

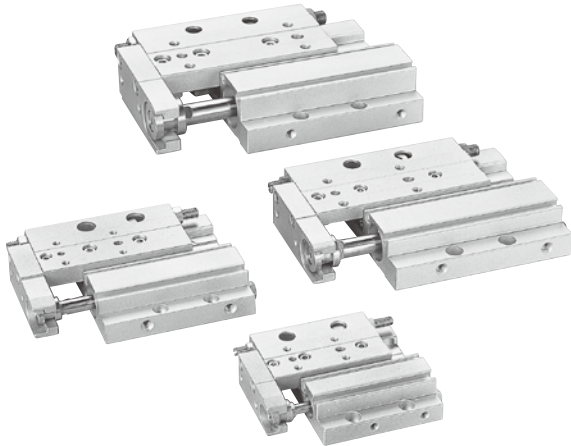


Table for standard stroke

Tube I.D.	Stroke (mm)
ø8	10, 20, 30
ø12	20, 30, 50
ø16	30, 50, 75
ø20	30, 50, 75, 100

* Produce after received your orders.

Order example

MCSF — 12 — 50 — X11

MODEL

TUBE I.D.

STROKE

STROKE ADJUSTABLE

Blank: 5mm
X11: 15mm
X12: 25mm

* X12 (adjustable range 25mm) is not available in series MCSF-8 / MCSF-12.

Cylinder weight

Unit: g

Stroke (mm)	Tube I.D.			
	ø8	ø12	ø16	ø20
10	125	—	—	—
20	132	212	—	—
30	171	248	372	608
50	—	357	522	775
75	—	—	696	1,053
100	—	—	—	1,351

Features

- Parallel mounting of guide to cylinder gives slim compact unit.
- Flush fitting sensor groove.
- Magnetic as standard.

Specification

Model	MCSF	
Acting type	Double acting	
Tube I.D. (mm)	8	12, 16, 20
Port size	M3×0.5	M5×0.8
Medium	Air	
Operating pressure range	0.15~0.7 MPa	
Proof pressure	1 MPa	
Ambient temperature	-10~+60°C (No freezing)	
Available speed range	50~500 mm/sec	
Lubricator	Not required	
Cushion	Rubber bumper	
Stroke length tolerance	+1.0 0	
Stroke adjuster range	Extend 5mm / Retract 5mm	
Sensor switch (*)	RCE, RCE1	

* RCE, RCE1 specification, please refer to page 8-10.

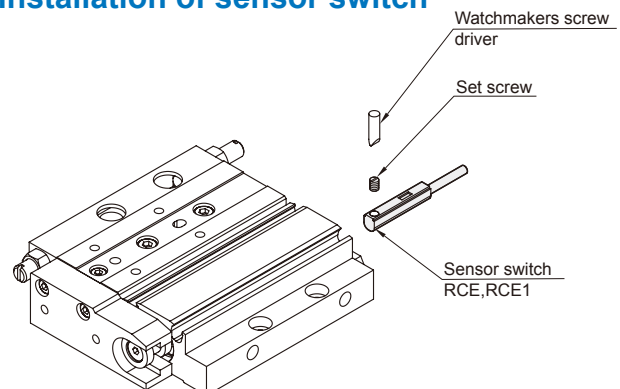
Theoretical force



Unit: N

Tube I.D. (mm)	Piston rod (mm)	Operating direction	Piston area (mm ²)	Operating pressure (MPa)						
				0.2	0.3	0.4	0.5	0.6	0.7	
8	4	OUT	50	10	15	20	25	30	35	
		IN	38	8	11	15	19	23	27	
12	6	OUT	113	23	34	45	57	68	79	
		IN	85	17	26	34	43	51	60	
16	8	OUT	201	40	60	80	101	121	141	
		IN	151	30	45	60	76	91	106	
20	10	OUT	314	63	94	126	157	188	220	
		IN	236	47	71	94	118	142	165	

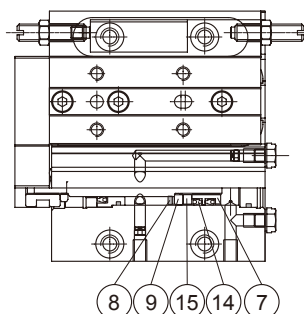
Installation of sensor switch



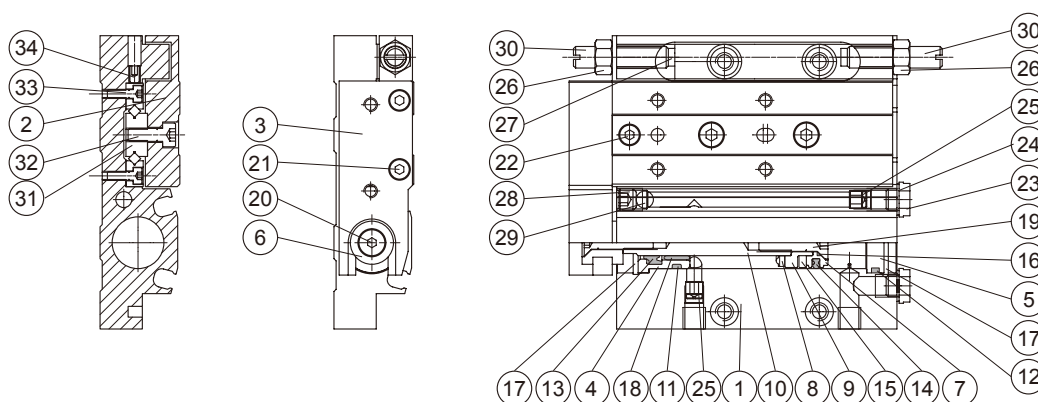
LOW PROFILE SLIDE CYLINDER

Mindman

ø8



ø12, ø16, ø20



Material

No.	Tube I.D. Part name	8	12~20	Q'y	Repair kits (inclusion)
1	Body	Aluminum alloy		1	
2	Table	Aluminum alloy		1	
3	Plate	Aluminum alloy		1	
4	Rod cover	Aluminum alloy		1	
5	Head cover	Aluminum alloy		1	
6	Floating connector	Stainless steel		1	
7	Piston	*2	*1	1	
8	Cushion pad	NBR		1	●
9	Piston	*2	*1	1	
10	Piston rod	Stainless steel		1	
11	Cover ring	NBR		1	●
12	Cover ring	NBR		1	●
13	Rod packing	NBR		1	●
14	Piston packing	NBR		1 or 2	●
15	Magnet ring	Magnet material		1	
16	Gasket	—	NBR	1	●
17	Stop ring	Stainless steel		2	
18	Rod bush	—	Bearing alloy	1	
19	Piston bolt	—	*2	1	
20	Floating connector bolt	—	*2	1	
21	Bolt	Stainless steel		2	

No.	Tube I.D. Part name	8	12~20	Q'y	Repair kits (inclusion)
22	Bolt	Stainless steel		1	
23	Plug	Copper		2	
24	Plug gasket	POM		2	
25	Orifice	Stainless steel		2	
26	Nut	Copper/Stainless steel		2	
27	End cushion	PU		2	●
28	Plug	—	*2	1	
29	Ball	—	*2	1	
30	Adjuster bolt	Copper/Stainless steel		2	
31	Slide way	Bearing steel		1	
32	Bolt	Stainless steel		*3	
33	Bolt	Stainless steel		*3	
34	Bolt	Stainless steel		*3	

*1. Aluminum alloy

*2. Stainless steel

*3. Quantity varies depending on the stroke length.

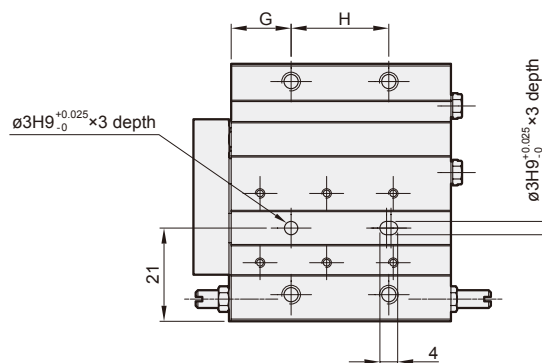
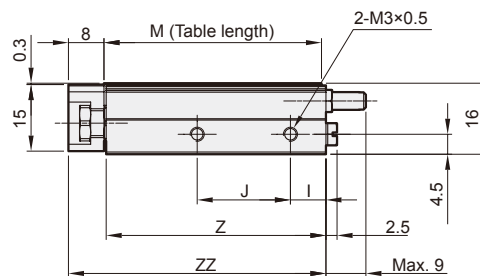
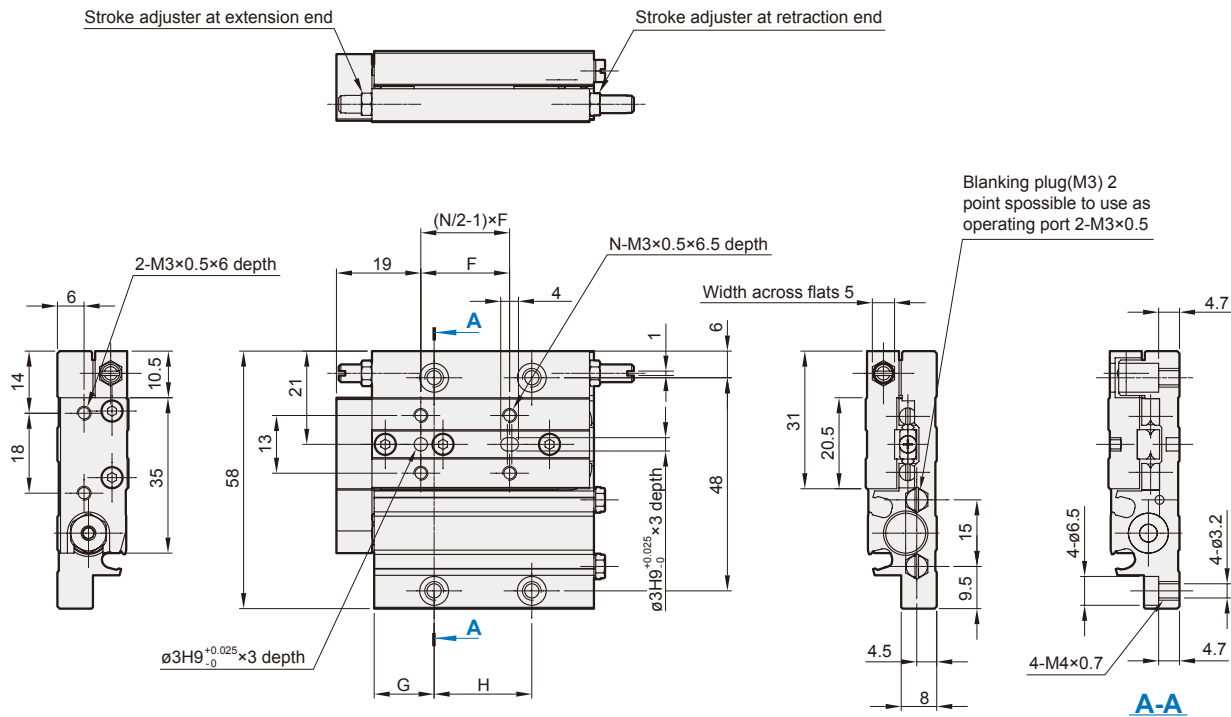
Order example of repair kits

Tube I.D.	Repair kits
ø8	PS-MCSF-8
ø12	PS-MCSF-12
ø16	PS-MCSF-16
ø20	PS-MCSF-20

* Item 14. Tube I.D. ø8 (Q'y: 2pcs); Tube I.D. ø12~20 (Q'y: 1pc).

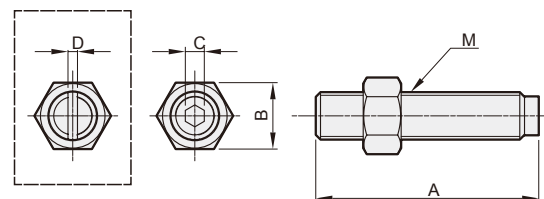
MCSF Dimensions $\varnothing 8$

LOW PROFILE SLIDE CYLINDER

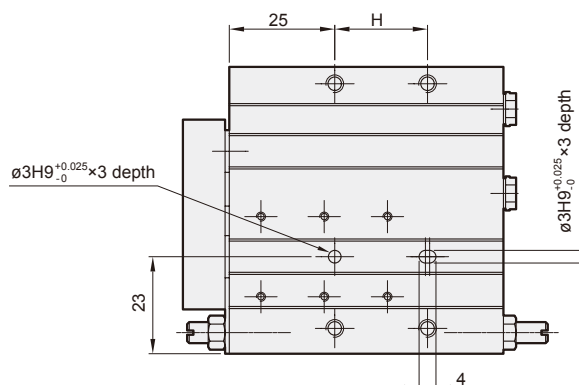
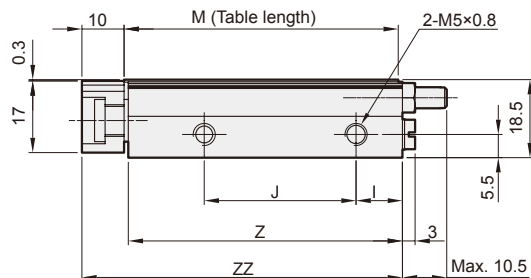
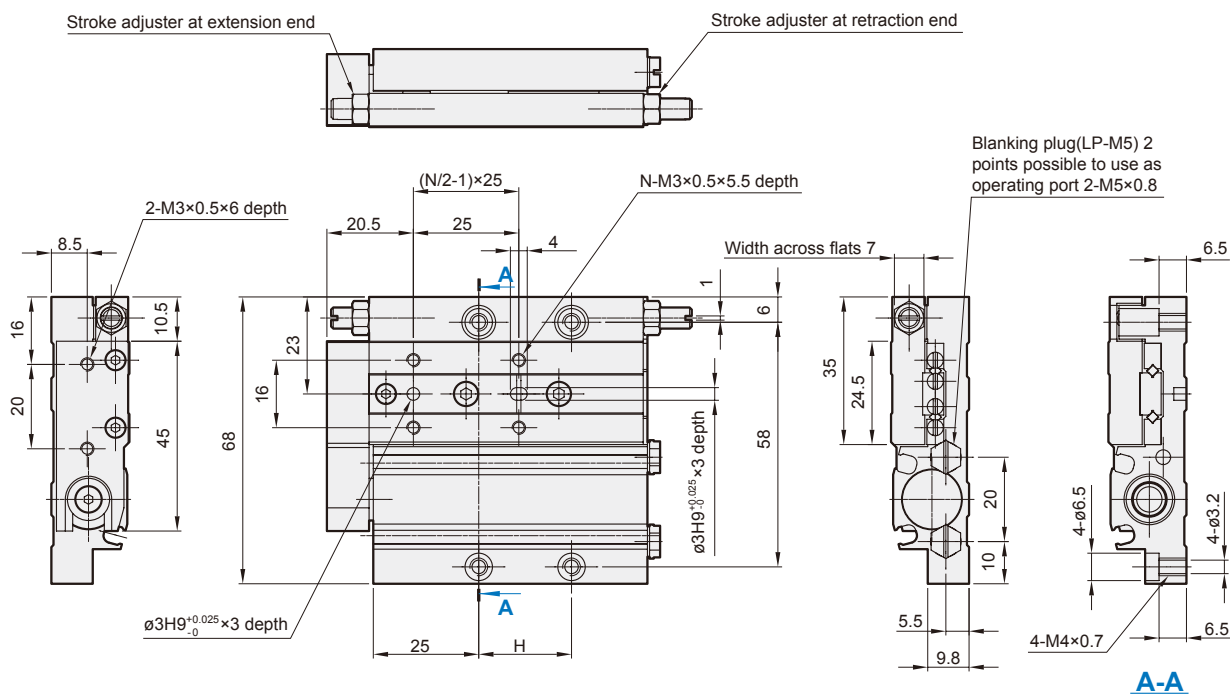


Code Stroke	F	G	H	I	J	M	N	Z	ZZ
10	20	13.5	22	8	21	49	4	49.5	58
20	26	14.5	26	6.5	28	54	4	54.5	63
30	26	14.5	40	8	41	69	6	69.5	78

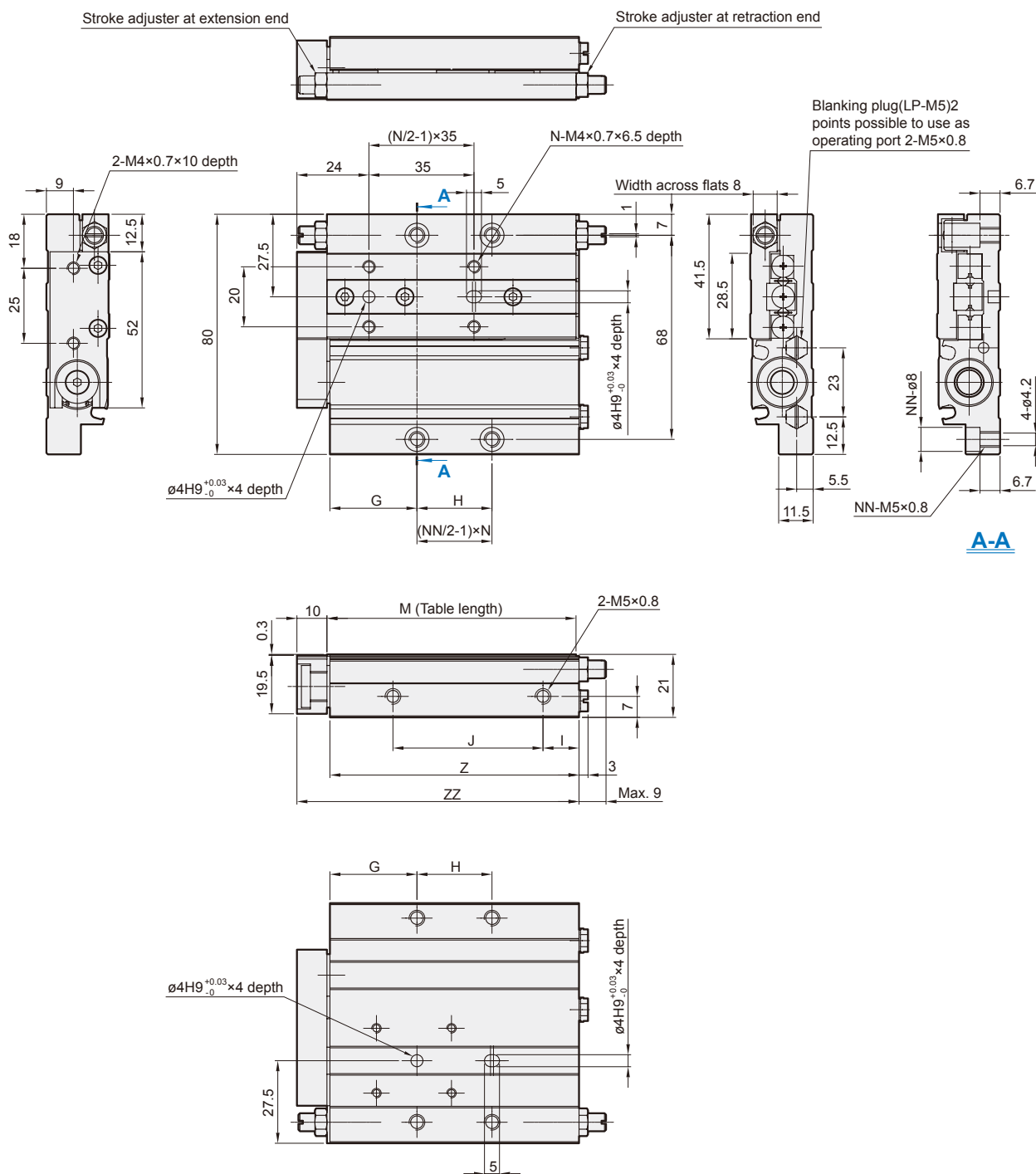
Stroke adjuster bolt $\varnothing 8 \sim \varnothing 20$



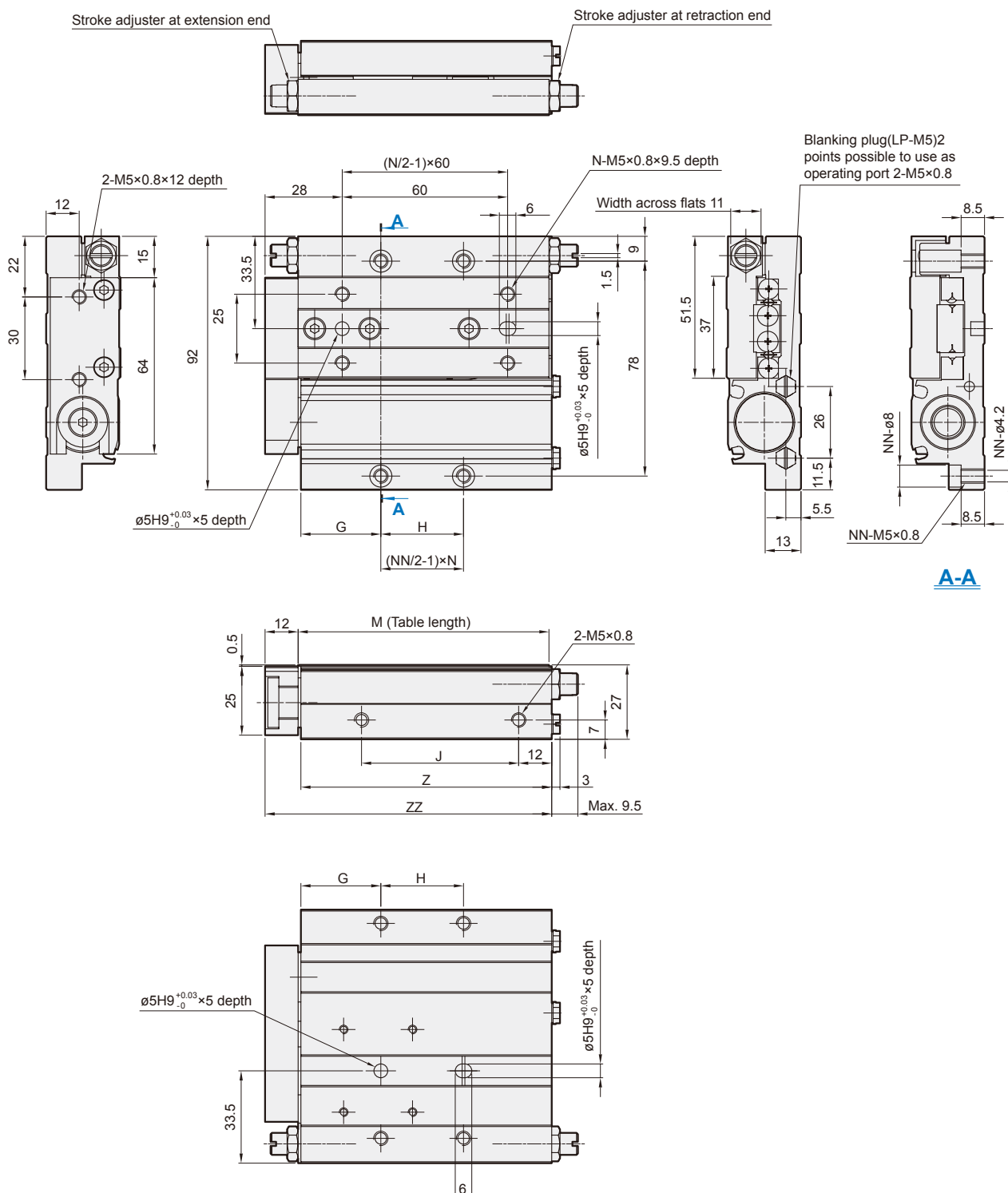
Tube I.D.	Order code	Adjustable stroke range (mm)	A	B	C	D	M
8	MCSF-8	5	17	5	—	1	M4 $\times$ 0.7
	MCSF-8-X11	15	27				
12	MCSF-12	5	23.5	7	—	1	M5 $\times$ 0.8
	MCSF-12-X11	15	33.5				
16	MCSF-16	5	26.5	8	3	—	M6 $\times$ 1
	MCSF-16-X11	15	36.5				
	MCSF-16-X12	25	46.5		—	1	
20	MCSF-20	5	30	11	4	—	M8 $\times$ 1
	MCSF-20-X11	15	40				
	MCSF-20-X12	25	50		—	1.5	



Code Stroke	H	I	J	M	N	Z	ZZ
20	22	11	36	65	4	65	76
30	30	12	45	75	4	75	86
50	65	13	80	111	6	111	122



Code Stroke	G	H	I	J	M	N	NN	Z	ZZ
30	29	25	12	50	83	4	4	83	94
50	29	55	12	80	113	6	4	113	124
75	39	45	13	125	159	6	6	159	170



Code Stroke	G	H	J	M	N	NN	Z	ZZ
30	29	30	57	91	4	4	91	104
50	36	45	77	113	4	4	113	126
75	40	45	125	162	6	6	162	175
100	59	60	175	211	6	6	211	224