

# GAS SPRINGS

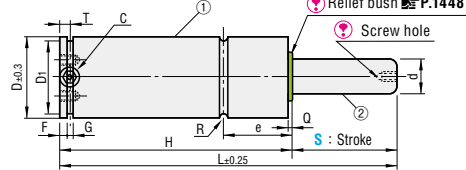
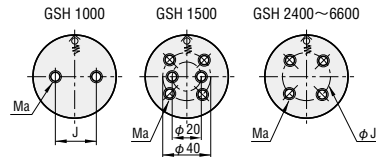
—GSH—



RoHS

GSH

- ⚠ If a gas spring is used in excess of the specified stroke range S, it may cause gas leakage. Use the gas spring within the specified stroke range to avoid the Relief bushing is pushed down. **P.1448**
- ⚠ Do not use the screw hole to fix the gas spring with a bolt nor to install an extension pin. **P.1444**



Nitrogen gas charge pressure	MPa (kgf/cm <sup>2</sup> )
GSH 1000~6600	15 (153)

- ① Cylinder body
  - M Equivalent to SCM440
  - S Black oxide (Fe<sub>3</sub>O<sub>4</sub>)
- ② Piston rod
  - M Equivalent to SCM440
  - H 600HV ~ (Surface)
  - S Nitriding + Barrel finishing

Weight (kg)	D	Di	d	L	H	e	R	T	F	G	Ma Tap hole for mounting	J	Q	C	Load N (kgf)		Catalog No.	Adaptable plate																		
															Initial load	Maximum load		Type	Initial load -- S	Vertical	Horizontal															
0.72	50	43	28	72	62	15.5	2.05	10.5	8	5	2- M8x16	20	3	G1/8	9200 {938}	13500 {1377}	1000-10	FSA50 FSD50																		
0.75				78	65											13800 {1407}				1000-13																
0.77				84	68											13800 {1407}				1000-16																
0.82				90	71											14000 {1428}				1000-19																
0.86				102	77											14200 {1448}				1000-25																
0.92				116	84											14300 {1458}				1000-32																
0.97				128	90											14500 {1479}				1000-38																
1.08				152	102											14600 {1489}				1000-50																
1.18				178	115											14700 {1499}				1000-63																
1.28				202	127											14700 {1499}				1000-75																
1.35				212	132											14800 {1509}				1000-80																
1.51				252	152											14800 {1509}				1000-100																
1.71				302	177											14800 {1509}				1000-125																
1.10				63	56											36				72	62	19	2.05	10.5	8	5	2- M8x16 (for φ20) or 4- M8x16 (for φ40)	-	3	G1/8	15300 {1560}	23700 {2417}	1500-10	FSA50 FSD50		
1.12																				78	65											24000 {2447}				1500-13
1.16																				84	68											24100 {2458}				1500-16
1.20																				90	71											24200 {2468}				1500-19
1.27	102	77	24300 {2478}			1500-25																														
1.35	116	84	23800 {2427}			1500-32																														
1.42	128	90	23900 {2437}			1500-38																														
1.56	152	102	24000 {2447}			1500-50																														
1.71	178	115	24100 {2458}			1500-63																														
1.85	202	127	24200 {2468}			1500-75																														
1.91	212	132	24200 {2468}			1500-80																														
2.15	252	152	24300 {2478}			1500-100																														
2.44	302	177	24300 {2478}			1500-125																														
1.73	75	67	45			79	69	21	2.55	10.5	8	5	4- M8x16	40	3		G1/8	23850 {2432}	38100 {3885}	2400-10	FSA75 FSD75															
1.77						85	72												38200 {3895}																	2400-13
1.82						91	75												38300 {3906}																	2400-16
1.87						97	78												38500 {3926}																	2400-19
1.96				109	84	38700 {3946}	2400-25																													
2.08				123	91	38600 {3936}	2400-32																													
2.18				135	97	38400 {3916}	2400-38																													
2.37				159	109	39200 {3997}	2400-50																													
2.58				185	122	39200 {3997}	2400-63																													
2.83				209	134	39200 {3997}	2400-75																													
2.91				219	139	39200 {3997}	2400-80																													
3.22				259	159	39300 {4007}	2400-100																													
3.63				309	184	39300 {4007}	2400-125																													

⚠ The initial load (±10%) is value at 20°C. The maximum load is theoretical value under static condition. Load depends on temperature.  
 ● Load [kgf] = Load N/0.101972 ● Load [N] = Load kgf×9.80665 ● Nitrogen gas charge pressure kgf/cm<sup>2</sup> = MPa×10.1972 MPa = kgf/cm<sup>2</sup>×0.0980665

Weight (kg)	D	Di	d	L	H	e	R	T	F	G	Ma Tap hole for mounting	J	Q	C	Load N (kgf)		Catalog No.	Adaptable plate																		
															Initial load	Maximum load		Type	Initial load -- S	Vertical	Horizontal															
3.18	95	87	60	94	78	24	2.55	10.5	8	5	4- M8x16	60	3	G1/8	42400 {4324}	61700 {6292}	4200-16	FSA95 FSD95																		
3.27				100	81											61700 {6292}				4200-19																
3.47				112	87											60800 {6200}				4200-25																
3.64				126	94											64300 {6557}				4200-32																
3.79				138	100											65800 {6710}				4200-38																
4.25				162	112											67000 {6832}				4200-50																
4.47				188	125											67800 {6914}				4200-63																
4.77				212	137											68000 {6934}				4200-75																
4.96				222	142											68600 {6995}				4200-80																
5.45				262	162											69100 {7046}				4200-100																
6.07				312	187											69600 {7097}				4200-125																
5.55				120	112											75				104	88	25.5	2.55	10.5	8	5	4- M10x16	80	3	G1/8	66300 {6761}	89000 {9075}	6600-16	FSA120 FSD120		
5.67																				110	91											91000 {9279}				6600-19
5.91																				122	97											93900 {9575}				6600-25
6.18																				136	104											96100 {9799}				6600-32
6.43																				148	110											98200 {10014}				6600-38
6.90																				172	122											100600 {10258}				6600-50
7.42	198	135	102400 {10442}			6600-63																														
7.90	222	147	103400 {10544}			6600-75																														
8.01	232	152	104100 {10615}			6600-80																														
8.89	272	172	105400 {10748}			6600-100																														
9.89	322	197	106500 {10860}			6600-125																														

### Gas spring temperature range

Please ensure that the surface temperature of the gas spring does not exceed 80°C.



Catalog No. - (N)  
GSH1500-25 - N



Catalog No.

GSH 1000-10



Quotation



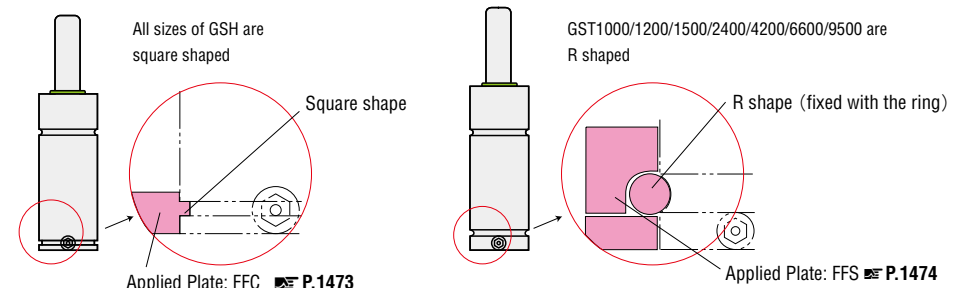
Price Quotation

Alteration	Code	Spec.
For piping gas releasing	N	For piping, we ship inside gas and valve and pull out. Reduce labor of assembling joints and hoses.

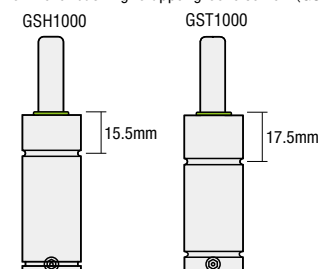
### Features

The outer diameter and initial load of GSH are same as GST, however, the below mentioned points are different.

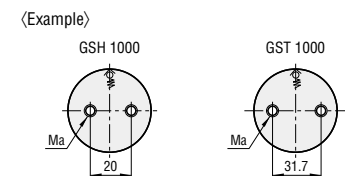
① Shape of the lower groove for vertical setting type plate.



② Dimensions from relief bushing to upper groove center. (GSH1000 and GST1000 only)



③ Tap hole size for mounting and its pitch.



To check the tap hole size and pitch, refer the value of Ma and J on GSH and GST catalog pages.

GAS SPRINGS