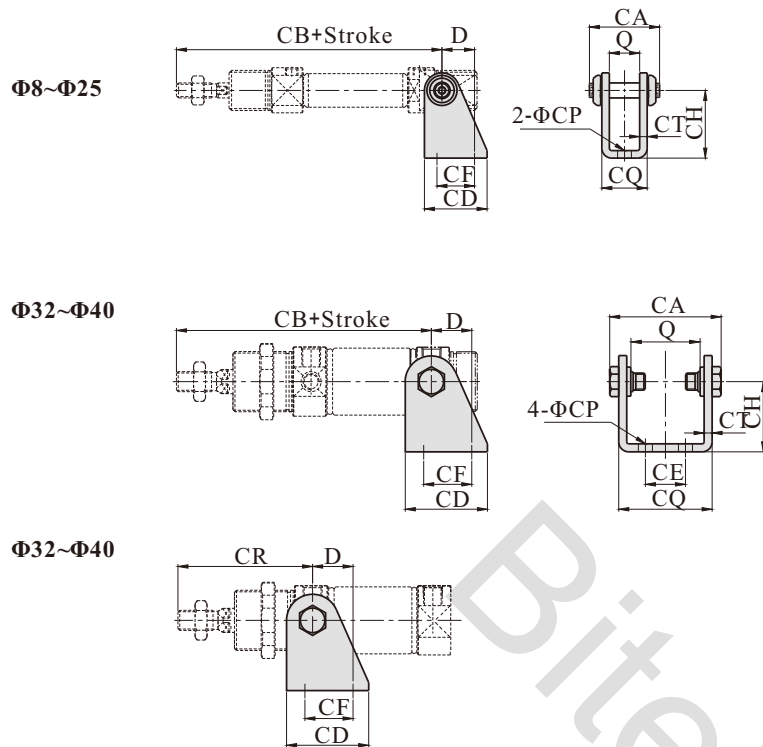
Bore size/Item	AA	AB	AC	AD	AE	AF	AH	AK	AL	AP	AQ	AT	B	F
8	78	-	68	-	35	25	16	10	11	4.5	5	2	28	12
10	78	-	68	-	35	25	16	10	11	4.5	5	2	28	12
12	90	-	78	-	42	32	20	13	14	5.5	6	2.5	38	17
16	96	-	84	-	42	32	20	13	14	5.5	6	2.5	38	17
20	112	-	96	-	54	40	25	20	17	7	8	3	44	20
25	115	-	99	-	54	40	25	20	17	7	8	3	50	22
32	110	49	96	28	66	52	28	-	14	7	7	3.5	58	30
40	149	58	129	30	80	60	33	-	20	9	10	3.5	69	35

TC type



Bore size/Item	A	B	C	D	E	F	G	H
8	6	4	26	38	20	12	28	58
10	6	4	26	38	20	12	28	58
12	8	6	38	58	25	17	38	67
16	8	6	38	58	25	17	38	73
20	8	6	46	66	32	20	44	82
25	8	6	46	66	32	22	50	87
32	11	9	54	74	45	31.5	59.5	80.5
40	12	10	64	84	55	36.5	70.5	103.5

SDB type



Bore size\Item	D	Q	CA	CB	CD	CE	CF	CH	CP	CQ	CT	CR
8	11	8.1	16.4	76	20	-	12.5	24	4.5	12.1	2	-
10	11	8.1	16.4	76	20	-	12.5	24	4.5	12.1	2	-
12	13	12.1	26	91	25	-	15	27	5.5	16.1	2	-
16	13	12.1	26	98	25	-	15	27	5.5	16.1	2	-
20	16	16.1	35	115	32	-	20	30	7	21.1	2.5	-
25	16	16.1	35	126	32	-	20	30	7	21.1	2.5	-
32	20	34.6	53.6	117	41	20	24	35	7	44.6	3	67
40	27	42.6	65.6	146	52	28	30	40	9	54.6	3	81

[Note] SDB is attached with relevant PIN.