

ANG series

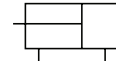


ANGM 12-S75

Features

- Built in magnet and rubber bumper (Standard).
- Resists lateral loading and provides non-rotating motion.
- Sliding bearing and ball bearing are available depending on applications.

Symbol



Double Acting / Single Rod

How to Order

ANG M - 20 - S 75 A73K S

① ② ③ ④ ⑤ ⑥

① Series

ANG	Compact guide cylinder
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② Bearing

M	Sliding bearing
L	Ball bearing

③ Bore size

12	Ø12	40	Ø40
16	Ø16	50	Ø50
20	Ø20	63	Ø63
25	Ø25	80	Under the development
32	Ø32	100	Under the development

④ Cylinder stroke

Bore size	Standard stroke
Ø12	10, 20, 30, 40, 50, 75, 100
Ø16	
Ø20	
Ø25	20, 30, 40, 50, 75, 100
Ø32	
Ø40	25, 50, 75, 100, 125, 150
Ø50	
Ø63	
Ø80	
Ø100	

* As to intermediate stroke (5, 10, 15, 20...), spacer of 5, 10, 15, 20mm width will be inserted.

Ex) ANGM20-S25 is produced by insert a 5mm spacer in ANGM20-S30. Thus, ANGM20-S25 and ANGM20-S30 dimension are same.

⑤ Auto switch

Reed A/S	Model	Solid state A/S	Model
A90	D-A90K	F9N	D-F9NK
A93	D-A93K	F9P	D-F9PK
A96	D-A96K	F9B	D-F9BK
Z72K	D-Z72K	Y59A	D-Y59AK
Z73K	D-Z73K	Y7P	D-Y7PK
Z80K	D-Z80K	Y59B	D-Y59BK

* Z□□K/Y□□ type is available only for Ø32 ~ Ø63.
* Refer to Auto Switch Catalogue for more information.

⑥ Number of auto switches

Nil	2 pcs
1	1 pc
N	N pcs (N:3,4,5...)

* Only for auto switch attached type.

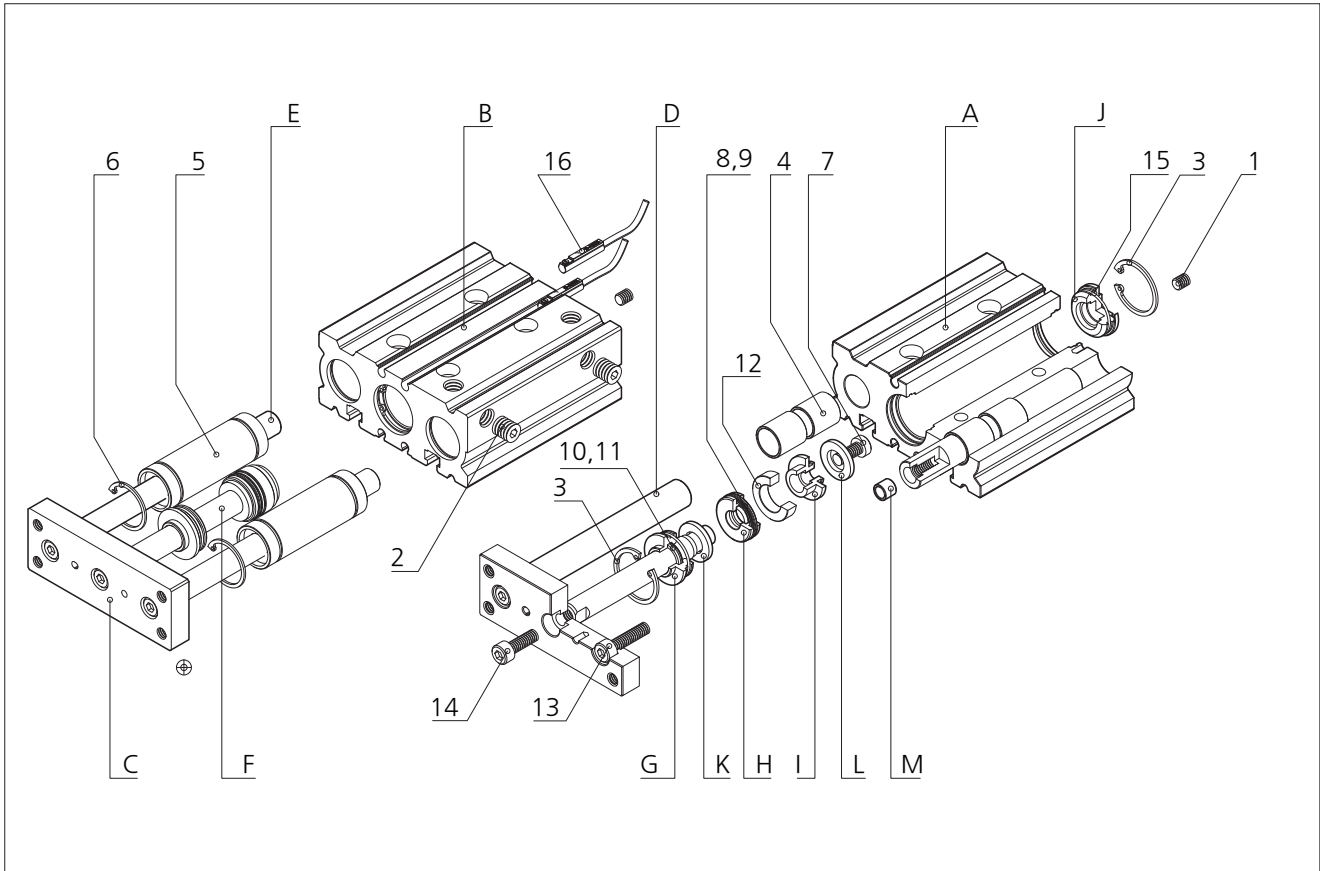
Specifications

Type	Double acting	
	Ø12, Ø16	Ø25~Ø100
Fluid	Air	
Proof pressure	14.7kgf/cm ² (1.5MPa)	
Max. operating pressure	9.9kgf/cm ² (1.0MPa)	
Min. operating pressure	1.2kgf/cm ² (0.12MPa)	1.0kgf/cm ² (0.1MPa)
Ambient & fluid temperature	-10℃~+60℃	
Operating piston speed	50~500mm/s	
Cushion	Both side rubber bumper	
Lubrication	Not required (When refueling, turbine oil ISO VG32 or equivalent)	
Tolerance of stroke	+1.5 0 mm	

Non-Rotating Load Capability

Bore size (mm)	Non-rotating accuracy θ	
	ANGM	ANGL
Ø12	±0.07°	±0.10°
Ø16		
Ø20	±0.06°	±0.09°
Ø25		
Ø32	±0.06°	±0.08°
Ø40		
Ø50	±0.05°	±0.06°
Ø63		
Ø80	±0.04°	±0.05°
Ø100		

Structures



Part no.	Parts	Material	Remarks
A	SLIDE BODY-M	A6063-T5	ANGM
B	SLIDE BODY-L	A6063-T5	ANGL
C	FRONT PLATE	SS41	
D	PISTON ROD	SM45C	
E	GUIDE ROD-M	SM45C	ANGM
F	GUIDE ROD-L	SUJ2	ANGL
G	ROD COVER	C3604	
H	PISTON	C3604	
I	M/G COVER	C3604	
J	HEAD COVER	A6061	
K,L	DAMPER	URETHANE	
M	BOLT HOLDER		

Part no.	Parts	Material
1	TANNED BOLT	
2	PLUG-IN BOLT	
3	SNAP RING	
4	DU BUSH	ANGM
5	BALL BUSH	ANGL
6	SNAP RING	ANGL
7	LOW HEAD WRENCH BOLT	
8	PISTON PACKING	
9	O-RING	
10	ROD PACKING	
11	O-RING	

Part no.	Parts	Material
12	MAGNET	RUBBER
13	GUIDE ROD TIGHTENING BOLT	
14	PISTON ROD TIGHTENING BOLT	
15	O-RING	
16	MAGNETIC SENSOR	
17		
18		
19		
20		

Mass

Unit : kg

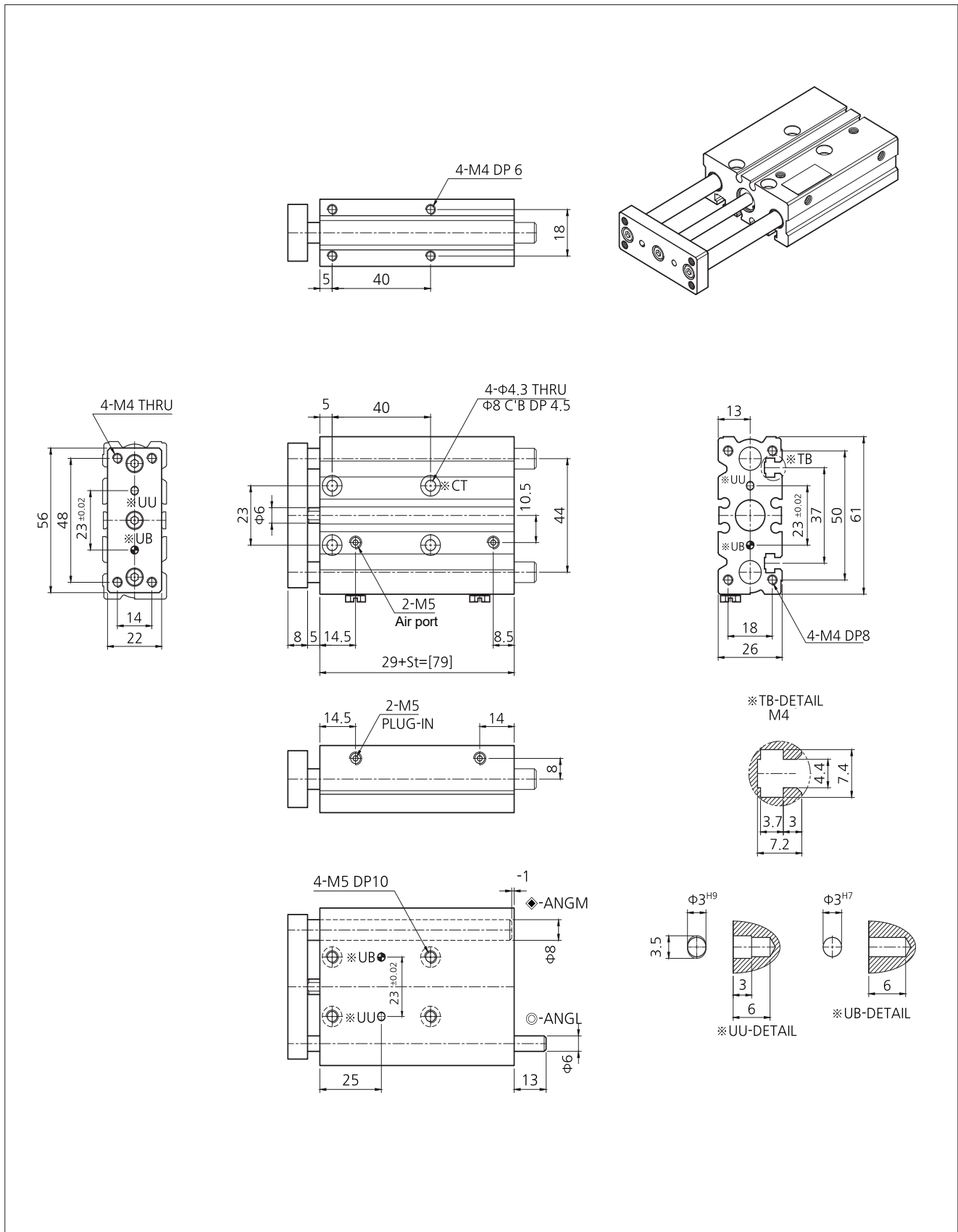
Unit : kg

Bore size (mm)	Stroke - ANGM(Sliding Bearing type)										
	10	20	25	30	40	50	75	100	125	150	
Ø12	0.24	0.28	-	0.32	0.36	0.40	0.52	0.62	0.74	0.84	
Ø16	0.34	0.40	-	0.45	0.51	0.56	0.73	0.86	1.04	1.18	
Ø20	-	0.67	-	0.75	0.84	0.92	1.16	1.37	1.57	1.78	
Ø25	-	0.98	-	1.09	1.21	1.32	1.69	1.98	2.27	2.56	
Ø32	-	-	1.53	-	-	1.91	2.44	2.82	3.21	3.59	
Ø40	-	-	1.74	-	-	2.16	2.73	3.15	3.57	3.99	
Ø50	-	-	3.01	-	-	3.63	4.49	5.11	5.73	6.35	
Ø63	-	-	3.79	-	-	4.52	5.48	6.20	6.93	7.66	

Bore size (mm)	Stroke - ANGL(Ball bearing type)										
	10	20	25	30	40	50	75	100	125	150	
Ø12	0.24	0.28	-	0.31	0.36	0.40	0.49	0.58	0.69	0.76	
Ø16	0.33	0.38	-	0.43	0.50	0.55	0.68	0.81	0.96	1.08	
Ø20	-	0.68	-	0.75	0.86	0.93	1.13	1.32	1.53	1.72	
Ø25	-	0.97	-	1.07	1.24	1.34	1.60	1.86	2.17	2.43	
Ø32	-	-	1.40	-	-	0.74	2.19	2.52	2.92	3.26	
Ø40	-	-	1.70	-	-	2.08	2.56	2.94	3.38	3.75	
Ø50	-	-	2.87	-	-	3.43	4.17	4.72	5.36	5.91	
Ø63	-	-	3.67	-	-	4.33	5.18	5.84	6.59	7.25	

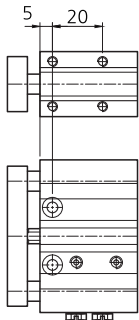


ANGM(L) 12-50 Standard Dimensions

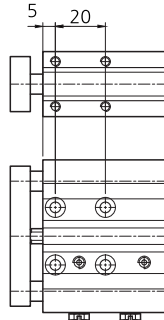


ANGM(L) 12-Other Stroke Variable Dimensions

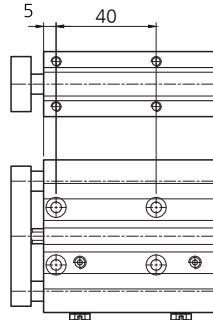
● St=10



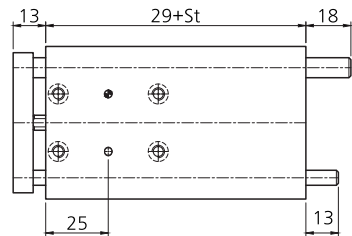
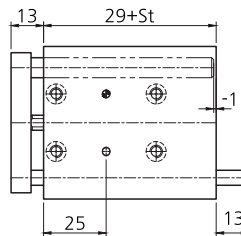
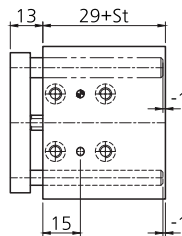
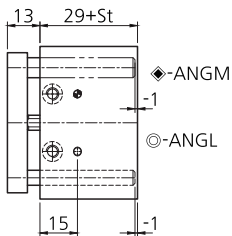
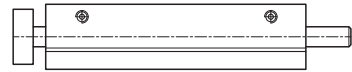
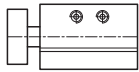
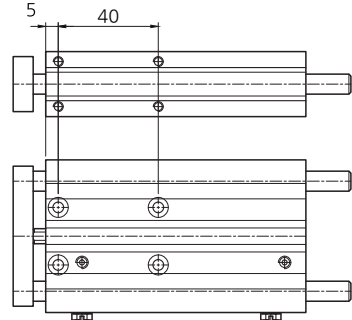
● St=20(30)



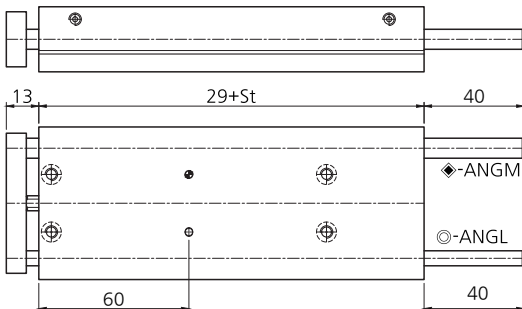
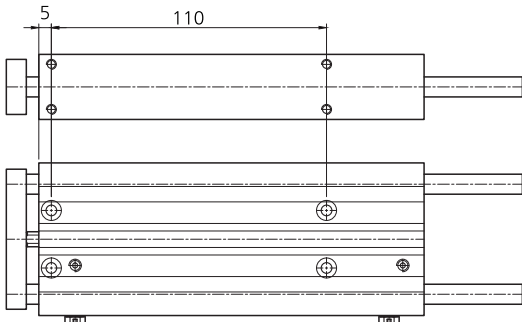
● St=40(50)



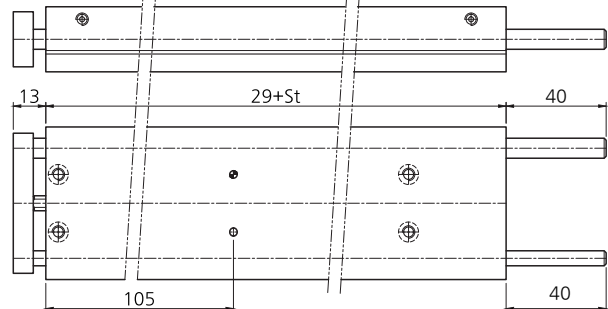
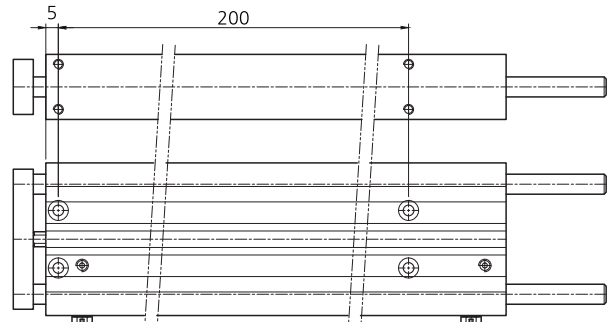
● St=75(100)



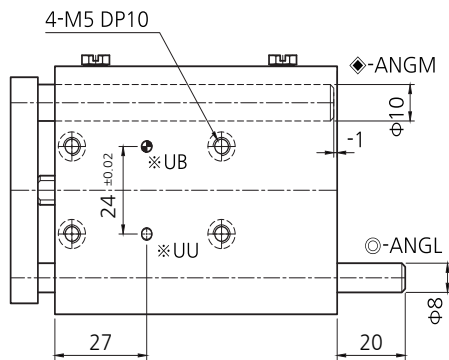
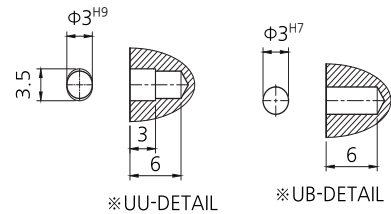
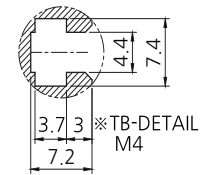
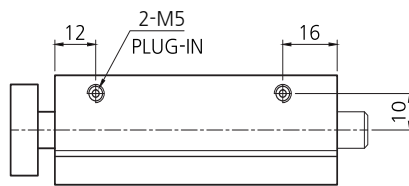
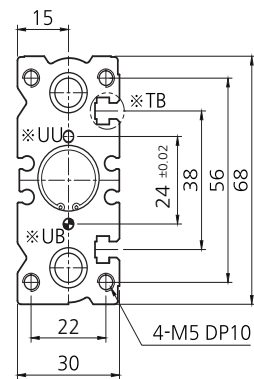
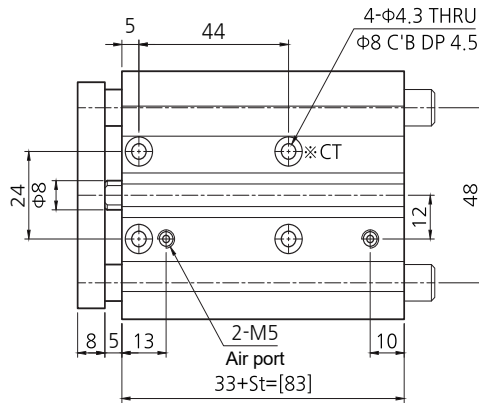
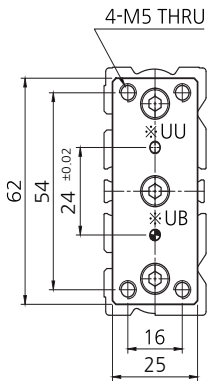
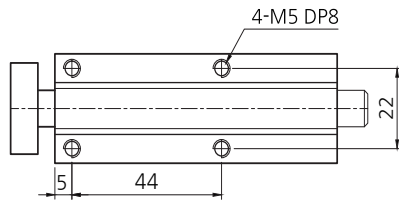
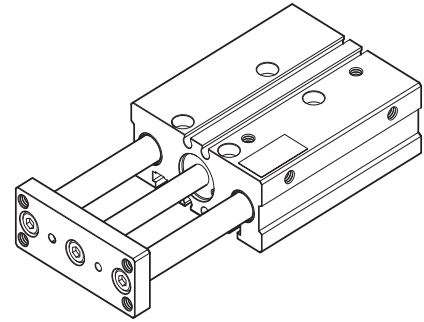
● St=125(150,175,200)



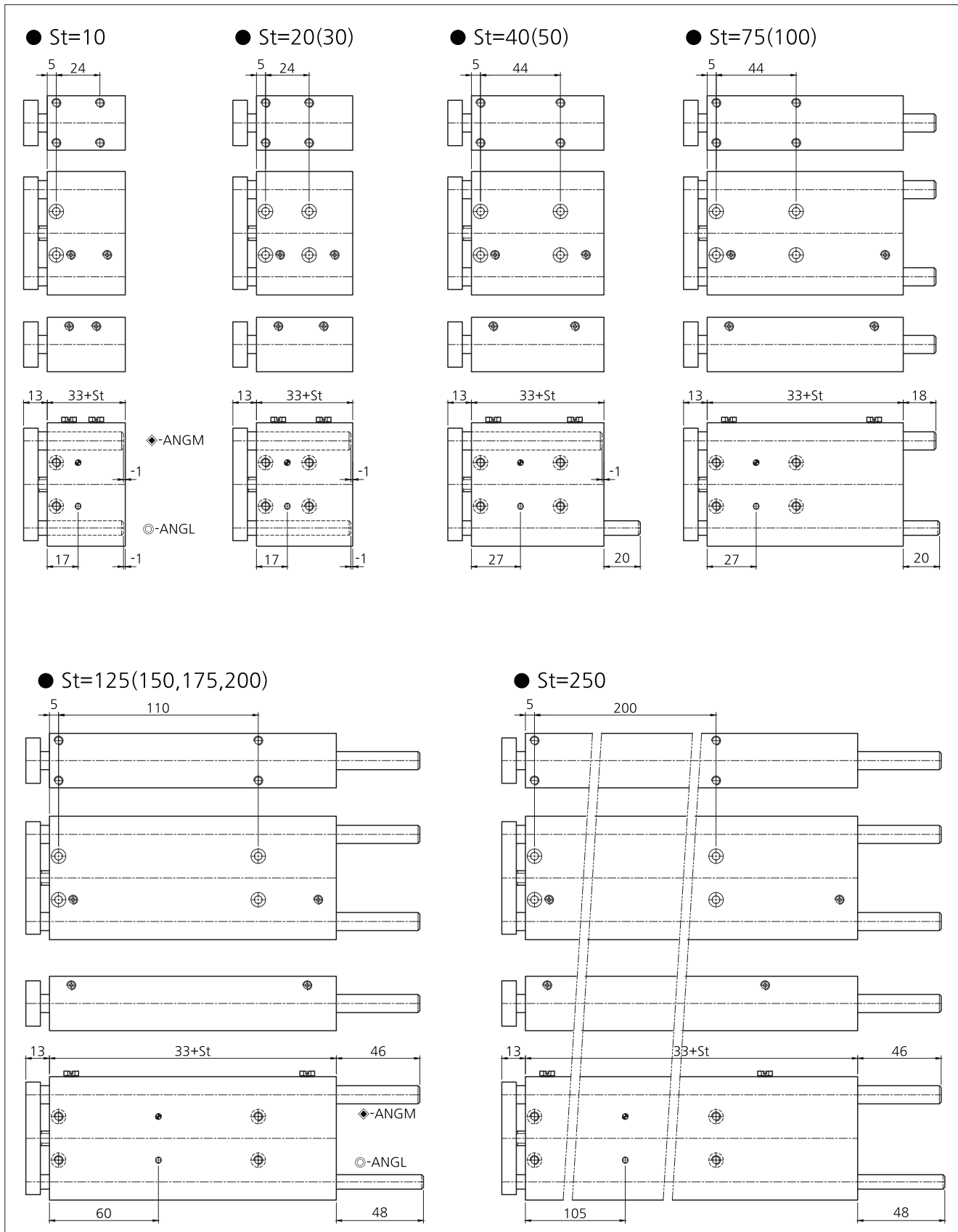
● St=250



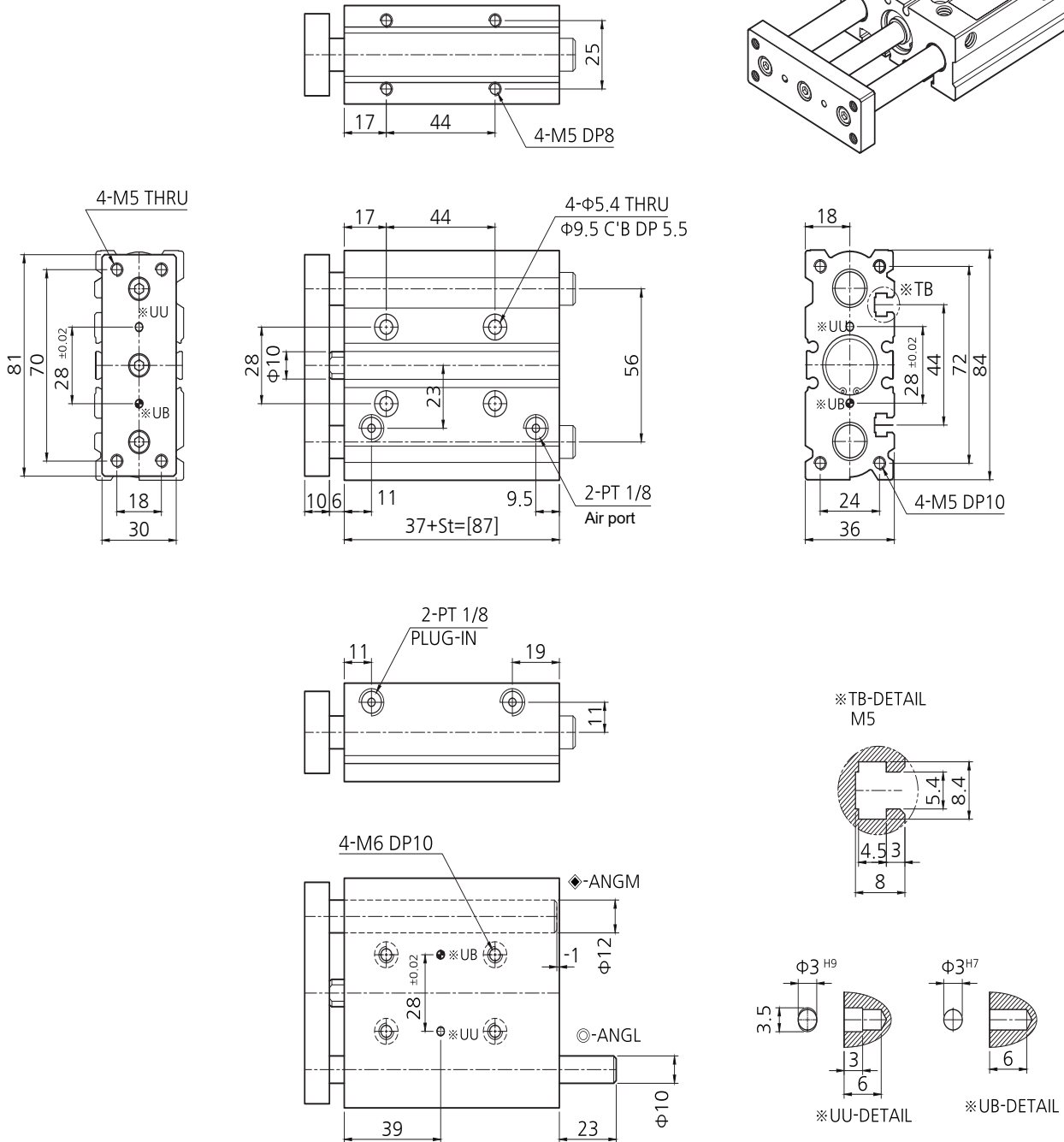
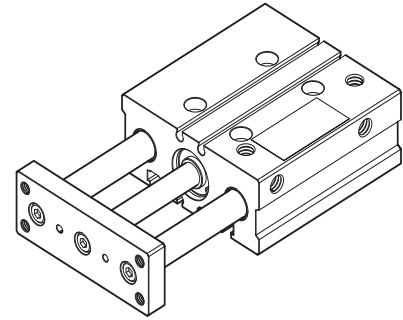
ANGM(L) 16-50 Standard Dimensions



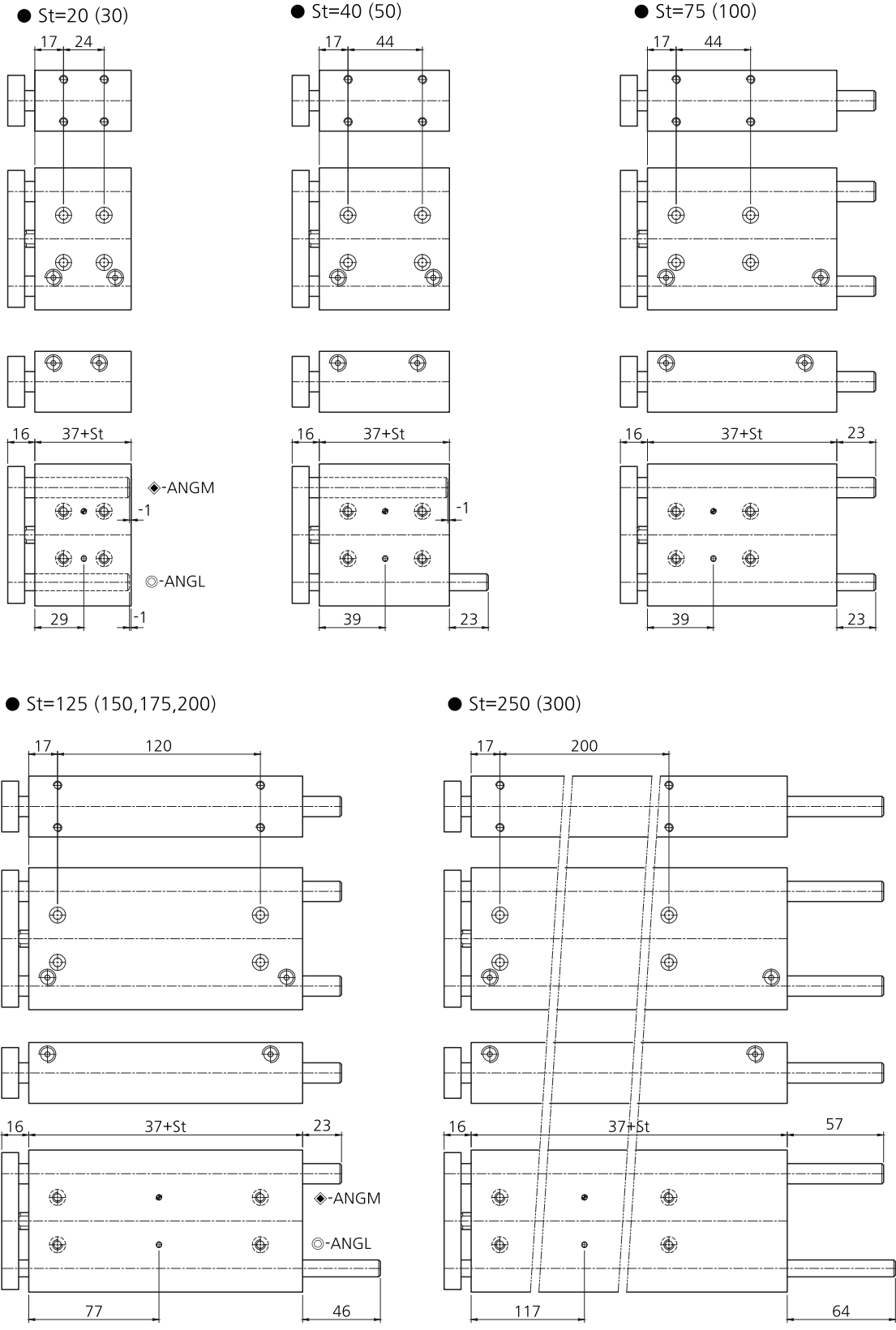
ANGM(L) 16-Other Stroke Variable Dimensions



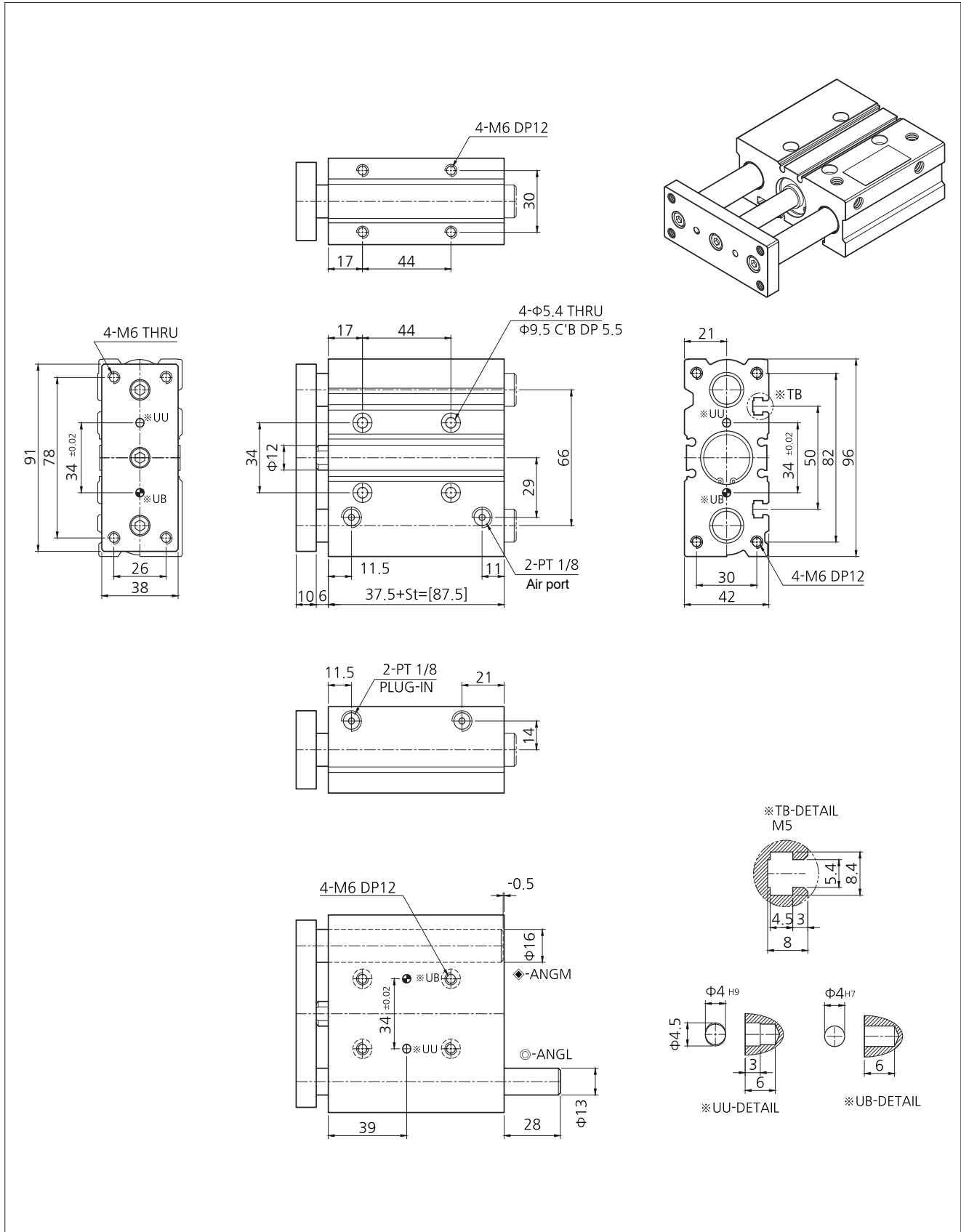
ANGM(L) 20-50 Standard Dimensions



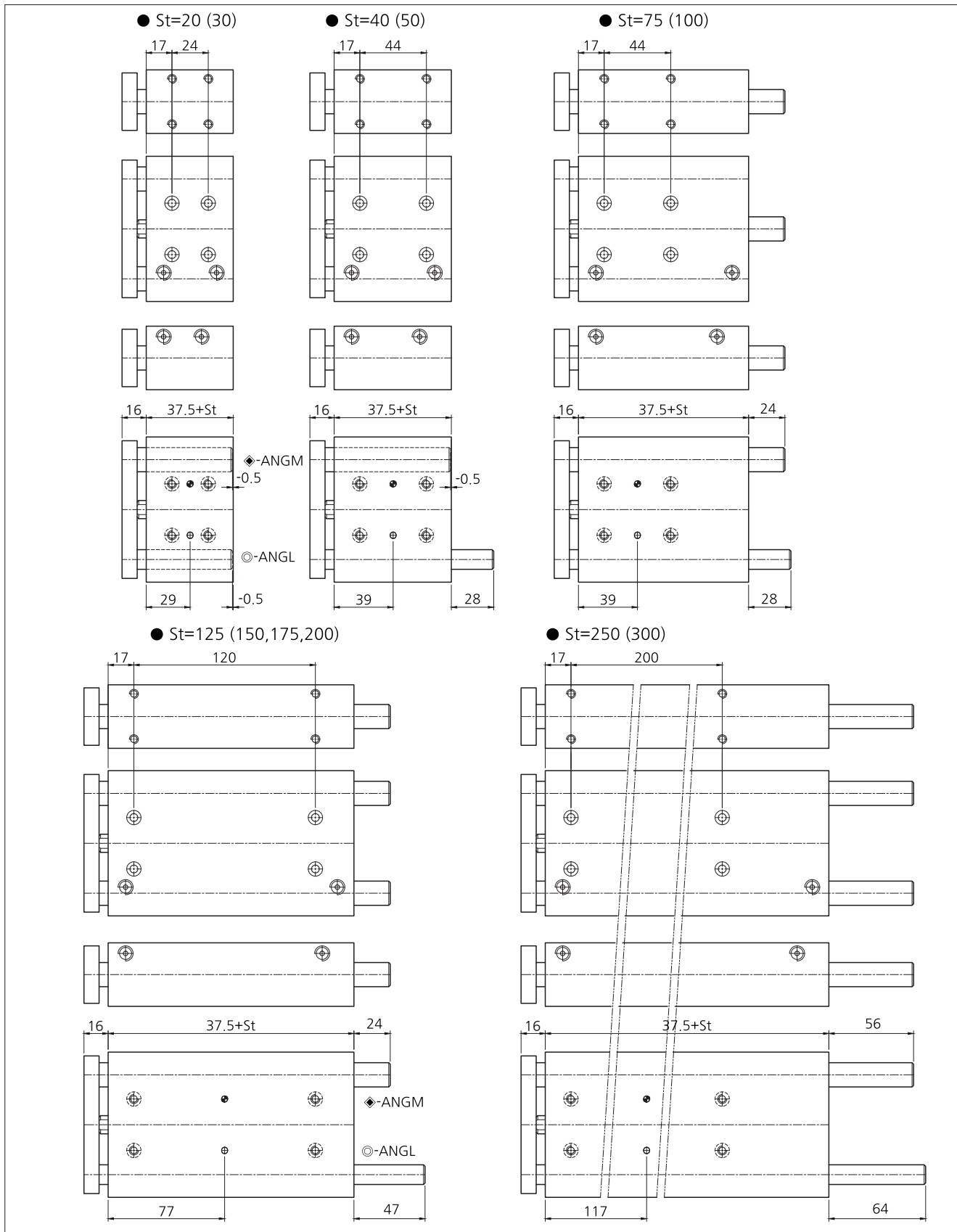
ANGM(L) 20-Other Stroke Variable Dimensions



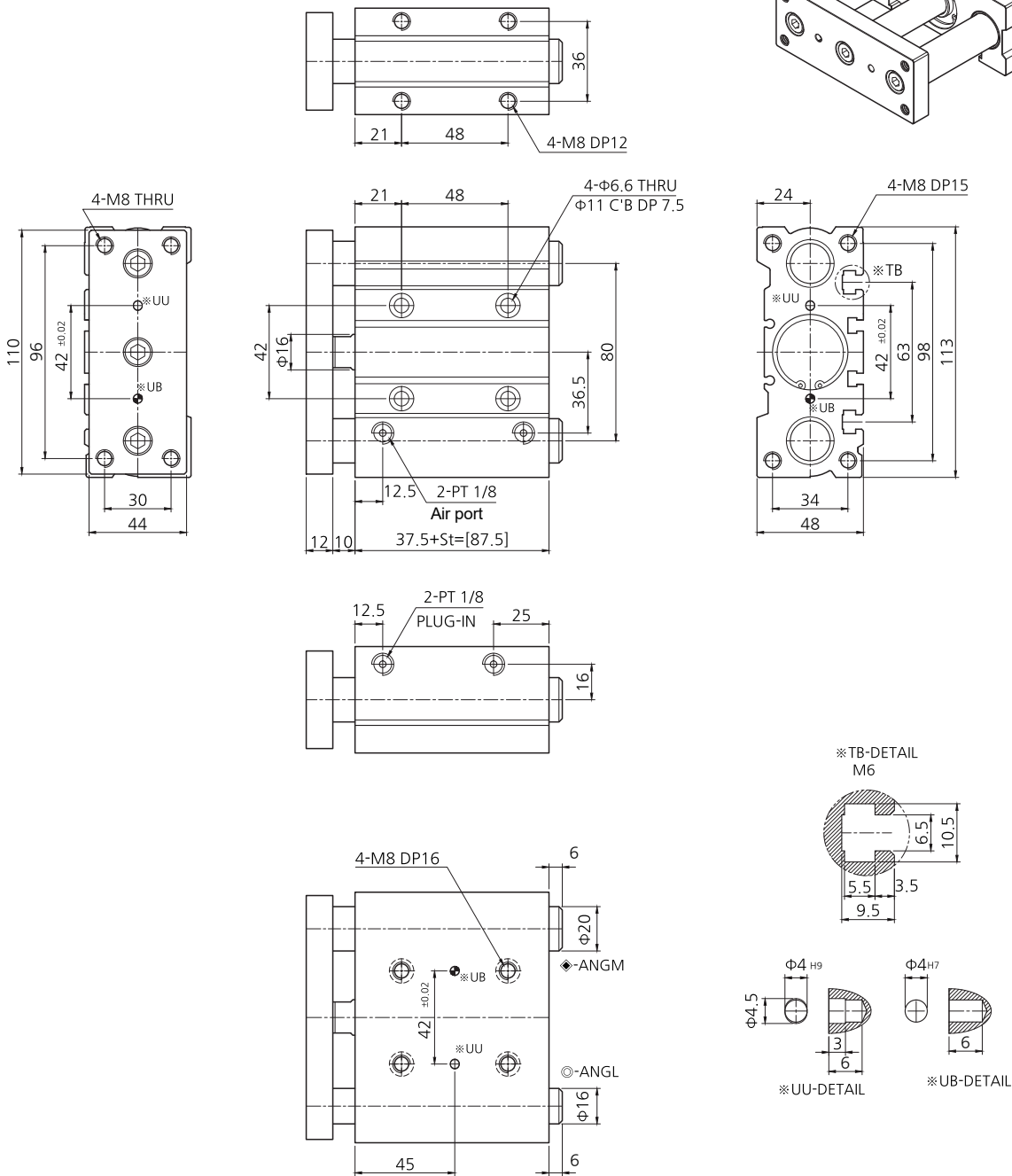
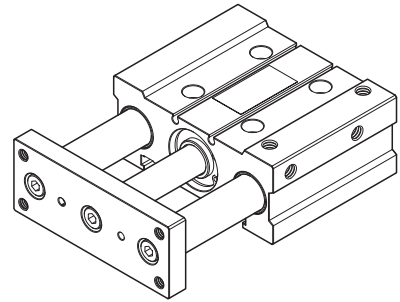
ANGM(L) 25-50 Standard Dimensions



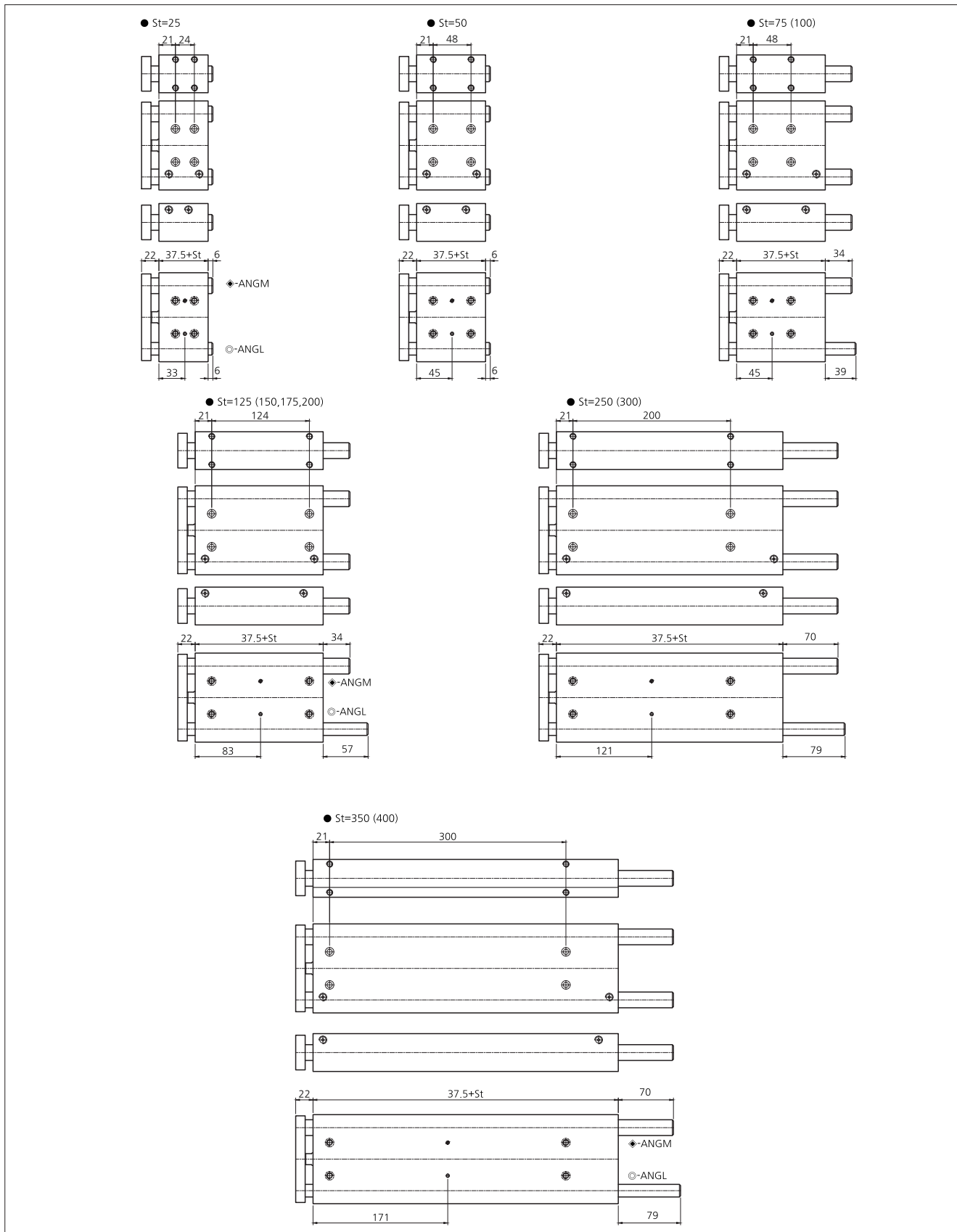
ANGM(L) 25-Other Stroke Variable Dimensions



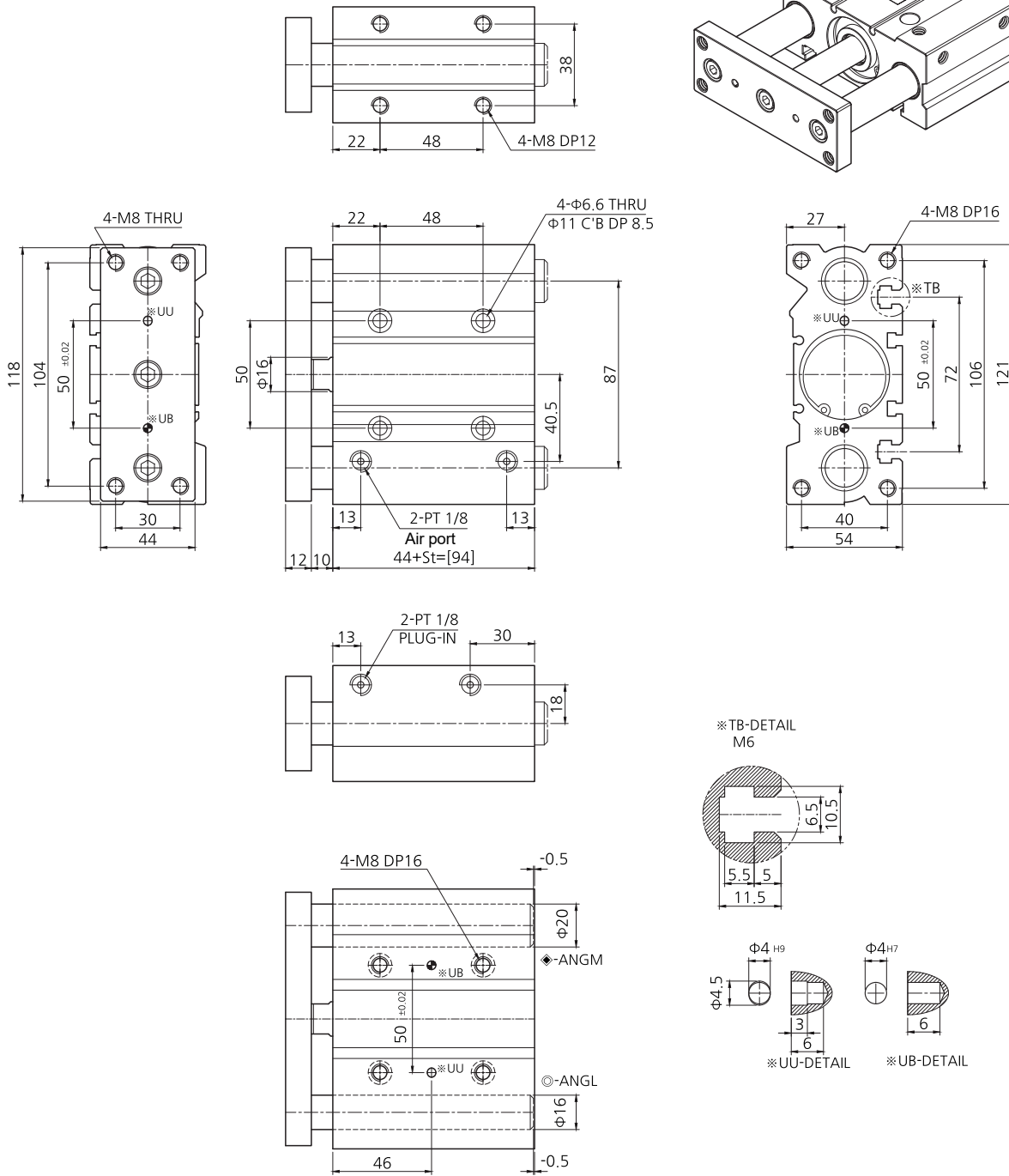
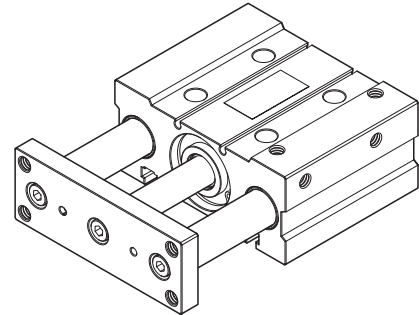
ANGM(L) 32-50 Standard Dimensions



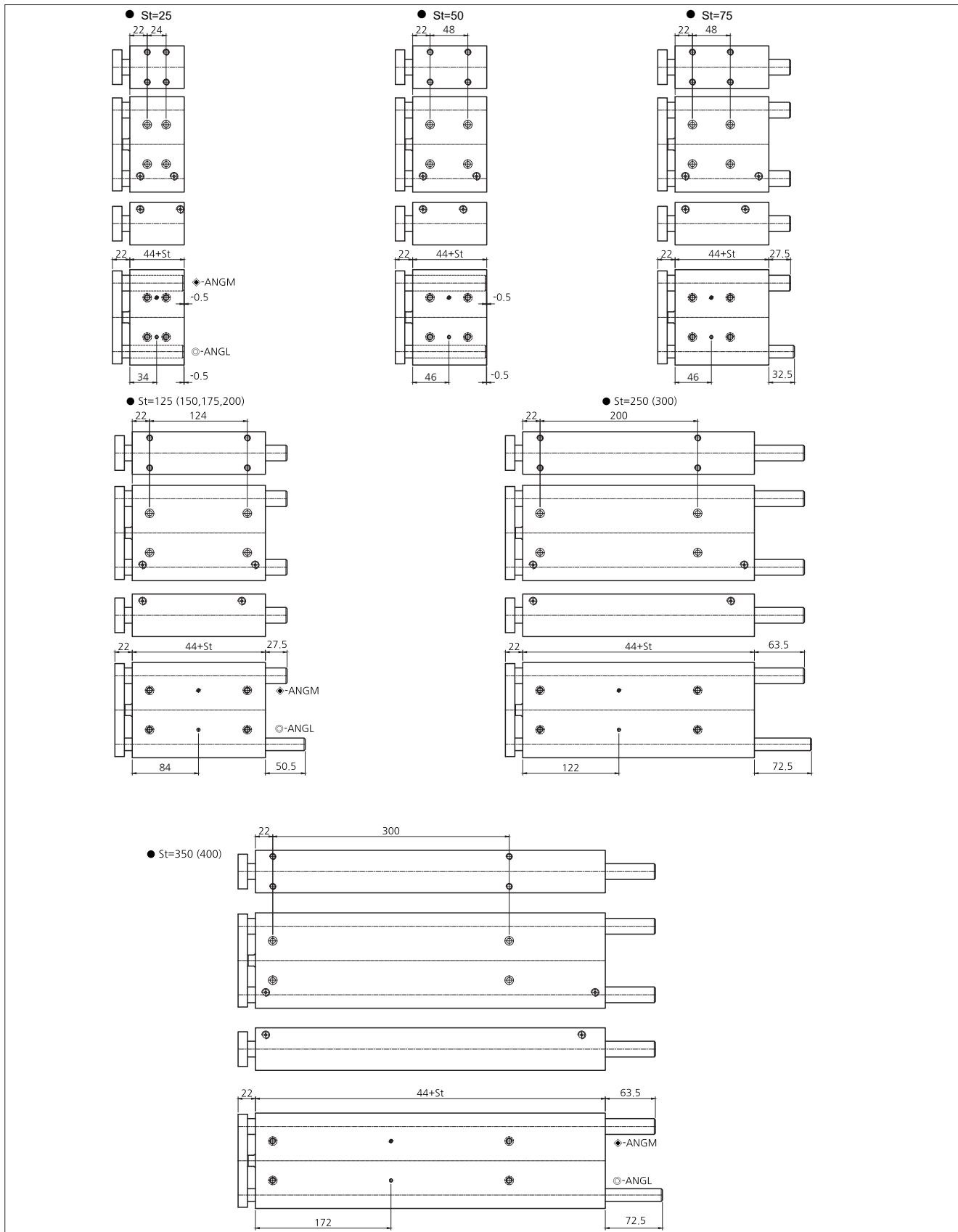
ANGM(L) 32-Other Stroke Variable Dimensions



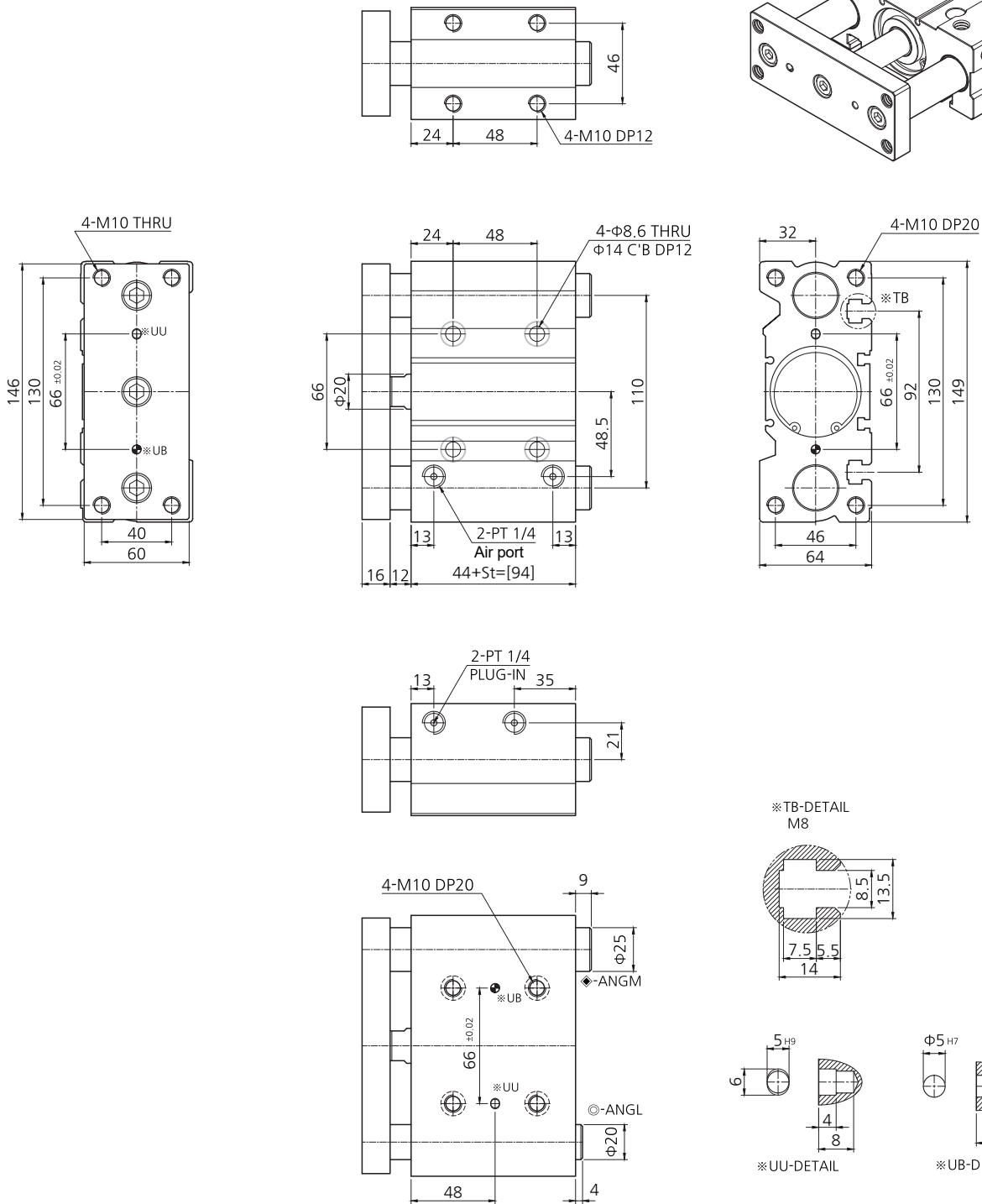
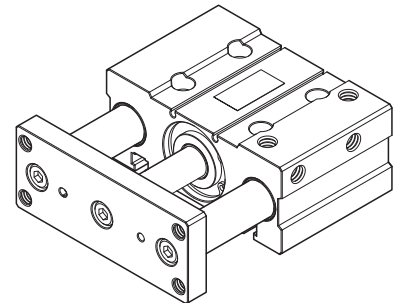
ANGM(L) 40-50 Standard Dimensions



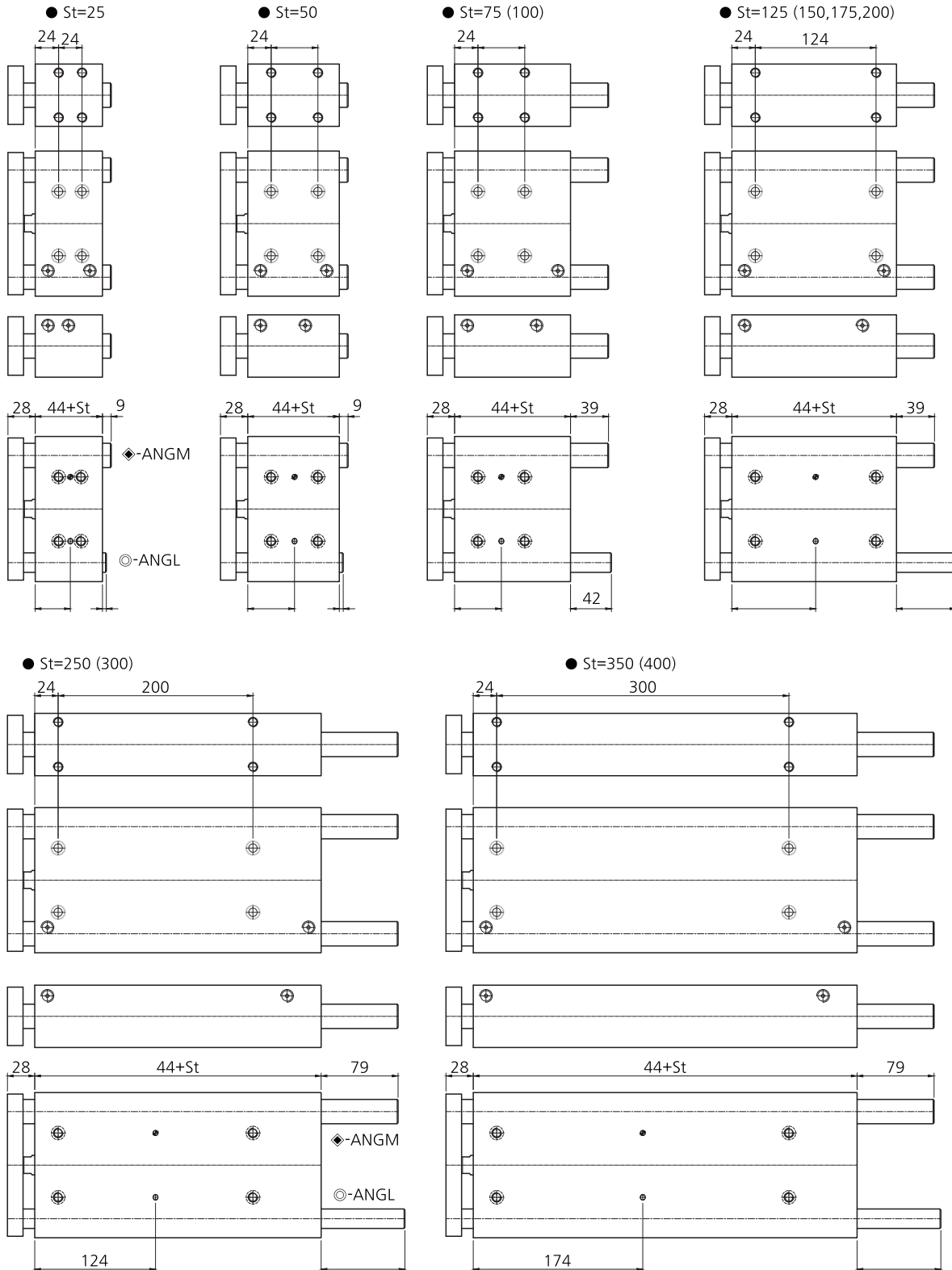
ANGM(L) 40-Other Stroke Variable Dimensions



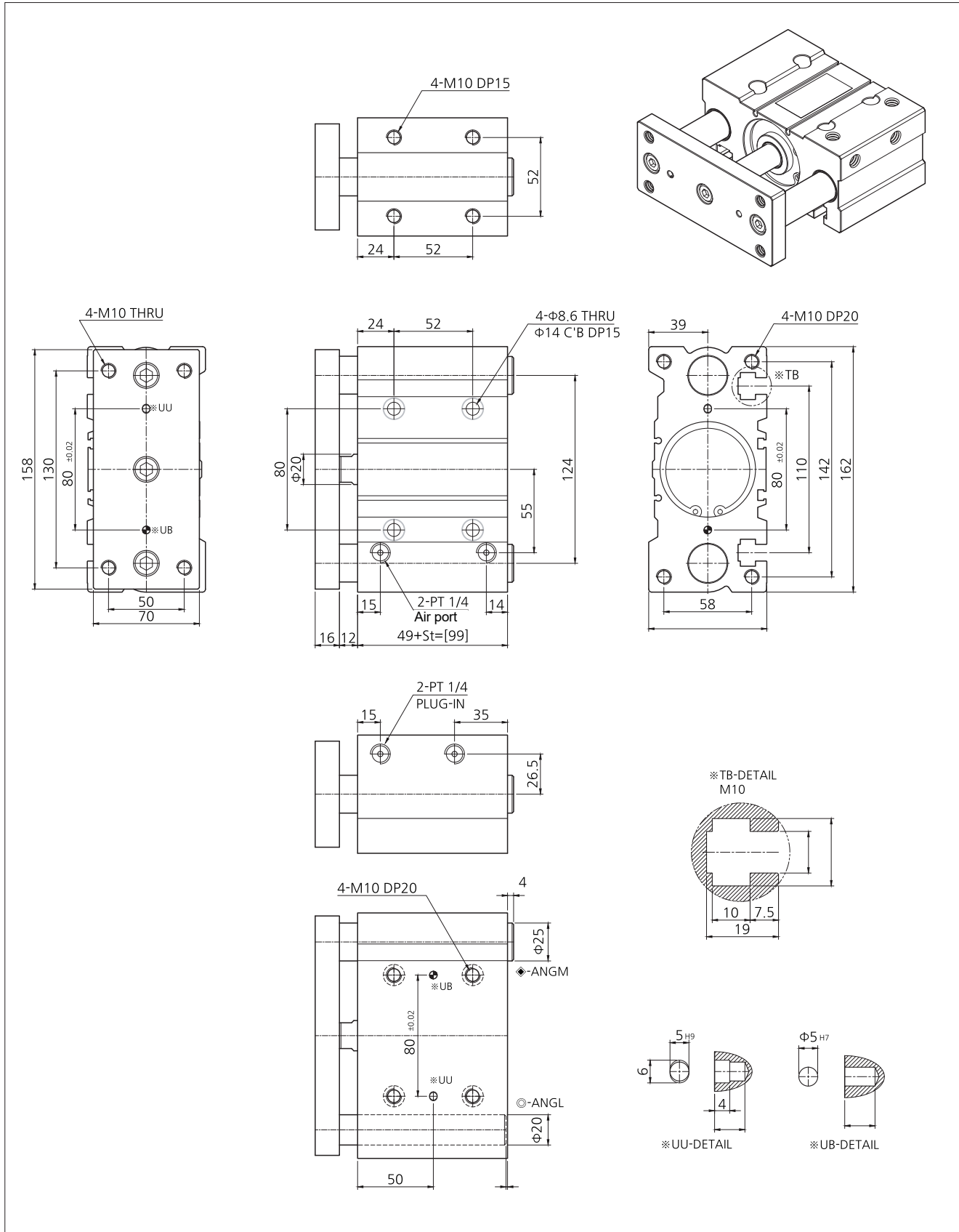
ANGM(L) 50-50 Standard Dimensions



ANGM(L) 50-Other Stroke Variable Dimensions



ANGM(L) 63-50 Standard Dimensions



ANGM(L) 63-Other Stroke Variable Dimensions

