Product Features

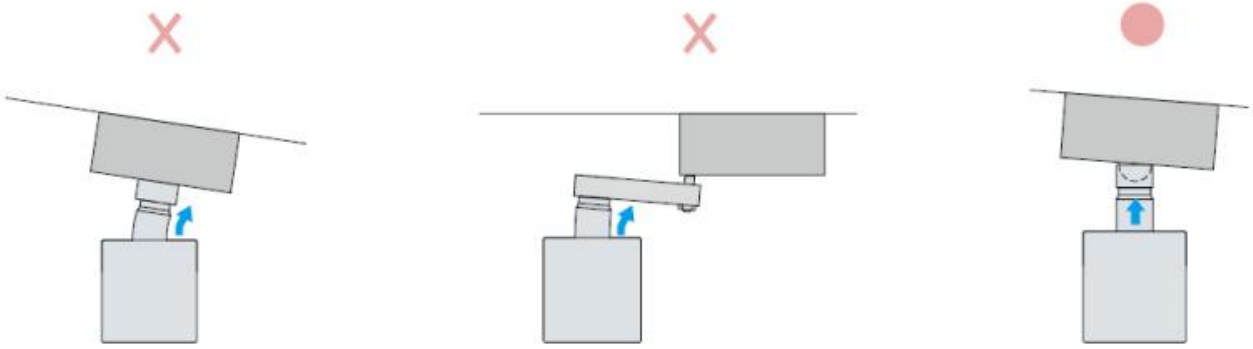
Series category		YBG-ZD/ZS;YBG-ZBQ/ZBH;YBG-ZDG;YBG-CD/CS;YBG-CDB/CSB						
Bore of cylinder (mm)		Φ20	Φ25	Φ32	Φ40	Φ50	Φ63	Φ80
Piston rod diameter (mm)		Φ12	Φ14	Φ20	Φ25	Φ30	Φ35	Φ45
Pressure area (cm2) F1 pull-in F2 push-out		3.14/2.01	4.91/3.37	8.04/4.9	12.57/7.66	19.64/12.57	31.17/21.55	50.27/34.37
Theoretical clamping force (kg)	Input pressure 10kg/cm²	31/20	49/34	80/49	126/77	196/126	312/216	503/344
	Input pressure 35kg/cm²	110/71	172/118	281/172	440/268	687/440	1091/754	1759/1203
	Input pressure 75kg/cm²	220/141	344/236	563/343	880/536	1375/880	2182/1509	3519/2406
	Input pressure 100kg/cm²	314/201	491/337	804/490	1257/766	1964/1257	3117/2155	5027/3437
	Input pressure 140kg/cm²	440/281	687/472	1126/686	1760/1072	2750/1760	4364/3017	7038/4812
Maximum operating pressure (kg/cm2)		140						
Operating pressure range (KN/cm2)		20-140						
Use speed range (mm/sec)		15-100						

Note: the cylinder block length B of the Φ20 and Φ25 right row stroke is the same (5,10), (15,20) and (25, 30)

Product Description

- With small size and space saving, it is the best choice with limited installation space.
- The standardized specification can be directly installed without other accessories to reduce the cost.
- The working pressure you use should not exceed the maximum allowable working pressure of the product.
- Please filter your oil inlet to avoid damaging the seals in the cylinder.

Installation and Use Precautions

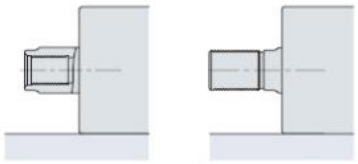


YBG-ZD/ZS oil pressure axial uniaxial/biaxial piping thin cylinder

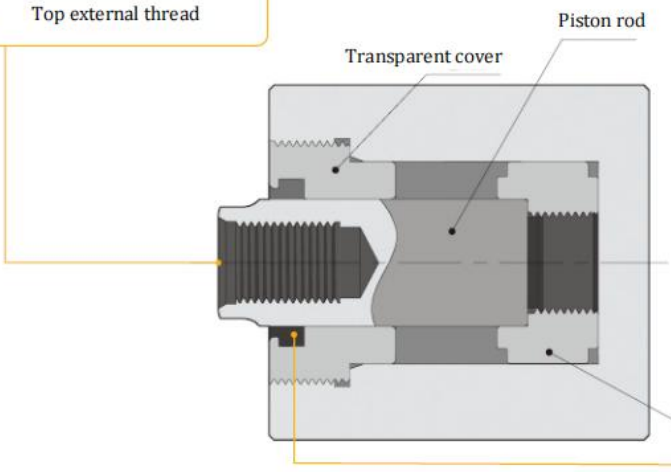
Pressure Range
20-140kg/cm^2

Piston shaft end form

The piston shaft is available in 2 top forms



Top internal thread Top external thread



High quality seals

High quality seals are used to effectively prevent coolant and chips from entering the cylinder block.

The figure shows the sectional view of the YBG-ZD/ZS pull-in state

Model Representation

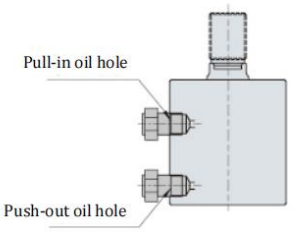
YBG—ZD/ZS ① ②*③ (Example: YBG-ZD32*40N/B)

	①Size	②Stroke	③Shaft end form	④Pressure-holding form
YBG-ZD/ZS	20	10 20 30 40	Inner teeth : N	Unmarked: Standard
	25	10 20 30 40 50	External teeth:W	Holding pressure: B
	32	10 20 30 40 50 60		
	40	10 20 30 40 50 60 70		
	50	10 20 30 40 50 60 70 80		
	63	10 20 30 40 50 60 70 80 90 100		
	80	10 20 30 40 50 60 70 80 90 100		

※ is the product ordered for production.

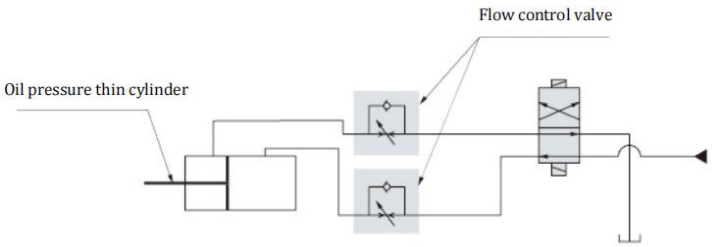
※ The cylinder length B and BB of (5,10), (15,20), (25,30), (35,40), (45,50) and above strokes are the same.

Piping Method



Piping type (no plate interface)
The figure shows YBG-ZD pull-in state

Oil Pressure Circuit Diagram (for reference only)



Action Description

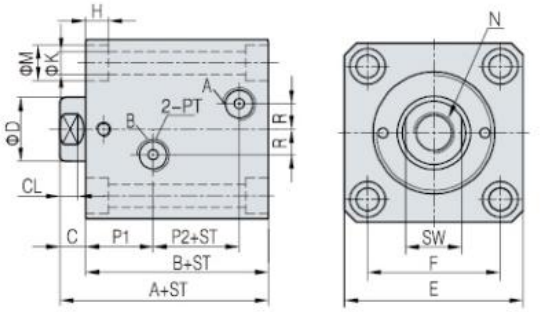
Pull-in state　　Push-out state

Cylinder Capacity

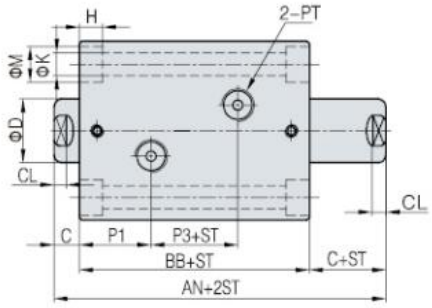
Bore of cylinder (mm)	20	25	32	40	50	63	80
Compression area (cm2)	3.14	4.91	8.04	12.57	19.64	31.17	50.27
Oil pressure (Mpa)	Cylinder capacity						
14.0	4.4	6.9	11.3	17.6	27.5	43.6	70.3
13.0	4.1	6.4	10.4	16.3	25.5	40.5	65.3
12.0	3.8	5.9	9.6	15.1	23.6	37.4	60.3
11.0	3.5	5.4	8.8	13.8	21.6	34.3	55.3
10.0	3.1	4.9	8.0	12.6	19.6	31.2	50.2
9.0	2.8	4.4	7.2	11.3	17.7	28.0	45.2
8.0	2.5	3.9	6.4	10.1	15.7	24.9	40.2
7.0	2.2	3.4	5.6	8.8	13.7	21.8	35.2
6.0	1.9	2.9	4.8	7.5	11.8	18.7	30.1
5.0	1.6	2.5	4.0	6.3	9.8	15.6	25.1
4.0	1.3	2.0	3.2	5.0	7.9	12.5	20.1
3.0	0.9	1.5	2.4	3.8	5.9	9.3	15.1
2.0	0.6	1.0	1.6	2.5	3.9	6.2	10.0

Overall Dimension

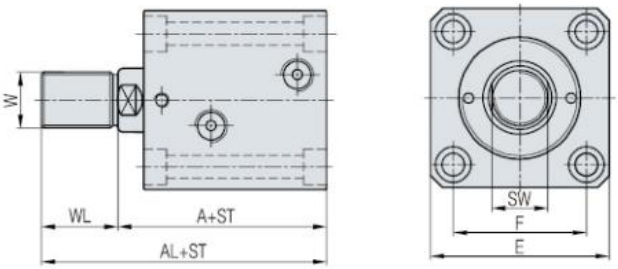
ZD-N
Axial uniaxial (internal thread)



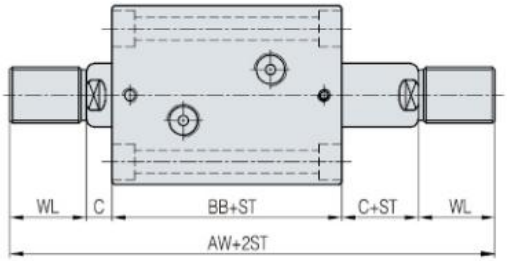
ZS-N
Axial biaxial (internal thread)



ZD-W
Axial uniaxial (external thread)



ZS-W
Axial biaxial (external thread)



Note: ST means stroke, A: push-out oil hole, B: pull-in oil hole

Dimension \ Model	20	25	32	40	50	63	80
A	51	53	64	65	71	80	95
AL	71	75	89	95	106	120	140
AN	---	74	89	90	97	108	127
AW	---	118	139	150	167	188	217
B	43	45	54	55	60	67	78
BB	---	58	69	70	75	82	93
C	8	8	10	10	11	13	17
CL	6	6	7	7	8	10	14
D	12	14	20	25	30	35	45
SW	10	12	17	22	27	32	41
E	42	48	62	70	80	94	114
F	30	36	47	52	58	69	86
H	5.5	5.5	7	9	11	13	15
K	5.6	5.6	6.8	9	11	13	15
M	9	9	11	14	18	20	22
N	M8*1.25*12D	M10*1.5*15D	M12*1.75*18D	M16*2*20D	M20*2.5*25D	M27*3*35D	M30*3.5*35D
W	M10*1.25	M12*1.25	M16*1.5	M22*1.5	M26*1.5	M30*1.5	M39*1.5
WL	20	22	25	30	35	40	45
P1	23	23	28	26.5	29.5	30	33
P2	10	12	14	17	18	20	27
P3	---	12	13	17	16	22	27
PT	RP1/8	RP1/8	RP1/4	RP1/4	RP1/4	RP3/8	RP3/8
R	5	5	10	10	10	10	15

Note: the cylinder block length B of the Φ20 and Φ25 right row stroke is the same (5,10), (15,20) and (25, 30)