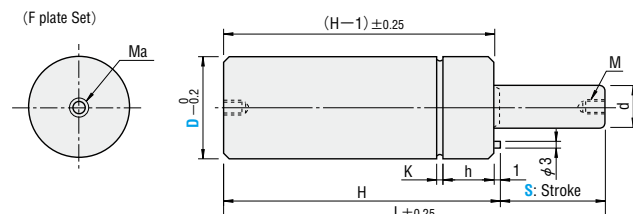


GAS SPRINGS

—MINI TYPE—

RoHS

MGSA (Main body: Regular type)
MGSAH (H plate set)
MGSAF (F plate set)



⚠ 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 contact with the overstroke check pin.
 ⚠ Do not use the screw hole (M) to fix the gas spring with a bolt nor to install an extension pin. **P.1444**

Nitrogen gas charge pressure	MPa(kgf/cm ²)
MGSA19	10.2(104)
MGSA25	10.2(104)

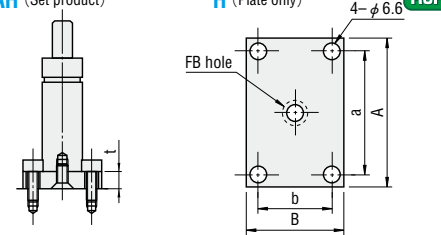
Cylinder body
 □ S45C
 Ⓢ Black oxide (Fe₃O₄)

Piston rod
 □ SACM645
 Ⓢ 1000HV~ (Surface)
 Ⓢ Nitriding+Barrel finishing

Weight (kg)	D	d	M	L	H	h	K	Ma Tap hole for mounting	Load N(kgf)		Catalog No.	
									Initial load	Maximum load	Type	D-S
0.08	19	10	M5×7	65	55	18	2 (R1)	M6×6	800 (82)	1200(122)	MGSA (Main body)	19-10
0.08				75	60					1260(128)		19-15
0.11				95	70					1270(130)		19-25
0.11				121	83					1280(131)		19-38
0.13				145	95					1290(132)		19-50
0.17				205	125					1300(133)		19-80
0.15	25	14	M6×8	65	55	18	2 (R1)	M6×6	1600 (163)	2520(257)	MGSAH (H plate set)	25-10
0.16				75	60					2560(261)		25-15
0.19				95	70					2600(265)		25-25
0.22				121	83					2620(267)		25-38
0.25				145	95					2640(269)		25-50
0.33				205	125					2660(271)		25-80

⚠ The initial load and maximum load vary depending on the temperature and operation speed. The load error is ±10%.
 ● Load (kgf)=Load N×0.101972 ● Load (N)=Load kgf×9.80665
 ● Nitrogen gas charge pressure kgf/cm²=MPa×10.1972 MPa=kgf/cm²×0.0980665

MGSAH (Set product) **H** (Plate only) **RoHS**



Ⓜ SS400
 Ⓢ Black oxide (Fe₃O₄)

Provided bolt	A	B	a	b	t	Catalog No.
FB6-16×1 piece	38	28	28	18	9	H 19
FB6-16×1 piece	44	28	34	18	9	H 25

Order **Catalog No.**
 MGSA 19-80
 MGSAH 25-10
 F-25

Days to Ship **Quotation**

Price **Quotation**

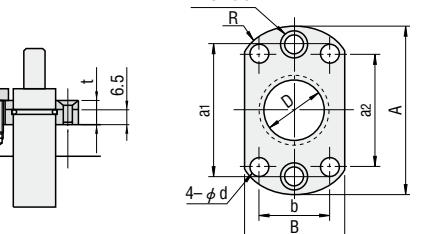
Shot limit

MGSA	Stroke (mm)	10	15	25	38	50	80
	Shot limit (spm)	250	165	100	65	50	30

Shot limit: Number of shots per minute
 The shot limit may be affected by the operating environment. The figures shown here are for reference only.

Gas spring temperature range
 The service environment temperature range is 0~40°C. Ensure that the surface temperature of the gas spring does not exceed 70°C.

MGSAF (Set product) **F** (Plate only) **RoHS**



Ⓜ SS400
 Ⓢ Black oxide (Fe₃O₄)

A	B	a ₁	a ₂	b	d	D	t	R	Catalog No.
44	28	33	28	18	6.6	19	22	25	F 19
50	30	38	34	18	6.6	25	11	25	F 25

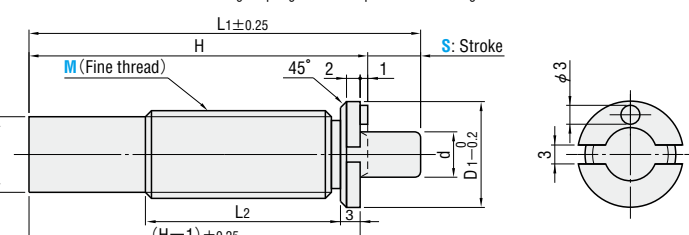
Ⓜ Bolt FB5-10: 2 pcs.
 Ⓜ Semicircle ring: 2 pcs.

GAS SPRINGS

—THREADED TYPE—

RoHS

MGSB



⚠ 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 contact with the overstroke check pin.

Nitrogen gas charge pressure	MPa(kgf/cm ²)
MGSB12	12.0(122)
MGSB16	10.1(103)

Cylinder body
 □ SACM645
 Ⓢ Nitriding+Black oxide (Fe₃O₄)

Piston rod
 □ SACM645
 Ⓢ 1000HV~ (Surface)
 Ⓢ Nitriding+Barrel finishing

Weight (kg)	D ₁	D ₂	d	L ₁	H	M×P (fine thread)	L ₂	Load N(kgf)		Catalog No.	
								Initial load	Maximum load	Type	M-S
0.03	14	10.2	5	75	65	M12×P1.25	27	400 (41)	640 (65)	MGSB	12-10
0.04				90	75						12-15
0.05				75	65						16-10
0.06	18	14.2	8	90	75	M16×P1.5	37	800 (82)	1280(131)	MGSB	16-15
0.07				120	95						16-25

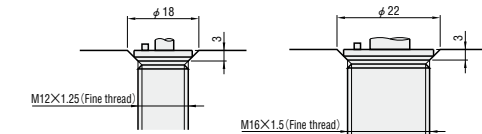
⚠ The initial load and maximum load vary depending on the temperature and operation speed. The load error is ±10%.
 ● Load (kgf)=Load N×0.101972 ● Load (N)=Load kgf×9.80665
 ● Nitrogen gas charge pressure kgf/cm²=MPa×10.1972 MPa=kgf/cm²×0.0980665

Order **Catalog No.**
 MGSB 12-15

Days to Ship **Quotation**

Price **Quotation**

Mounting



Prepare a tap hole for MGSB as shown above, so that the MGSB flange will be in close contact with the mounting surface.
 MGSB is provided with a flange to prevent overtightening and loosening.

Applicable wrench: Use a PJG wrench (P.865).

Shot limit

MGSB	Stroke (mm)	10	15	25
	Shot limit (spm)	200	130	80

Shot limit: Number of shots per minute
 The shot limit may be affected by the operating environment. The figures shown here are for reference only.

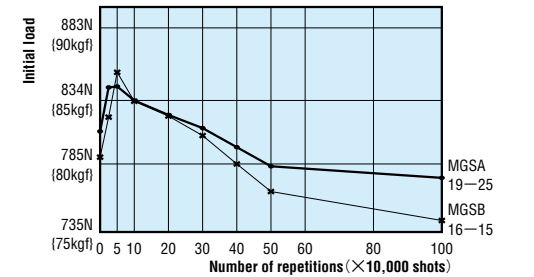
Gas spring temperature range

The operating environment temperature range is 0~40°C. Ensure that the surface temperature of the gas spring does not exceed 70°C.

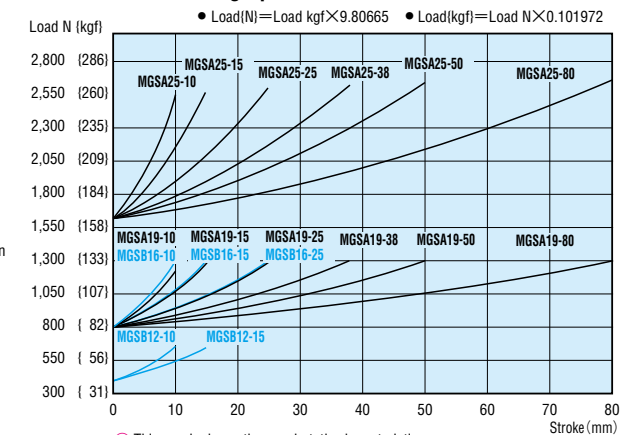
⚠ MGSB is not an oil-free product.
 After applying initial break-in grease, grease the piston rod at intervals of 50,000 shots. The use of molybdenum disulfide (MoS₂) grease is recommended.

Endurance test results

Catalog No.	MGSA 19-25	MGSB 16-15
Amplitude	25mm	15mm
Excitation speed	120spm	135spm
Mounting direction	Upright	Upright



Load characteristic graph for MGSA and MGSB



⚠ This graph shows the quasi-static characteristics.
 Actual characteristics vary depending on temperature and operation speed.