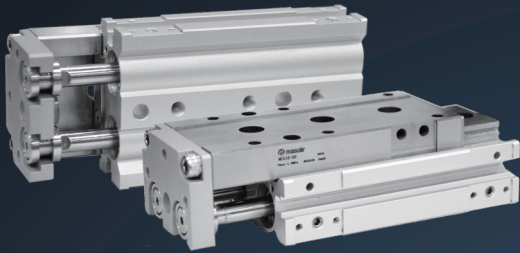# Air Slide Table (Double cylinders Type)
# MCG Series(φ6-φ25)

Advantages
*Double cylinders design ensures twice output.
*The combination of cylinder and worktable reduces the overall size.
*Floating joint design ensures no additional load for piston rod.
*Auto switch is available.
*Stroke adjuster is available.
*High strength,precision and load capacity.

The cylinder block and end plate are designed with locating pin holes.

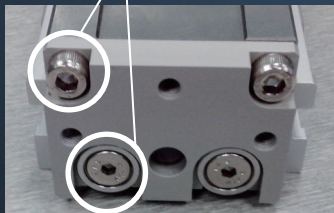Floating joint design ensures no additional load for piston rod.
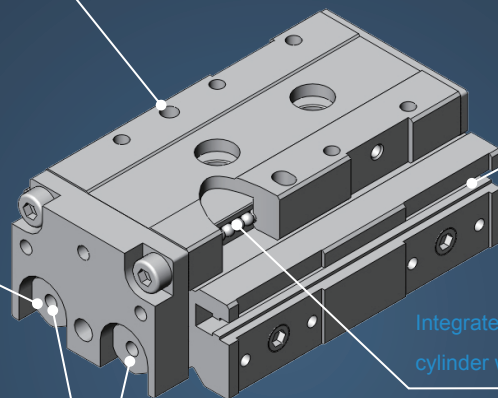
Built-in copper and auto switch is available.

Integrated design of steel column guide rail and cylinder. cylinder with high strength, high precision, high capacity.

Double cylinders design ensures twice output.

Compared with similar products from other companies

12.9 High strength screw

10.9 Normal strength screw
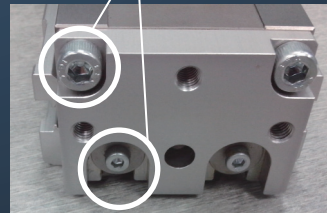
maxair

C company from Japan

1.Maxair product looks better than equivalent product from C.
2.For Maxair product,the connection between the end plate and the slide table is connected with 12.9 high strength screws instead of 10.9 normal strength screws of C company.

Linear sliding table cylinder
MCG Series(φ6-φ25）

Specifications

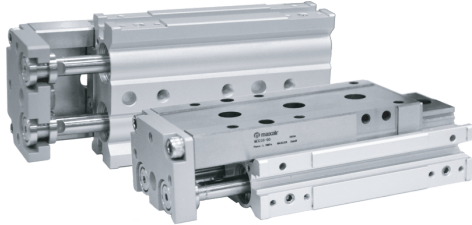| Model	MCG6	MCG 8	MCG12	MCG16	MCG20	MCG25
Working fluid	Compressed air					
Actuation	Double acting					
Max. working pressure	0.7MPa					
Min. working pressure	0.15MPa (Note 1)					
Proof pressure	1 MPa					
Ambient temperature	-10 ～ +60℃ No freezing (Note2)					
Working piston speed	50~500mm/s (Note3)					
Stroke tolerance	$^{+2.0}_{0}$ (Note4)					
Cushion	Rubber cushion(Standard)					
Lubrication	Not required(use turbine oil class 1 ISO vg32 if necessary for lubrication)					
Port size	Main boby side	M3×0.5	M5×0.8			Rc1/8
	Main boby back	M3×0.5			M5×0.8	Rc1/8

Note)1:0.2MPa when using φ6 shock absorber stopper.

2:Note that there will be a slight gap between the end plate and floating bush if no stopper is attached.

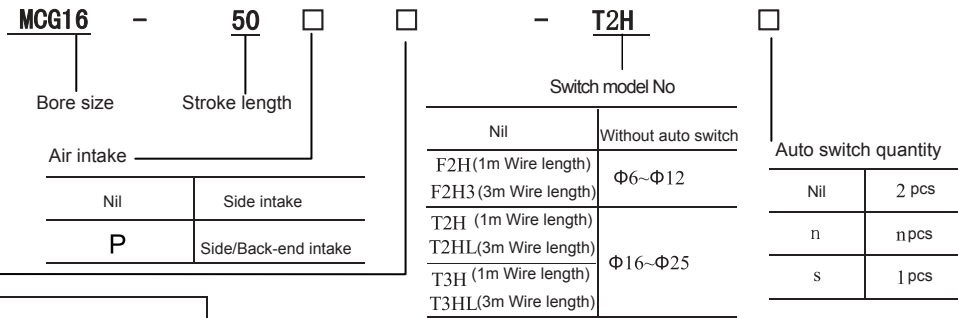3:Keep within 50 to 200 mm/s when using a stroke adjusting stopper.

4:The stroke adjusting stopper for 0.3MPa and over working pressure is the metal sealing.

Theoretical

（N）

Bore size	Outer diameter of piston rod	Operating direction		Piston area （mm²）	Air pressure （MPa）					
					0.2	0.3	0.4	0.5	0.6	0.7
6	3	Double acting	Out	56.5	11.3	17.0	22.6	28.3	33.9	39.6
			IN	42.4	8.5	12.7	17.0	21.2	25.4	29.7
8	4	Double acting	Out	100.5	20.1	30.1	40.2	50.2	60.3	70.3
			IN	75.4	15.1	22.6	30.1	37.7	45.2	52.8
12	6	Double acting	Out	226.1	45.2	67.8	90.4	113.0	135.6	158.3
			IN	169.6	33.9	50.9	67.8	84.8	101.7	118.7
16	8	Double acting	Out	401.9	80.4	120.6	160.8	201.0	241.2	281.3
			IN	301.4	60.3	90.4	120.6	150.7	180.9	211.0
20	10	Double acting	Out	628.0	125.6	188.4	251.2	314.0	376.8	439.6
			IN	471.0	94.2	141.3	188.4	235.5	282.6	329.7
25	12	Double acting	Out	981.3	196.3	294.4	392.5	490.6	588.8	686.9
			IN	755.2	151.0	226.6	302.1	377.6	453.1	528.6

How to order

MCG16 — 50 □ □ — T2H □

Bore size	Stroke length

Air intake

Nil	Side intake
P	Side/Back-end intake

Switch model No

Nil	Without auto switch	
F2H(1m Wire length) F2H3(3m Wire length)		Φ6~Φ12
T2H (1m Wire length) T2HL(3m Wire length) T3H (1m Wire length) T3HL(3m Wire length)		Φ16~Φ25

Auto switch quantity

Nil	2 pcs
n	n pcs
s	1 pcs

Stopper

Blank	No option
S Stroke adjusting stopper5mm stroke adjustment on one side	
S1	Stopper position ① （can be changed to ④)
S2	Stopper position ② （can be changed to ③)
S3	Stopper position ③ （can be changed to ②)
S4	Stopper position ④ （can be changed to ①)
S5	Stopper position ①③
S6	Stopper position ②④
A Shock absorber stopper(Note 2/5/6)	
A1	Stopper position ① （can be changed to ④)
A2	Stopper position ② （can be changed to ③)
A3	Stopper position ③ （can be changed to ②)
A4	Stopper position ④ （can be changed to ①)
A5	Stopper position ①③
A6	Stopper position ②④
Blank	Port on the stopper:without port
D （Note 6)	Port on stopper:side and bottom ports
Blank	Stopper block material:steel(nitriding)

*1：To change the adjustable stroke length,use the discrete stroke adjusting stopper.

*2:For the adjustable stroke range with a shock adsorber stopper,refer to the stopper dimensions table.

*3:For the port position,refer to the stopper dimensions.

*4:The port positions of the standard without stopper are ① and ③ on the figure.

*5:Combination of the stroke adjusting stopper and shock adsorber stopper is custom order.

*6:Can be selected for the type with stopper only.

*7:A1,A2,A5 and A6 of φ6 to φ8 with 10mm stroke length or less and φ12/φ16 with 20mm stroke length or less are custom order since adjustment is not possible with the standard stopper.

*8:When two switches are necessary for the type with S or A of φ6 to φ8 with 30mm stroke length or less,select the F2H type switch.

● **Stopper position**
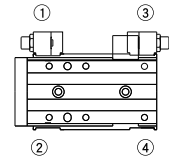
(Combination with stroke adjusting stopper,shock absorber stopper)

Option code		Stroke adjusting stopper						Shock adsorber stopper					
Bore size	Stroke length	S1	S2	S3	S4	S5	S6	A1	A2	A3	A4	A5	A6
Φ6，Φ8	10	○	○	○	○	○	○	–	–	○	○	–	–
	20 or more	○	○	○	○	○	○	○	○	○	○	○	○
Φ12~Φ25	10~20	○	○	○	○	○	○	–	–	○	○	–	–
	30 or more	○	○	○	○	○	○	○	○	○	○	○	○

How to order

Bore size(mm)	Stroke length(mm)	Switch model No
Φ6	10,20,30,40,50	SW-F2H(3)
Φ8	10,20,30,40,50,75	
Φ12	10,20,30,40,50,75,100	
Φ16	10,20,30,40,50,75,100,125	SW-T2H(L)/ T3H（L)
Φ20	10,20,30,40,50,75,100,125,150	
Φ25	10,20,30,40,50,75,100,125,150	

[Example of model No.]

MCG12-20-S1-F2H

Model:Linear slide cylinder Double acting/single rod MCG①Bore size:φ12
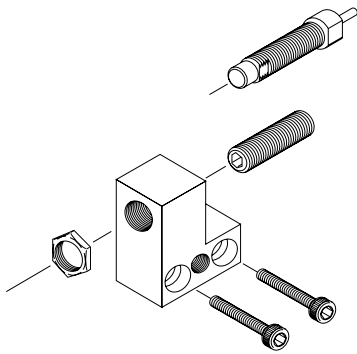
②Stroke length：20mm

③Stopper position ①

④Two auto switches.

⑤F2H 1m;F2H3 3m;SW-T2H 1m;SW-T2HL 3m

How to order a stopper set

*Set of a stopper and stroke adjusting stopper or shock absorber stopper.

*Use it when changing from the standard to the stroke adjusting stopper or shock absorber stopper.

MCG - 12 - S 2 D - S02

*1:When installing in the ① or ② stopper mounting position,the stroke causes changes in the adjustable stroke length;see the table below.

*2:φ6 and φ8 are not available for S03.

*3:Cannot be selected for the shock absorber stopper "A".

Ⓐ Stopper	
S	Stroke adjusting stopper
A	Shock absorber stopper

Ⓑ Stopper installation position *1	
1	Stopper position ① or ④
2	Stopper position ② or ③

Ⓒ Port on the stopper	
Blank	Without port
D	With side and bottom ports

| Ⓓ Adjustable stroke length *2/*3	
Blank	Adjustable stroke range 5mm
S02	Adjustable stroke range 15mm
S03	Adjustable stroke range 25mm

Precautions when purchasing the stopper set

Not applicable

Discrete stroke adjusting stopper S01 is built into the stroke adjusting stopper set.When the stopper set is installed in the ①or ② position(refer to page 3),add the part shown on the right according to the stroke length and adjustable stroke length.

Model No. code	Option code		Discrete stroke adjusting stopper		
			Adjustable stroke length(mm)		
	Bore size	Stroke length	-5	-15	-25
MCG Series	Φ6, Φ8	10	S02	—	—
		20 or more	N/A	S02	—
	φ12～φ25	10	S03	—	—
		20	S02	S03	—
		30 or more	N/A	S02	S03

How to order discrete stopper block

● Use when changing the adjustable stroke range or when using a custom stroke length.
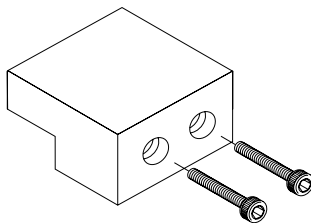
MCG - 12 - XWK1 ○

Bore size

Ⓐ Stopper block	
XWK1	φ6, φ8： For 30mm stroke length or less
	φ12～φ25： For 40mm stroke length or more
XWK2	φ6, φ8：40 For 40mm stroke length or less
	φ12～φ25： For 75mm stroke length or more

Ⓑ Material	
Blank	Stopper block material steel(nitriding)

MCG Series
Dimensions(bore size:φ6)

MCG6
Stroke length:10,20,30
(Boby mounting hole in the figure shows 20mm stroke length)

RD
2-M3 depth 3
Piping port

2-Boby mounting hole(refer to the A-A cross-section)

17.5   15   W
$3^{+0.07}_{+0.02}$ depth 3
0.6
A
1
33   25   19
0.6
6
25
D
X   20
8
L2
L1

8.5   12.5
18.6

$3^{+0.07}_{+0.02}$ depth 3
2-R1.5
1
Dimensions of D and E slotted holes

21
19.3   0.2
19
3-M3 depth 6
4
10

3×2-M3 depth 3

V
13
6.5
2-M2.5 depth 2.6
2.6
2-M3 depth 3
Piping port(plug)
2-M2.5 depth 3.5
4
13.5   10.5
11   11
16   16
HD

M4 depth 6
Φ3.4
Φ6
12

A-A cross section

X   20
$3^{+0.07}_{+0.02}$ depth 3
E
5   Y
$3^{+0.07}_{+0.02}$ depth 3
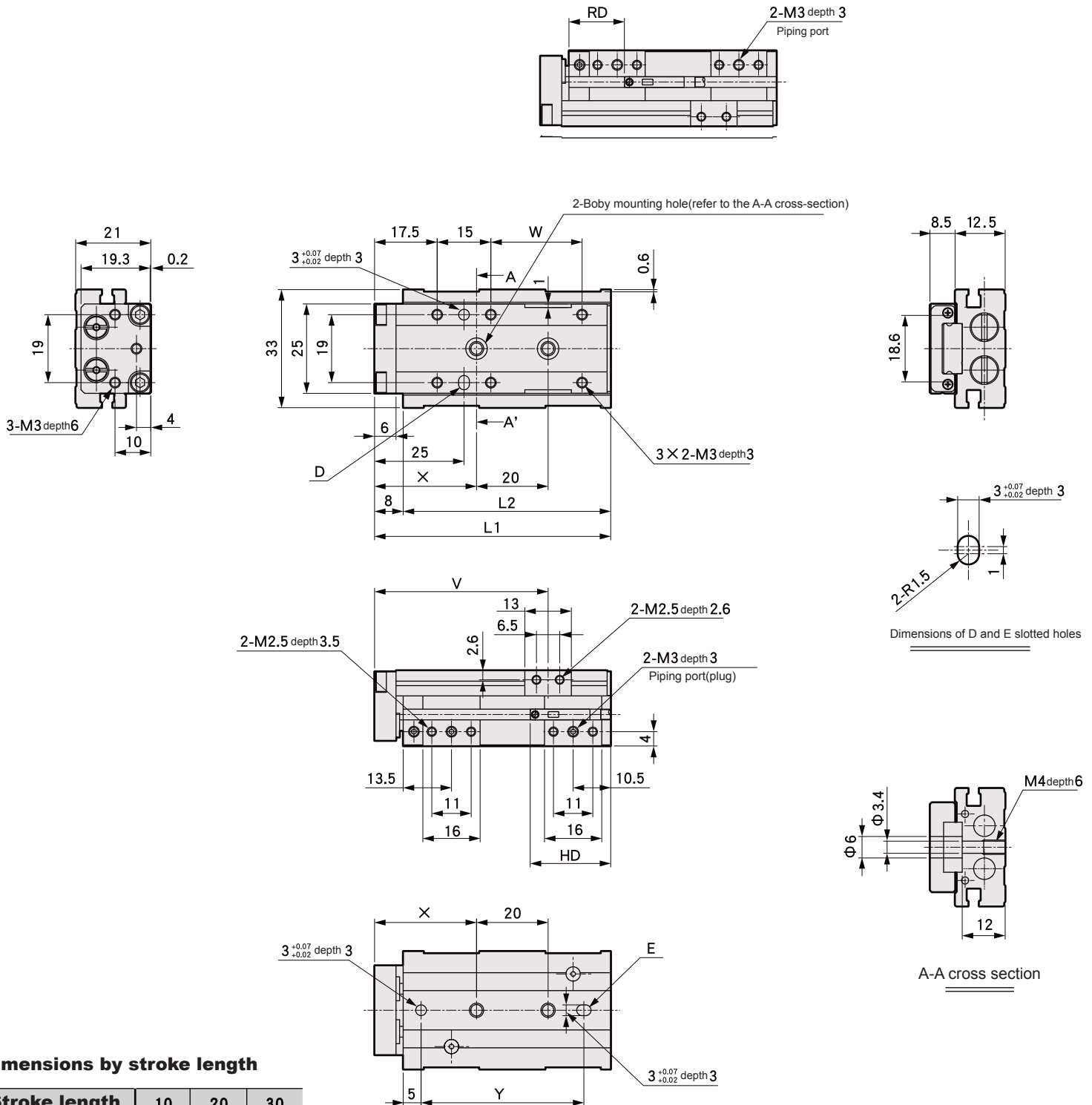
Dimensions by stroke length

Stroke length	10	20	30
L1	66		76
L2	58		68
V	48.5		58.5
W	25.5		35.5
X	28.5		26
Y	45.5		43
RD	25.5	15.5	
HD	22.5		

MCG Series
Dimensions(bore size: φ6)

MCG6
Stroke length:40,50
(Boby mounting hole in the figure shows 50mm stroke length)

$3^{+0.07}_{+0.02}$ depth 3
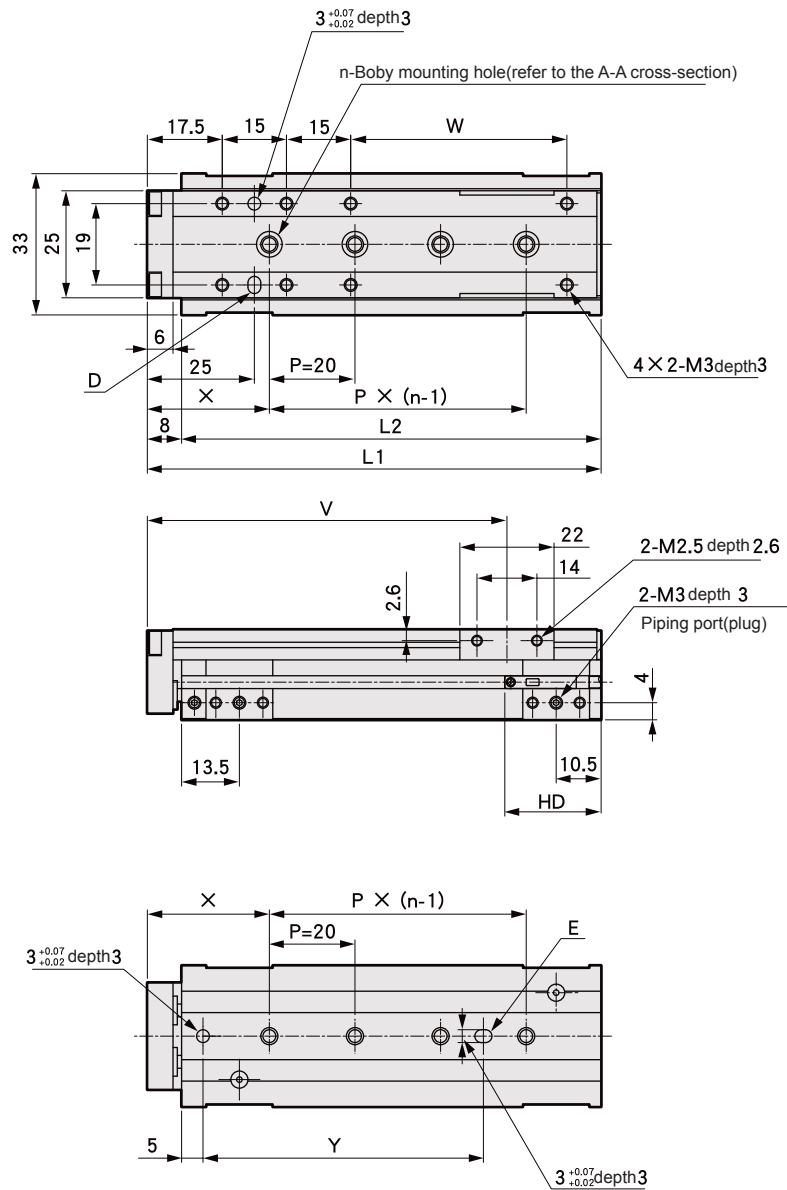
n-Boby mounting hole(refer to the A-A cross-section)

17.5 15 15 W

33 25 19

6

D

25 P=20

X P × (n-1)

8

L2

L1

4×2-M3 depth 3

V 22 14

2-M2.5 depth 2.6

2.6 2-M3 depth 3

Piping port(plug)

4

13.5 10.5

HD

X P × (n-1) E

$3^{+0.07}_{+0.02}$ depth 3 P=20

5 Y

$3^{+0.07}_{+0.02}$ depth 3

Dimensions by stroke length

Stroke length	40	50
L1	96	106
L2	88	98
n	3	4
V	74	84
W	40.5	50.5
X	27	28.5
Y	44	65.5
RD	25.5	
HD	22.5	

MCG Series
Dimensions(bore size: φ8)

MCG8
Stroke length:10,20,30(Boby mounting hole in the figure shows 30mm stroke length)

RD

2-M5depth4
Piping port

2-Boby mounting hole(refer to the A-A cross-section)

20   20   W

3 $^{+0.07}_{+0.02}$ depth 3

0.6

43   30   24

A

1

7

30

A'

28   20

D

9

L2

L1

3×2-M3depth3

8   17
13.5

2-M3 depth 4
Common piping port(port)

23

3 $^{+0.07}_{+0.02}$ depth3

1

2-R1.5

Dimensions of D and E slotted holes

25
23.2   0.3

24

3-M3 depth 7   4.5
9.5

V

13

3

2-M2.6深 3.5

2-M5depth4
Piping port(plug)

5
5.5

11   14   18

11   14   18

HD

Φ6.8   Φ3.4

M4depth6

13

A-A cross section

28   20   E

3 $^{+0.07}_{+0.02}$ depth3

6   43   3 $^{+0.07}_{+0.02}$ depth 3

Dimensions by stroke length

Stroke length	10	20	30
L1	66		76
L2	57		67
V	47.5		57.5
W	16		26
RD	24	14	
HD	23		

MCG Series
Dimensions(bore size: φ8)

MCG8
Stroke length:40,50,75(Boby mounting hole in the figure shows 30mm stroke length)
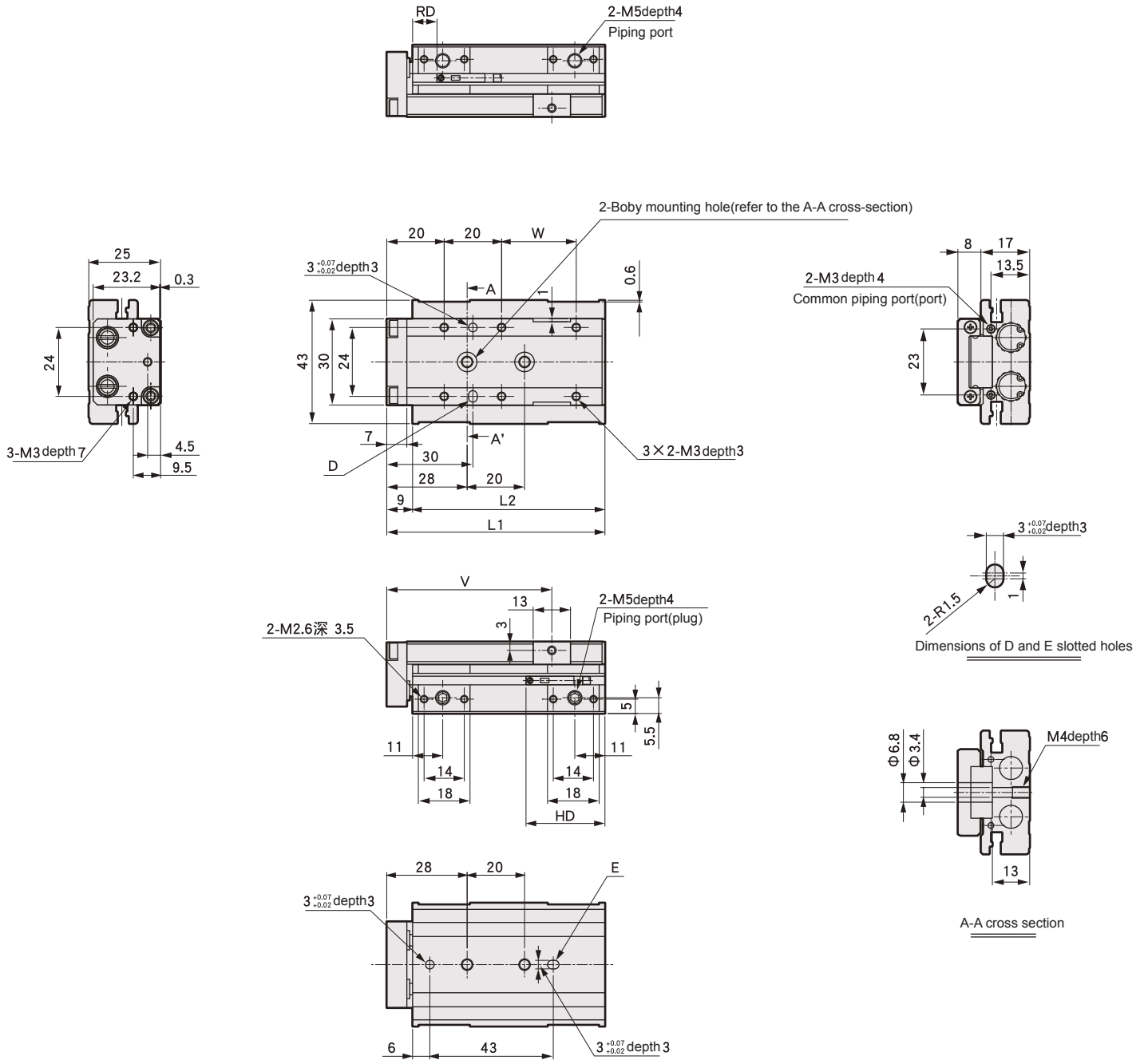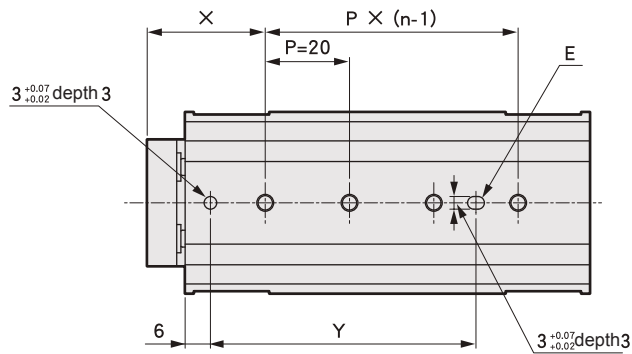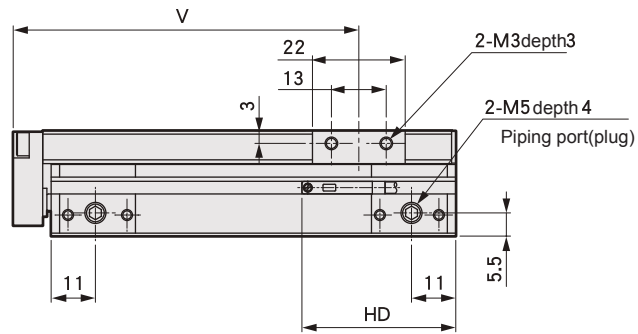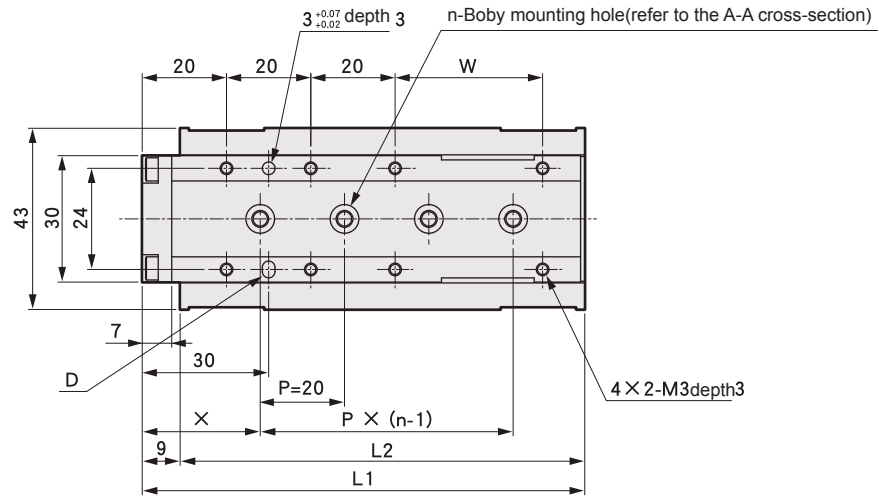

Dimensions by stroke length
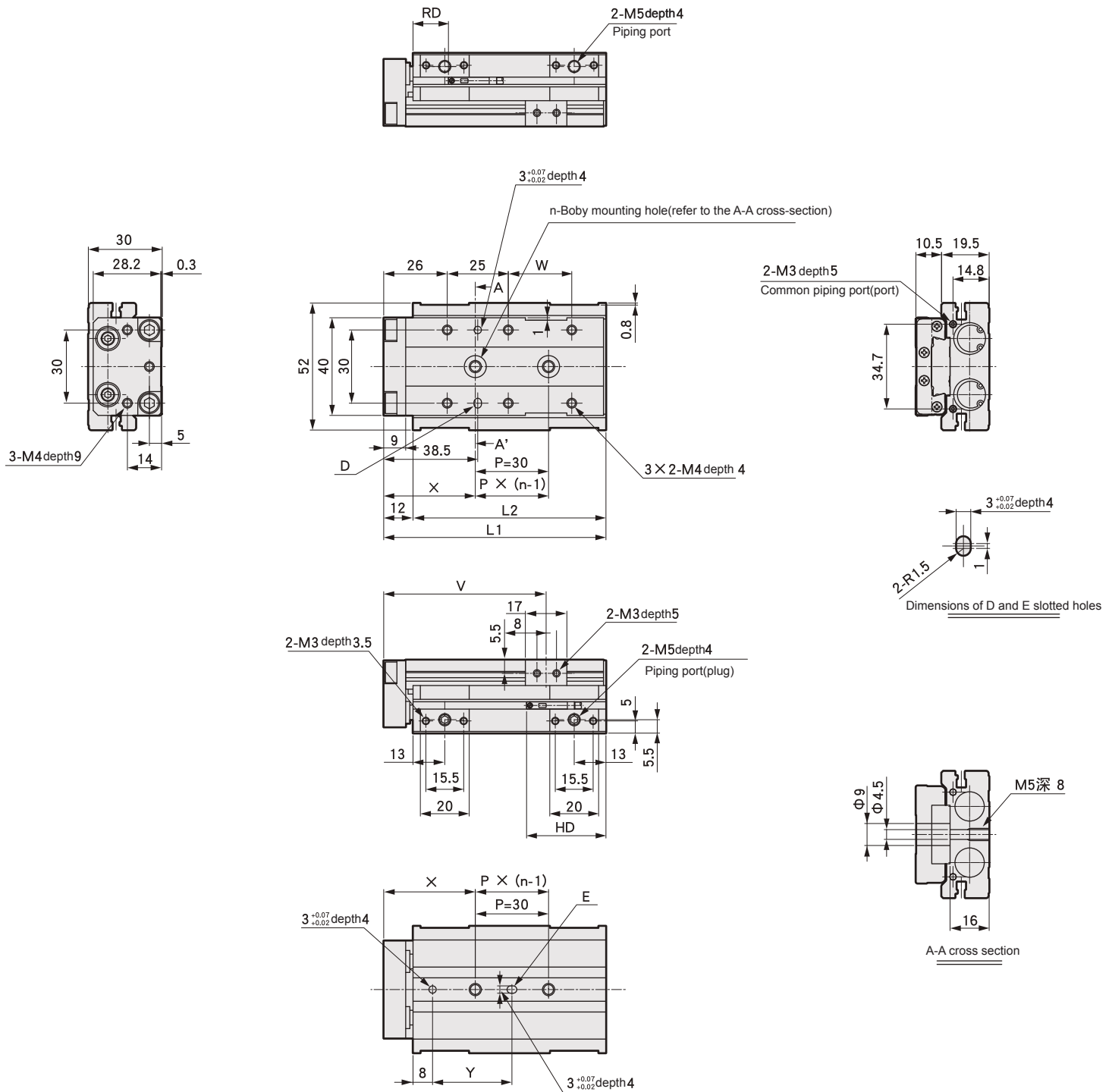
Stroke length	40	50	75
L1	95	105	130
L2	86	96	121
n	3	4	5
V	72	82	107
W	25	35	60
✕	26.5	28	25
Y	41.5	63	80
RD	14		
HD	32		

MCG Series
Dimensions(bore size: φ12)

MCG12
Stroke length:10,20,30,40,50(Boby mounting hole in the figure shows 30mm stroke length)

RD

2-M5 depth 4
Piping port

3 $^{+0.07}_{+0.02}$ depth 4

n-Boby mounting hole(refer to the A-A cross-section)

26　25　W

A

52　40　30

0.8

1

10.5　19.5

14.8

2-M3 depth 5
Common piping port(port)

34.7

30

28.2　0.3

30

5

14

3-M4 depth 9

9

38.5

D

A'

P=30

P × (n-1)

×

12

L2

L1

3×2-M4 depth 4

3 $^{+0.07}_{+0.02}$ depth 4

2-R1.5

1

Dimensions of D and E slotted holes

V

17

8

5.5

2-M3 depth 3.5

2-M3 depth 5

2-M5 depth 4
Piping port(plug)

5

13

15.5

20

15.5

20

13

5.5

HD

Φ9

Φ4.5

M5深 8

16

A-A cross section

×

P × (n-1)

P=30

E

3 $^{+0.07}_{+0.02}$ depth 4

8

Y

3 $^{+0.07}_{+0.02}$ depth 4

Dimensions by stroke length

Stroke length	10	20	30	40	50
L1		91		101	111
L2		79		89	99
n		2		3	
V		66.5		76.5	86.5
W		26		36	46
×		37.5		36	32
Y		32.5		31	57
RD	41.5	31.5		21.5	
HD		27			

MCG Series
Dimensions(bore size: φ12)

MCG12
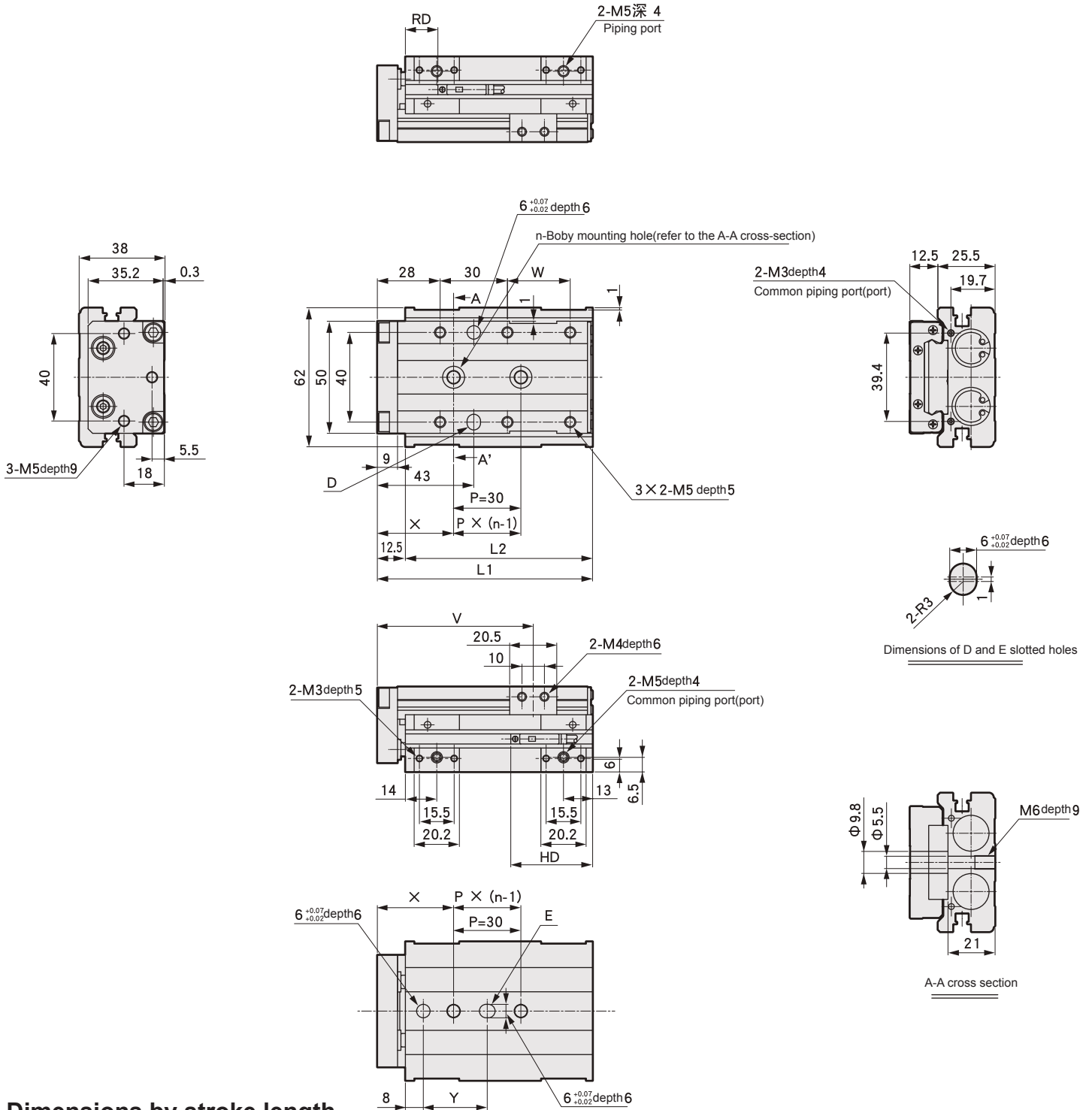**Stroke length:75,100(Boby mounting hole in the figure shows 100mm stroke length)**

3 $^{+0.07}_{+0.02}$ depth 4

4-Boby mounting hole(refer to the A-A cross-section)

26   25   25   W

52   40   30

9

38.5

D

×

12

30   30   30

L2

L1

4×2-M4 depth 4

V

26

8

2-M3 depth 5

2-M5 depth 4
Common piping port(port)

13   HD   13   5.5

3 $^{+0.07}_{+0.02}$ depth 4

×   30   30   30   E

8   Y

3 $^{+0.07}_{+0.02}$ depth 4
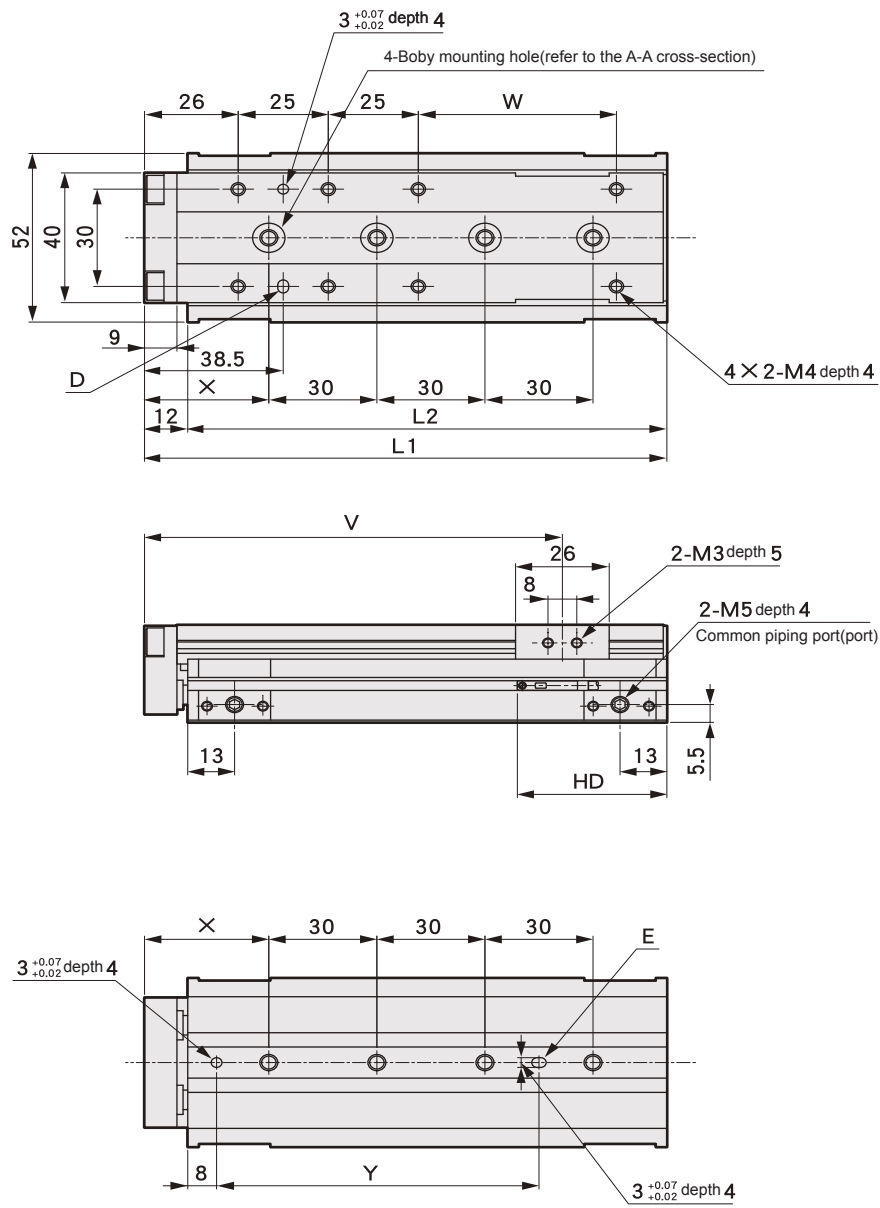
Dimensions by stroke length

Stroke length	75	100
L1	145	170
L2	133	158
V	116	141
W	55	80
×	34.5	47
Y	89.5	102
RD	21.5	
HD	36	

MCG Series
Dimensions(bore size: φ16)

MCG16
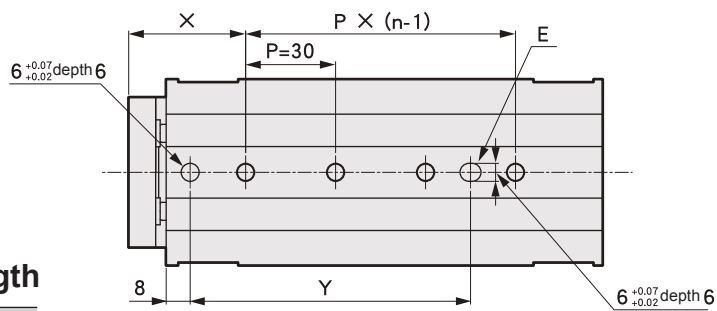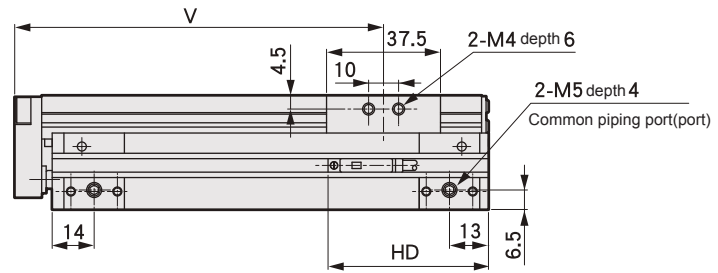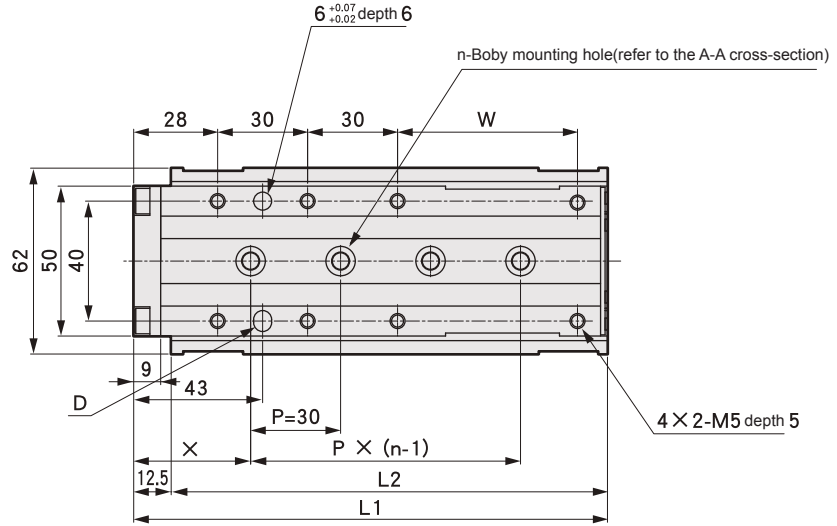### Stroke length:10,20,30,40,50(Boby mounting hole in the figure shows 30mm stroke length)

RD

2-M5深 4
Piping port

6 $^{+0.07}_{+0.02}$ depth 6
n-Boby mounting hole(refer to the A-A cross-section)

38
35.2
0.3
40
3-M5depth9
18
5.5

28
30
W
A
1
1
62
50
40
9
43
A'
D
P=30
P × (n-1)
×
12.5
L2
L1
3 × 2-M5 depth 5

2-M3depth4
Common piping port(port)
12.5
25.5
19.7
39.4

6 $^{+0.07}_{+0.02}$ depth 6
2-R3
1
Dimensions of D and E slotted holes

V
20.5
10
2-M4depth6
2-M5depth4
Common piping port(port)
2-M3depth5
14
15.5
20.2
6
6.5
13
15.5
20.2
HD

Φ9.8
Φ5.5
M6depth9
21
A-A cross section

×
P × (n-1)
P=30
E
6 $^{+0.07}_{+0.02}$ depth6
8
Y
6 $^{+0.07}_{+0.02}$ depth 6

Dimensions by stroke length

Stroke length		10	20	30	40	50
L1			96		106	116
L2			83.5		93.5	103.5
n			2			3
V			69.8		79.8	89.8
W			28		38	48
×			34		45.5	35.5
Y			28.5		40	60
T0H	RD	37	27		17	
	HD			36.5		

MCG Series
Dimensions(bore size: φ16)

MCG16
Stroke length:75,100,125(Boby mounting hole in the figure shows 75mm stroke length)

6 $^{+0.07}_{+0.02}$ depth 6
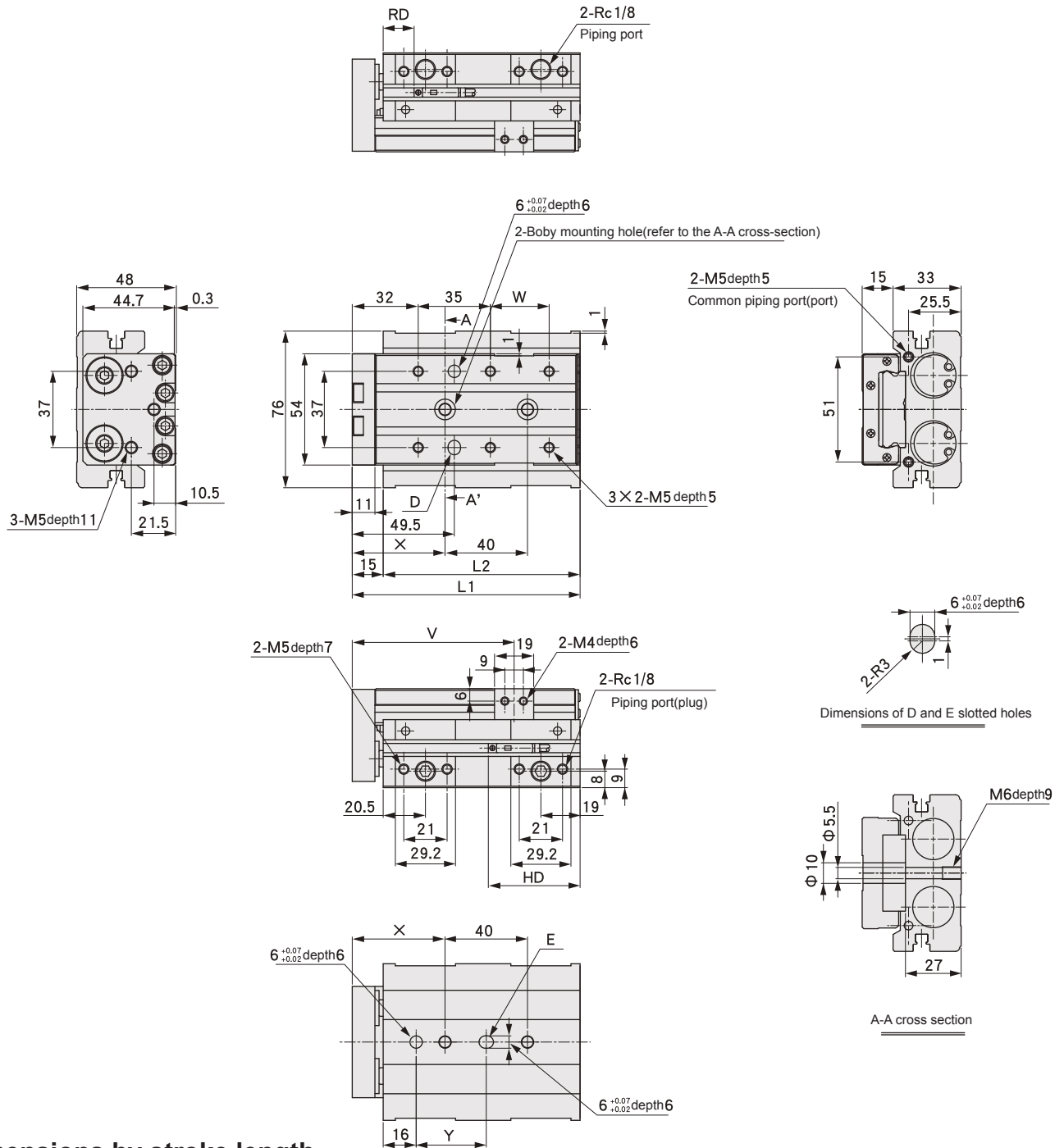
n-Boby mounting hole(refer to the A-A cross-section)

4 × 2-M5 depth 5

2-M4 depth 6

2-M5 depth 4
Common piping port(port)

6 $^{+0.07}_{+0.02}$ depth 6

6 $^{+0.07}_{+0.02}$ depth 6

Dimensions by stroke length

Stroke length		75	100	125
L1		158	183	208
L2		145.5	170.5	195.5
n		4	5	
V		123.3	148.3	173.3
W		60	85	110
×		39	37	49
Y		93.5	121.5	133.5
T0H	RD	17		
	HD	53.5		

MCG Series
Dimensions(bore size: φ20)

MCG20
Stroke length:10,20,30,40,50(Boby mounting hole in the figure shows 30mm stroke length)

RD

2-Rc1/8
Piping port

$6^{+0.07}_{+0.02}$depth6
2-Boby mounting hole(refer to the A-A cross-section)

2-M5depth5
Common piping port(port)

15 33
25.5

51

32 35 W

A

76 54 37

1

11

D A'

3×2-M5 depth5

49.5

× 40

15 L2

L1

$6^{+0.07}_{+0.02}$depth6

2-R3

1

Dimensions of D and E slotted holes

48
44.7 0.3

37

10.5

3-M5depth11

21.5

2-M5depth7

V

9 19

2-M4depth6

2-Rc1/8
Piping port(plug)

6

8
9

20.5

21

29.2

21

29.2

19

HD

M6depth9

φ5.5

φ10

27

A-A cross section

× 40

E

$6^{+0.07}_{+0.02}$depth6

$6^{+0.07}_{+0.02}$depth6

16 Y

Dimensions by stroke length

Stroke length		10	20	30	40	50
L1			110.5		120.5	130.5
L2			95.5		105.5	115.5
V			78.5		88.5	98.5
W			28.5		38.5	48.5
×			45		51	49
Y			34		40	38
T0H	RD	36	26		16	
	HD			49.5		

MCG Series
Dimensions(bore size: φ20)

MCG20
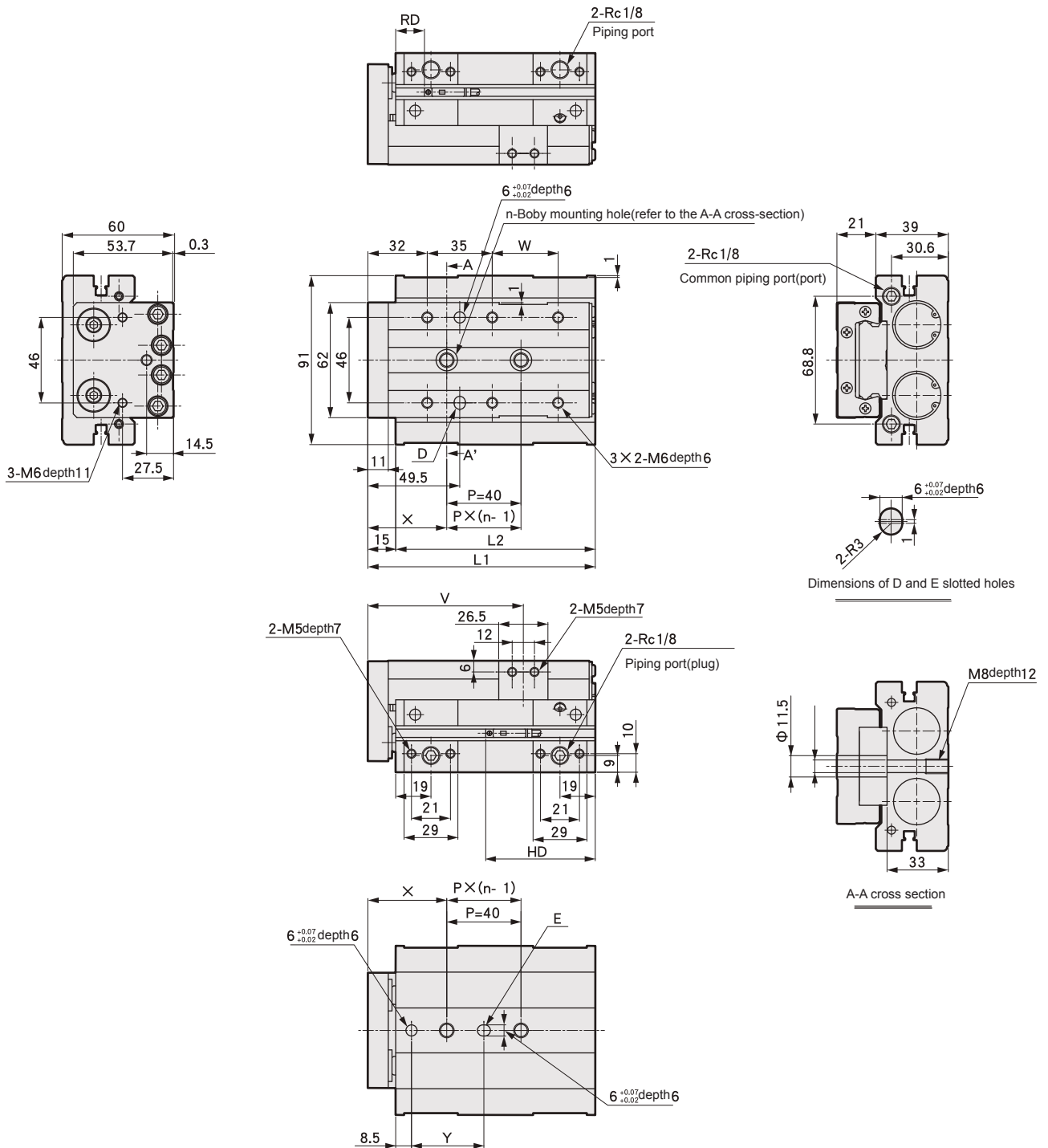### Stroke length:75,100,125,150(Boby mounting hole in the figure shows 100mm stroke length)

6 $^{+0.07}_{+0.02}$depth6

n-Boby mounting hole(refer to the A-A cross-section)

32 | 35 | 35 | W

76 | 54 | 37

4×2-5depth5

D

11
49.5
P=40
P×(n- 1)
15
L2
L1

V
30.5
9
2-M4depth6
2-Rc1/8
Piping port(plug)

6
8
20.5
19
HD

×
P×(n- 1)
P=40
E

6 $^{+0.07}_{+0.02}$depth6

16
Y
6 $^{+0.07}_{+0.02}$depth6
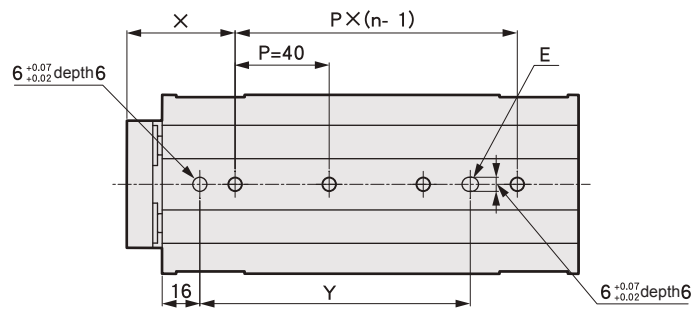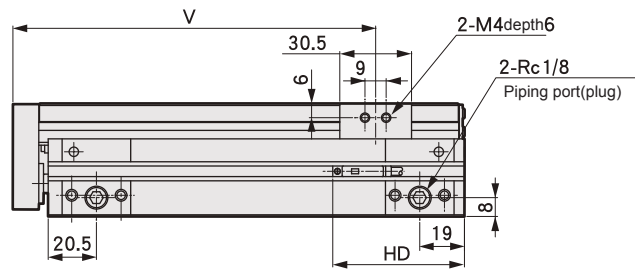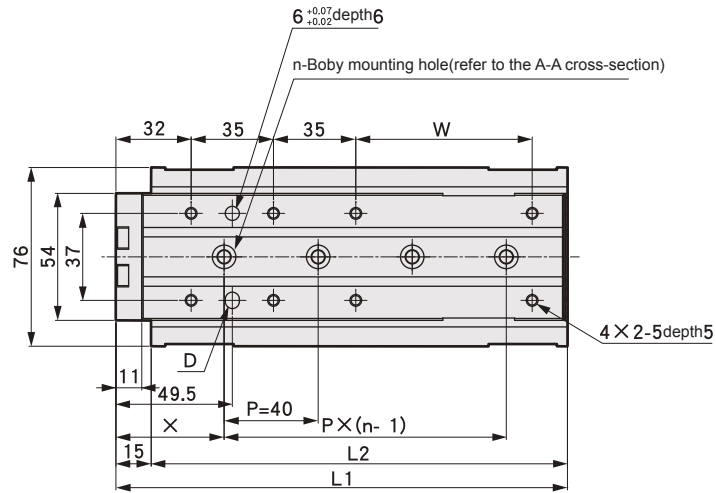
Dimensions by stroke length

Stroke length		75	100	125	150
L1		167	192	217	242
L2		152	177	202	227
n		3	4		5
V		129.3	154.3	179.3	204.3
W		50	75	100	125
×		46		53	51
Y		75	115	122	160
T0H	RD	16			
	HD	61			

MCG Series
Dimensions(bore size: φ25)

MCG25
**Stroke length:10,20,30,40,50(Boby mounting hole in the figure shows 30mm stroke length)**

RD

2-Rc1/8
Piping port

$6^{+0.07}_{+0.02}$depth6
n-Boby mounting hole(refer to the A-A cross-section)

2-Rc1/8
Common piping port(port)

60
53.7
0.3
46
14.5
27.5
3-M6depth11

32
35
W
91
62
46
1
11
49.5
D
A'
P=40
P×(n- 1)
15
L2
L1
×
3×2-M6depth6

21
39
30.6
68.8

$6^{+0.07}_{+0.02}$depth6
2-R3
1
Dimensions of D and E slotted holes

V
26.5
12
6
2-M5depth7
2-M5depth7
2-Rc1/8
Piping port(plug)
10
9
19
21
29
19
21
29
HD

Φ11.5
M8depth12
33
A-A cross section

×
P×(n- 1)
P=40
E
$6^{+0.07}_{+0.02}$depth6
$6^{+0.07}_{+0.02}$depth6
8.5
Y

Dimensions by stroke length

Stroke length		10	20	30	40	50
L1			122.5		132.5	142.5
L2			107.5		117.5	127.5
n			2		3	2
V			83.8		93.8	103.8
W			35.5		45.5	55.5
×			42.5		45.5	60.5
Y			39		42	57
T0H	RD	38.5	28.5		18.5	
	HD		59			

MCG Series
Dimensions(bore size: φ 25)

MCG25
Stroke length:75,100,125,150(Boby mounting hole in the figure shows 100mm stroke length)
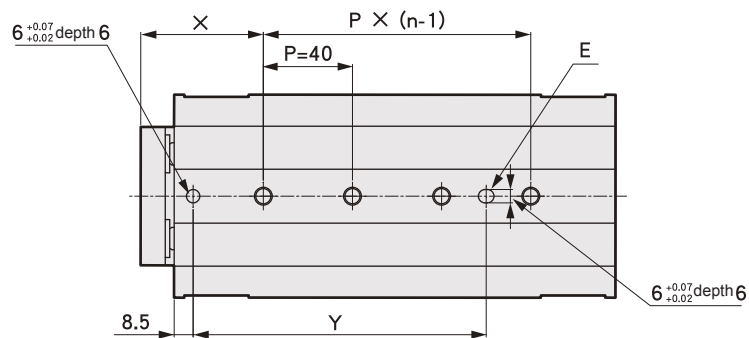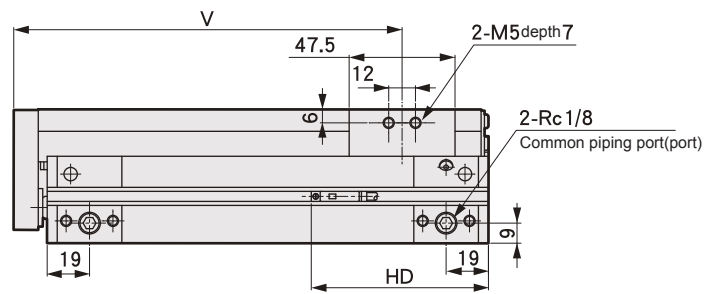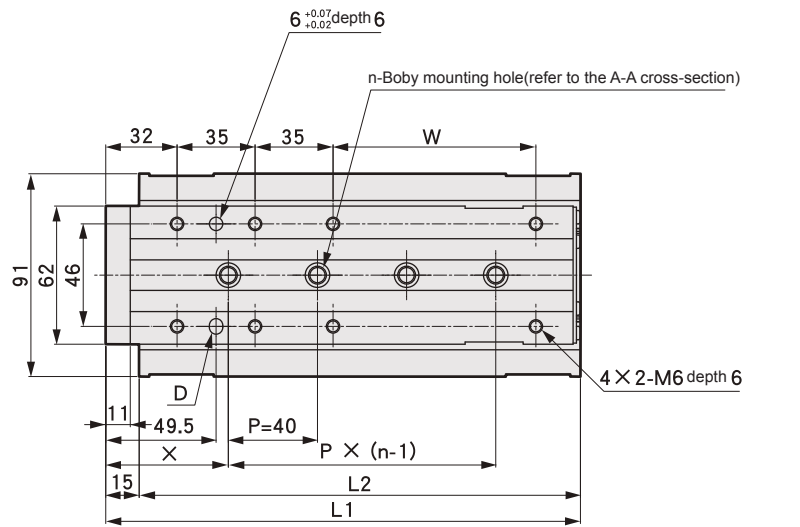
Dimensions by stroke length

Stroke length		75	100	125	150
L1		188	213	238	263
L2		173	198	223	248
n		3	4	5	
V		138.8	163.8	188.8	213.8
W		66	91	116	141
✕		60	55	45	60
Y		96.5	131.5	161.5	176.5
T0H	RD	18.5			
	HD	79.5			

MCG Series
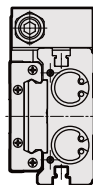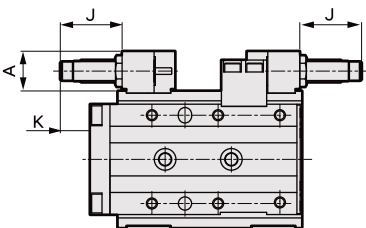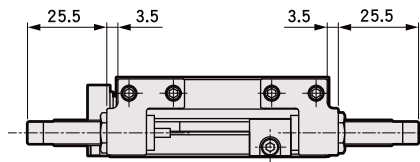## Dimensions:Option

● **Stroke adjusting stopper(S1 to S6)**
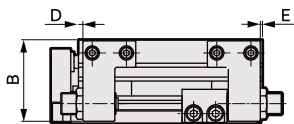
For φ8
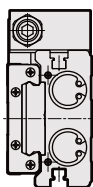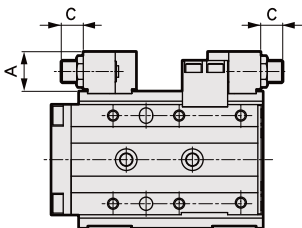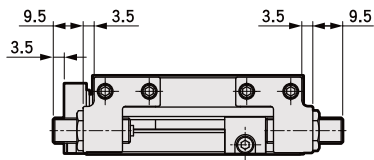
● **Shock absorber stopper(A1 to A6)**
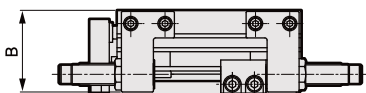
For φ8

*1:The figure of the stroke adjusting stopper(S1 to S6) is for 5mm adjustable stroke range.

Code Bore size(mm)	A	B	C	D	E	J	K	Shock absorber stopper adjustable stroke range(one side)
Φ6	14	19.5	11	4	1	21	9	9
Φ8	15.6	24.5	9.5	0.5	0.5	25.5	16	17
Φ12	15.5	29	12	1	1	25.5	12.5	14.5
Φ16	18	37	10	2	1	28.5	14	15
Φ20	20.5	45	14.5	4	2.5	29.5	10.5	13
Φ25	20.5	57	11.5	2.5	2.5	26.5	9	10