



ACCURACY

Three accuracy grades are available: normal-grade (no suffix), high-grade (H), and precision-grade (P).

Table 1 Accuracy

| part number | SGW17,21 | | | SGW27,35 | | |
|--|-------------------|-------|-----------|----------|-------|-----------|
| | normal | high | precision | normal | high | precision |
| accuracy grade | blank | H | P | blank | H | P |
| accuracy symbol | blank | H | P | blank | H | P |
| allowable dimensional tolerance for height H | ±0.1 | ±0.03 | -0.03~0 | ±0.1 | ±0.04 | -0.04~0 |
| paired difference for height H | 0.02 | 0.01 | 0.006 | 0.02 | 0.015 | 0.007 |
| allowable dimensional tolerance for width W | ±0.1 | ±0.03 | -0.03~0 | ±0.1 | ±0.04 | -0.04~0 |
| paired difference for width W | 0.02 | 0.01 | 0.006 | 0.03 | 0.015 | 0.007 |
| Running parallelism of surface C to surface A Running parallelism of surface D to surface B | refer to Figure 1 | | | | | |

Figure 1 Motion Accuracy

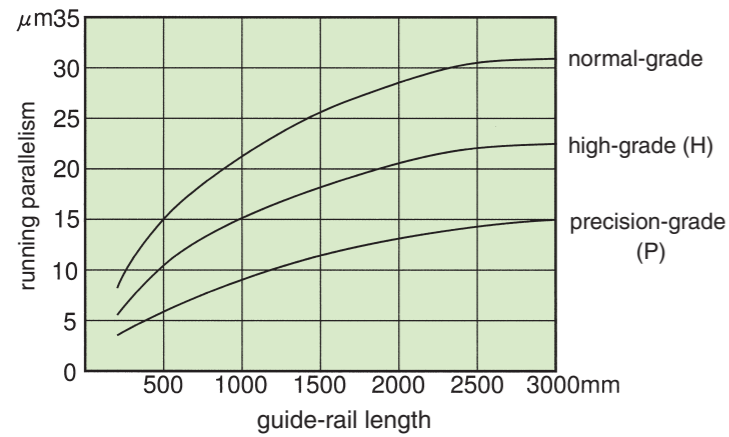
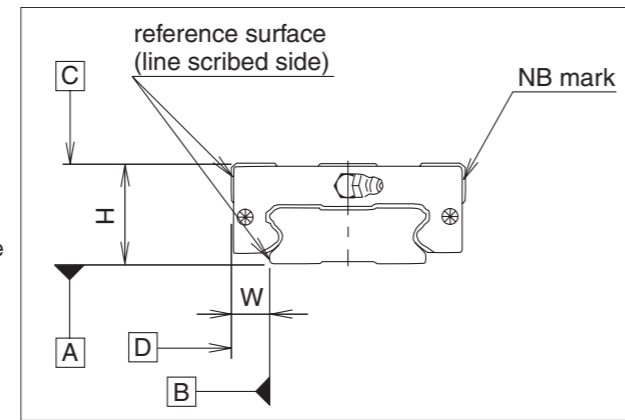


Figure 2 Accuracy



PRE-LOAD

Three levels of pre-load are available for SGW slide guides: standard, light (T1), and medium (T2).

Table 2 Pre-Load Call Out and Radial Clearance unit/µm

| category | standard | light | medium |
|----------|----------|--------|---------|
| symbol | blank | T1 | T2 |
| SGW17 | -3~+2 | - 7~-3 | - |
| SGW21 | -4~+2 | - 8~-4 | - |
| SGW27 | -5~+2 | -11~-5 | - |
| SGW35 | -8~+4 | -18~-8 | -28~-18 |

Table 3 Operating Conditions and Pre-Load

| pre-load category | symbol | operating condition |
|-------------------|--------|--|
| standard | blank | Minute vibration is applied. Precision motion is required. Moment in a given direction is applied. |
| light | T1 | Light vibration is applied. Light torsion is applied. Moment is applied. |
| medium | T2 | Shock/vibration is applied. Over-hang load is applied. Torsional load is applied. |



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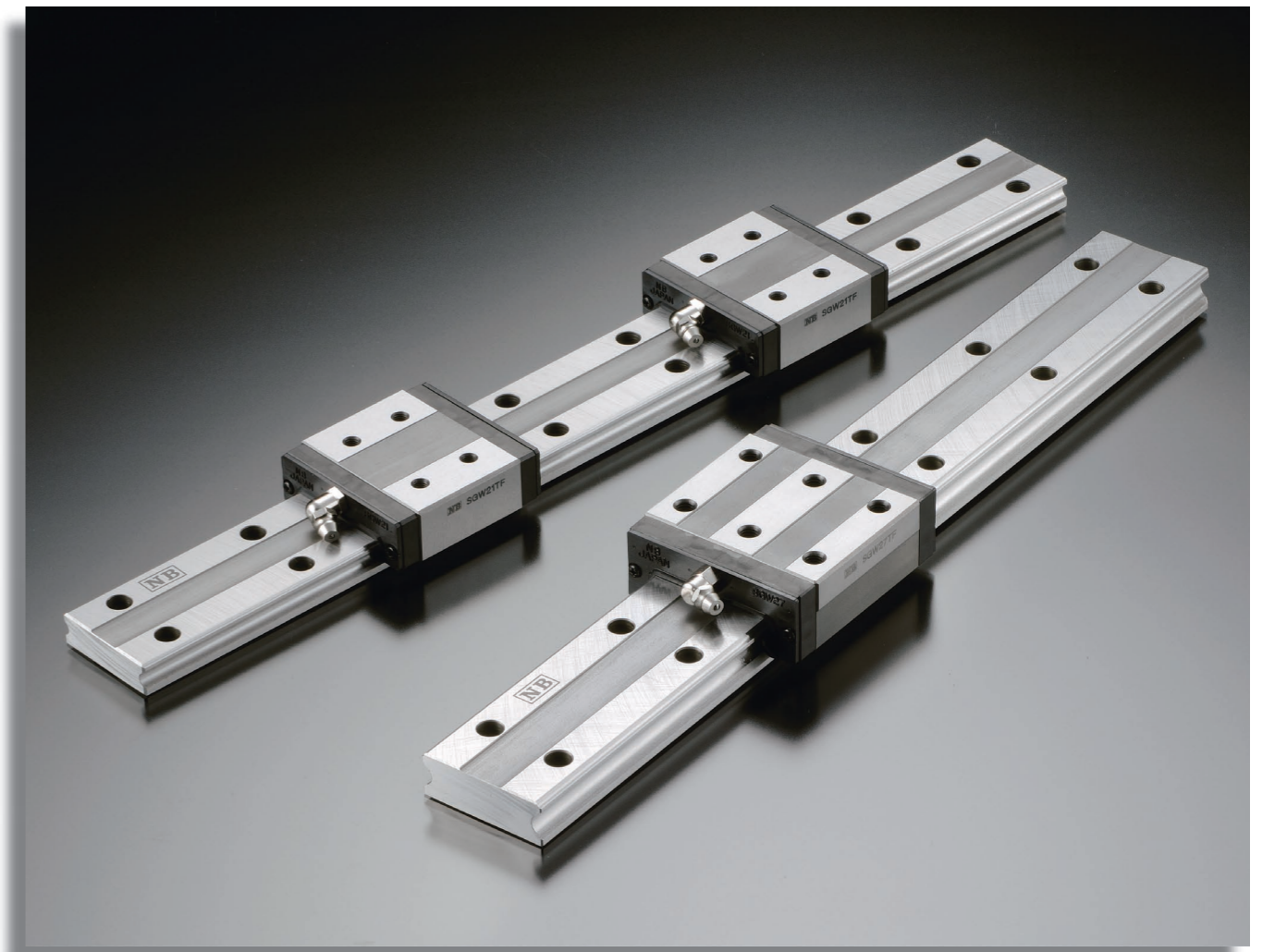
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SGW-TF type

SLIDE GUIDE

SLIDE GUIDE

Extreme Rigidity, High Moment Load Capability
Low-Wide Profile Optimal in Single Axis Use



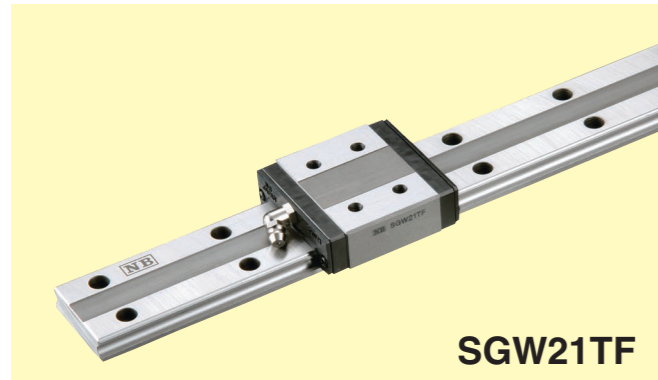
ISO9001/ISO14001



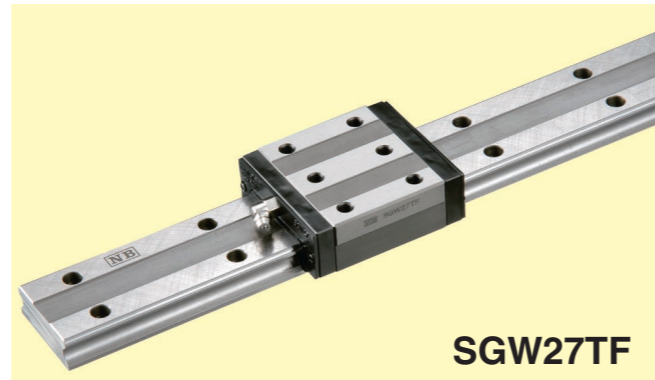
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SGW-TF TYPE



SGW21TF



SGW27TF

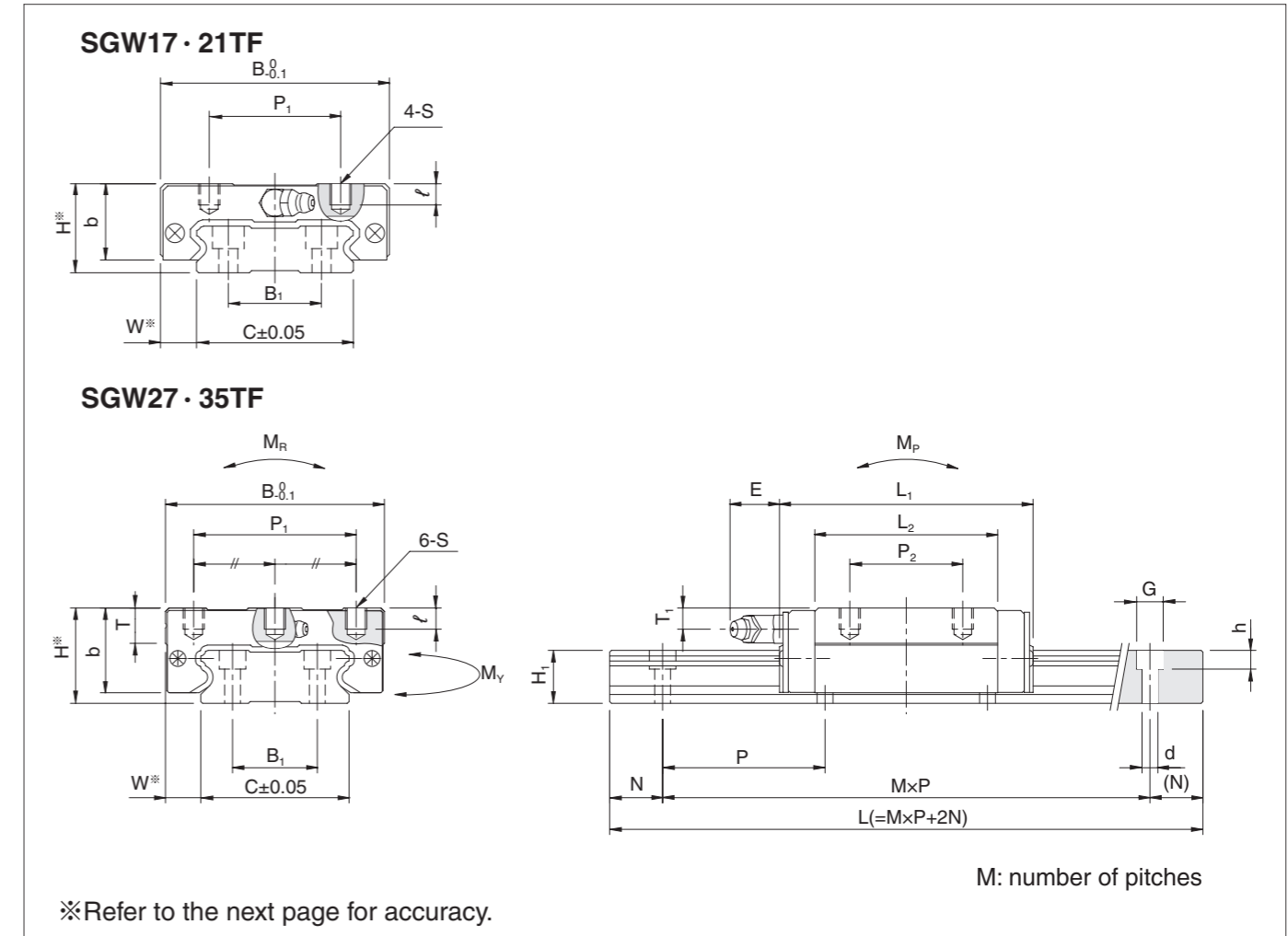
part number structure example **SGW 21 TF B 2 T1 - 589 P / W2 FS LB F - KGL**

SGW type
size
block style
seal
number of blocks per rail
symbol for pre-load
total length of rail
accuracy grade

symbol for grease
blank standard grease
KGL lithium-based grease
KGU urea-based grease
KGF anti-fretting grease
GK K-grease

with rail mounting hole caps
with low temperature black chrome treatment
with Fiber Sheet
Fiber sheet comes only with standard grease.
symbol for number of rails
blank single rail
W2 double rails
W3 triple rails

The symbol for the number of rails does not mean the number of rails ordered.



| part number | assembly dimensions | | block dimensions | | | | | | | | | | | grease fitting |
|----------------|---------------------|------|------------------|----------------|----------------|----------------|----------------|----|----|----|------|-----|----------------|-----------------|
| | H | W | B | L ₁ | L ₂ | P ₁ | P ₂ | S | ℓ | T | b | E | T ₁ | |
| | mm | mm | mm | mm | mm | mm | mm | | mm | mm | mm | mm | mm | |
| SGW17TF | 17 | 8.5 | 50 | 51 | 33.6 | 29 | 15 | M4 | 4 | — | 14.5 | 2.5 | 4 | pressed fitting |
| SGW21TF | 21 | 8.5 | 54 | 58 | 40 | 31 | 19 | M5 | 5 | — | 18 | | 4.5 | B-M6F |
| SGW27TF | 27 | 10 | 62 | 71.8 | 51.8 | 46 | 32 | M6 | 6 | 10 | 24 | 14 | 6 | |
| SGW35TF | 35 | 15.5 | 100 | 106.6 | 77.6 | 76 | 50 | M8 | 8 | 14 | 31 | | 8 | |

| guide-rail dimensions | | | | basic load rating | | allowable static moment | | | mass | | size | | |
|-----------------------|----|----------------|-------------|-------------------|----|-------------------------|----------------|----------------|-------|------------|------|------|-----------|
| H ₁ | C | B ₁ | d×G×h | N | P | M _P | M _V | M _R | block | guide rail | | | |
| mm | mm | mm | mm | mm | mm | N·m | N·m | N·m | kg | kg/m | | | |
| 9 | 33 | 18 | 4.5×7.5×5.3 | 15 | 40 | 4.8 | 8.6 | 43 | 43 | 161 | 0.13 | 2.05 | 17 |
| 11 | 37 | 22 | | | 50 | 7 | 12 | 72 | 72 | 253 | 0.20 | 2.84 | 21 |
| 15 | 42 | 24 | | | 60 | 13 | 22 | 172 | 172 | 496 | 0.38 | 4.43 | 27 |
| 19 | 69 | 40 | 7×11×9 | 20 | 80 | 31 | 49 | 579 | 579 | 1,855 | 1.16 | 9.32 | 35 |

1kN ≅ 102kgf 1N·m ≅ 0.102kgf·m

| part number | standard rail length L mm | | | | | | | | | | |
|--------------|---------------------------|-----|-----|-----|-----|-----|-----|-----|-------|-------|-------|
| SGW17 | 110 | 150 | 190 | 230 | 270 | 310 | 350 | 390 | 430 | 510 | 590 |
| SGW21 | 130 | 180 | 230 | 280 | 330 | 380 | 430 | 480 | 530 | 630 | 730 |
| SGW27 | 160 | 220 | 280 | 340 | 400 | 460 | 520 | 640 | 760 | 880 | 1,000 |
| SGW35 | 280 | 360 | 440 | 520 | 600 | 680 | 760 | 920 | 1,080 | 1,240 | 1,400 |

| | | | | | | | maximum length mm |
|-------|-------|-------|-------|-------|-------|-------|-------------------|
| 670 | 750 | 830 | 950 | 1,070 | 1,190 | 1,310 | 2,000 |
| 830 | 930 | 1,030 | 1,180 | 1,330 | 1,480 | | 2,000 |
| 1,180 | 1,360 | 1,540 | 1,720 | 1,900 | | | 3,000 |
| 1,640 | 1,880 | 2,120 | | | | | 3,000 |

Rails exceeding the maximum specified length may be fabricated if joints are used. Contact NB for assistance.