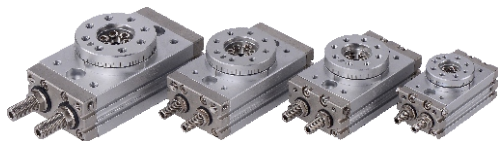


Standard Specifications

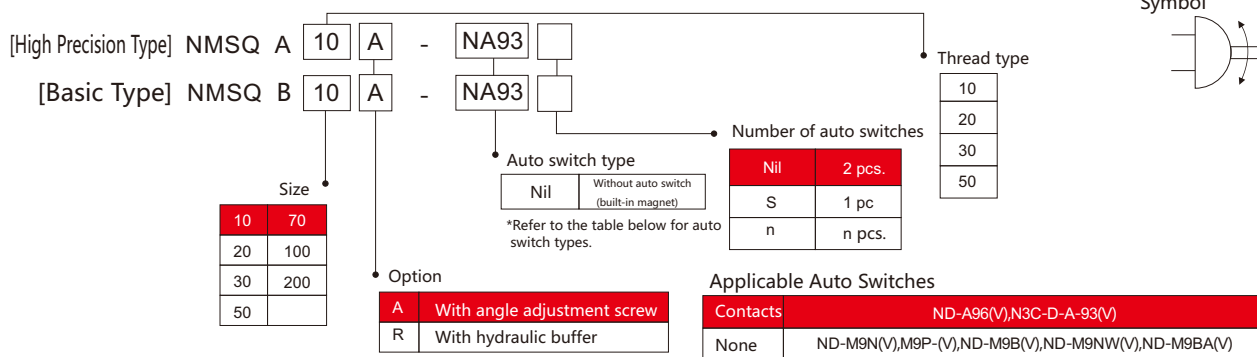


Bore size		10	20	30	50	70	100	200
Fluid		Air (non-lube)						
Action		Double acting						
Maximum operating pressure	With adjustment bolt	1MPa						
	With internal shock absorber	0.6MPa ^{Note)}						
Minimum operating pressure		0.1MPa(High Precision:0.2MPa)						
Ambient and fluid temperature		10~60°(with no freezing)						
Cushion		Rubber bumper/Shock absorber						
Allow Energy	With adjustment bolt	0.007J	0.025J	0.048J	0.081J	0.24J	0.32J	0.56J
	With internal shock absorber	0.039J	0.116J		0.294J	1.1J	1.6J	2.9J
Angle adjustment range		0~190°						
Maximum rotation		190°						
Speed Angle	Adjustment screw	0.2~1.0s/90°				0.2~1.5s/90°	0.2~2.0s/90°	0.2~2.5s/90°
	Hydraulic buffer	0.2~0.7s/90°				0.2~1.0s/90°		
Cylinder bore size		Φ15	Φ18	Φ21	Φ25	Φ28	Φ32	Φ40
Port size	End ports	M5 x 0.8			Rc 1/8			
	Side ports	M5 x 0.8						

Note)The maximum operating pressure of the actuator is restricted by the maximum allowable thrust of the shock absorber.

Standard Specifications

Symbol



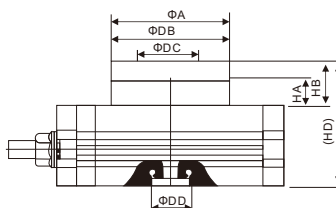
Allow heavy load

If the load is heavy or the bending moment is too large, it will affect the accuracy or damage the structure

Model	Allow load(N)		Allow load(N)				Allowable bending moment(N·m)		Effective output torque (N·m)(0.5MPa)
	Basic type	High precision	(a)		(b)		Basic type	High precision	
			Basic type	High precision	Basic type	High precision			
NMSQ□10□	78	85	74	74	78	107	2.4	2.9	0.89
NMSQ□20□	147	166	137	137	137	197	4.0	4.8	1.84
NMSQ□30□	196	233	197	197	363	398	5.3	6.4	2.73
NMSQ□50□	314	378	296	296	451	517	9.7	12	4.64
NMSQ□50□	333	-	296	-	476	-	12.0	-	6.79
NMSQ□100□	390	-	483	-	708	-	18.0	-	10.1
NMSQ□200□	543	-	740	-	1009	-	25.0	-	19.8

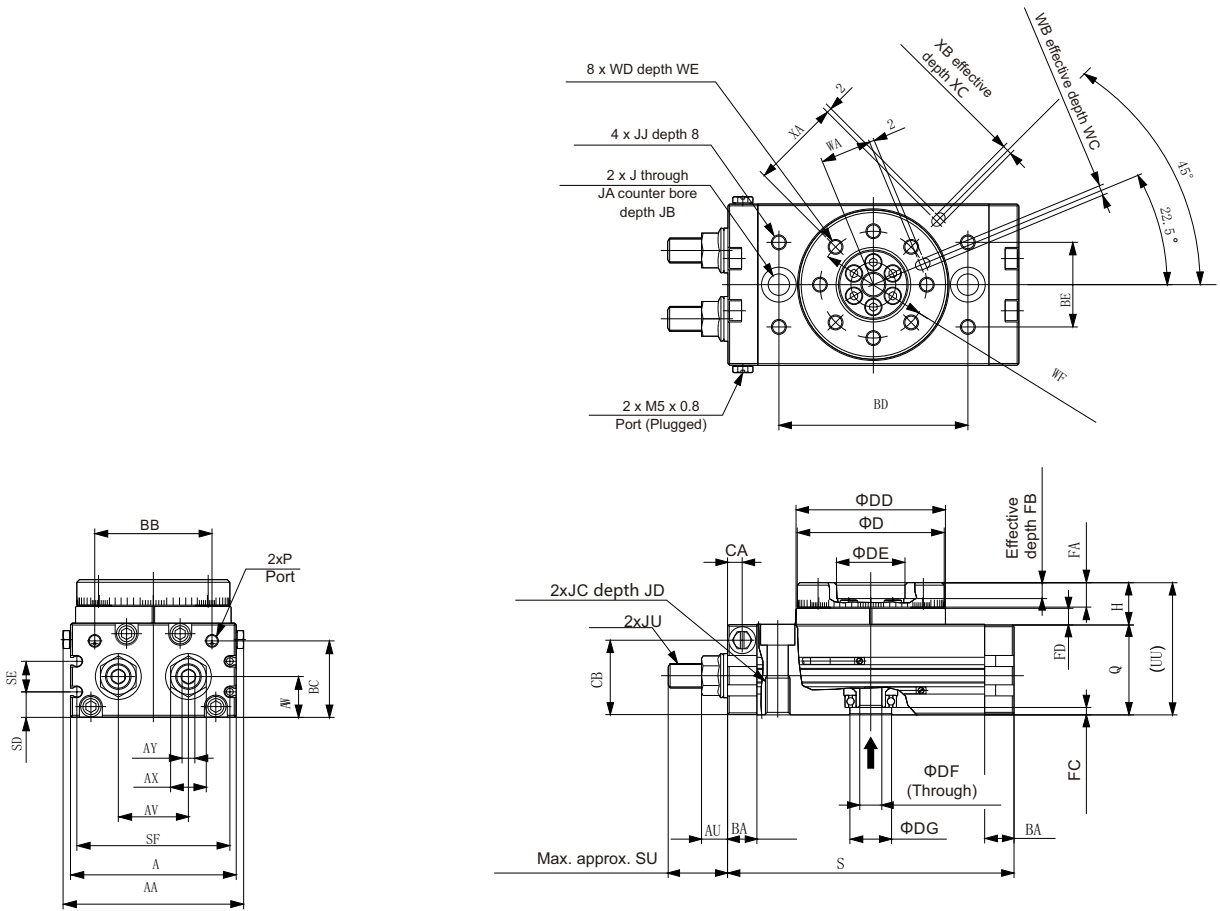
Allow heavy load

Model	DA	DB	DC	DD	HA	HB	HD
NMSQA10□	46h8	45h8	20h8	15h8	10	18.5	52.5
NMSQA20□	61h8	60h8	28h8	17h8	15.5	26	63
NMSQA30□	67h8	65h8	32h8	22h8	16.5	27	67
NMSQA50□	77h8	75h8	35h8	26h8	17.5	30	76



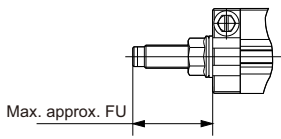
Dimensions

NMSQB□

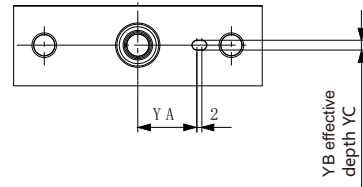
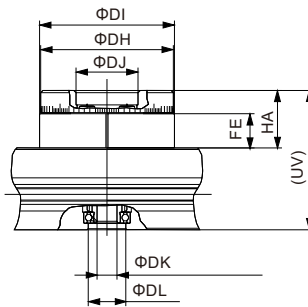


With internal shock absorber
NMSQA□R
NMSQB□R

High precision type
NMSQA□A/With adjustment bolt
NMSQA□R/With internal shock absorber



Size	FU
10	31.5
20	34.7
30	34.7
50	51.7



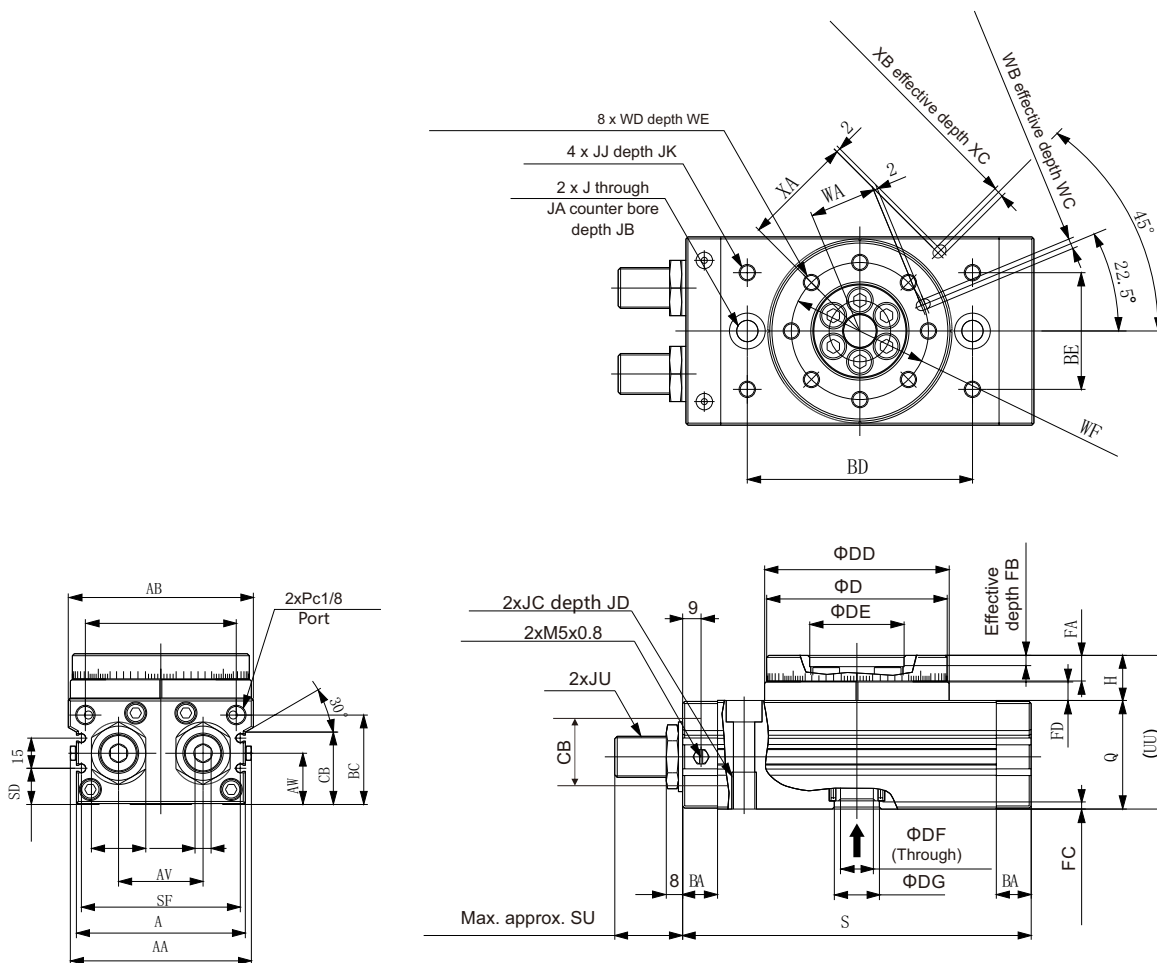
Size	DH	DI	DJ	DK	DL	FE	HA	UV
10	45h8	46h8	20H8	5	15H9	10	18.5	52.5
20	60h8	61h8	28H8	9	17H8	15.5	26	63
30	65h8	67h8	32H8	9	22H8	16.5	27	67
50	75h8	77h8	35H8	10	26H8	17.5	30	76

Size	AA	A	AU	AV	AW	AX	AY	BA	BB	BC	BD	BE	CA	CB	D	DD	DE	DF	DG	FA	FB	FC	FD	H	J	JA	JB
10	55.4	50	8.6	20	15.5	12	4	9.5	34.5	27.8	60	27	4.5	28.5	45h9	46h9	20H9	5	15H9	8	4	3	4.5	13	6.8	11	6.5
20	70.8	65	10.6	27.5	16	14	5	12	46	30	76	34	6	30.5	60h9	61h9	28H9	9	17H9	10	6	2.5	6.5	17	8.6	14	8.5
30	75.4	70	10.6	29	18.5	14	5	12	50	32	84	37	6.5	33.5	65h9	67h9	32H9	9	22H9	10	4.5	3	6.5	17	8.6	14	8.5
50	85.4	80	14	38	22	19	6	15.5	63	37.5	100	50	10	37.5	75h9	77h9	35H9	10	26H9	12	5	3	7.5	20	10.5	18	10.5

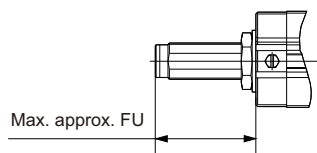
Size	JC	JD	JJ	JU	JU	Q	S	SD	SE	SF	SU	UU	WA	WB	WC	WD	WE	WF	XA	XB	XC	YA	YB	YC
10	M8 x 1.25	12	M5 x 0.8	M8 x 1	M5 x 0.8	34	92	9	13	45	17.7	47	15	3H9	3.5	M5 x 0.8	8	32	27	3H9	3.5	19	3H9	3.5
20	M10 x 1.5	15	M6 x 1	M10 x 1	M5 x 0.8	37	117	10	12	60	25	54	20.5	4H9	4.5	M6 x 1	10	43	36	4H9	4.5	24	4H9	4.5
30	M10 x 1.5	15	M6 x 1	M10 x 1	Rc 1/8	40	127	11.5	14	65	25	57	23	4H9	4.5	M6 x 1	10	48	39	4H9	4.5	28	4H9	4.5
50	M12 x 1.75	18	M8 x 1.25	M14 x 1.5	Rc 1/8	46	152	14.5	15	75	31	66	26.5	5H9	5.5	M8 x 1.25	12	55	45	5H9	5.5	33	5H9	5.5

Dimensions

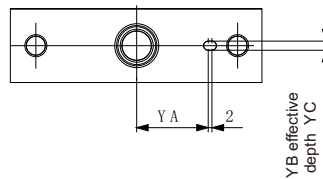
NMSQB□



With shock absorber
NMSQB□R



Size	FU (mm)
70	55.4
100	55.5
200	79.5



Size	AA	AB	A	AV	AW	AX	AY	BA	BB	BC	BD	BE	CB	D	DD	DE	DF	DG	FA	FB	FC	FD	H	J	JA	JB
70	90	92	84	42	25.5	27	8	17	75	44.5	110	57	36	88h9	90h9	46H9	16	22H9	12.5	5	3.5	9	22	10.4	17.5	10.5
100	101	102	95	50	29.5	27	8	17	85	50.5	130	66	42	98h9	100h9	56H9	19	24H9	14.5	6	3.5	12	27	10.4	17.5	10.5
200	119	120	113	60	36.5	36	10	24	103	65.5	150	80	57	116h9	118h9	64H9	24	32H9	16.5	9	5.5	15	32	14.2	20	12.5

Size	JC	JD	JJ	JK	JU	Q	S	SD	SF	SU	UU	WA	WB	WC	WD	WE	WF	XA	XB	XC	YA	YB	YC
70	M12 x 1.75	18	M8 x 1.25	10	M20 x 1.5	53	170	18	79	34.2	75	32.5	5H9	5.5	M8 x 1.25	12.5	67	54	5H9	3.5	39	5H9	3.5
100	M12 x 1.75	18	M8 x 1.25	10	M20 x 1.5	59	189	22	90	34.3	86	37.5	6H9	6.5	M10 x 1.5	14.5	77	59	6H9	4.5	49	6H9	4.5
200	M16 x 2	25	M12 x 1.75	13	M27 x 1.5	74	240	29	108	40.2	106	44	8H9	8.5	M12 x 1.75	16.5	90	69	8H9	4.5	54	8H9	6.5