

Made to Order Common Specifications: -XC8: Adjustable Stroke Cylinder/Adjustable Extension Type



20 Adjustable Stroke Cylinder/Adjustable Extension Type

Symbol
-XC8

It adjusts the extending stroke by the stroke adjustable mechanism equipped in the head side. (After the stroke is adjusted, with cushion on both sides is altered to single-sided, with cushion.)

Applicable Series

Series	Description	Model	Action	Note	Vol. no. (for std model)	
CJ2	Air cylinder	CJ2-Z	Double acting	Except double clevis type and with air cushion		
	Air cylinder	CM2-Z	Double acting	Except boss-cut and clevis types		
	Non-rotating rod type	CM2K-Z	Double acting	Except boss-cut and clevis types		
	Direct mount type	CM2R-Z	Double acting	Head cover is equipped with boss.		
	End lock cylinder	CBM2	Double acting	Except clevis type Head side locking type only, Except with air cushion		
CM2	Air-hydro type	CM2H-Z	Double acting	Except clevis type		
	Direct mount type, air-hydro type	CM2HR-Z	Double acting	Head cover is equipped with boss.		
	CG1	Air cylinder	CG1-Z	Double acting		Except head side flange and clevis types, ø80, and ø100
		Non-rotating rod type	CG1K-Z	Double acting		Except head side flange, clevis types and with air cushion
		Direct mount type	CG1R-Z	Double acting		Except with air cushion
MB	Direct mount, Non-rotating rod type	CG1KR-Z	Double acting	Except with air cushion		
	Air cylinder	MB-Z	Double acting	Except ø125, with rubber bumper, with auto switch, head side flange and clevis types		
	Non-rotating rod type	MBK-Z	Double acting	Except ø125, with rubber bumper, with auto switch, head side flange and clevis types		
MB1	Air cylinder	MB1-Z	Double acting	Except ø125, with rubber bumper, with auto switch, head side flange and clevis types		
	Non-rotating rod type	MB1K-Z	Double acting	Except head side flange and clevis types		
CA2	Air cylinder	CA2-Z	Double acting	Except head side flange and clevis types		
	Non-rotating rod type	CA2K	Double acting	Except head side flange and clevis types		
	End lock cylinder	CBA2	Double acting	Except head side flange and clevis types. Locking in head side only		
CS1	Air cylinder	CS1	Double acting	Except head side flange and clevis types		
	Air-hydro type	CS1H	Double acting	Except head side flange and clevis types		
CU	Free mount cylinder	CU	Double acting			
	Long stroke	CU	Double acting			
CQS	Compact cylinder	CQS	Double acting	Except with rubber bumper and with mounting bracket		
	Non-rotating rod	CQSK	Double acting	Except with rubber bumper and with mounting bracket		
CQ2	Compact cylinder	CQ2-Z	Double acting	Except with rubber bumper and with mounting bracket		
	Non-rotating rod type	CQ2K-Z	Double acting	Except with rubber bumper and with mounting bracket		
MTS	Air-hydro type	CQ2H-Z	Double acting	Except with mounting bracket		
	Precision cylinder	MTS	Double acting			
MGP	Compact guide cylinder	MGPM-Z	Double acting			
		MGPL-Z	Double acting			
		MGPA-Z	Double acting			
MGG	Guide cylinder	MGG	Double acting			
MGC	Guide cylinder	MGC	Double acting			

Web Catalog

How to Order

CJ2 -

CM2 -

CG1 -

CBM2 - - -

CBA2 - - -

MB -

MB1 -

* Except head side flange and clevis types

CA2 -

* Except head side flange and clevis types

CA2K - -

* Except head side flange and clevis types

CS1 - -

* Except head side flange and clevis types

CU - -

CQSB - -

CQ2B(H) - -

MTS - -

MGP -

MGG - -

MGC - - -

Adjustable stroke cylinder/Adjustable extend type

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Specifications

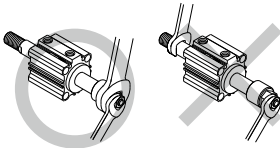
Series	Stroke adjustment symbol	Stroke adjustment range (mm)
CJ2	—	0 to 15
CM2 CG1 MB MB1 CA2 CS1	A	0 to 25
	B	0 to 50
CU	A	0 to 10
	B	0 to 20
	C	0 to 30
CQ2 CQS	—	0 to 10
MGG MGC	A	0 to 25
	B	0 to 50

Series	Stroke adjustment symbol	Stroke adjustment range (mm)
MGP	A	0 to 10
	B	0 to 25
MTS	—	0 to 10 (ø8)
		0 to 25 (ø12 to ø40)
Specifications other than above		Same as standard type

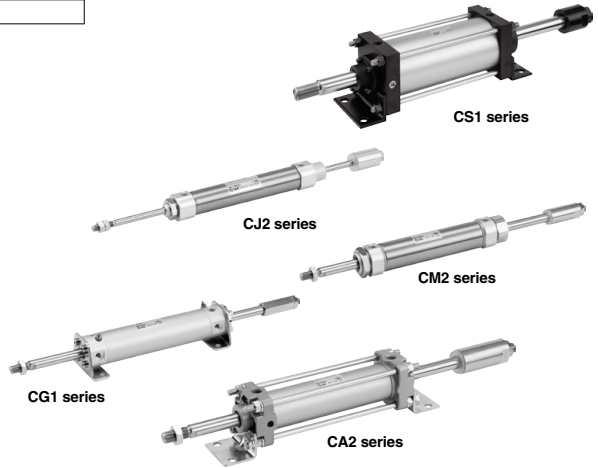
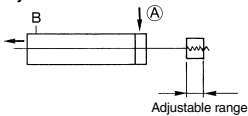
Precautions

⚠ Warning

- When the cylinder is operating, if something gets caught between the stopper bracket for adjusting the stroke and the cylinder body, it could cause bodily injury or damage the peripheral equipment. Therefore, take preventive measures as necessary, such as installing a protective cover.
- To adjust the stroke, make sure to secure the wrench flats of the stopper bracket by a wrench, etc. before loosening the lock nut. If the lock nut is loosened without securing the stopper bracket, be aware that the area that joins the load to the piston rod or the area in which the piston rod is joined with the load side and the stopper bracket side could loosen first. It may cause an accident or malfunction.



Symbol



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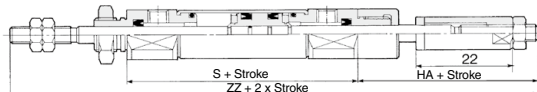


20 Adjustable Stroke Cylinder/Adjustable Extension Type

Symbol
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Dimensions (Dimensions other than below are the same as standard type.)

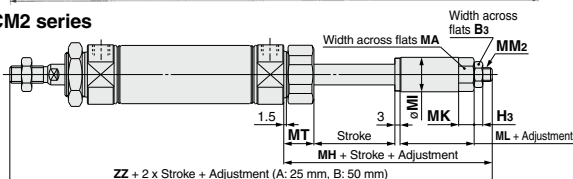
CJ2 series



Bore size (mm)	HA	S	ZZ
10	37	49	114
16	37	50	115

(mm)

CM2 series

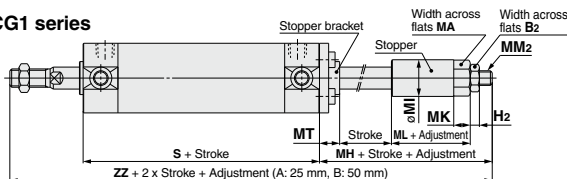


CM2 Series

Bore size (mm)	B ₃	H ₃	MA	MI	MK	MM ₂	MT	MH	ML	ZZ
20	10	3.6	12	14	7	M6 x 1	16.5	47	18	150
25	13	5	17	20	9	M8 x 1.25	17.5	49	18	156
32	13	5	17	20	9	M8 x 1.25	17.5	49	18	158
40	17	6	19	25	10	M10 x 1.25	21.5	60	24	198

(mm)

CG1 series



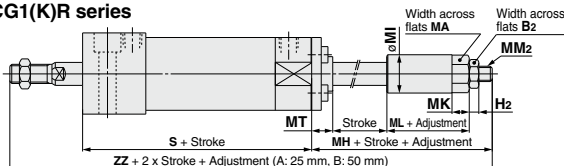
CG1 Series

Bore size (mm)	B ₂	H ₂	MA	MH	MI	MK	ML	MM ₂	MT	S	ZZ
20	10	3.6	12	38	14	7	18	M6 x 1	9	77	150
25	13	5	17	41	20	9	18	M8 x 1.25	11	77	158
32	13	5	17	41	20	9	18	M8 x 1.25	11	79	160
40	17	6	19	47	25	10	24	M10 x 1.25	11	87	184
50	19	8	24	60	32	13	32	M14 x 1.5	11	102	220
63	19	8	24	60	32	13	32	M14 x 1.5	13	102	220

(mm)

* On the axial foot type, the foot bracket is wedged and bolted between the cylinder and the stopper bracket at the time of shipment. On other types, it is placed in the same package (not assembled).

CG1(KR) series



CG1(KR) Series

Bore size (mm)	B ₂	H ₂	MA	MH	MI	MK	ML	MM ₂	MT	S	ZZ
20	10	3.6	12	38	14	7	18	M6 x 1	9	83	148
25	13	5	17	41	20	9	18	M8 x 1.25	11	85	158
32	13	5	17	41	20	9	18	M8 x 1.25	11	91	164
40	17	6	19	47	25	10	24	M10 x 1.25	11	103	189
50	19	8	24	60	32	13	32	M14 x 1.5	11	120	225
63	19	8	24	60	32	13	32	M14 x 1.5	13	126	231

(mm)

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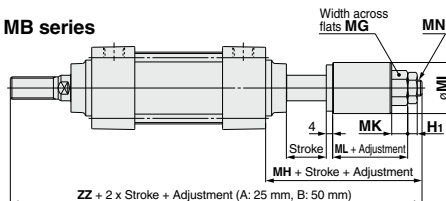


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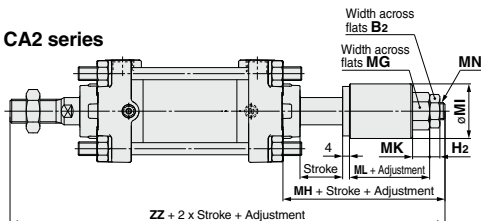
Dimensions (Dimensions other than below are the same as standard type.)

MB series



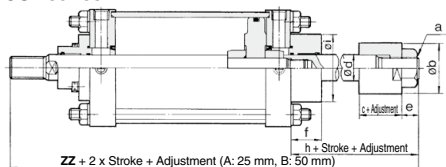
Bore size (mm)	MG	MH	MI	MK	ML	MN	ZZ
32	17	44	23	9	20	M8 x 1.25	175
40	19	48	32	10	22	M10 x 1.25	183
50	24	53	38	13	24	M14 x 1.5	205
63	24	53	38	13	24	M14 x 1.5	205
80	27	72	45	14	32	M16 x 1.5	258
100	32	75	55	17	35	M20 x 1.5	261

CA2 series



Bore size (mm)	H2	MG	MH	MI	MK	ML	MN	ZZ
40	6	19	45	32	10	22	M10 x 1.25	180
50	8	24	49	38	13	24	M14 x 1.5	197
63	8	24	49	38	13	24	M14 x 1.5	205
80	10	27	66	45	14	32	M16 x 1.5	253
100	12	32	69	55	17	35	M20 x 1.5	267

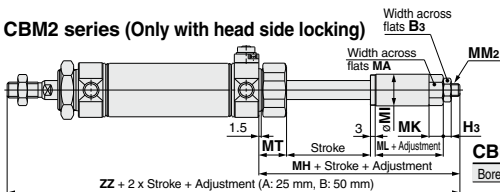
CS1 series



Bore size (mm)	a	ob	c	od	e	f	h	oi	ZZ
125	M30 x 1.5	70	43	36	27	40	110	90	318
140	M30 x 1.5	70	43	36	27	40	110	90	318
160	M30 x 1.5	70	43	36	27	40	110	90	336
180	M42 x 1.5	80	50	45	37.5	45	132.5	115	378.5*
200	M42 x 1.5	80	50	50	37.5	45	132.5	115	378.5*
250	M56 x 2	110	70	60	50	55	175	140	476
300	M56 x 2	110	70	70	50	55	175	140	496

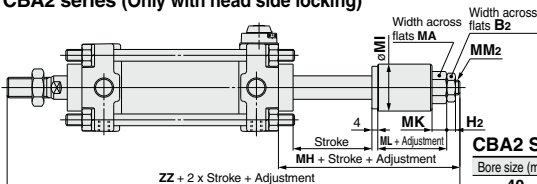
* With auto switch ø180: 382.5, ø200: 387.5

CBM2 series (Only with head side locking)



Bore size (mm)	B3	H3	MA	MI	MK	MM2	MT	MH	ML	ZZ
20	10	3.6	12	14	7	M6 x 1	16.5	47	18	150
25	13	5	17	20	9	M8 x 1.25	17.5	49	18	156
32	13	5	17	20	9	M8 x 1.25	17.5	49	18	158
40	17	6	19	25	10	M10 x 1.25	21.5	60	24	198

CBA2 series (Only with head side locking)



Bore size (mm)	B2	H2	MA	MI	MK	MM2	MH	ML	ZZ
40	17	6	19	32	10	M10 x 1.25	45	22	180
50	22	8	24	38	13	M14 x 1.5	51	24	199
63	22	8	24	38	13	M14 x 1.5	49	24	205
80	24	10	27	45	14	M16 x 1.5	66	32	253
100	30	12	32	55	17	M20 x 1.5	69	35	267

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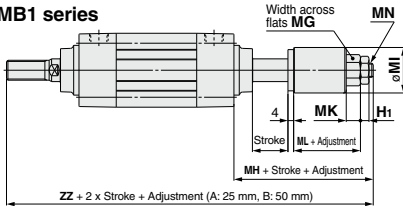


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-XC8

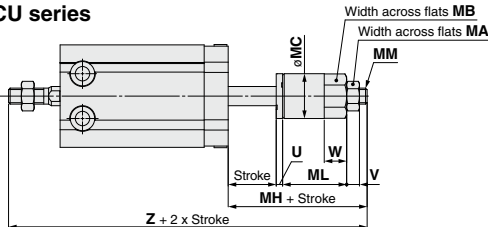
Dimensions (Dimensions other than below are the same as standard type.)

MB1 series



Bore size	MG	MH	MI	MK	ML	MN	ZZ	(mm)
32	17	44	23	9	20	M8 x 1.25	175	
40	19	48	32	10	22	M10 x 1.25	183	
50	24	53	38	13	24	M14 x 1.5	205	
63	24	53	38	13	24	M14 x 1.5	205	
80	27	72	45	14	32	M16 x 1.5	258	
100	32	75	55	17	35	M20 x 1.5	261	

CU series



Bore size	MA	MB	oMC	MM	U	V	W	Adjustment A: 0 to 10			Adjustment B: 0 to 20			Adjustment C: 0 to 30		
								MH	ML	Z	MH	ML	Z	MH	ML	Z
10	7	8	10	M4 x 0.7	1.5	2.4	5	25	19	83	35	29	93	45	39	103
16	8	12	14	M5 x 0.8	2	4	7	28.5	20	82 (92)	38.5	30	92 (102)	48.5	40	102 (112)
20	10	15	18	M6 x 1.0	2	5	7	32	22	95.8 (105.8)	42	32	105.8 (115.8)	52	42	115.8 (125.8)
25	13	17	20	M8 x 1.25	3	5	9	38	26	110 (120)	48	36	120 (130)	58	46	130 (140)
32	17	17	20	M10 x 1.25	3	6	9	37.5	24.5	118.8 (128.8)	47.5	34.5	128.8 (138.8)	57.5	44.5	138.8 (148.8)

Note1 (): Denotes the dimensions with auto switch.

Made to Order Common Specifications: -XC8: Adjustable Stroke Cylinder/Adjustable Extension Type



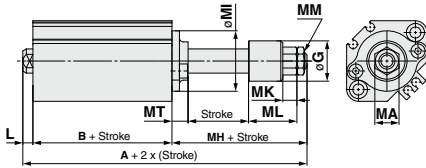
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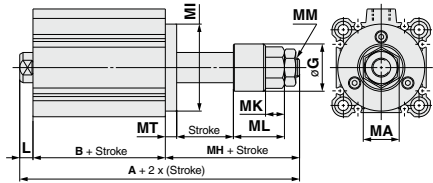
Dimensions (Dimensions other than below are the same as standard type.)

CQ2, CQ2H series

ø12 to ø25



ø32 to ø100



Bore size	A		B		L	MH	MT	MA	MI	MM	MK	ML	øG	Stroke adjustment range
	50 mm stroke or less	75, 100 mm stroke	50 mm stroke or less	75, 100 mm stroke										
12	57.7 (64.9)	—	25.2 (32.4)	—	3.5	29	5	8	□25 (ø15)	M4 x 0.7	5.5	20	14	5 to 30
16	58.5 (68.5)	—	26 (36)	—	3.5	29	5	10	□28 (ø20)	M5 x 0.8	5.5	20	14	5 to 30
20	67.5 (79.5)	—	26 (38)	—	4.5	37	8	12	□36 (ø25)	M6 x 1	7	24	20	5 to 50
25	71 (81)	—	29 (39)	—	5	37	8	12	□40 (ø30)	M6 x 1	7	24	20	5 to 50
32	78.5 (88.5)	88.5	30.5 (40.5)	40.5	7	41	6	17	ø38	M8 x 1.25	9	28.5	25	5 to 50 75,100
40	88 (98)	98	40 (50)	50	7	41	6	19	ø46	M10 x 1.25	10	27	25	5 to 50 75,100
50	100.5 (110.5)	110.5	40.5 (50.5)	50.5	8	52	8	24	ø57	M14 x 1.5	13	31	35	10 to 50 75,100
63	102 (112)	112	42 (52)	52	8	52	10	24	ø68	M14 x 1.5	13	31	35	10 to 50 75,100
80	125 (135)	135	51 (61)	61	10	64	12	32	ø90	M20 x 1.5	16	40	45	10 to 50 75,100
100	138.5 (148.5)	148.5	60.5 (70.5)	70.5	12	66	14	32	ø110	M20 x 1.5	16	40	45	10 to 50 75,100

Note 1) (): Denotes the dimensions with auto switch magnet
Note 2) Applicable stroke available in 5 mm increments.

Made to Order Common Specifications: -XC8: Adjustable Stroke Cylinder/Adjustable Extension Type

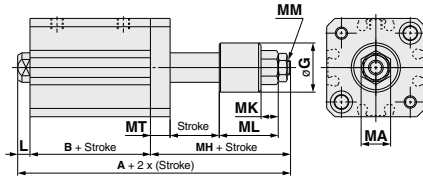


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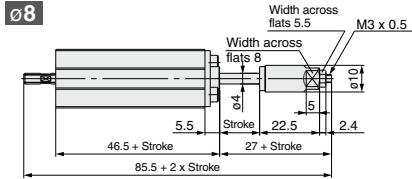
CQS series



Bore size	A	B	L	MH	MT	MA	MM	MK	ML	MG	Stroke adjustment range (mm)
12	56.1 (61.1)	22 (27)	3.5	30.6	5	8	M4 x 0.7	5.5	20	14	5 to 30
16	56.5 (61.5)	22 (27)	3.5	31	5	10	M5 x 0.8	5.5	20	14	5 to 30
20	67.5 (77.5)	26 (36)	4.5	37	8	12	M6 x 1	7	24	20	5 to 50
25	71 (81)	29 (39)	5	37	8	12	M6 x 1	7	24	20	5 to 50

Note 1) (): Denotes the dimensions with auto switch magnet
Note 2) Applicable stroke available in 5 mm increments.

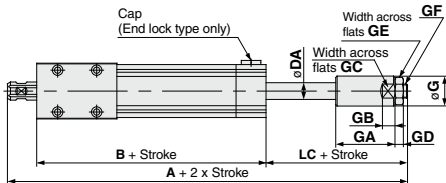
MTS series



Basic Type

Bore size (mm)	A	B	LC	DA	G	GA	GB	GC	GD	GE	GF
12	145	80.5	49.5	6	13.5	42.5	6	11	4	8	M5 x 0.8
16	149.5	83	50.5	8	15.5	42.5	7	13	5	10	M6 x 1.0
20	175	106.5	50.5	10	19.5	42.5	8.5	17	5	13	M8 x 1.25
25	187	114.5	51.5	12	21.5	42.5	9	19	6	17	M10 x 1.25
32	222.5	142.5	56	16	27.5	45	10.5	24	8	22	M14 x 1.5
40	240	155	59	20	32.5	45	11.5	27	11	27	M18 x 1.5

ø12 to ø40



With End Lock

Bore size (mm)	A	B
12	163	98.5
16	165.5	99
20	191.5	123
25	201.5	129
32	238.5	158.5
40	258.5	173.5

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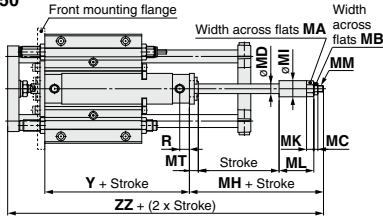
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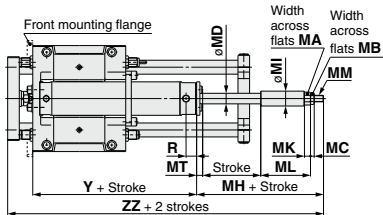
Dimensions (Dimensions other than below are the same as standard type.)

MGJ series

ø20 to ø50

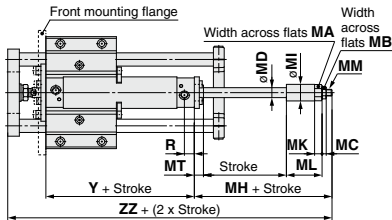


ø63

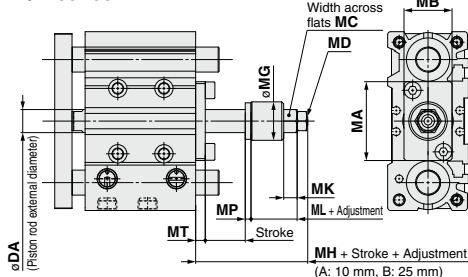


MGC series

ø20 to ø50



MGP series



MGJ Series

(mm)

Bore size (mm)	R	Y	MA	MB	MC	MD	MI	MK	MM	MT
20	12	77	12	10	3.6	8	14	7	M6 x 1	9
25	12	77	17	13	5	10	20	9	M8 x 1.25	11
32	12	79	17	13	5	12	20	9	M8 x 1.25	11
40	13	87	19	17	6	16	25	10	M10 x 1.25	11
50	14	102	24	19	8	20	32	13	M14 x 1.5	11
63	14	117	24	19	8	20	32	13	M14 x 1.5	13

Bore size (mm)	Adjustment 0 to 25 mm			Adjustment 0 to 50 mm		
	MH	ML	ZZ	MH	ML	ZZ
20	63	43	179	88	68	204
25	66	43	189	91	68	214
32	66	43	191	91	68	216
40	72	49	215	97	74	240
50	85	57	254	110	82	279
63	85	57	256	110	82	281

* The piston speed for the extension side is 50 to 500 mm/s.

MGC Series

(mm)

Bore size (mm)	R	Y	MA	MB	MC	MD	MI	MK	MM	MT
20	12	77	12	10	3.6	8	14	7	M6 x 1	9
25	12	77	17	13	5	10	20	9	M8 x 1.25	11
32	12	79	17	13	5	12	20	9	M8 x 1.25	11
40	13	87	19	17	6	16	25	10	M10 x 1.25	11
50	14	102	24	19	8	20	32	13	M14 x 1.5	11

Bore size (mm)	Adjustment 0 to 25 mm			Adjustment 0 to 50 mm		
	MH	ML	ZZ	MH	ML	ZZ
20	63	43	179	88	68	204
25	66	43	189	91	68	214
32	66	43	191	91	68	216
40	72	49	215	97	74	240
50	85	57	254	110	82	279

* The piston speed for the extension side is 50 to 500 mm/s.

Common Dimensions: MGPM-Z, MGPL-Z, MGPA-Z

(mm)

Bore size (mm)	DA	MA	MB	MC	MD	øMG	MH	MK	ML	MP	MT
12	6	27	13	8	M4 x 0.7	14	20	5.5	10	3	3
16	8	28	16	10	M5 x 0.8	14	21	5.5	10	3	3
20	10	33	22	12	M6 x 1	20	27	7	14	3	4
25	12	41	25	12	M6 x 1	20	28	7	14	3	5
32	16	51	32	17	M8 x 1.25	25	35	9	18.5	4	6
40	16	60	32	19	M10 x 1.25	25	34.5	10	17	4	6
50	20	71	38	24	M14 x 1.5	35	42.5	13	21	4	8
63	20	84	50	24	M14 x 1.5	35	43	13	21	4	8
80	25	114	50	32	M20 x 1.5	45	57	16	30	4	9
100	30	140	65	32	M20 x 1.5	45	60	16	30	4	12