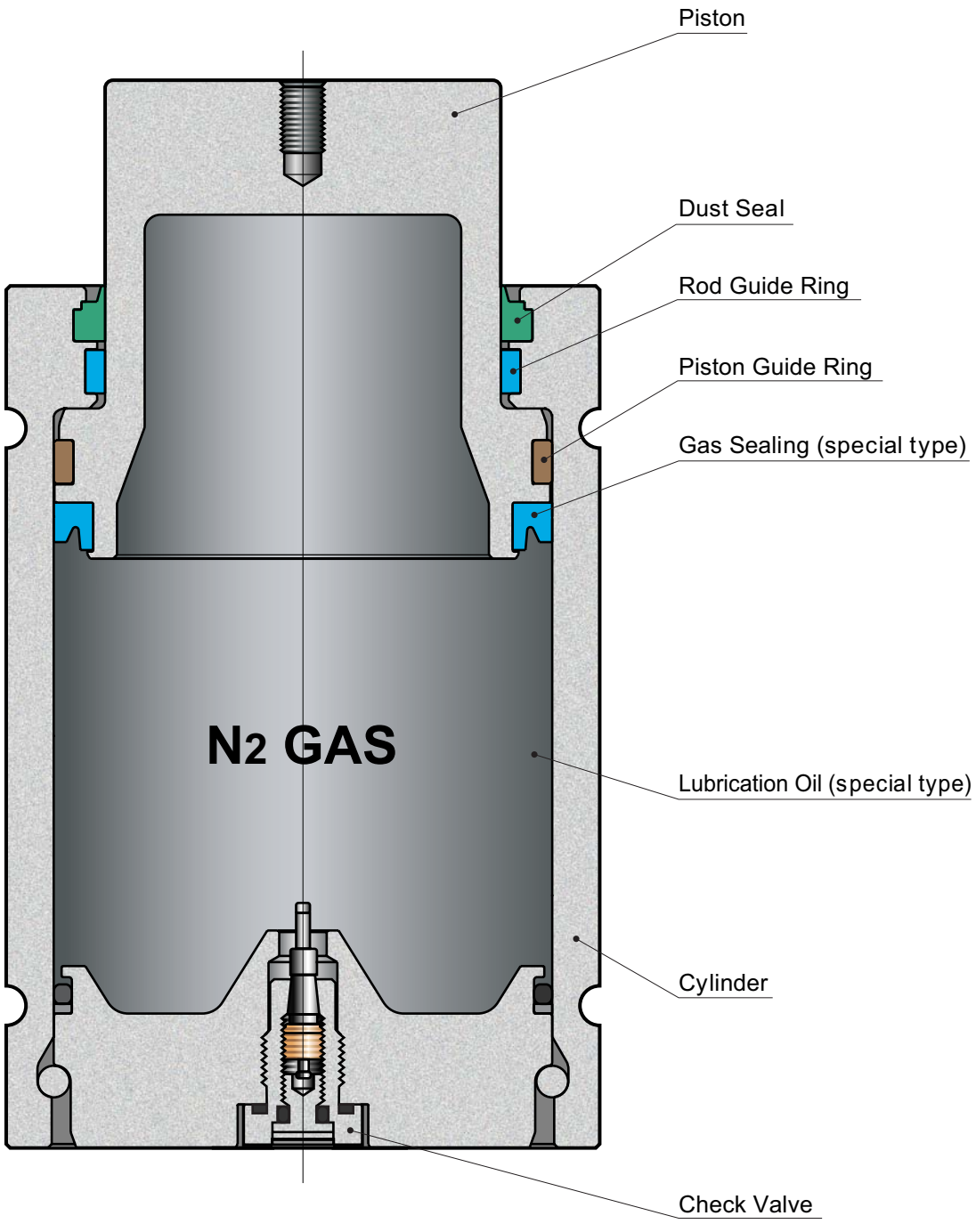
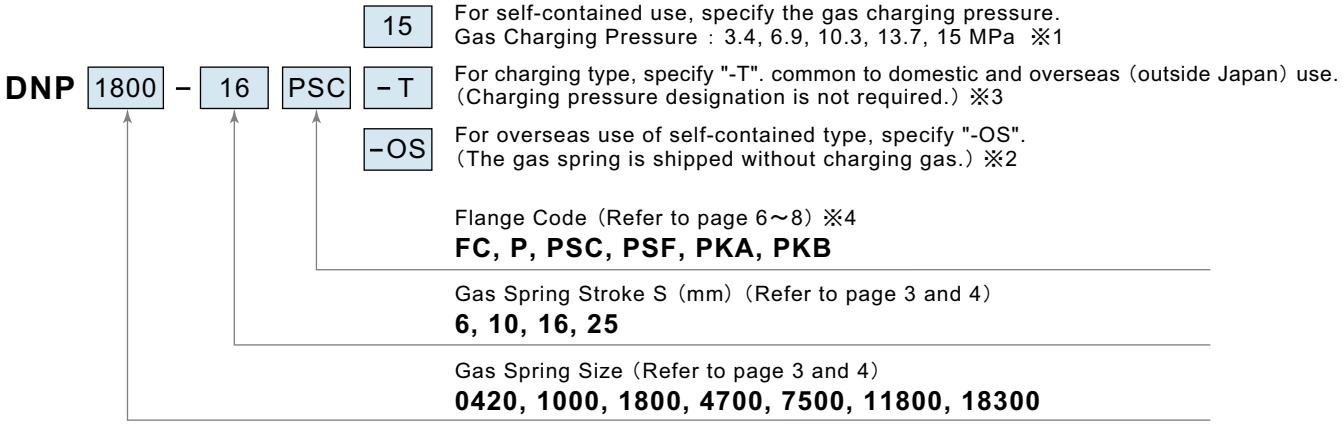
model DNP High power Short stroke model



Ordering gas spring and flange by the set

Example : DNP1800−16PSC−T

In case requiring a gas spring and a flange by the set, please specify the set model name as below.



※1 : Choose one of the recommended gas pressure levels shown above. For the charging pressure other than above, specify the pressure to one digit after the decimal. The gas charging range is 3.4 MPa to 15 MPa at 20℃.

※2 : Charging gas to those gas springs to be shipped to outside Japan is prohibited by law.

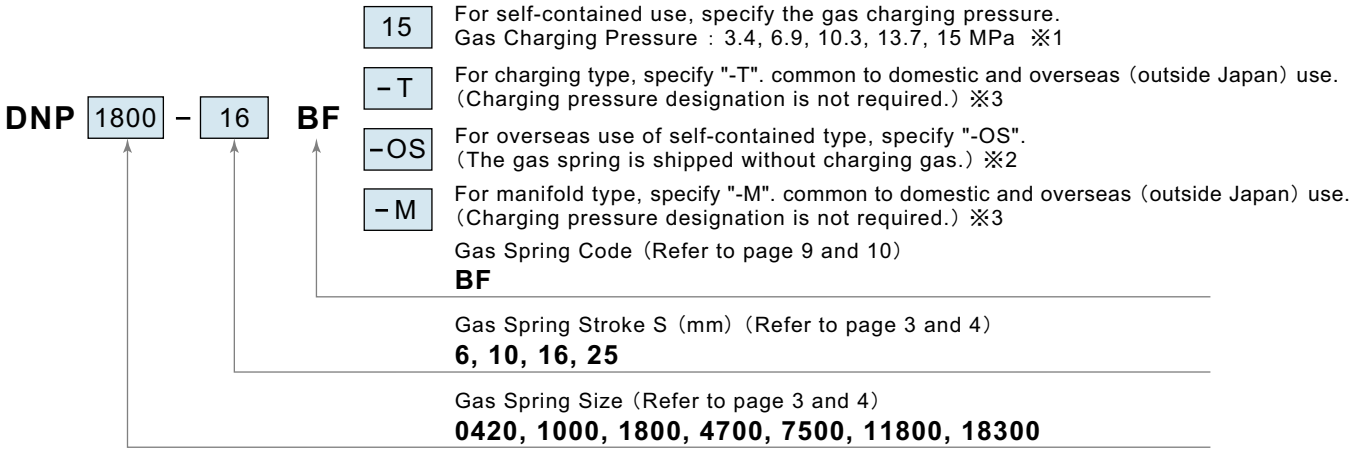
※3 : Check valve is not mounted at shipment. (Refer to page 6～8)

※4 : When applying SC, SF, KA, KB model flange to gas spring model DNP, a manifold base (P) is necessary. The flange codes by the set including manifold base (P) are PSC, PSF, PKA and PKB.

Ordering gas spring by itself

Example : DNP1800−16BF15

In case requiring only the gas spring, please specify BF as a gas spring code.



※1 : Choose one of the recommended gas pressure levels shown above. For the charging pressure other than above, specify the pressure to one digit after the decimal. The gas charging range is 3.4 MPa to 15 MPa at 20℃.

※2 : Charging gas to those gas springs to be shipped to outside Japan is prohibited by law.

※3 : Check valve is not mounted at shipment. (Refer to page 9 and 10)

Ordering flange by itself

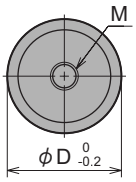
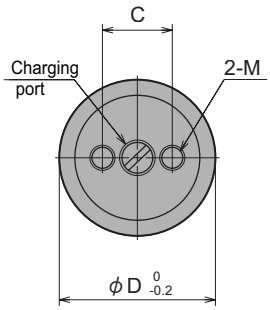
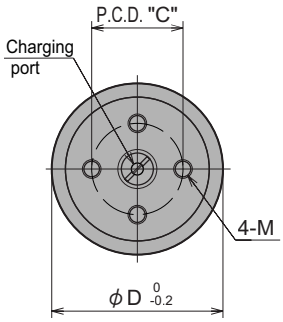
Example : DJF075-FC

In case requiring only the flange, please specify the model name of the flange as below.

※1 : When applying SC, SF, KA, KB model flange to gas spring model DNP, manifold base (P) is necessary. A manifold base should be ordered separated, as model SC, SF, KA and KB do not have manifold base.

Specifications / Dimensions

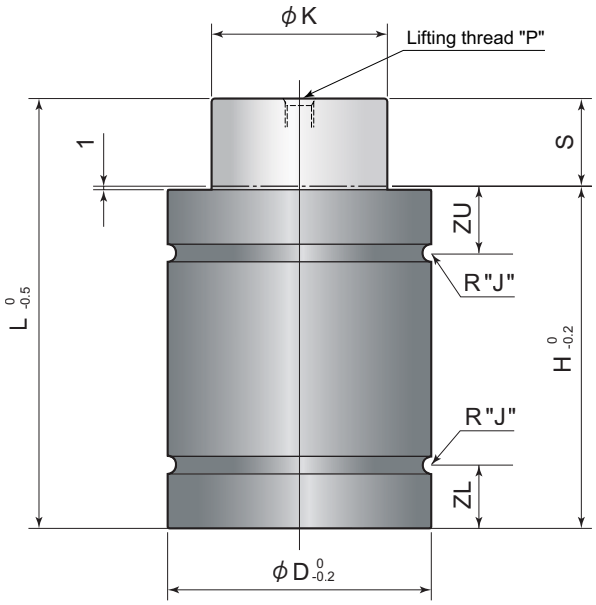
Model (◎: made to order)		Stroke S mm	※1 Full stroke Load kN	※1 Full stroke Load kN	Compression Ratio	Mass kg	L mm	H mm
DNP0420 - ※2	**6**	6	4.71	8.24	1.75	0.2	56	50
	10	10	4.71	7.97	1.69	0.2	70	60
	16	16	4.71	7.83	1.66	0.2	91	75
	25	25	4.71	7.97	1.69	0.2	120	95
DNP1000 -	**6**	6	10.6	18.5	1.75	0.4	61	55
	10	10	10.6	16.6	1.56	0.4	78	68
	16	16	10.6	16.5	1.55	0.5	100	84
	25	25	10.6	16.2	1.53	0.6	135	110
DNP1800 -	**6**	6	18.8	32.1	1.70	0.7	66	60
	10	10	18.8	30.7	1.63	0.8	80	70
	16	16	18.8	28.3	1.50	0.9	106	90
	25	25	18.8	29.1	1.55	1.0	135	110
DNP4700 -	**10**	10	46.8	77.8	1.66	1.7	80	70
	16	16	46.8	70.5	1.51	1.9	106	90
	25	25	46.8	72.1	1.54	2.2	135	110
DNP7500 -	**10**	10	75.4	122.5	1.63	3.2	90	80
	16	16	75.4	113.5	1.51	3.6	116	100
	25	25	75.4	117.2	1.55	4.0	145	120
DNP11800 -	**10**	10	117.8	175.7	1.49	5.7	100	90
	16	16	117.8	170.1	1.44	6.4	126	110
	25	25	117.8	177.2	1.50	6.9	155	130
DNP18300 -	**10** ◎	10	184.1	270.8	1.47	10.3	110	100
	16 ◎	16	184.1	264.0	1.43	11.3	136	120
	25 ◎	25	184.1	275.6	1.50	12.4	165	140

Common dimensions for all strokes mm		Cylinder Base mm
D = 25	M = M6 depth 9	
J = 1	ZU= 11.5	
K = 12	ZL = 6.2	
C = 17	M = M6 depth 11	
D = 38	ZU= 11.5	
J = 1	ZL = 10.5	
K = 20		
C = 26	M = M6 depth 11	
D = 50	ZU= 15.5	
J = 2	ZL = 14.5	
K = 30		
C = 40	M = M8 depth 9.5	
D = 75	P = M8 depth 8	
J = 2.5	ZU= 19	
K = 50	ZL = 18	
C = 52	M = M8 depth 12	
D = 95	P = M8 depth 9	
J = 2.5	ZU= 22	
K = 55	ZL = 21	
C = 68	M = M10 depth 13	
D = 120	P = M8 depth 9	
J = 2.5	ZU= 23.5	
K = 70	ZL = 22.5	
C = 90	M = M10 depth 15	
D = 150	P = M8 depth 10	
J = 2.5	ZU= 25.5	
K = 90	ZL = 24.5	

※1：Figures at initial charging pressure 15MPa（20℃）.

※2：As for model DNP0420, the gas charging pressure is not adjustable at the customer's site. The charging pressure should be specified when ordering.（only for domestic shipment with in Japan.）

In case of hose link system, charging port size is G1/8（BSPP）.
model DNP1800～18300 only.

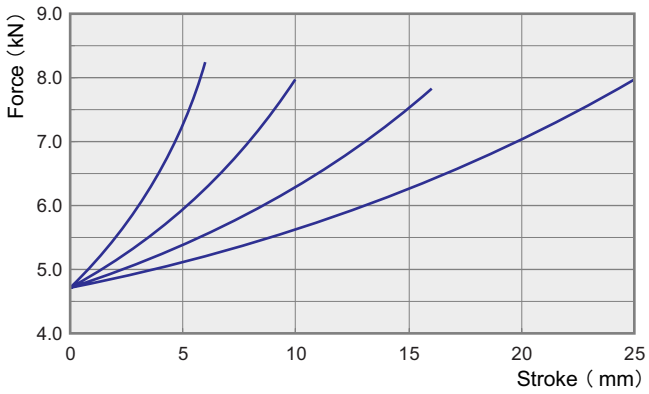


Outline drawing for 2D/3D CAD can be downloaded from URL http://www.pascaleng.co.jp

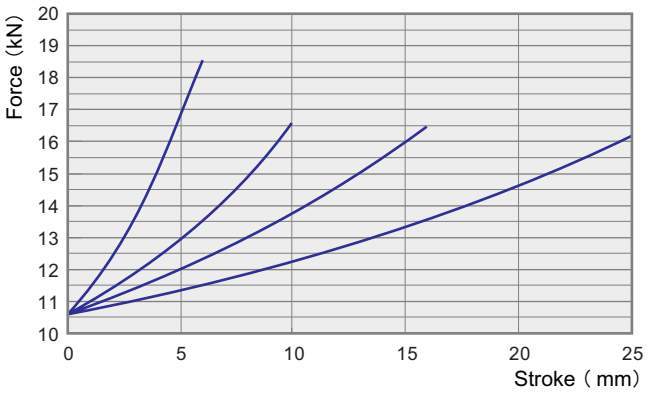
⚠ Caution at stroke selection

To maintain the stable lubricant effect, set the actual stroke length near the maximum stroke as much as possible.
Be careful not to have the gas springs make overstrokes.

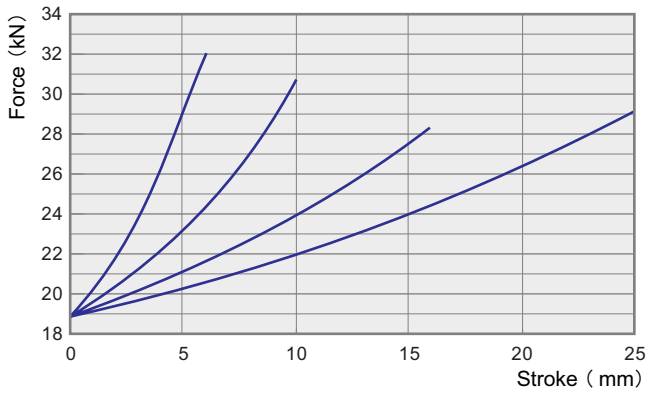
DNP0420



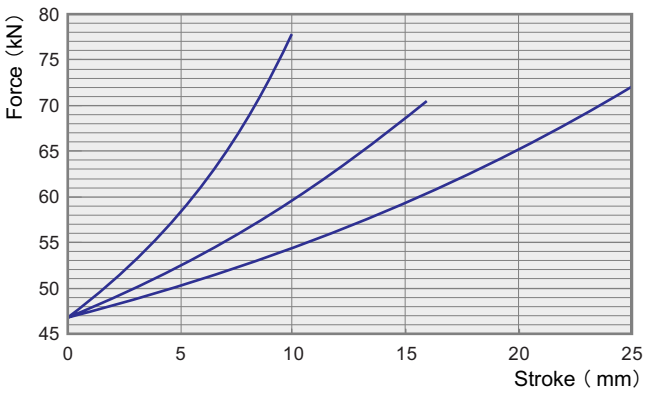
DNP1000



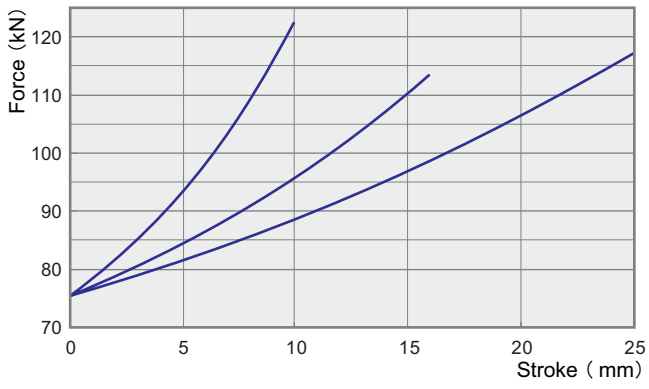
DNP1800



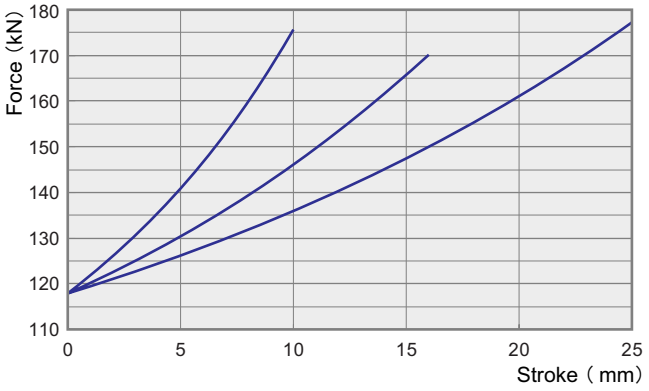
DNP4700



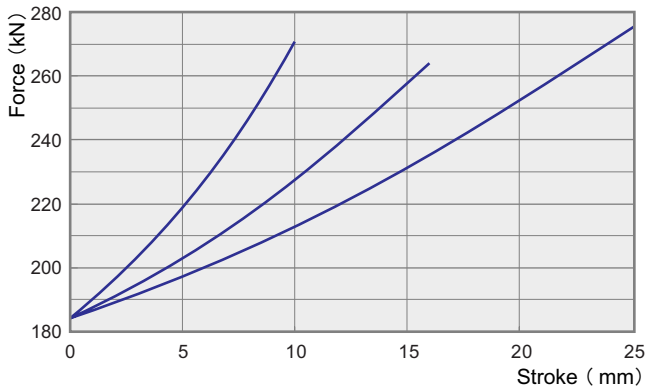
DNP7500



DNP11800



DNP18300



Force Variation of Different Charging Pressure

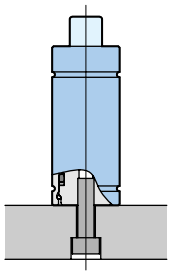
Above drawings are showing cushion forces F0 by applying the maximum charging pressure of 15MPa. When applying a charging pressure less than 15MPa, use following formula to adjust the cushion force F1.
(Min. charging pressure : 3.4MPa)

$$F_1 = F_0 \times \frac{\text{Charging pressure (MPa)}}{15}$$

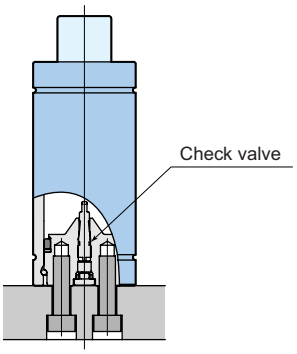
Self-contained type

Remark : Gas spring model DNP can be fixed using the screw holes at the bottom of the cylinder.（Mounting screws are not included.）

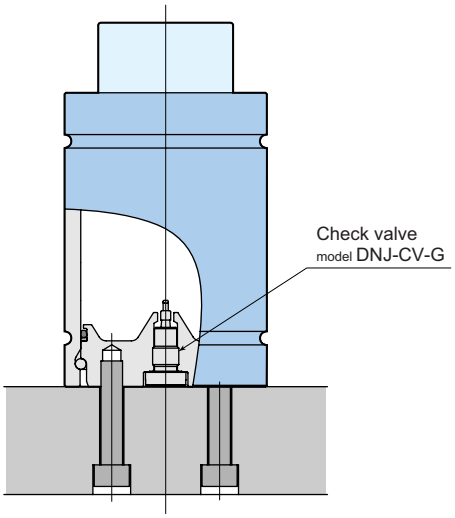
DNP0420



DNP1000



DNP1800～DNP18300

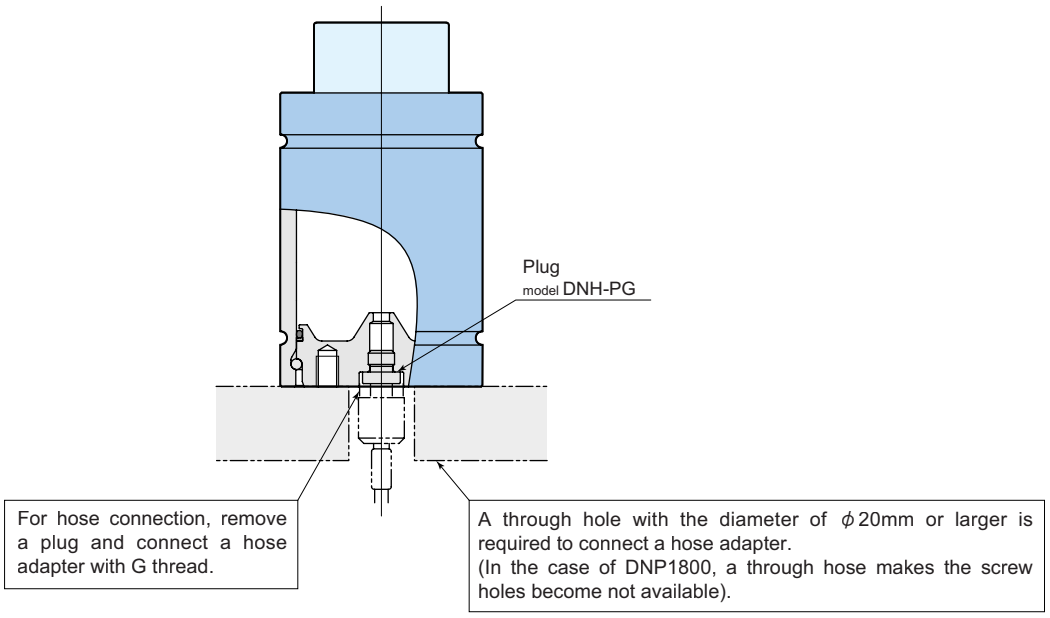


Charging type（Charging type Code：**-T**）

Remark : For the details of G thread piping parts, refer to a brochure of Hose Link System separately available.

DNP1800～DNP18300

（Not available for DNP0420/DNP1000）

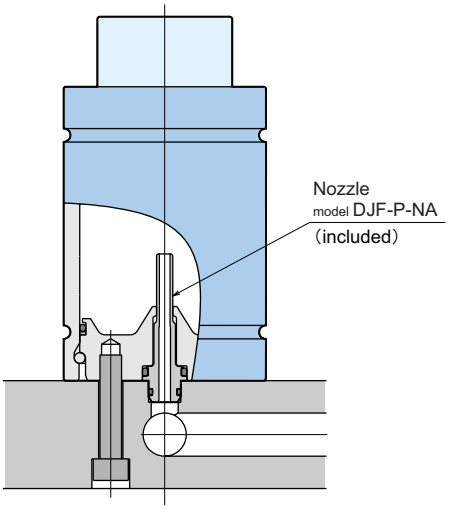


Manifold type（Manifold type Code：-**M**）

Remark : Mounting screws are not included.

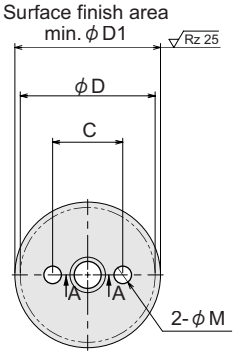
DNP1800～DNP18300

（Not available for DNP0420/DNP1000）

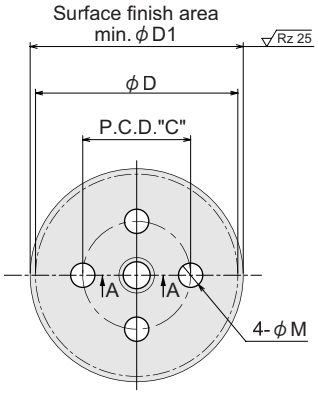


Mounting Details

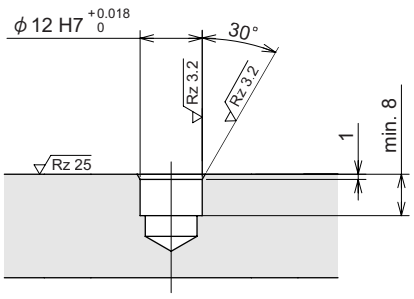
DNP1800



DNP4700～DNP18300



Gas springs model (◎: made to order)	C mm	D mm	D1 mm	M mm
DNP1800-□BF-M	26	50	54	6.8
DNP4700-□BF-M	40	75	79	9
DNP7500-□BF-M	52	95	99	9
DNP11800-□BF-M	68	120	124	11
◎ **DNP18300-□BF-M**	90	150	154	11



A–A

〈ISO 4287 : 1997〉