

Low profile precision slide table cylinders

AIRTAC

HLF Series

Bore size: $\Phi 8$, $\Phi 12$, $\Phi 16$, $\Phi 20$ 

Ordering code

HLF 20 × 30 S

① ② ③ ④

① ModelHLF: Low profile precision slide table cylinder
(Roller type)**② Bore Size**

8 12 16 20

④ Magnet

S: With magnet

③ Stroke [Note1]

Bore size (mm)	Standard stroke (mm)	Max.std stroke
8	10 20 30	30
12	10 20 30 40 50	50
16	10 20 30 40 50 75 100	100
20	10 20 30 40 50 75 100	100

[Note] Consult us for non-standard stroke.

Specification

Bore size(mm)	8	12	16	20
Acting type	Double acting			
Fluid	Air(to be filtered by 40 μ m filter element)			
Operating pressure	22~100psi(0.15~0.7MPa)			
Proof pressure	175psi(1.2MPa)			
Temperature $^{\circ}$ C	-20~70			
Speed range mm/s	50~500			
Stroke tolerance	$\begin{matrix} +1.0 \\ 0 \end{matrix}$			
Stroke adjustment range	Extension end 5mm/Retraction end 5mm			
Cushion type	Bumper			
Sensor switches [Note1]	DMSH(S), CMSH			
Port size	M3 \times 0.5	M5 \times 0.8		

[Note1] Refer to P427 for detail of sensor switch.

Product feature

1. Cross roller linear guide and cylinder integrated type design, effectively reducing cylinder thickness.
2. With superior straightness and non-rotating accuracy for precision assembly application.
3. Cylinder can be installed from 2 directions.
4. Piping is possible from 2 directions.

Low profile precision slide table cylinders



HLF Series

Bore size: $\Phi 8$, $\Phi 12$, $\Phi 16$, $\Phi 20$

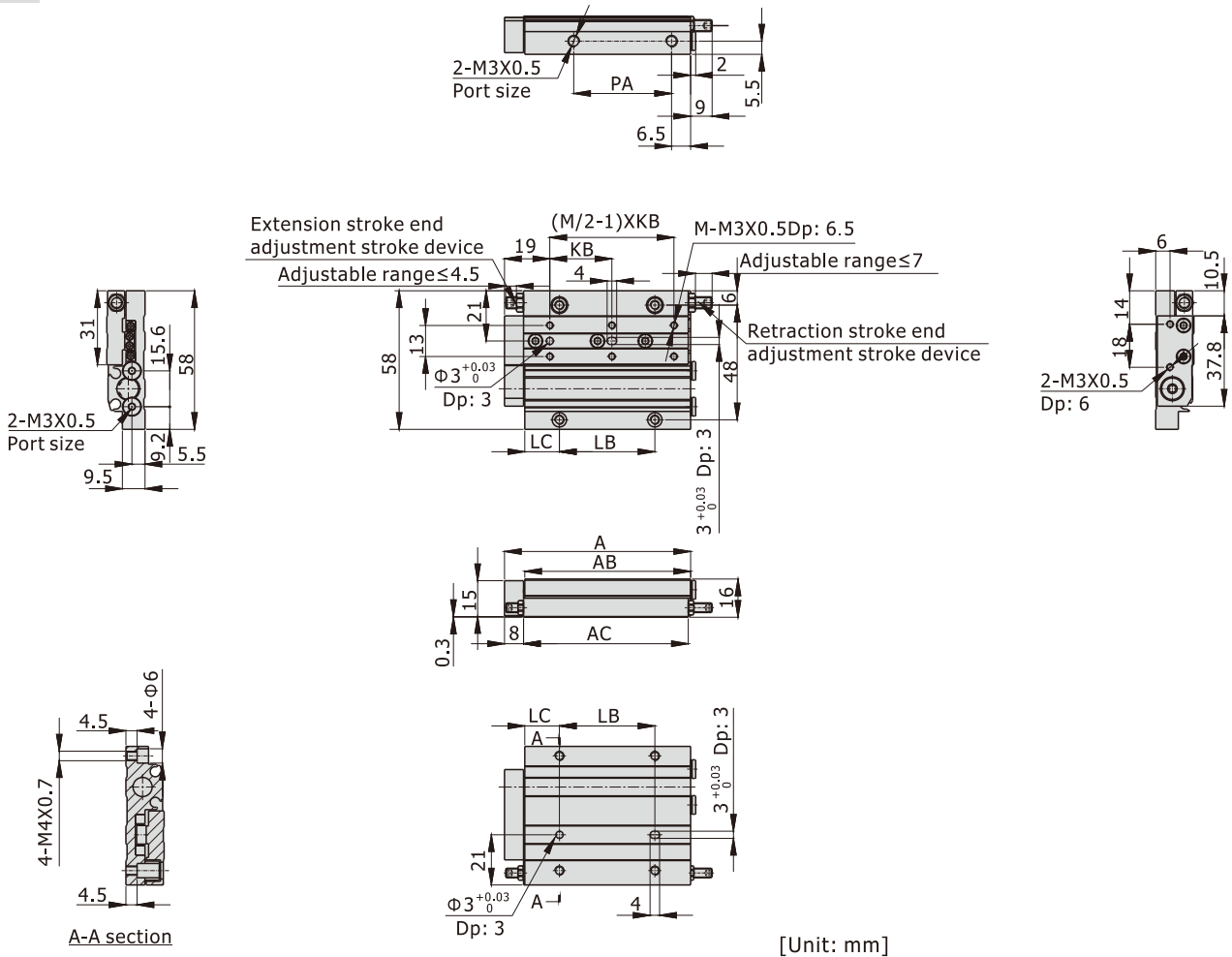
Criteria for selection: Cylinder thrust

Unit: Newton(N)

Bore size	Rod size	Acting type		Pressure area(mm ²)	Operating pressure(ksi)						
					15	30	45	60	75	90	105
8	3	Double acting	Push-side	50.3	5.0	10.1	15.1	20.1	25.1	30.2	35.2
			Pull-side	43.2	4.3	8.6	13.0	17.3	21.6	25.9	30.2
12	4	Double acting	Push-side	113.1	11.3	22.6	33.9	45.2	56.5	67.9	79.2
			Pull-side	100.5	10.1	20.1	30.2	40.2	50.3	60.3	70.4
16	6	Double acting	Push-side	201.0	20.1	40.2	60.3	80.4	100.5	120.6	140.7
			Pull-side	172.7	17.3	34.5	51.8	69.1	86.4	103.6	120.9
20	8	Double acting	Push-side	314.0	31.4	62.8	94.2	125.6	157.0	188.4	219.8
			Pull-side	263.8	26.4	52.8	79.1	105.5	131.9	158.3	184.7

Dimensions

HLF8



[Unit: mm]

Stroke\Item	A	AB	AC	KB	LB	LC	M	PA
10	58	49.5	49	20	22	13.5	4	23
20	68	59.5	59	26	26	14.5	4	33
30	78	69.5	69	26	40	14.5	6	43



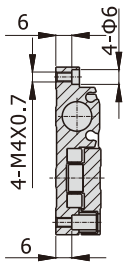
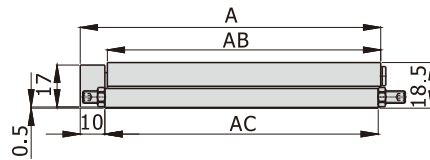
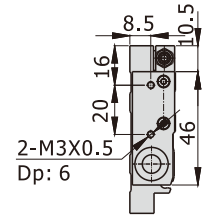
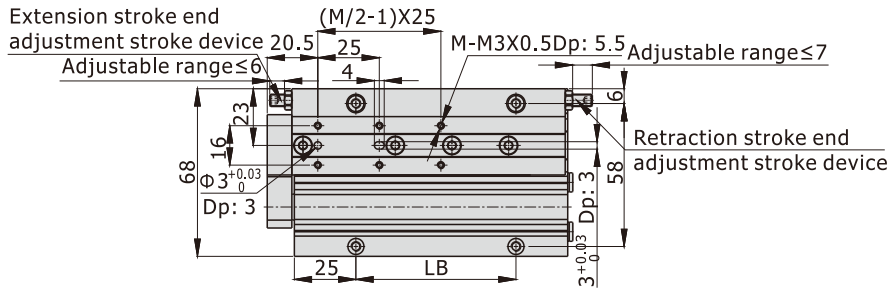
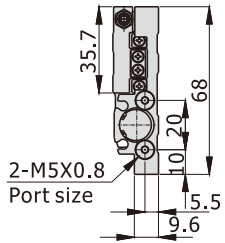
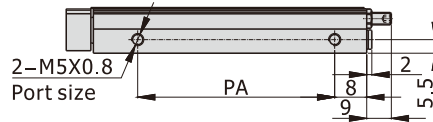
Low profile precision slide table cylinders



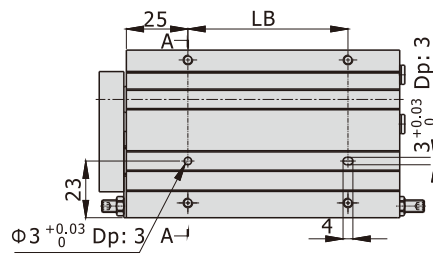
HLF Series

Bore size: $\Phi 8$, $\Phi 12$, $\Phi 16$, $\Phi 20$

HLF12



A-A section

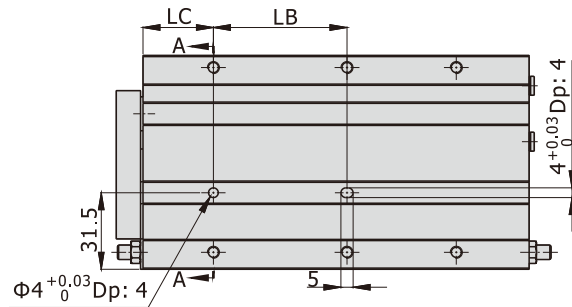
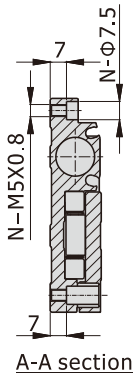
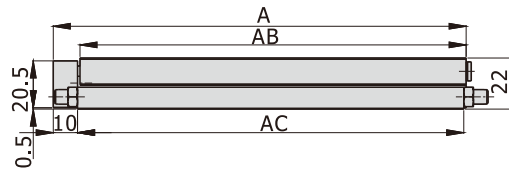
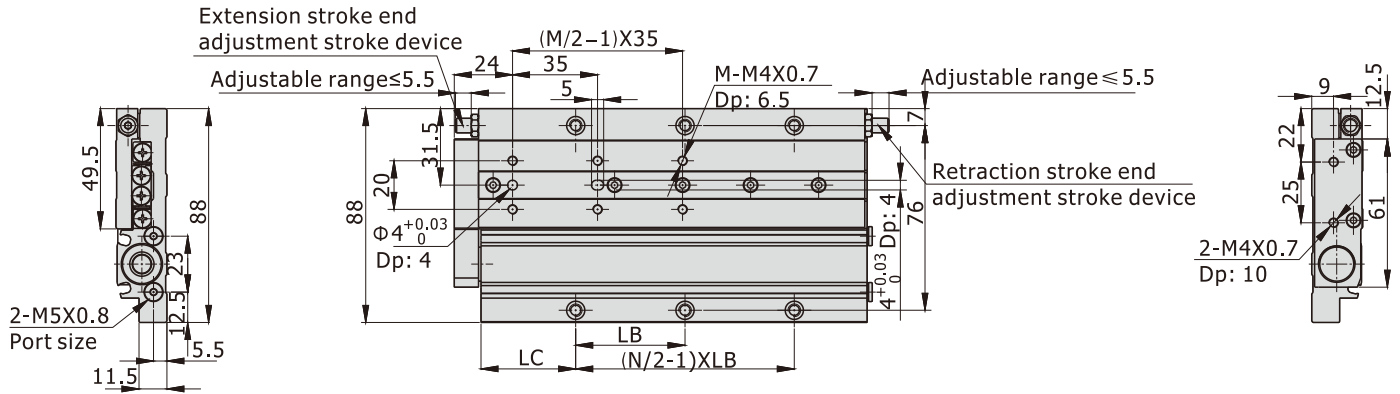
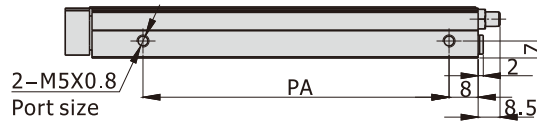


[Unit: mm]

Stroke\Item	A	AB	AC	LB	M	PA
10	66	55	55	15	4	29
20	76	65	65	22	4	39
30	86	75	75	30	4	49
40	106	95	95	45	6	69
50	116	105	105	65	6	79



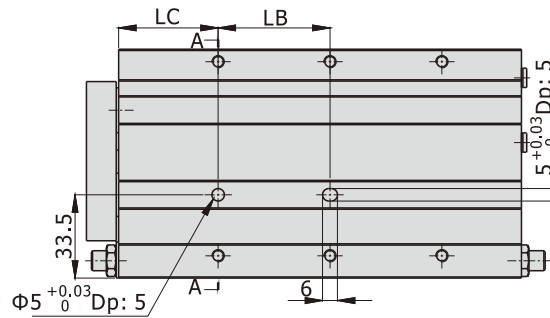
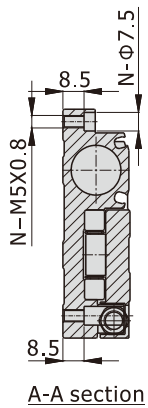
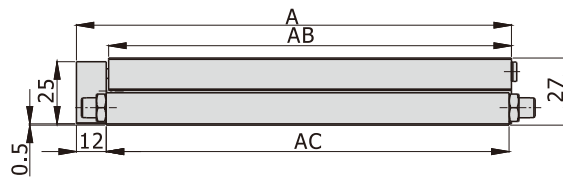
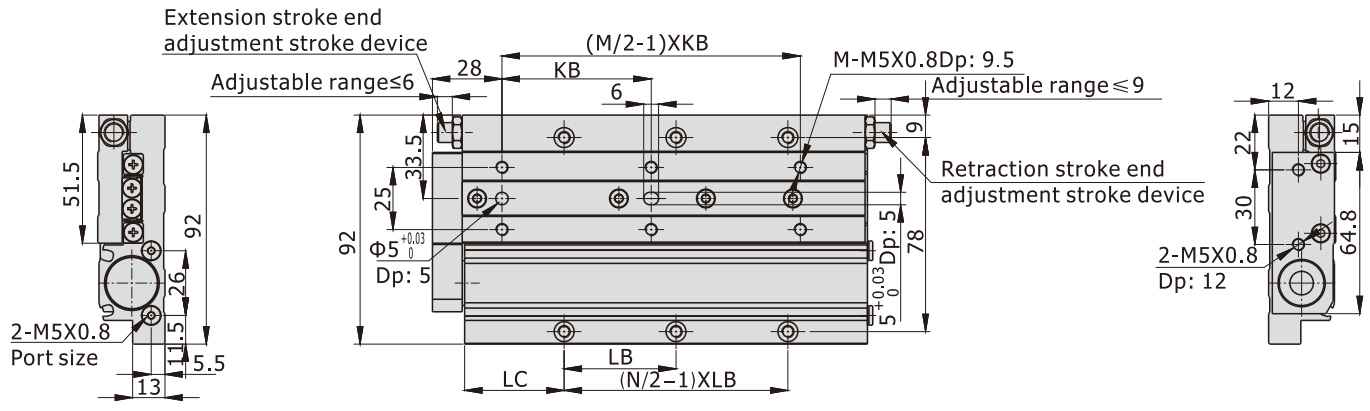
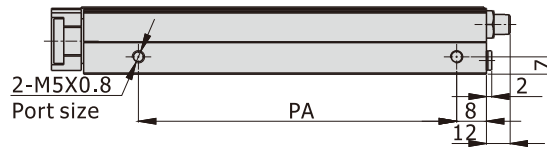
HLF16



[Unit: mm]

Stroke\Item	A	AB	AC	LB	LC	M	N	PA
10	74	63	63	25	20	4	4	27
20	84	73	73	25	29	4	4	44
30	94	83	83	25	29	4	4	54
40	114	103	103	45	29	6	4	74
50	124	113	113	45	29	6	4	84
75	159	148	148	45	39	6	6	119
100	184	173	173	45	39	6	6	144

HLF20



[Unit: mm]

Stroke\Item	A	AB	AC	KB	LB	LC	M	N	PA
10	84	71	71	50	20	29	4	4	41
20	94	81	81	60	30	29	4	4	51
30	104	91	91	60	30	29	4	4	61
40	124	111	111	60	45	29	4	4	81
50	134	121	121	60	45	36	4	4	91
75	169	156	156	60	45	40	6	6	126
100	194	181	181	60	45	59	6	6	151