
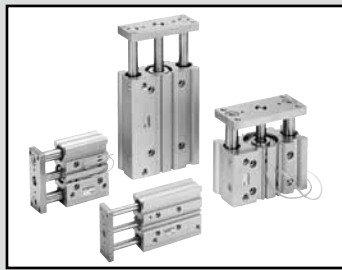


Guided cylinder, double acting/single rod

STG-M_B Series

● Bore size: φ12/φ16/φ20/φ25/φ32/φ40
φ50/φ63/φ80/φ100

JIS symbol 



Specifications

Descriptions	STG-M/B										
Bore size mm	φ12	φ16	φ20	φ25	φ32	φ40	φ50	φ63	φ80	φ100	
Actuation	Double acting										
Working fluid	Compressed air										
Max. working pressure MPa	1.0 (≈150 psi, 10 bar)										
Min. working pressure MPa	0.15 (≈22 psi, 1.5 bar)					0.1 (≈15 psi, 1 bar)					
Proof pressure MPa	1.6 (≈230 psi, 16 bar)										
Ambient temperature °C	-10 (14°F) to 60 (140°F) (no freezing)										
Port size	M5		Rc1/8				Rc1/4		Rc3/8		
Stroke tolerance mm	+2.0 0										
Working piston speed mm/s	50 to 500							50 to 300			
Cushion	With rubber cushion										
Lubrication	Not required (use turbine oil class 1 ISO VG32 if necessary for lubrication)										
Allowable absorbed energy J	0.056	0.088	0.157	0.157	0.401	0.627	0.980	1.560	2.510	3.92	

Stroke length

Bore size	Standard stroke length (mm)	Max. stroke length (mm)	Min. stroke length (mm)	Min. stroke (mm)/(switch)
φ12	10/20/30/40/50/75/100/	250	5	5(10) *2
φ16	125/150/175/200/250			
φ20	20/30/40/50/75/100/125/			
φ25	150/175/200/250/300/350/400			
φ32				
φ40	25/50/75/100	400		
φ50	125/150/175			
φ63	200/250/300			
φ80	350/400			
φ100				

*1: The custom stroke length is available in 5 mm increments. However, the total dimensions are the same as the longer standard stroke length. A dedicated body with dimensions matched to the stroke length is available. Contact CKD for details.

*2: For types with one or two switches. The value in () is the min. stroke length for switches of the 2-color display and AC magnetic field proof.

Theoretical thrust table

(Unit: N)

Bore size (mm)	Operating direction	Working pressure MPa										
		0.1	0.15	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	1.0
φ12	Push	-	17.0	22.6	33.9	45.2	56.5	67.9	79.2	90.5	1.02 × 10 ²	1.13 × 10 ²
	Pull	-	12.7	17.0	25.4	33.9	42.4	50.9	59.4	67.9	76.3	84.8
φ16	Push	-	30.2	40.2	60.3	80.4	1.01 × 10 ²	1.21 × 10 ²	1.41 × 10 ²	1.61 × 10 ²	1.81 × 10 ²	2.01 × 10 ²
	Pull	-	22.6	30.2	45.2	60.3	75.4	90.5	1.06 × 10 ²	1.21 × 10 ²	1.36 × 10 ²	1.51 × 10 ²
φ20	Push	-	47.1	62.8	94.2	1.26 × 10 ²	1.57 × 10 ²	1.88 × 10 ²	2.20 × 10 ²	2.51 × 10 ²	2.83 × 10 ²	3.14 × 10 ²
	Pull	-	35.3	47.1	70.7	94.2	1.18 × 10 ²	1.41 × 10 ²	1.65 × 10 ²	1.88 × 10 ²	2.12 × 10 ²	2.36 × 10 ²
φ25	Push	-	73.6	98.2	1.47 × 10 ²	1.96 × 10 ²	2.45 × 10 ²	2.95 × 10 ²	3.44 × 10 ²	3.93 × 10 ²	4.42 × 10 ²	4.91 × 10 ²
	Pull	-	56.7	75.6	1.13 × 10 ²	1.51 × 10 ²	1.89 × 10 ²	2.27 × 10 ²	2.64 × 10 ²	3.02 × 10 ²	3.40 × 10 ²	3.78 × 10 ²
φ32	Push	80.4	1.21 × 10 ²	1.61 × 10 ²	2.41 × 10 ²	3.22 × 10 ²	4.02 × 10 ²	4.83 × 10 ²	5.63 × 10 ²	6.43 × 10 ²	7.24 × 10 ²	8.04 × 10 ²
	Pull	60.3	90.5	1.21 × 10 ²	1.81 × 10 ²	2.41 × 10 ²	3.02 × 10 ²	3.62 × 10 ²	4.22 × 10 ²	4.83 × 10 ²	5.43 × 10 ²	6.03 × 10 ²
φ40	Push	1.26 × 10 ²	1.88 × 10 ²	2.51 × 10 ²	3.77 × 10 ²	5.03 × 10 ²	6.28 × 10 ²	7.54 × 10 ²	8.80 × 10 ²	1.01 × 10 ³	1.13 × 10 ³	1.26 × 10 ³
	Pull	1.06 × 10 ²	1.58 × 10 ²	2.11 × 10 ²	3.17 × 10 ²	4.22 × 10 ²	5.28 × 10 ²	6.33 × 10 ²	7.39 × 10 ²	8.44 × 10 ²	9.50 × 10 ²	1.06 × 10 ³
φ50	Push	1.96 × 10 ²	2.95 × 10 ²	3.93 × 10 ²	5.89 × 10 ²	7.85 × 10 ²	9.82 × 10 ²	1.18 × 10 ³	1.37 × 10 ³	1.57 × 10 ³	1.77 × 10 ³	1.96 × 10 ³
	Pull	1.65 × 10 ²	2.47 × 10 ²	3.30 × 10 ²	4.95 × 10 ²	6.60 × 10 ²	8.25 × 10 ²	9.90 × 10 ²	1.15 × 10 ³	1.32 × 10 ³	1.48 × 10 ³	1.65 × 10 ³
φ63	Push	3.12 × 10 ²	4.68 × 10 ²	6.23 × 10 ²	9.35 × 10 ²	1.25 × 10 ³	1.56 × 10 ³	1.87 × 10 ³	2.18 × 10 ³	2.49 × 10 ³	2.81 × 10 ³	3.12 × 10 ³
	Pull	2.80 × 10 ²	4.20 × 10 ²	5.61 × 10 ²	8.41 × 10 ²	1.12 × 10 ³	1.40 × 10 ³	1.68 × 10 ³	1.96 × 10 ³	2.24 × 10 ³	2.52 × 10 ³	2.80 × 10 ³
φ80	Push	5.03 × 10 ²	7.54 × 10 ²	1.01 × 10 ³	1.51 × 10 ³	2.01 × 10 ³	2.51 × 10 ³	3.02 × 10 ³	3.52 × 10 ³	4.02 × 10 ³	4.52 × 10 ³	5.03 × 10 ³
	Pull	4.54 × 10 ²	6.80 × 10 ²	9.07 × 10 ²	1.36 × 10 ³	1.81 × 10 ³	2.27 × 10 ³	2.72 × 10 ³	3.17 × 10 ³	3.63 × 10 ³	4.08 × 10 ³	4.54 × 10 ³
φ100	Push	7.85 × 10 ²	1.18 × 10 ³	1.57 × 10 ³	2.36 × 10 ³	3.14 × 10 ³	3.93 × 10 ³	4.71 × 10 ³	5.50 × 10 ³	6.28 × 10 ³	7.07 × 10 ³	7.85 × 10 ³
	Pull	7.15 × 10 ²	1.07 × 10 ³	1.43 × 10 ³	2.14 × 10 ³	2.86 × 10 ³	3.57 × 10 ³	4.29 × 10 ³	5.00 × 10 ³	5.72 × 10 ³	6.43 × 10 ³	7.15 × 10 ³

Switch specifications

● 1-color/2-color display/for AC magnetic field proof

Descriptions	Proximity 2-wire		Proximity 2-wire			Proximity 3-wire				Reed 2-wire				Proximity 2-wire			
	T1H/ T1V	T2H/T2V/ T2JH/T2JV	T2YH/ T2YV	T2WH/ T2WV	T3H/ T3V	T3PH/T3PV (custom)	T3YH/ T3YV	T3WH/ T3WV	T0H/T0V	T5H/T5V	T8H/T8V		T2YD				
Applications	For programmable controller, relay, compact solenoid valve		Dedicated for programmable controller			For programmable controller, relay				For programmable controller, relay		For programmable controller, relay, IC circuit (no indicator lamp), serial connection		For programmable controller, relay		For programmable controller	
Output method	-					NPN output	PNP output	NPN output	NPN output	-							
Pwr. supp. V.	-					10 to 28 VDC				-							
Load voltage	85 to 265 VAC		10 to 30 VDC		24 VDC ±10%	30 VDC or less				12/24 VDC	100/110 VAC	5/12/24 VDC	100/110 VAC	12/24 VDC	110 VAC	220 VAC	24 VDC ±10%
Load current	5 to 100 mA		5 to 20 mA (*2)			100 mA or less		50 mA or less		5 to 50 mA	7 to 20 mA	50 mA or less	≤20 mA	5 to 50 mA	7 to 20 mA	7 to 10 mA	5 to 20 mA
Indicator lamp	LED (Lit when ON)	LED (Lit when ON)	Red/green LED (Lit when ON)	Red/green LED (Lit when ON)	LED (Lit when ON)	Yellow LED (Lit when ON)	Red/green LED (Lit when ON)	Red/green LED (Lit when ON)	LED (Lit when ON)		Without indicator lamp		LED (Lit when ON)		Red/green LED (Lit when ON)		
Leakage current	≤1 mA at 100 VAC, ≤2 mA at 200 VAC		1 mA or less			10 µA or less				0 mA				1 mA or less			
Weight g	1 m:33 3 m:87 5 m:142	1 m:18 3 m:49 5 m:80	1 m:33 3 m:87 5 m:142	1 m:18 3 m:49 5 m:80	1 m:18 3 m:49 5 m:80		1 m:33 3 m:87 5 m:142		1 m:18 3 m:49 5 m:80		1 m:18 3 m:49 5 m:80			1 m:33 3 m:87 5 m:142		1 m:61 3 m:166 5 m:272	

*1 : Refer to Ending Page 1 for other switch specifications.

*2 : The above max. load current is 20 mA at 25°C. The current is lower than 20 mA if the operating ambient temperature around the switch is higher than 25°C. (5 to 10 mA at 60°C)

*3 : The T0/T5 switch can also be used with 220 VAC. Contact CKD about working conditions.

*4 : Switch for AC magnetic field (T2YD) cannot be used in DC magnetic field.

*5 : Dimensions depend on switch model No. Refer to Ending Page 18 for details.

Cylinder weight

● STG-M

Unit: kg

Descriptions	Stroke length														Switch weight	
	10	20	25	30	40	50	75	100	125	150	175	200	250	300		350
Bore size (mm)	0.23	0.27		0.30	0.34	0.38	0.49	0.57	0.68	0.77	0.86	0.95	1.13			
φ12	0.23	0.27		0.30	0.34	0.38	0.49	0.57	0.68	0.77	0.86	0.95	1.13			
φ16	0.32	0.37		0.42	0.47	0.51	0.66	0.78	0.94	1.06	1.18	1.31	1.55			
φ20		0.65		0.73	0.81	0.88	1.13	1.33	1.52	1.71	1.90	2.10	2.55	2.94	3.32	3.71
φ25		0.92		1.02	1.13	1.23	1.60	1.86	2.12	2.40	2.66	2.92	3.56	4.08	4.62	5.14
φ32			1.64			2.01	2.54	2.94	3.34	3.73	4.12	4.51	5.49	6.27	7.07	7.85
φ40			1.89			2.30	2.75	3.15	3.57	3.98	4.39	4.80	5.81	6.64	7.47	8.29
φ50			3.26			3.88	4.59	5.21	5.83	6.45	7.07	7.69	9.25	10.48	11.74	13.00
φ63			4.05			4.79	5.61	6.34	7.07	7.81	8.54	9.27	11.06	12.51	13.97	15.42
φ80			7.02			8.12	9.51	10.60	11.70	12.80	13.90	15.00	17.80	19.92	22.10	24.30
φ100			10.24			11.58	13.29	14.63	15.96	17.30	18.64	19.98	23.27	25.94	28.62	31.29

Refer to the weight in the switch specifications.

● STG-B

Unit: kg

Descriptions	Stroke length														Switch weight	
	10	20	25	30	40	50	75	100	125	150	175	200	250	300		350
Bore size (mm)	0.23	0.26		0.29	0.34	0.38	0.46	0.54	0.64	0.72	0.81	0.88	1.05			
φ12	0.23	0.26		0.29	0.34	0.38	0.46	0.54	0.64	0.72	0.81	0.88	1.05			
φ16	0.33	0.38		0.42	0.49	0.54	0.65	0.77	0.90	1.01	1.13	1.24	1.46			
φ20		0.68		0.75	0.86	0.94	1.11	1.27	1.47	1.64	1.81	1.98	2.35	2.69	3.03	3.37
φ25		0.95		1.04	1.21	1.30	1.52	1.76	2.02	2.24	2.46	2.69	3.17	3.63	4.07	4.52
φ32			1.49			1.79	2.23	2.54	2.90	3.21	3.51	3.82	4.49	5.10	5.71	6.32
φ40			1.74			2.09	2.56	2.91	3.32	3.67	4.02	4.37	5.12	5.82	6.52	7.22
φ50			3.02			3.55	4.28	4.81	5.43	5.97	6.50	7.03	8.23	9.28	10.38	11.45
φ63			3.81			4.45	5.30	5.94	6.67	7.31	7.96	8.60	9.99	11.35	12.61	13.87
φ80			7.25			8.03	9.27	10.30	11.30	12.10	13.31	14.32	16.60	18.60	20.62	22.64
φ100			10.15			11.69	13.57	14.81	16.05	17.29	18.52	19.76	22.85	25.32	27.80	30.27

Refer to the weight in the switch specifications.

How to order

Without switch (built-in magnet for switch)

STG - **(M)** - **(32)** - **()** - **(25)** - **()** - **(P6)**

With switch (built-in magnet for switch)

STG - **(M)** - **(32)** - **()** - **(25)** - **(T2H)** - **(R)** - **(P6)**

Model No.

A Bearing

B Bore size

C Port thread

D Stroke length

E Switch model No. *1 *3 *4

F Switch quantity

G Option *2

Code	Content					
A Bearing						
M	Metal bush bearing					
B	Ball bearing					
B Bore size (mm)						
12	φ12					
16	φ16					
20	φ20					
25	φ25					
32	φ32					
40	φ40					
50	φ50					
63	φ63					
80	φ80					
100	φ100					
C Port thread						
Blank	M5(φ12 to φ16) Rc thread (φ20 to φ100)					
NN	NPT thread (φ20 or more) custom order product					
GN	G thread (φ20 or more) custom order product					
D Stroke length (mm)						
Refer to the stroke length table on the following page						
E Switch model No.						
Axial lead wire	Radial lead wire	Contact	Voltage		Display	Lead wire
			AC	DC		
T0H*	T0V*	Reed	●	●	1-color display	2-wire
T5H*	T5V*		●	●	Without indicator lamp	
T8H*	T8V*		●	●	1-color display	
T1H*	T1V*	Proximity	●		1-color display	2-wire
T2H*	T2V*			●		
T3H*	T3V*			●	1-color display (custom order)	3-wire
T3PH*	T3PV*			●		
T2WH*	T2WV*			●		
T2YH*	T2YV*			●	2-color display	2-wire
T3WH*	T3WV*			●		
T3YH*	T3YV*		●	2-color display	3-wire	
T2JH*	T2JV*		●			
T2YD*	-		●			1-color display off-delay
T2YDT*	-		●	2-color display	2-wire	
			●	AC magnetic field		
* Lead wire length						
Blank	1 m (standard)					
3	3 m (option)					
5	5 m (option)					
F Switch quantity						
R	1 on rod side					
H	1 on head side					
D	2					
T	3					
G Option						
P6	Copper and PTFE free (for STG-B-12 to 32, copper and PTFE free is provided as standard)					

⚠ Precautions for model No. selection

- *1: Switches other than **E** Switch model No. are also available. (Custom order product)
Refer to Ending Page 1 for details.
- *2: **C** Copper and PTFE free specifications for STG-M-80, 100 require a custom order.
- *3: T8H/V switch cannot be installed on STG-12 or 16.
- *4: Switches are shipped with the product. Contact CKD if assembling before shipment is necessary.

[Example of model No.]

STG-B-40-75-T0H-D

Model: Guided cylinder, double acting/single rod

- A** Bearing : Ball bearing
- B** Bore size : φ40 mm
- C** Port thread : Rc thread
- D** Stroke length : 75 mm
- E** Switch model No. : Reed T0H switch, lead wire length 1 m
- F** Switch quantity : 2

LCW
LCR
LCC
LCX
LCM
STM
STG
STS/STL
STR2
UCA2
ULK*
JSK/M2
JSG
JSC3/JSC4
USSD
UFCD
USC
JSB3
LMB
LML
HCM
HCA
LBC
CAC4
UCAC2
CAC-N
UCAC-N
RCC2
RCS
PCC
SHC
MCP
GLC
MFC
BBS
RRC
GRC
RV3*
NHS
HR
LN
Hand
Chuk
MecHnd/Chuk
ShkAbs
FJ
FK
SpdContr
Ending

D Stroke length

Stroke length (mm)	Bore size										
	φ12	φ16	φ20	φ25	φ32	φ40	φ50	φ63	φ80	φ100	
Standard stroke length	10	●	●								
	20	●	●	●	●						
	25					●	●	●	●	●	●
	30	●	●	●	●						
	40	●	●	●	●						
	50	●	●	●	●	●	●	●	●	●	●
	75	●	●	●	●	●	●	●	●	●	●
	100	●	●	●	●	●	●	●	●	●	●
	125	●	●	●	●	●	●	●	●	●	●
	150	●	●	●	●	●	●	●	●	●	●
	175	●	●	●	●	●	●	●	●	●	●
	200	●	●	●	●	●	●	●	●	●	●
	250	●	●	●	●	●	●	●	●	●	●
	300			●	●	●	●	●	●	●	●
	350			●	●	●	●	●	●	●	●
400			●	●	●	●	●	●	●	●	
Min. stroke length	*3 5(10)										
Custom stroke length	*1, *2 In 5 mm increments										

*1: The total dimensions are the same as the longer standard stroke length.

*2: A dedicated body with dimensions matched to the stroke length is available. Contact CKD for details.

*3: The value in () is the min. stroke length for switches of the 2-color display and AC magnetic field proof.

How to order switch

SW - **T0V**

Switch model No.
(Item ⑤ on the previous page)

Note: Contact CKD when using
an environment-friendly T switch.

Specifications for rechargeable battery (Catalog No. CC-1226A)

- Design compatible with rechargeable battery manufacturing process.

STG - **M** - - **P4***

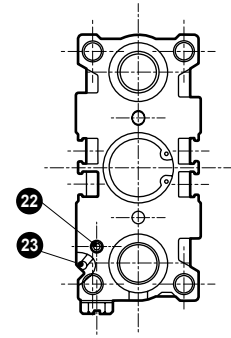
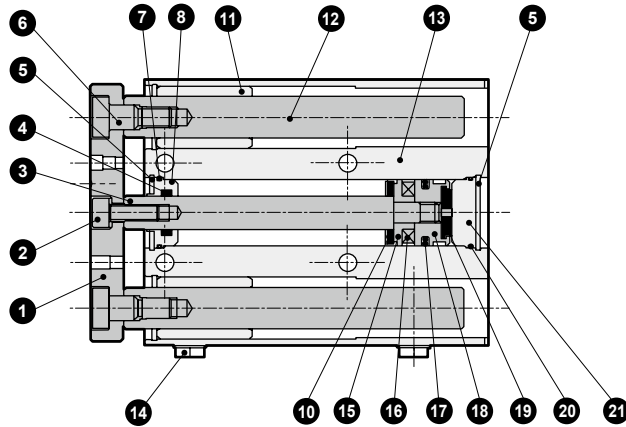
LCW
LCR
LCG
LCX
LCM
STM
STG
STS/STL
STR2
UCA2
ULK*
JSK/M2
JSG
JSC3/JSC4
USSD
UFCD
USC
JSB3
LMB
LML
HCM
HCA
LBC
CAC4
UCAC2
CAC-N
UCAC-N
RCC2
RCS
PCC
SHC
MCP
GLC
MFC
BBS
RRC
GRC
RV3*
NHS
HR
LN
Hand
Chuk
MecHnd/Chuk
ShkAbs
FJ
FK
SpdContr
Ending

STG-M Series

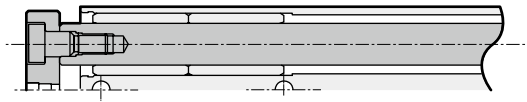
Internal structure and parts list (STG-M-12 to 25)

LCW
LCR
LCG
LCX
LCM
STM
STG
STS/STL
STR2
UCA2
ULK*
JSK/M2
JSG
JSC3/JSC4
USSD
UFCD
USC
JSB3
LMB
LML
HCM
HCA
LBC
CAC4
UCAC2
CAC-N
UCAC-N
RCC2
RCS
PCC
SHC
MCP
GLC
MFC
BBS
RRC
GRC
RV3*
NHS
HR
LN
Hand
Chuk
MecHnd/Chuk
ShkAbs
FJ
FK
SpdContr
Ending

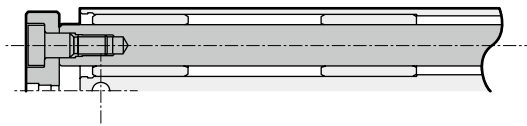
● $\phi 12, \phi 16$
 · 50 or less stroke length



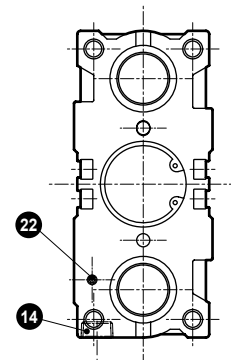
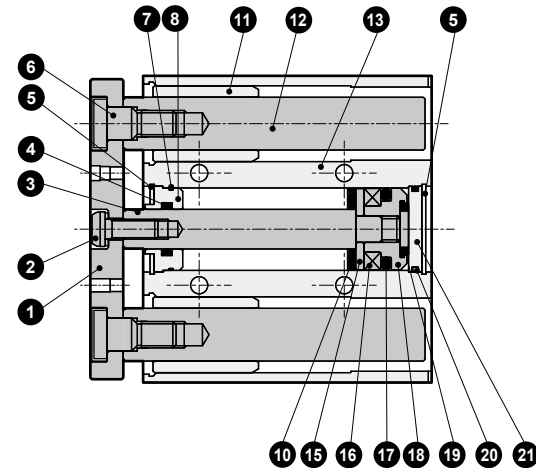
· Over 50 to 100 stroke length



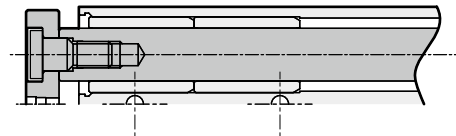
· Over 100 stroke length



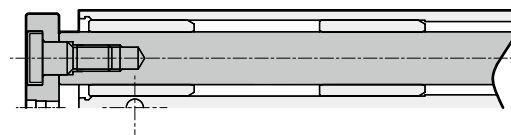
● $\phi 20, \phi 25$
 · 50 or less stroke length



· Over 50 to 200 stroke length

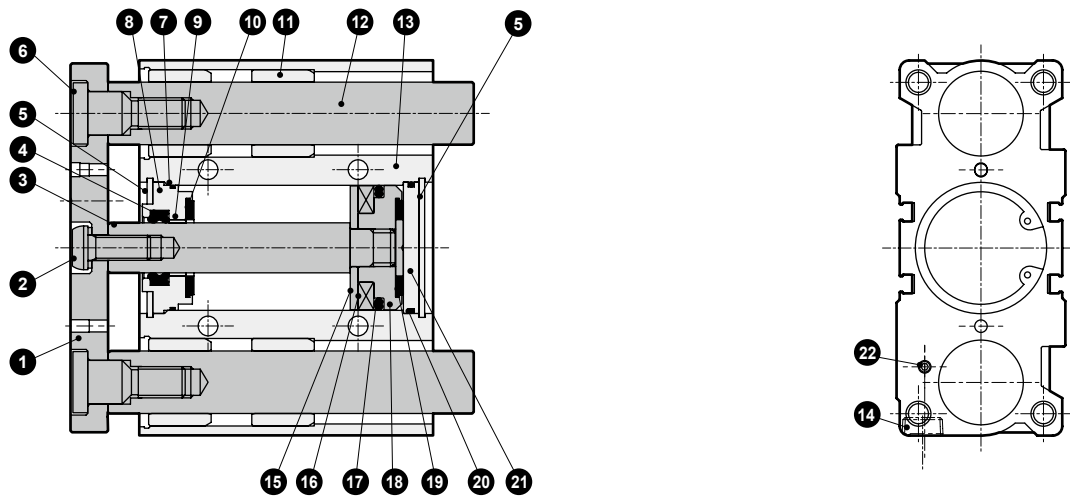


· Over 200 stroke length



Internal structure and parts list (STG-M-32 to 63)

● φ32 to φ63



No.	Part name	Material	Remarks	No.	Part name	Material	Remarks
1	End plate	Steel	Nickeling	12	Guide rod	Stainless steel (φ12 to φ16)	Industrial chrome plating
2	Hex socket head cap screw (φ12 to φ16)	Alloy steel	Zinc chromate	13	Cylinder body	Steel (φ20 to φ63)	Industrial chrome plating
		Alloy steel	Zinc chromate			Aluminum alloy	Hard alumite
3	Piston rod	Stainless steel (φ12 to φ25)	Industrial chrome plating	14	Plug	Copper alloy or steel	
		Steel (φ32 to φ63)	Industrial chrome plating	15	Spacer	Aluminum alloy	
4	Rod packing	Nitrile rubber		16	Magnet	Plastic	
5	C type snap ring	Steel	Zinc phosphate	17	Piston packing	Nitrile rubber	
6	Bolt	Alloy steel	Zinc chromate	18	Piston	Aluminum alloy	
7	Metal gasket	Nitrile rubber		19	Cushion rubber	Urethane rubber	
		Aluminum alloy (φ40 to φ63)	Chromate	20	O-ring	Nitrile rubber	
8	Rod metal	Special aluminum alloy (φ12 to φ32)	Alumite	21	Base plate	Aluminum alloy	Chromate
9	Bush	Dry bearing (φ40 to φ63)	*1	22	Hexagon socket set screw	Stainless steel	
10	Cushion rubber	Urethane rubber		23	Steel ball	Stainless steel	
11	Metal	Oil-impregnated copper alloy bearing	*2				

*1: Aluminum for copper and PTFE free.

*2: Oil-impregnated cast iron bearing for copper and PTFE free.

Repair parts list

Bore size (mm)	Kit No.	Repair parts No.
	STG-M/B	
φ12	STG-12K	
φ16	STG-16K	
φ20	STG-20K	
φ25	STG-25K	
φ32	STG-32K	4 7 10 17 19 20
φ40	STG-40K	
φ50	STG-50K	
φ63	STG-63K	

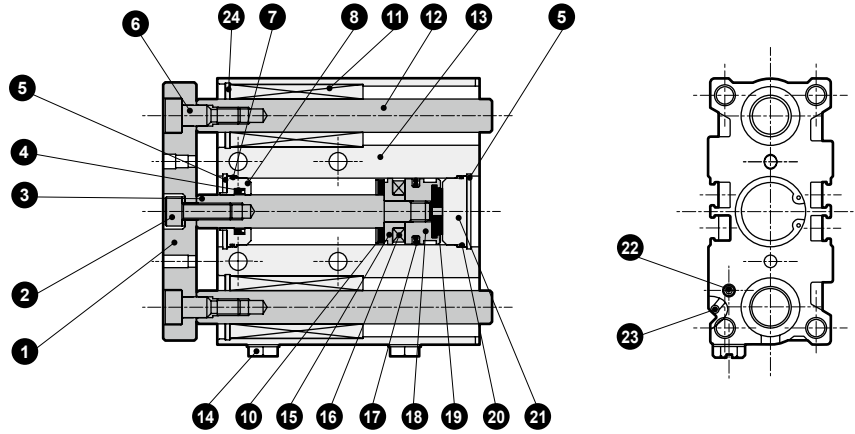
LCW
LCR
LCG
LCX
LCM
STM
STG
STS/STL
STR2
UCA2
ULK*
JSK/M2
JSG
JSC3/JSC4
USSD
UFCD
USC
JSB3
LMB
LML
HCM
HCA
LBC
CAC4
UCAC2
CAC-N
UCAC-N
RCC2
RCS
PCC
SHC
MCP
GLC
MFC
BBS
RRC
GRC
RV3*
NHS
HR
LN
Hand
Chuk
MecHnd/Chuk
ShkAbs
FJ
FK
SpdContr
Ending

STG-B Series

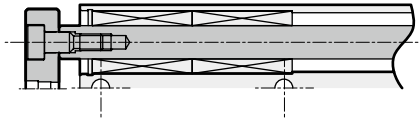
Internal structure and parts list (STG-B-12 to 25)

LCW
LCR
LCG
LCX
LCM
STM
STG
STS/STL
STR2
UCA2
ULK*
JSK/M2
JSG
JSC3/JSC4
USSD
UFCD
USC
JSB3
LMB
LML
HCM
HCA
LBC
CAC4
UCAC2
CAC-N
UCAC-N
RCC2
RCS
PCC
SHC
MCP
GLC
MFC
BBS
RRC
GRC
RV3*
NHS
HR
LN
Hand
Chuk
MecHnd/Chuk
ShkAbs
FJ
FK
SpdContr
Ending

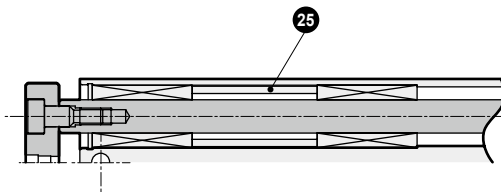
- $\phi 12, \phi 16$
- 30 or less stroke length



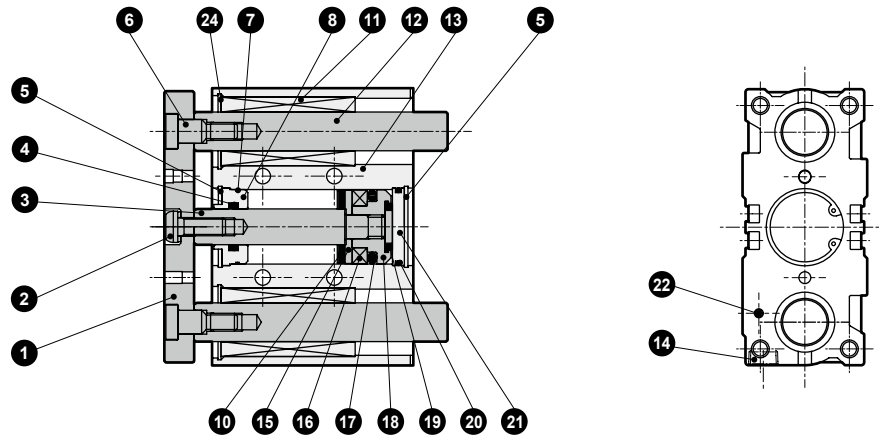
- Over 30 to 100 stroke length



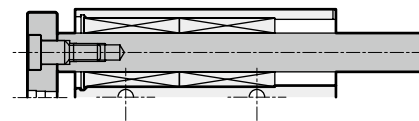
- Over 100 stroke length



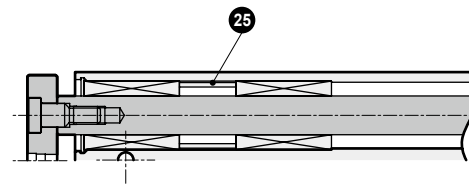
- $\phi 20, \phi 25$
- 30 or less stroke length



- Over 30 to 100 stroke length



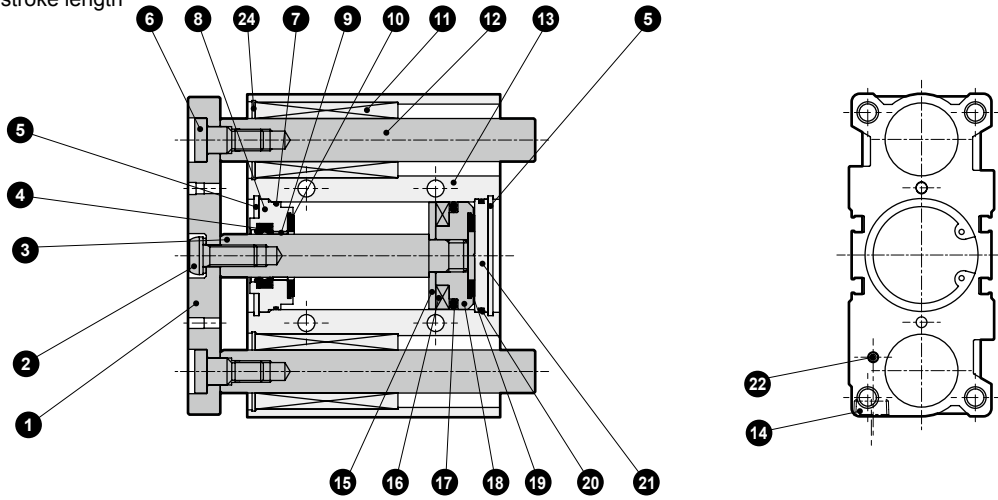
- Over 100 stroke length



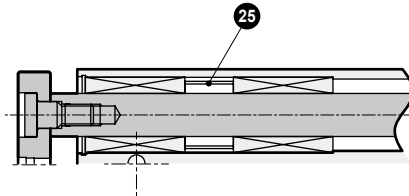
Internal structure and parts list (STG-B-32 to 63)

● $\phi 32$ to $\phi 63$

· 100 or less stroke length



· Over 100 stroke length



No.	Part name	Material	Remarks	No.	Part name	Material	Remarks
1	End plate	Steel	Nickeling	12	Guide rod	Alloy steel	Industrial chrome plating
2	Hex socket head cap screw ($\phi 12$ to $\phi 16$)	Alloy steel	Zinc chromate	13	Cylinder body	Aluminum alloy	Hard alumite
		Alloy steel	Zinc chromate	14	Plug	Copper alloy or steel	
3	Piston rod	Stainless steel ($\phi 12$ to $\phi 25$)	Industrial chrome plating	15	Spacer	Aluminum alloy	
		Steel ($\phi 32$ to $\phi 63$)	Industrial chrome plating	16	Magnet	Plastic	
4	Rod packing	Nitrile rubber		17	Piston packing	Nitrile rubber	
5	C type snap ring	Steel	Zinc phosphate	18	Piston	Aluminum alloy	
6	Bolt	Alloy steel	Zinc chromate	19	Cushion rubber	Urethane rubber	
7	Metal gasket	Nitrile rubber		20	O-ring	Nitrile rubber	
8	Rod metal	Special aluminum alloy ($\phi 12$ to $\phi 32$)	Alumite	21	Base plate	Aluminum alloy	Chromate
		Aluminum alloy ($\phi 40$ to $\phi 63$)	Chromate	22	Hexagon socket set screw	Stainless steel	
9	Bush	Dry bearing ($\phi 40$ to $\phi 63$)	*1	23	Steel ball	Stainless steel	
10	Cushion rubber	Urethane rubber		24	C type snap ring	Steel	Zinc phosphate
11	Ball bushing			25	Collar	Aluminum alloy	

*1: Aluminum for copper and PTFE free.

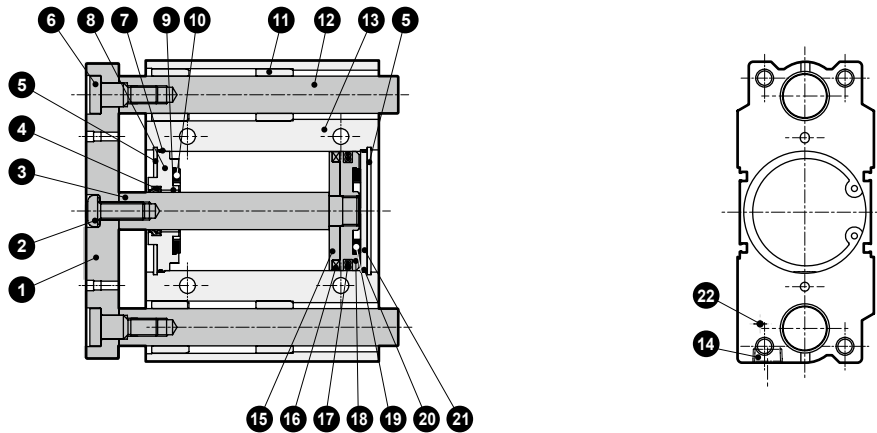
Repair parts list

Bore size (mm)	Kit No.	Repair parts No.
	STG-M/B	
$\phi 12$	STG-12K	
$\phi 16$	STG-16K	
$\phi 20$	STG-20K	
$\phi 25$	STG-25K	
$\phi 32$	STG-32K	4 7 10 17 19 20
$\phi 40$	STG-40K	
$\phi 50$	STG-50K	
$\phi 63$	STG-63K	

LCW
LCR
LCG
LCX
LCM
STM
STG
STS/STL
STR2
UCA2
ULK*
JSK/M2
JSG
JSC3/JSC4
USSD
UFCD
USC
JSB3
LMB
LML
HCM
HCA
LBC
CAC4
UCAC2
CAC-N
UCAC-N
RCC2
RCS
PCC
SHC
MCP
GLC
MFC
BBS
RRC
GRC
RV3*
NHS
HR
LN
Hand
Chuk
MecHnd/Chuk
ShkAbs
FJ
FK
SpdContr
Ending

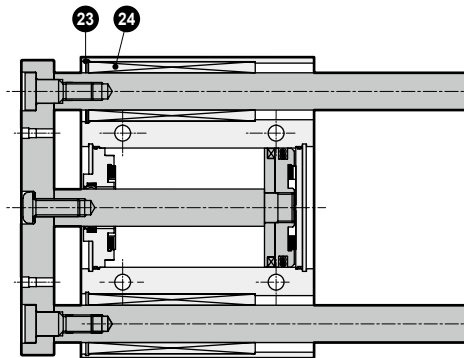
Internal structure and parts list (STG-M-80, 100/STG-B-80, 100)

● STG-M-80,100

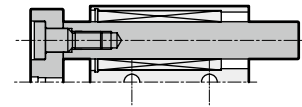


● STG-B-80,100

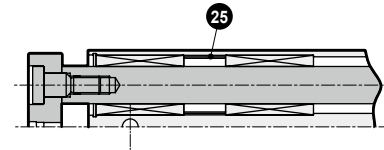
· Over 50 to 200 stroke length



· 50 or less stroke length



· Over 200 stroke length



No.	Part name	Material	Remarks	No.	Part name	Material	Remarks
1	End plate	Steel	Nickeling	14	Plug	Steel	
2	Hexagon socket button head bolt	Alloy steel	Zinc chromate	15	Spacer	Aluminum alloy	
3	Piston rod	Steel	Industrial chrome plating	16	Magnet	Plastic	
4	Rod packing	Nitrile rubber		17	Piston packing	Nitrile rubber	
5	C type snap ring	Steel	Zinc phosphate	18	Piston	Aluminum alloy	
6	Bolt	Alloy steel	Zinc chromate	19	Cushion rubber	Urethane rubber	
7	Metal gasket	Nitrile rubber		20	O-ring	Nitrile rubber	
8	Rod metal	Aluminum alloy	Chromate	21	Base plate	Steel	Zinc chromate
9	Bush	Dry bearing		22	Hexagon socket set screw (φ80)	Stainless steel	
10	Cushion rubber	Urethane rubber			Plug (φ100)	Steel	Nickeling
11	Metal	Oil-impregnated copper alloy bearing		23	C type snap ring	Steel	Zinc phosphate
12	Guide rod	Alloy steel or steel	Industrial chrome plating	24	Ball bushing		
13	Cylinder body	Aluminum alloy	Hard alumite	25	Collar	Aluminum alloy	

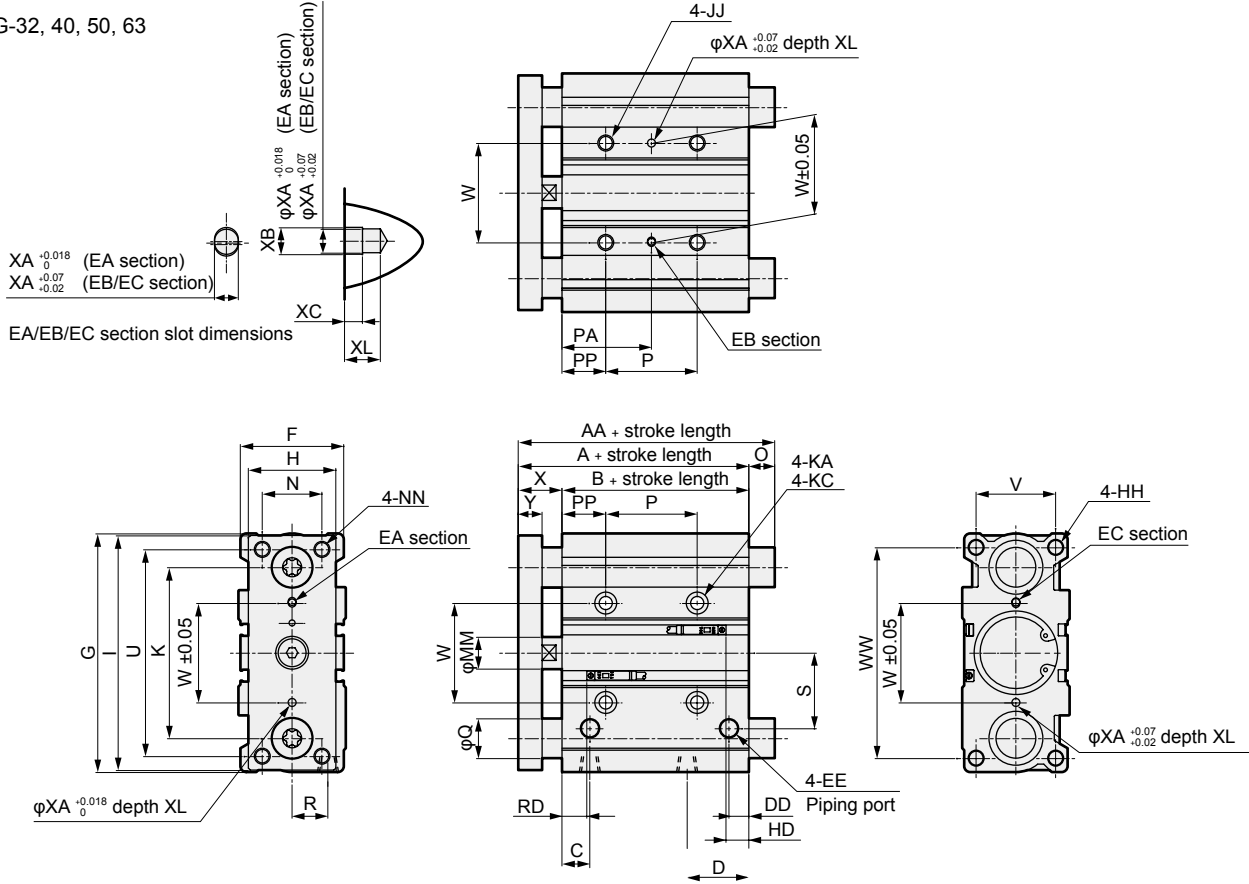
Repair parts list

Bore size (mm)	Kit No.	Repair parts No.
	STG-M/B	
φ80	STG-80K	4 7 10 17 19 20
φ100	STG-100K	



Dimensions (φ32, φ40, φ50, φ63)

● STG-32, 40, 50, 63



● STG-M/B common

Code	Standard stroke length (mm)	A	B	C	D	DD	EE	F	G	H	HH	I	JJ	K	KA
φ32	25,50,75,100,125,	59.5	37.5	12.5	30.5	9	Rc1/8	48	112	44	M8 depth 20	110	M8 depth 16	78	6.3 through
φ40	150,175,200,250,	66	44	14	31	10	Rc1/8	54	120	44	M8 depth 20	118	M8 depth 16	86	6.3 through
φ50	300,350,400	72	44	14	35	11	M10 depth 22	64	148	60	M10 depth 22	146	M10 depth 20	110	8.6 through
φ63		77	49	16.5	35	15	Rc1/4	78	162	70	M10 depth 22	158	M10 depth 20	124	8.6 through

Code	Bore size (mm)	P					PA					
		KC	MM	N	NN	25 or less	Over 25 to 100	Over 100 to 200	Over 200 to 300	Over 300	25 or less	Over 25 to 100
φ32	11 spot face depth 7.5	16	30	M8 through	24	48	124	200	300	300	33	45
φ40	11 spot face depth 7.5	16	30	M8 through	24	48	124	200	300	300	34	46
φ50	14 spot face depth 9	20	40	M10 through	24	48	124	200	300	300	36	48
φ63	14 spot face depth 9	20	50	M10 through	28	52	128	200	300	300	38	50

Code	Bore size (mm)	PA			PP	R	S	U	V	W	WW	X	Y	T0/T5/T2/T3		T2W/T3W		XA	XB	XC	XL
		Over 100 to 200	Over 200 to 300	Over 300										RD	HD	RD	HD				
φ32		83	121	171	21	15	34	96	34	42	98	22 $\frac{0}{2}$	11.5	10	8.5	12	10.5	4	4.5	3	6
φ40		84	122	172	22	18	38	104	40	50	106	22 $\frac{0}{2}$	11.5	13	12	15	14	4	4.5	3	6
φ50		86	124	174	24	21.5	47	130	46	66	130	28 $\frac{0}{2}$	15.5	13.5	11.5	15.5	13.5	5	6	4	8
φ63		88	124	174	24	28	55	130	58	80	142	28 $\frac{0}{2}$	15.5	14	16	16	18	5	6	4	8

● STG-M

Code	Bore size (mm)	AA			Q	O		
		50 or less	Over 50 to 200	Over 200		50 or less	Over 50 to 200	200 Over
φ32		79	100	140	20	19.5	40.5	80.5
φ40		79	100	140	20	13	34	74
φ50		91	116	161	25	19	44	89
φ63		91	116	161	25	14	39	84

*1 : When using a custom stroke length, the total dimensions are the same as the longer standard stroke length.

*2 : Refer to page 410 for RD, HD and protruding dimensions of the 2-color display (except for T2WH/V and T3WH/V), off-delay, AC magnetic field proof, T1H/V and T8H/V switches.

● STG-B

Code	Bore size (mm)	AA				Q	O			
		50 or less	Over 50 to 100	Over 100 to 200	Over 200		50 or less	Over 50 to 100	Over 100 to 200	Over 200
φ32		79	98	118	140	16	19.5	38.5	58.5	80.5
φ40		79	98	118	140	16	13	32	52	74
φ50		91	114	134	161	20	19	42	62	89
φ63		91	114	134	161	20	14	37	57	84