

# MSQ Series

## Rotational Platform (Gear Type)

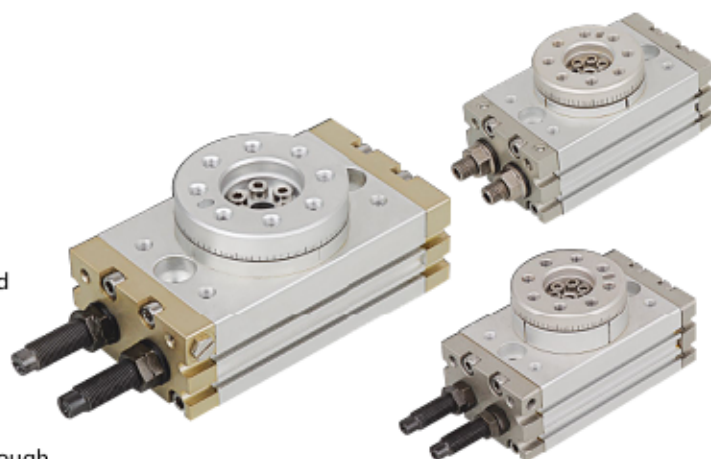
# HQC

## TOOLS

Cylinder  
Sizing  
SI  
SI A.  
SC / SU  
SCT  
SC A.  
SL  
SQ  
DNT  
SIB  
JDA  
CQ2  
CJ2  
CDU  
TN  
CXS  
MGP  
MSQ

### Features

1. High precision balls used in bearing, vertical and horizontal precision are up to  $\pm 0.01$  mm.
2. Rotational type is easy for installation.
3. Rolling bearing design, load is 3 to 4 times larger than CRQ series.
4. Rotation is smooth and accurate.
5. Hollowed center rods for wire or tube to go through.
6. Standard angle adjusting device for wider angle adjustment ( $0^\circ \sim 190^\circ$ ).
7. With magnet ring for sensor switch application.



### Ordering Code

<b>MSQB</b>	<b>10</b>	<b>A</b>	<b>MT</b>
Model	Bore	Type	Sensor
10 70	20 100	A: With angle adjusting screw	Blank: Without sensor
30 200	50	R: With hydraulic Cushion device	* To choose proper sensor switch, please refer to stroke/ sensor switch chart.

### Stroke / Sensor Switch Model

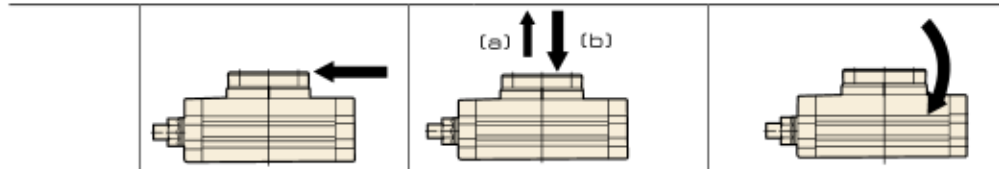
Model	*Sensor Switch Model ( For Slide Installation )
10	
20	D-A90L
30	D-A93L
50	D-A96L
70	D-F9NL
100	D-F9BL
200	

### Specification

Bore (mm)	10	20	30	50	70	100	200	
Operation Fluid	Air ( Non-lub )							
Operation	Double Acting							
Max. Operation Pressure	1 MPa							
	0.6 MPa							
Min. Operation Pressure	0.1 MPa							
Ambient and fluid temperature	0~60 °C							
Cushion	Rubber Buffer (Standard) / Hydraulic Cushion device (Optional)							
Function	With angle adjusting screw	0.007J	0.025J	0.048 J	0.081J	0.24J	0.32J	0.56J
	With hydraulic Cushion	0.039J	0.116J		0.294J	1.1J	1.6J	2.9J
Angle adjusting range	0~190°							
Max. rotating angle	190°							
Steady rotating Time range	With angle adjusting screw	0.2~1.0s/90°			0.2~1.5s/90°	0.2~2.0s/90°	0.2~2.5s/90°	
	With hydraulic Cushion	0.2~0.7s/90°			0.2~1.0s/90°			
Bore	Φ15	Φ18	Φ21	Φ25	Φ28	Φ32	Φ40	
Port Size	M5 x 0.8			Rc1/8				

Max. operation pressure is subject to the Max. load of hydraulic Cushion device.

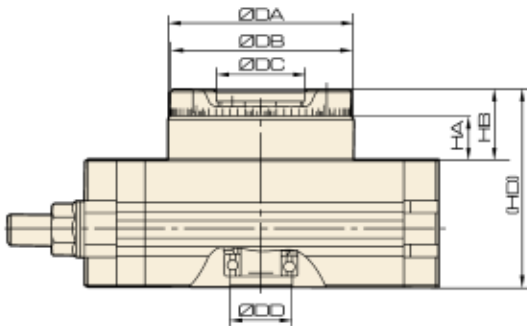
### Max. Load



Model	Max.honjontal load (N)	Max. vertical load (N)		Max. bending (N.m)
		(a)	(b)	
MSQ□10□	78	74	78	2.4
MSQ□20□	147	137	137	4.0
MSQ□30□	196	197	363	5.3
MSQ□50□	314	296	451	9.7
MSQ□70□	333	296	476	12.0
MSQ□100□	390	493	708	18.0
MSQ□200□	543	740	1009	25.0

### Overall Dimension

#### MSQA



Model	DA	DB	DC	DD	HA	HB	BD
MSQA10□	46h8	45h8	20H8	15H8	10	18.5	52.5
MSQA20□	61h8	60h8	28H8	17H8	15.5	26	63
MSQA30□	67h8	65h8	32H8	22H8	16.5	27	67
MSQA50□	77h8	75h8	35H8	26H8	17.5	30	76

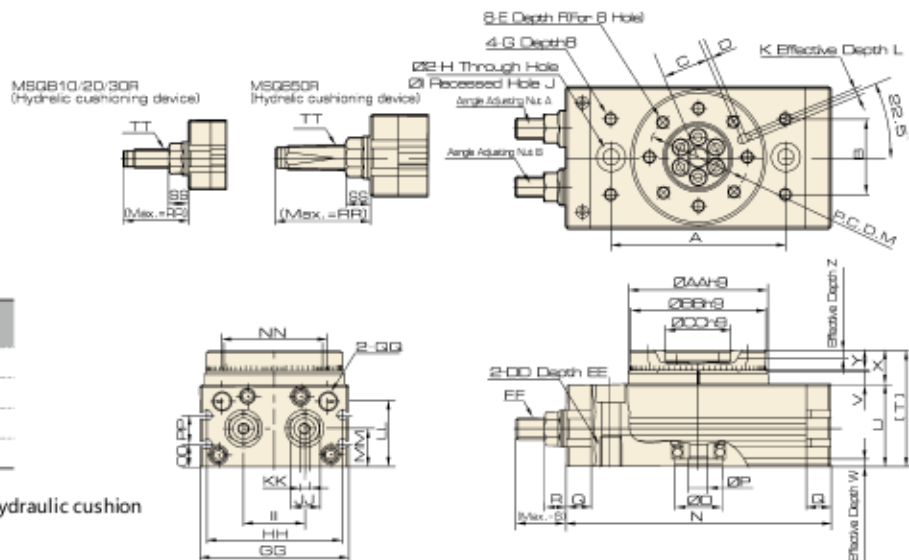
## MSQ Series Rotational Platform (Gear Type)

Cylinder  
Sizing  
SI  
SI A.  
SC / SU  
SCT  
SC A.  
SL  
SQ  
DNT  
SIB  
JDA  
CQ2  
CJ2  
CDU  
TN  
CX5  
MGP  
MSQ

### Overall Dimension

#### MSQB

Ø10, 20, 30, 50



Model	Adjusting angle reached per round*
MSQB10□	Above 10.2°
MSQB20□	Above 7.2°
MSQB30□	Above 6.5°
MSQB50□	Above 8.2°

In case of angle adjusting screw or hydraulic cushion twisting one circle.

### Dimension

Model	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z
MSQB10□	60	27	15	2	M5 x 0.8	8	M5x0.8	6.8	11	6.5	3H9	3.5	32	92	15H9	5	9.5	8.6	17.7	47	34	4.5	3	13	8	4
MSQB20□	76	34	20.5	2	M6 x 1	10	M6x1	8.6	14	8.5	4H9	4.5	43	117	17H9	9	12	10.6	25	54	37	6.5	2.5	17	10	6
MSQB30□	84	37	23	2	M6 x 1	10	M6x1	8.6	14	8.5	4H9	4.5	48	127	22H9	9	12	10.6	25	57	40	6.5	3	17	10	4.5
MSQB50□	100	50	26.5	2	M8 x 1.25	12	M8x1.25	10.5	18	10.5	5H9	5.5	55	152	26H9	10	15.5	14	31.4	66	46	7.5	3	20	12	5

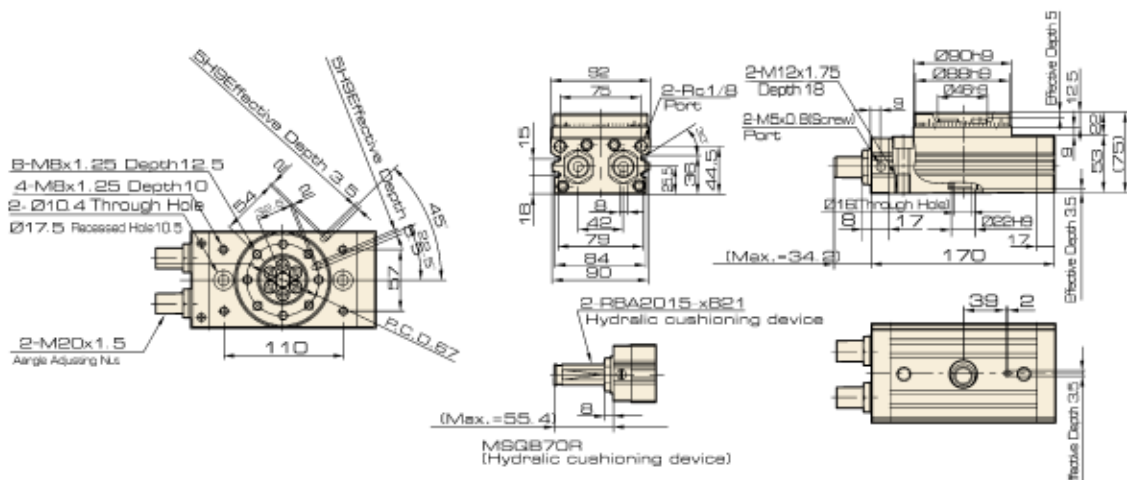
Model	AA	BB	CC	DD	EE	FF	GG	HH	II	JJ	KK	LL	MM	NN	OO	PP	QQ	RR	SS	TT	Code of Hydraulic Cushion device
MSQB10□	46	45	20	M8 x 1.25	12	M8 x 1	50	45	20	12	4	27.8	15.5	34.5	9	13	M5 x 0.8	31.5	8.6	M8 x 1	RBA0805-X692
MSQB20□	61	60	28	M10 x 1.5	15	M10 x 1	65	60	27.5	14	5	28.8	16	51	10	12	M5 x 0.8	34.7	10.6	M10 x 1	RBA1006-X692
MSQB30□	67	65	32	M10 x 1.5	15	M10 x 1	70	65	29	14	5	32	18.5	50	11.5	14	1/8	34.7	10.6	M10 x 1	RBA1006-X692
MSQB50□	77	75	35	M12 x 1.75	18	M14 x 1.5	80	75	38	19	6	37.5	22	63	14.5	15	1/8	51.7	14	M14 x 1.5	RBA1411-X692

Max. measurement is at Max. rotation angle (190°)

### Overall Dimension

#### MSQB

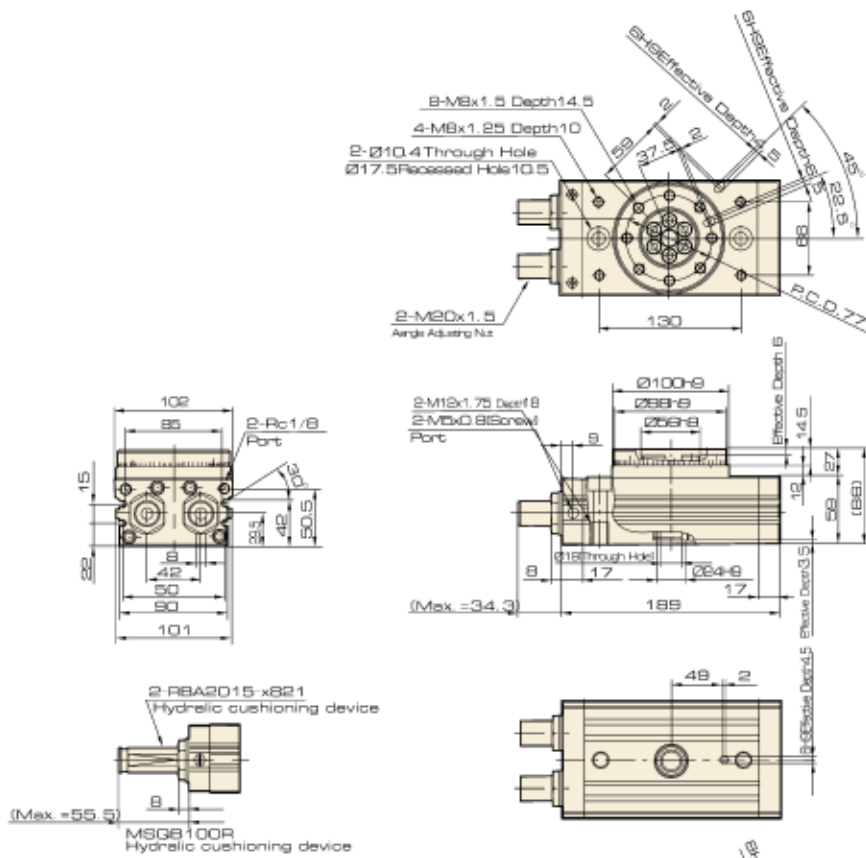
Ø70



### Overall Dimension

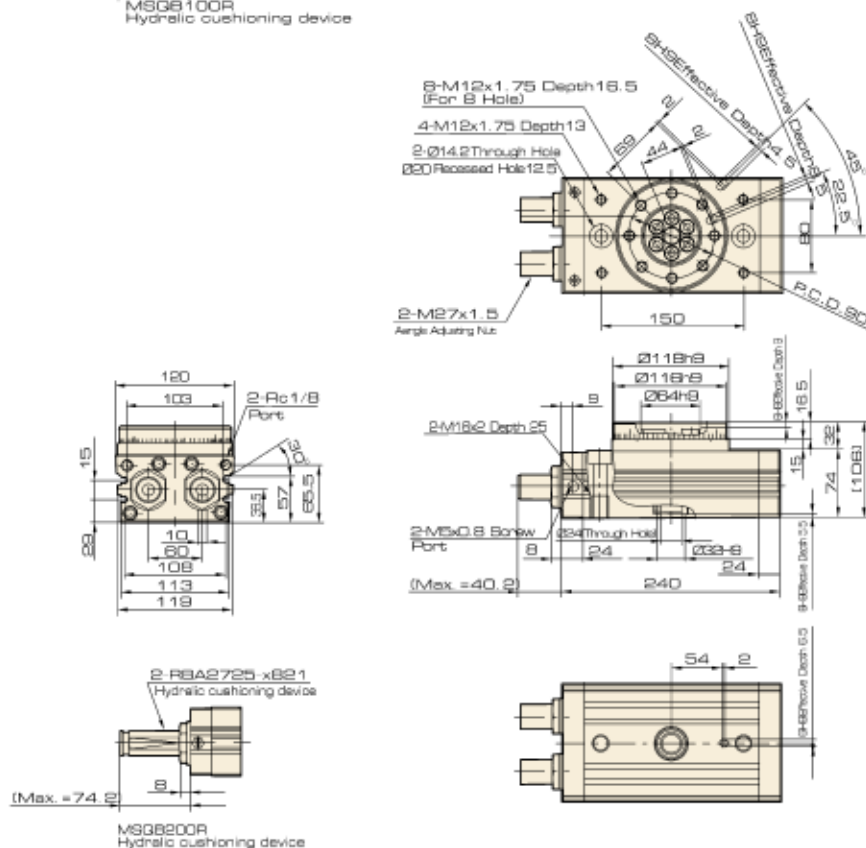
#### MSQB

Ø100



#### MSQB

Ø200



Cylinder

- Sizing
- SI
- SIA
- SC / SU
- SCT
- SCA
- SL
- SQ
- DNT
- SJB
- JDA
- CQ2
- CJ2
- CDU
- TN
- CXS
- MGP
- MSQ