

SLIDE TABLE

The NB slide table is a precision table equipped with a slide way. Its high-precision and low-friction characteristics make it well suited for use in electronics automatic-assembly machines and optical measurement devices.

STRUCTURE AND ADVANTAGES

The NB slide table consists of a slide way sandwiched between an accurately machined table and a bed. Stopper is provided within the table.

High Accuracy:

The mounting surfaces of the table and bed are precision finished to ensure high-precision linear motion, resulting in a high-performance slide way.

Low Friction:

Its non-recirculating mechanism provides stable motion from low to high speeds.

Compact and High Rigidity:

Being designed compactly, the NB slide table holds the high load capacity and high-rigidity characteristics.

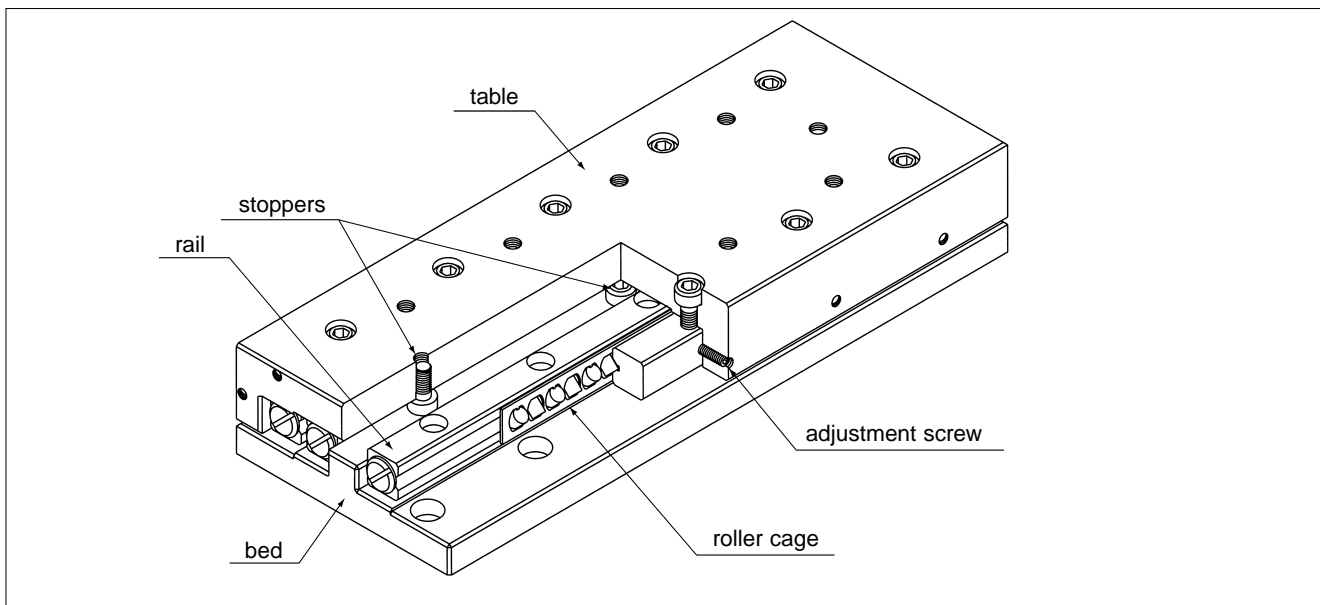
No Need for Adjustment:

The table is carefully assembled so that the accuracy and pre-load are optimized, so it can be used immediately without any further adjustment.

Ease of Mounting:

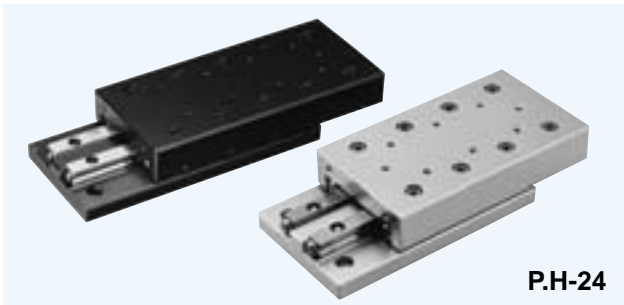
Standardized mounting holes are provided in the table and bed. High-precision linear motion can be achieved simply by mounting.

Figure H-12 Structure of SVT Type Slide Table



TYPE

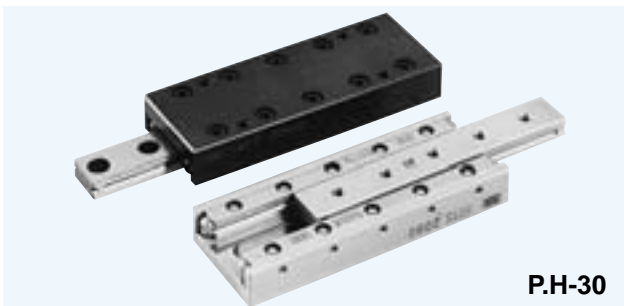
SVT·SVTS Type



P.H-24

In the SVT type slide table, the slide way is sandwiched between an accurately machined steel tabletop and bed. In the SVTS type, an anti-corrosion SVS type slide way is sandwiched between an accurately machined aluminum tabletop and bed.

SYT·SYTS Type



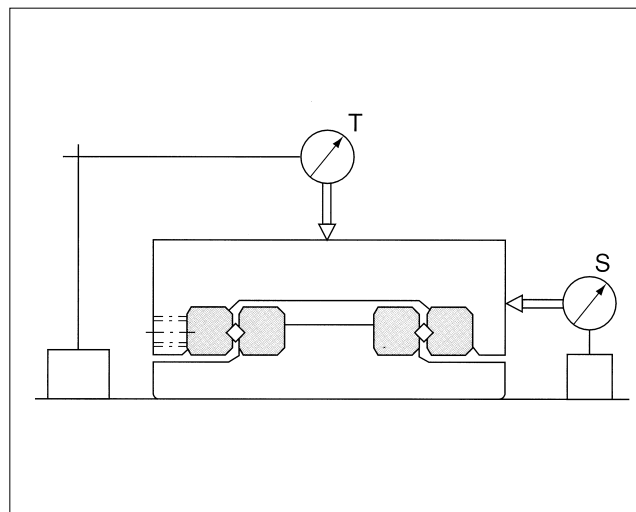
P.H-30

The SYT/SYTS type is a thin, compact slide table. Either tapped or counterbore type is available. The anti-corrosion SYTS type slide table is fabricated with all stainless steel components, making it suitable for use in clean rooms.

ACCURACY

The motion accuracy of a slide table is measured by placing indicators at the centers of the top and side surfaces of the table, as illustrated in Figure H-13. It is expressed in terms of the indicator deflections when the table is moved to the right and left under no-load conditions.

Figure H-13 Accuracy Measurement Method



RATED LIFE

The life of an NB slide table is calculated using the following equations.

Travel life :

$$L = \left(\frac{f_T \cdot C}{f_W \cdot P} \right)^{10/3} \cdot 50$$

L : travel life (km) f_T : temperature coefficient
 f_W : load coefficient
 ※ Refer to page Eng. 5 for the coefficients.

Life time :

$$L_h = \frac{L \cdot 10^3}{2 \cdot \ell \cdot s \cdot n_1 \cdot 60}$$

L_h : life time (hr) ℓ : stroke length (m)
 n_1 : number of strokes per minute (cpm)

NOTES ON OPERATION

Careful Handling:

Dropping a table may result in scratches or dents on the raceway surface, preventing smooth motion and reducing the life. Care should be exercised when handling a table.

Dust Prevention:

Dust and foreign particles can affect the accuracy and lifetime of a slide table. A slide table used in a hostile environment should be protected with a cover.

Lubrication:

Lithium soap lubrication is applied prior to shipment, so a table can be used immediately upon delivery. Periodic application of a similar lubricant should be necessary depending on the operating conditions.

Cage Slippage:

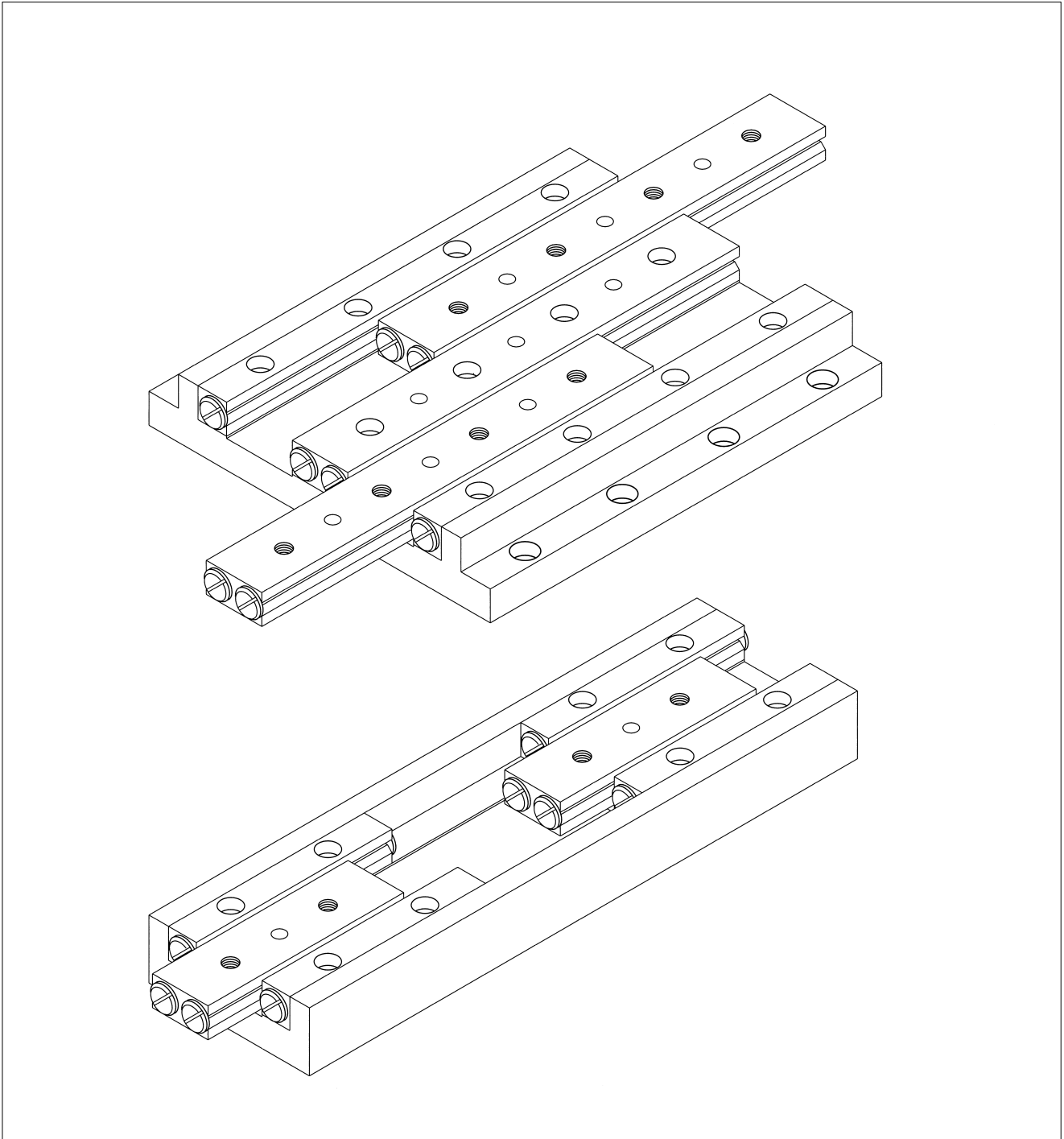
The cage can slip under high-speed motion, unbalanced-loading, and vibrating conditions. The motion speed of a slide table should be kept under 30 m/min.

Adjustment/Installation Screws:

The NB slide table is adjusted to achieve optimum accuracy and pre-load. The adjustment screw and tracking-bed installation screws should not be changed.

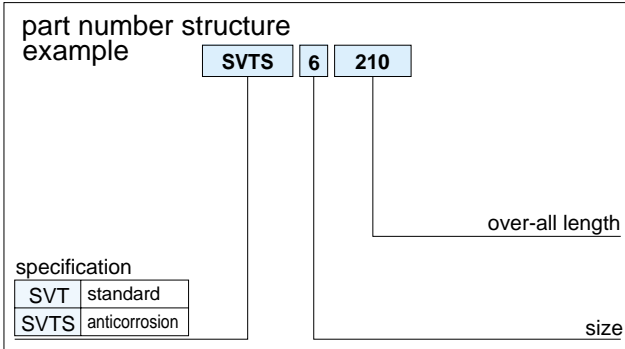
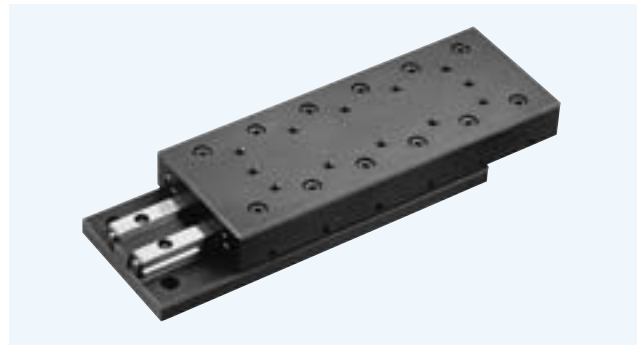
SPECIAL REQUIREMENTS

NB can fabricate tables to meet special requirements, including tables with a micrometer head and tables for projectors. Contact NB for further information.

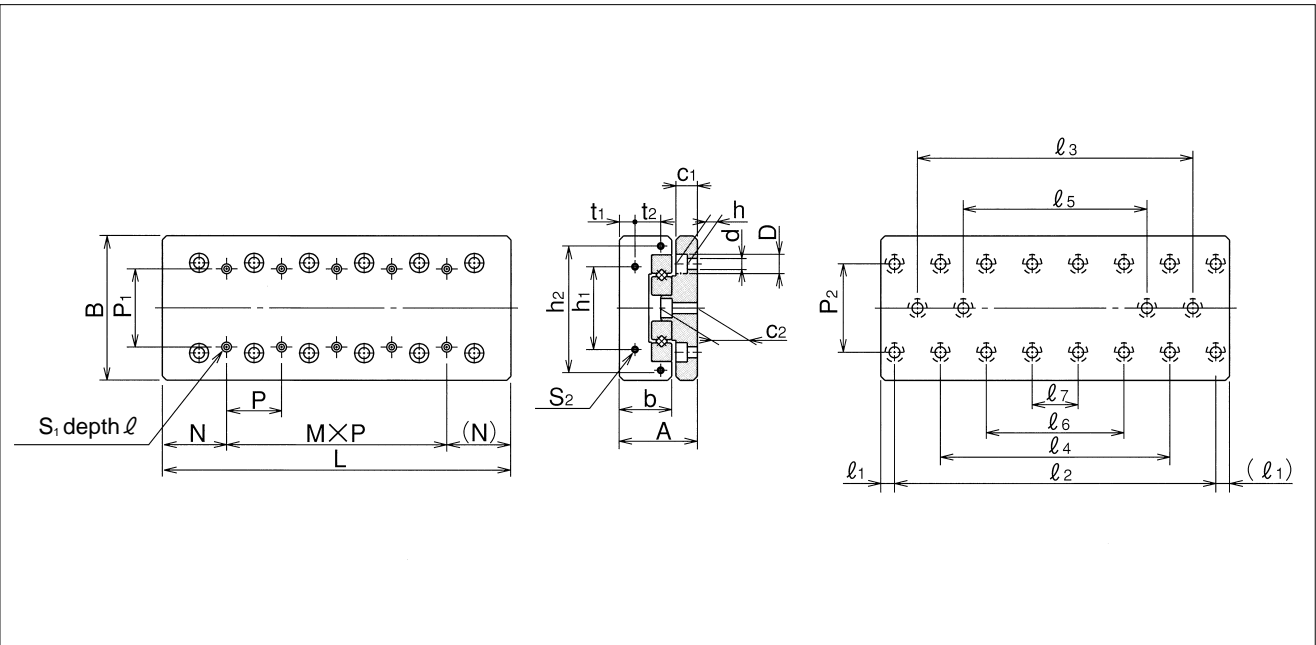


SVT TYPE

– SVT1/SVT2 –



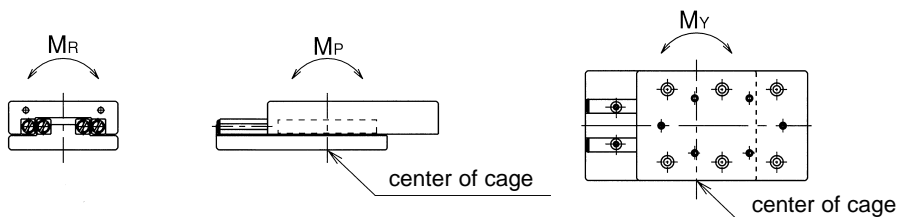
| part number | | stroke mm | major dimensions | | | | table-top mounting-hole dimensions | | | | | table-end mounting-hole dimensions | | | | | |
|----------------|-----------------|--------------|--------------------|-------------------------|---------|---------|---------------------------------------|----------------|---------|---------|-----------|---------------------------------------|----------------------|----------------------|----------------------|----------------|----------------------|
| standard | anticorrosion | | A mm | B mm | L mm | b mm | P ₁ mm | S ₁ | ℓ mm | N mm | M×P mm | h ₁ mm | h ₂ mm | t ₁ mm | t ₂ mm | S ₂ | P ₂ mm |
| SVT1025 | SVTS1025 | 12 | | | 25 | | | | | – | | | | | | | |
| 1035 | 1035 | 18 | | | 35 | | | | | 1×10 | | | | | | | |
| 1045 | 1045 | 25 | | | 45 | | | | | 2×10 | | | | | | | |
| 1055 | 1055 | 32 | 17 ^{±0.1} | 30 ^{-0.2/-0.4} | 55 | 11 | 10 | M2 | 4 | 12.5 | 3×10 | 12 | – | 2.5 | – | M2 | 22 |
| 1065 | 1065 | 40 | | | 65 | | | | | | 4×10 | | | | | | |
| 1075 | 1075 | 45 | | | 75 | | | | | | 5×10 | | | | | | |
| 1085 | 1085 | 50 | | | 85 | | | | | | 6×10 | | | | | | |
| SVT2035 | SVTS2035 | 18 | | | 35 | | | | | – | | | | | | | |
| 2050 | 2050 | 30 | | | 50 | | | | | 1×15 | | | | | | | |
| 2065 | 2065 | 40 | | | 65 | | | | | 2×15 | | | | | | | |
| 2080 | 2080 | 50 | | | 80 | | | | | 3×15 | | | | | | | |
| 2095 | 2095 | 60 | | | 95 | | | | | 4×15 | | | | | | | |
| 2110 | 2110 | 70 | 21 ^{±0.1} | 40 ^{-0.2/-0.4} | 110 | 14 | 15 | M3 | 6 | 17.5 | 5×15 | 16 | – | 3.4 | – | M2 | 30 |
| 2125 | 2125 | 80 | | | 125 | | | | | | 6×15 | | | | | | |
| 2140 | 2140 | 90 | | | 140 | | | | | | 7×15 | | | | | | |
| 2155 | 2155 | 100 | | | 155 | | | | | | 8×15 | | | | | | |
| 2170 | 2170 | 110 | | | 170 | | | | | | 9×15 | | | | | | |
| 2185 | 2185 | 120 | | | 185 | | | | | | 10×15 | | | | | | |



| bed-surface mounting-hole dimensions | | | | | | | | | | accuracy※ | | basic load rating | | allowable static moment | | | mass | | size |
|--------------------------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|-----------|---------|-------------------|---------|-------------------------|-----------------------|-----------------------|----------|-------------|-------------|
| d×D×h mm | c ₁ mm | c ₂ mm | l ₁ mm | l ₂ mm | l ₃ mm | l ₄ mm | l ₅ mm | l ₆ mm | l ₇ mm | T μm | S μm | C N | Co N | M _P N·m | M _Y N·m | M _R N·m | SVT g | SVTS g | |
| 2.5×4.5×2.5 | 5.5 | 9 | 3.5 | 18 | - | - | - | - | - | 2 | 4 | 340 | 312 | 1.1 | 1.0 | 2.1 | 82 | 36 | 1025 |
| | | | | 28 | - | - | - | - | 2 | 4 | 572 | 624 | 2.0 | 2.3 | 4.2 | 120 | 50 | 1035 | |
| | | | | 38 | - | - | - | - | 2 | 4 | 676 | 780 | 4.6 | 4.3 | 5.3 | 158 | 69 | 1045 | |
| | | | | 48 | - | 28 | - | - | 2 | 5 | 776 | 936 | 6.3 | 5.9 | 6.3 | 190 | 83 | 1055 | |
| | | | | 58 | - | 38 | - | - | 2 | 5 | 871 | 1,090 | 8.3 | 7.8 | 7.3 | 225 | 98 | 1065 | |
| | | | | 68 | - | 48 | - | - | 2 | 5 | 1,050 | 1,400 | 13 | 12.4 | 9.5 | 260 | 113 | 1075 | |
| 3.5×6.5×3.5 | 6.5 | 10.9 | 5 | 78 | - | 58 | - | - | - | 2 | 5 | 1,140 | 1,560 | 15.7 | 15.0 | 10.5 | 295 | 128 | 1085 |
| | | | | 25 | - | - | - | - | 2 | 4 | 594 | 588 | 3.5 | 2.9 | 5.3 | 195 | 90 | 2035 | |
| | | | | 40 | - | - | - | - | 2 | 4 | 805 | 882 | 6.1 | 5.5 | 7.9 | 280 | 133 | 2050 | |
| | | | | 55 | - | - | - | - | 2 | 5 | 999 | 1,180 | 9.7 | 8.8 | 10.6 | 370 | 175 | 2065 | |
| | | | | 70 | - | 40 | - | - | 2 | 5 | 1,350 | 1,760 | 14 | 15.3 | 15.9 | 450 | 220 | 2080 | |
| | | | | 85 | - | 55 | - | - | 2 | 5 | 1,520 | 2,060 | 19.1 | 20.6 | 18.5 | 540 | 250 | 2095 | |
| | | | | 100 | - | 70 | - | - | 3 | 6 | 1,680 | 2,350 | 31.7 | 30.0 | 21.2 | 630 | 285 | 2110 | |
| | | | | 115 | - | 85 | - | - | 3 | 6 | 1,840 | 2,650 | 39.1 | 37.2 | 23.8 | 720 | 330 | 2125 | |
| | | | | 130 | - | 100 | - | 70 | 3 | 6 | 2,130 | 3,230 | 47.3 | 49.6 | 29.1 | 800 | 360 | 2140 | |
| | | | | 145 | - | 115 | - | 85 | 3 | 6 | 2,280 | 3,530 | 56.3 | 58.8 | 31.8 | 880 | 400 | 2155 | |
| 160 | - | 130 | - | 100 | 3 | 7 | 2,420 | 3,820 | 76.7 | 74.1 | 34.4 | 970 | 440 | 2170 | | | | | |
| 175 | - | 145 | - | 115 | 85 | 3 | 7 | 2,560 | 4,120 | 88.1 | 85.3 | 37.0 | 1,060 | 480 | 2185 | | | | |

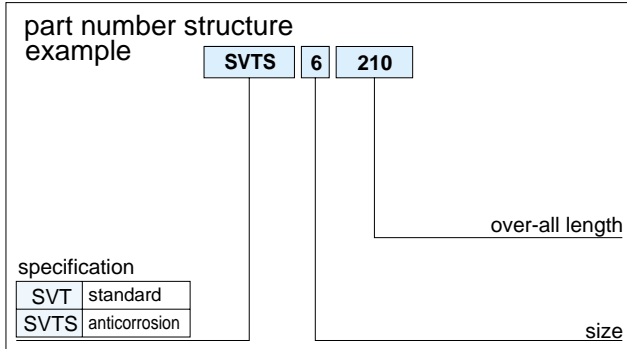
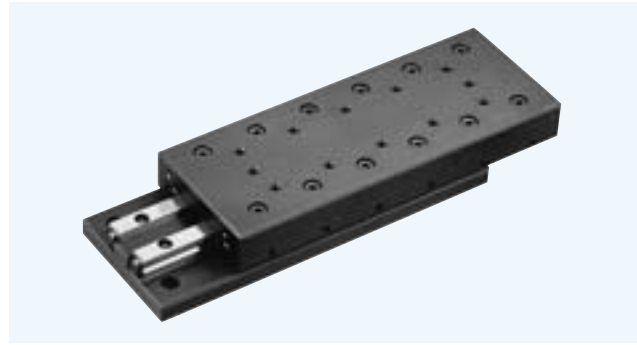
※ Refer to Figure H-13 (page H-21) for accuracy T and S.

1N≒0.102kgf 1N·m≒0.102kgf·m

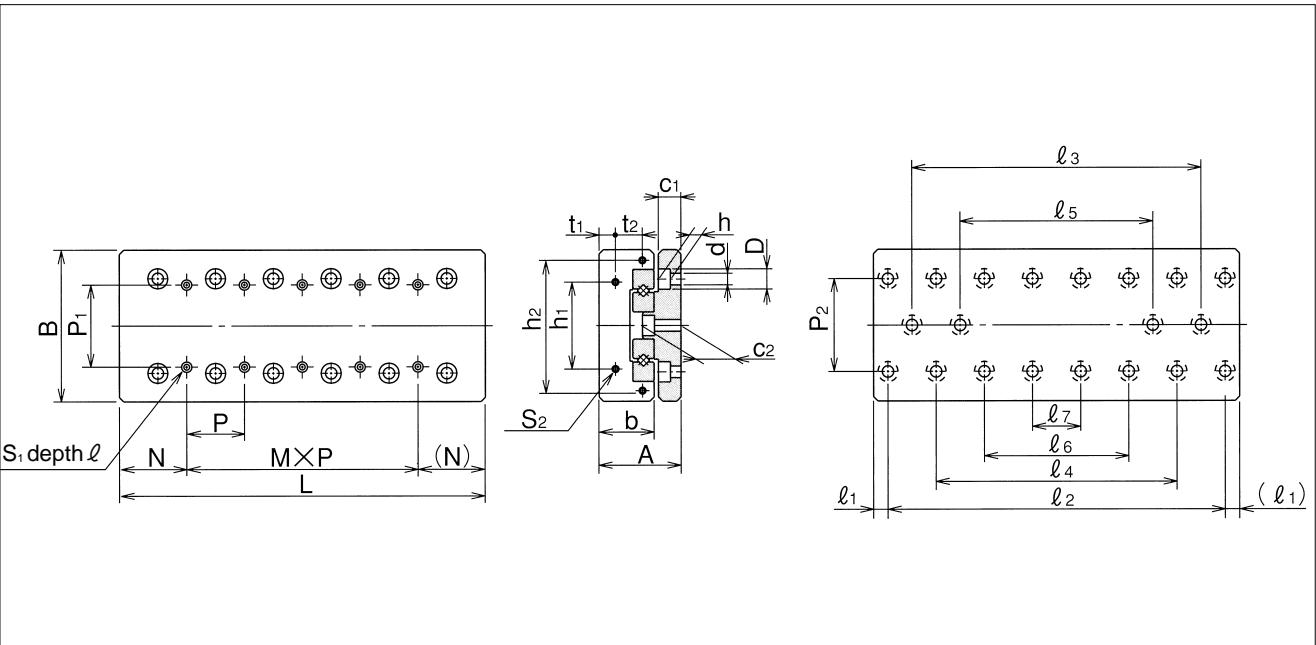


SVT TYPE

— SVT3/SVT4 —



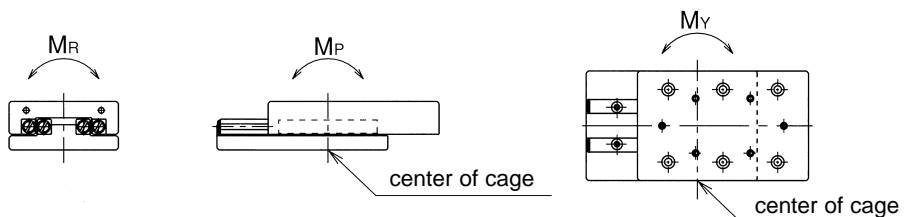
| part number | | stroke mm | major dimensions | | | | table-top mounting-hole dimensions | | | | | table-end mounting-hole dimensions | | | | | |
|----------------|-----------------|--------------|--------------------|--------------------|---------|---------|---------------------------------------|----------------|---------|---------|-----------|---------------------------------------|----------------------|----------------------|----------------------|----------------|----------------------|
| standard | anticorrosion | | A mm | B mm | L mm | b mm | P ₁ mm | S ₁ | ℓ mm | N mm | M×P mm | h ₁ mm | h ₂ mm | t ₁ mm | t ₂ mm | S ₂ | P ₂ mm |
| SVT3055 | SVTS3055 | 30 | | | 55 | | | | | | — | | | | | | |
| 3080 | 3080 | 45 | | | 80 | | | | | | 1×25 | | | | | | |
| 3105 | 3105 | 60 | | | 105 | | | | | | 2×25 | | | | | | |
| 3130 | 3130 | 75 | | | 130 | | | | | | 3×25 | | | | | | |
| 3155 | 3155 | 90 | | | 155 | | | | | | 4×25 | | | | | | |
| 3180 | 3180 | 105 | 28 ^{±0.1} | 60 ^{±0.1} | 180 | 18.5 | 25 | M4 | 8 | 27.5 | 5×25 | 40 | — | 5.5 | — | M3 | 40 |
| 3205 | 3205 | 130 | | | 205 | | | | | | 6×25 | | | | | | |
| 3230 | 3230 | 155 | | | 230 | | | | | | 7×25 | | | | | | |
| 3255 | 3255 | 180 | | | 255 | | | | | | 8×25 | | | | | | |
| 3280 | 3280 | 205 | | | 280 | | | | | | 9×25 | | | | | | |
| 3305 | 3305 | 230 | | | 305 | | | | | | 10×25 | | | | | | |
| SVT4085 | SVTS4085 | 50 | | | 85 | | | | | | — | | | | | | |
| 4125 | 4125 | 75 | | | 125 | | | | | | 1×40 | | | | | | |
| 4165 | 4165 | 105 | | | 165 | | | | | | 2×40 | | | | | | |
| 4205 | 4205 | 130 | | | 205 | | | | | | 3×40 | | | | | | |
| 4245 | 4245 | 155 | 35 ^{±0.1} | 80 ^{±0.1} | 245 | 24 | 40 | M5 | 10 | 42.5 | 4×40 | 55 | — | 6.5 | — | M3 | 55 |
| 4285 | 4285 | 185 | | | 285 | | | | | | 5×40 | | | | | | |
| 4325 | 4325 | 210 | | | 325 | | | | | | 6×40 | | | | | | |
| 4365 | 4365 | 235 | | | 365 | | | | | | 7×40 | | | | | | |
| 4405 | 4405 | 265 | | | 405 | | | | | | 8×40 | | | | | | |



| bed-surface mounting-hole dimensions | | | | | | | | | | accuracy※ | | basic load rating | | allowable static moment | | | mass | | size |
|--------------------------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|-----------|---------|-------------------|---------|-------------------------|-----------------------|-----------------------|----------|-----------|-------------|
| d×D×h mm | c ₁ mm | c ₂ mm | ℓ ₁ mm | ℓ ₂ mm | ℓ ₃ mm | ℓ ₄ mm | ℓ ₅ mm | ℓ ₆ mm | ℓ ₇ mm | T μm | S μm | C N | Co N | M _P N·m | M _Y N·m | M _R N·m | SVT g | SVTS g | |
| 4.5×8×4.5 | 9 | 15 | 10 | 35 | — | — | — | — | — | 2 | 5 | 1,800 | 2,120 | 10.6 | 12.4 | 29.7 | 640 | 300 | 3055 |
| | | | | 60 | — | — | — | — | — | 2 | 5 | 2,640 | 3,530 | 29.2 | 32.4 | 49.4 | 955 | 440 | 3080 |
| | | | | 85 | — | — | — | — | — | 3 | 6 | 3,030 | 4,240 | 57.4 | 53.5 | 59.3 | 1,250 | 580 | 3105 |
| | | | | 110 | — | — | — | — | — | 3 | 6 | 3,760 | 5,650 | 95.1 | 90.0 | 79.1 | 1,570 | 715 | 3130 |
| | | | | 135 | 85 | — | — | — | — | 3 | 6 | 4,440 | 7,060 | 117 | 124 | 98.8 | 1,850 | 850 | 3135 |
| | | | | 160 | 110 | — | — | — | — | 3 | 7 | 5,100 | 8,470 | 169 | 177 | 119 | 2,150 | 990 | 3180 |
| | | | | 185 | 135 | 85 | — | — | — | 3 | 7 | 5,410 | 9,180 | 199 | 207 | 129 | 2,450 | 1,130 | 3205 |
| | | | | 210 | 160 | 110 | — | — | — | 3 | 7 | 5,720 | 9,880 | 264 | 256 | 138 | 2,740 | 1,270 | 3230 |
| | | | | 235 | 185 | 135 | — | — | — | 3 | 7 | 6,320 | 11,300 | 301 | 311 | 158 | 3,040 | 1,410 | 3255 |
| | | | | 260 | 210 | 160 | 110 | — | — | 3 | 7 | 6,620 | 12,000 | 340 | 350 | 168 | 3,360 | 1,540 | 3280 |
| 285 | 235 | 185 | 135 | — | — | 3 | 7 | 6,910 | 12,700 | 425 | 414 | 178 | 3,660 | 1,680 | 3305 | | | | |
| 5.5×10×5.4 | 10.5 | 18 | 10 | 65 | — | — | — | — | — | 2 | 5 | 3,560 | 4,350 | 52.8 | 47.4 | 87.0 | 1,700 | 780 | 4085 |
| | | | | 105 | — | — | — | — | — | 3 | 6 | 5,220 | 7,250 | 121 | 112 | 145 | 2,500 | 1,140 | 4125 |
| | | | | 145 | — | — | — | — | — | 3 | 7 | 6,720 | 10,200 | 165 | 178 | 203 | 3,300 | 1,510 | 4165 |
| | | | | 185 | 105 | — | — | — | — | 3 | 7 | 8,120 | 13,100 | 273 | 289 | 261 | 4,100 | 1,870 | 4205 |
| | | | | 225 | 145 | — | — | — | — | 3 | 7 | 9,430 | 16,000 | 409 | 428 | 319 | 4,900 | 2,240 | 4245 |
| | | | | 265 | 185 | — | — | — | — | 3 | 7 | 10,700 | 18,900 | 571 | 594 | 377 | 5,700 | 2,600 | 4285 |
| | | | | 305 | 225 | 145 | — | — | — | 4 | 8 | 11,900 | 21,800 | 760 | 787 | 435 | 6,500 | 3,000 | 4325 |
| | | | | 345 | 265 | 185 | — | — | — | 4 | 8 | 13,100 | 24,700 | 977 | 1,010 | 493 | 7,300 | 3,300 | 4365 |
| | | | | 385 | 305 | 225 | — | — | — | 4 | 8 | 13,600 | 26,100 | 1,220 | 1,190 | 522 | 8,100 | 3,700 | 4405 |

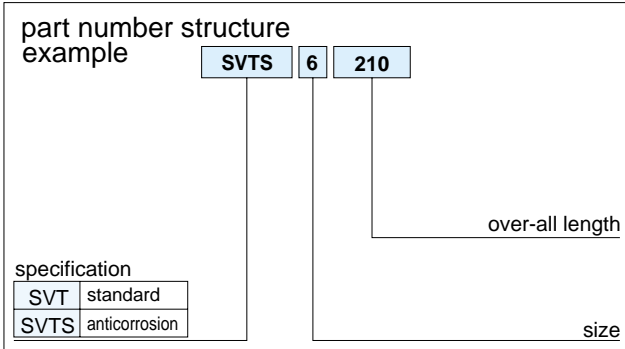
※ Refer to Figure H-13 (page H-21) for accuracy T and S.

1N≒0.102kgf 1N·m≒0.102kgf·m

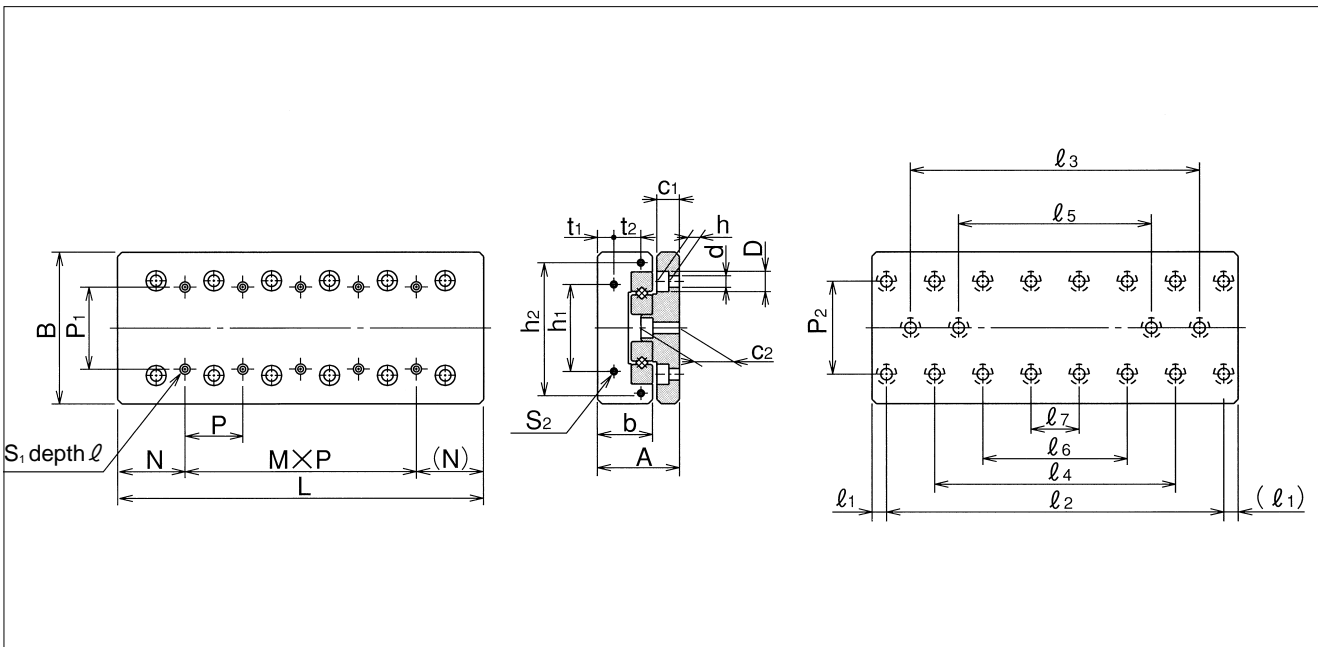


SVT TYPE

— SVT6/SVT9 —



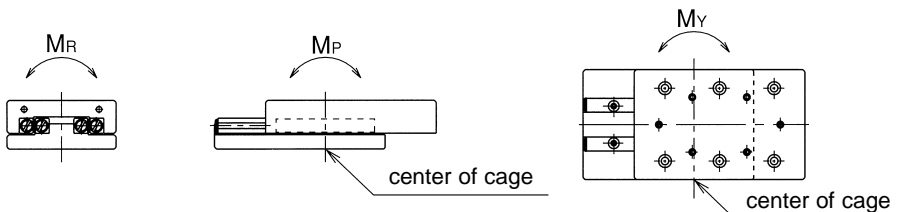
| part number | | stroke mm | major dimensions | | | | table-top mounting-hole dimensions | | | | | table-end mounting-hole dimensions | | | | | |
|----------------|-----------------|--------------|--------------------|---------------------|---------|---------|---------------------------------------|----------------|---------|---------|-----------|---------------------------------------|----------------------|----------------------|----------------------|----------------|----------------------|
| standard | anticorrosion | | A mm | B mm | L mm | b mm | P ₁ mm | S ₁ | ℓ mm | N mm | M×P mm | h ₁ mm | h ₂ mm | t ₁ mm | t ₂ mm | S ₂ | P ₂ mm |
| SVT6110 | SVTS6110 | 60 | | | 110 | | | | | — | | | | | | | |
| 6160 | 6160 | 95 | | | 160 | | | | | 1×50 | | | | | | | |
| 6210 | 6210 | 130 | | | 210 | | | | | 2×50 | | | | | | | |
| 6260 | 6260 | 165 | | | 260 | | | | | 3×50 | | | | | | | |
| 6310 | 6310 | 200 | 45 ^{±0.1} | 100 ^{±0.1} | 310 | 31 | 50 | M6 | 12 | 55 | 4×50 | 60 | 92 | 8 | 15 | M4 | 60 |
| 6360 | 6360 | 235 | | | 360 | | | | | | 5×50 | | | | | | |
| 6410 | 6410 | 265 | | | 410 | | | | | | 6×50 | | | | | | |
| 6460 | 6460 | 300 | | | 460 | | | | | | 7×50 | | | | | | |
| 6510 | 6510 | 335 | | | 510 | | | | | | 8×50 | | | | | | |
| SVT9210 | — | 130 | | | 210 | | | | | — | | | | | | | |
| 9310 | — | 180 | | | 310 | | | | | 1×100 | | | | | | | |
| 9410 | — | 350 | | | 410 | | | | | 2×100 | | | | | | | |
| 9510 | — | 450 | | | 510 | | | | | 3×100 | | | | | | | |
| 9610 | — | 550 | 60 ^{±0.1} | 145 ^{±0.2} | 610 | 43 | 85 | M8 | 16 | 105 | 4×100 | 90 | 135 | 11 | 20 | M4 | 90 |
| 9710 | — | 650 | | | 710 | | | | | | 5×100 | | | | | | |
| 9810 | — | 750 | | | 810 | | | | | | 6×100 | | | | | | |
| 9910 | — | 850 | | | 910 | | | | | | 7×100 | | | | | | |
| 91010 | — | 950 | | | 1,010 | | | | | | 8×100 | | | | | | |



| bed-surface mounting-hole dimensions | | | | | | | | | | accuracy※ | | basic load rating | | allowable static moment | | | mass | | size | |
|--------------------------------------|-------------|-------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|--------------------|--------------------|-------------------|-------------------|-------------------------|--------------|--------------|----------|-----------|-------------|--------------|
| $d \times D \times h$ mm | c_1 mm | c_2 mm | ℓ_1 mm | ℓ_2 mm | ℓ_3 mm | ℓ_4 mm | ℓ_5 mm | ℓ_6 mm | ℓ_7 mm | T μm | S μm | dynamic C N | static Co N | M_p N·m | M_y N·m | M_R N·m | SVT g | SVTS g | | |
| 7×11.5×7 | 13 | 23 | 10 | 90 | — | — | — | — | — | 3 | 6 | 8,750 | 10,900 | 160 | 144 | 244 | 3,280 | 1,705 | 6110 | |
| | | | | 140 | — | — | — | — | — | 3 | 6 | 12,800 | 18,100 | 366 | 338 | 407 | 4,820 | 2,480 | 6160 | |
| | | | | 190 | 90 | — | — | — | — | — | 3 | 7 | 16,500 | 25,300 | 653 | 615 | 570 | 6,270 | 3,255 | 6210 |
| | | | | 240 | 140 | — | — | — | — | — | 3 | 7 | 20,000 | 32,600 | 1,020 | 974 | 733 | 7,740 | 4,030 | 6260 |
| | | | | 290 | 190 | — | — | — | — | — | 3 | 7 | 23,200 | 39,800 | 1,470 | 1,420 | 896 | 9,200 | 4,805 | 6310 |
| | | | | 340 | 240 | 140 | — | — | — | — | 4 | 8 | 26,300 | 47,100 | 1,730 | 1,800 | 1,060 | 10,740 | 5,580 | 6360 |
| | | | | 390 | 290 | 190 | — | — | — | — | 4 | 8 | 29,300 | 54,300 | 2,310 | 2,380 | 1,220 | 12,190 | 6,355 | 6410 |
| | | | | 440 | 340 | 240 | — | — | — | — | 4 | 8 | 32,200 | 61,500 | 2,960 | 3,050 | 1,380 | 13,800 | 7,130 | 6460 |
| 490 | 390 | 290 | 190 | — | — | — | 4 | 8 | 35,000 | 68,800 | 3,700 | 3,800 | 1,550 | 15,300 | 7,905 | 6510 | | | | |
| 9×14×9 | 16 | 29 | 55 | 100 | — | — | — | — | — | 3 | 7 | 21,400 | 29,000 | 840 | 760 | 1,050 | 12,520 | — | 9210 | |
| | | | | 200 | — | — | — | — | — | 3 | 7 | 32,500 | 50,800 | 1,650 | 1,780 | 1,830 | 17,950 | — | 9310 | |
| | | | | 300 | 100 | — | — | — | — | — | 4 | 8 | 32,500 | 50,800 | 2,160 | 2,030 | 1,830 | 23,950 | — | 9410 |
| | | | | 400 | 200 | — | — | — | — | — | 4 | 8 | 39,300 | 65,300 | 3,380 | 3,220 | 2,400 | 30,090 | — | 9510 |
| | | | | 500 | 300 | 100 | — | — | — | — | 4 | 9 | 45,700 | 79,900 | 4,090 | 4,290 | 2,900 | 35,990 | — | 9610 |
| | | | | 600 | 400 | 200 | — | — | — | — | 4 | 9 | 51,800 | 94,400 | 5,720 | 5,950 | 3,400 | 41,890 | — | 9710 |
| | | | | 700 | 500 | 300 | 100 | — | — | — | 5 | 10 | 54,700 | 102,000 | 7,620 | 7,370 | 3,700 | 47,790 | — | 9810 |
| | | | | 800 | 600 | 400 | 200 | — | — | — | 5 | 10 | 60,500 | 116,000 | 10,000 | 9,500 | 4,200 | 53,690 | — | 9910 |
| | | | | 900 | 700 | 500 | 300 | 100 | — | — | 5 | 10 | 66,100 | 131,000 | 12,000 | 12,000 | 4,700 | 59,590 | — | 91010 |

※ Refer to Figure H-13 (page H-21) for accuracy T and S.

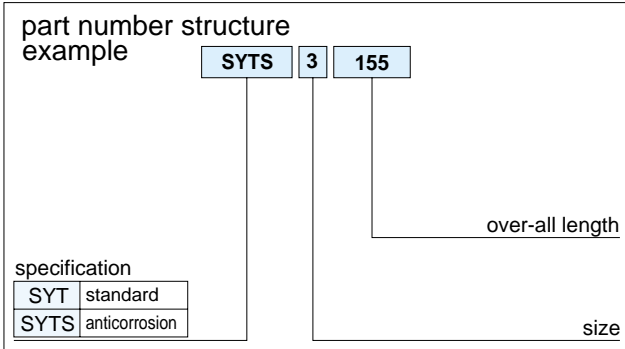
1N≒0.102kgf 1N·m≒0.102kgf·m



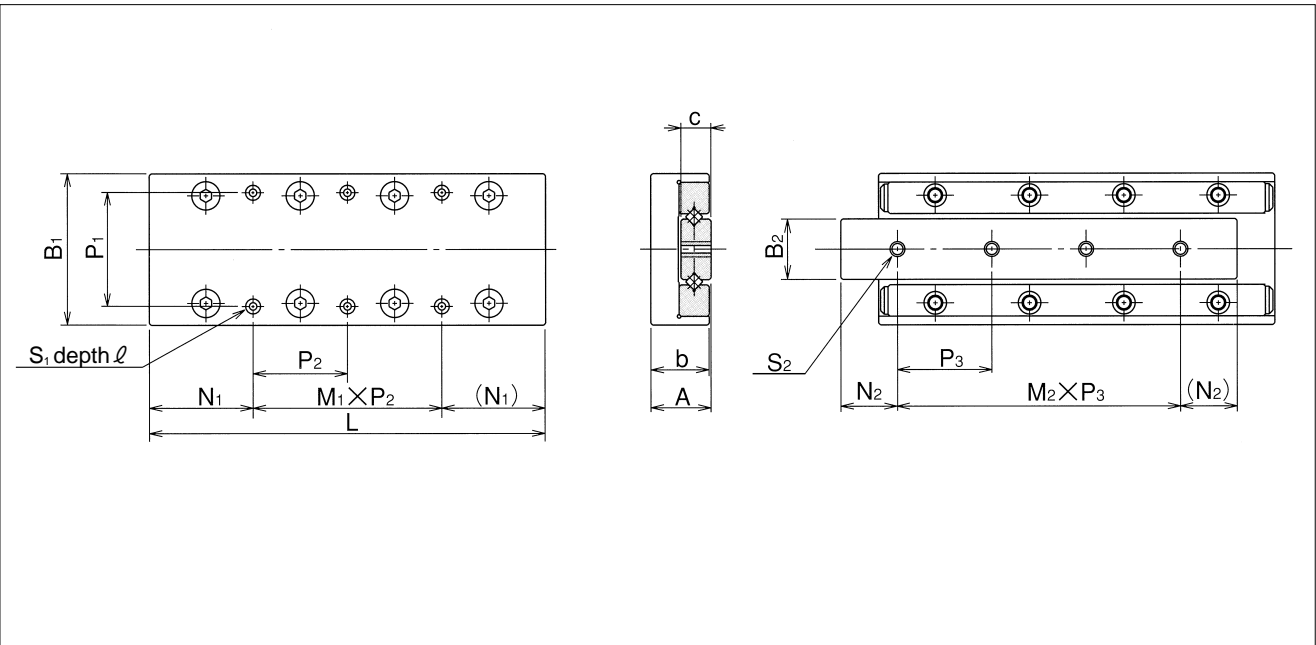
SLIDE GUIDE
BALL SPLINE
ROTARY BALL SPLINE
TOPBALL® PRODUCTS
SLIDE BUSH
SLIDE UNIT
STROKE BUSH
SLIDE ROTARY BUSH
SLIDE SHAFT
SLIDE WAY
SLIDE TABLE
GONIO WAY
ACTUATOR
SLIDE SCREW

SYT TYPE

– SYT1/SYT2 –



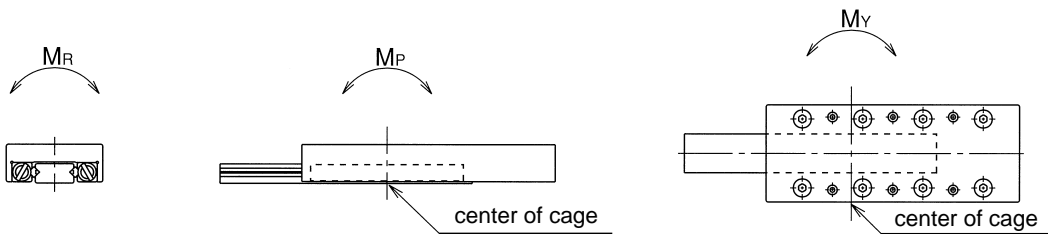
| part number | | stroke mm | major dimensions | | | | | | table-top mounting-hole dimensions | | |
|----------------|-----------------|--------------|--------------------|----------------------|---------|---------|----------------------|---------|---------------------------------------|----------------|---------|
| standard | anticorrosion | | A mm | B ₁ mm | L mm | b mm | B ₂ mm | c mm | P ₁ mm | S ₁ | ℓ mm |
| SYT1025 | SYTS1025 | 12 | | | 25 | | | | | | |
| 1035 | 1035 | 18 | | | 35 | | | | | | |
| 1045 | 1045 | 25 | | | 45 | | | | | | |
| 1055 | 1055 | 32 | 8 ^{±0.1} | 20 ^{±0.1} | 55 | 7.5 | 6.6 | 4 | 14 | M2.6 | 3.5 |
| 1065 | 1065 | 40 | | | 65 | | | | | | |
| 1075 | 1075 | 45 | | | 75 | | | | | | |
| 1085 | 1085 | 50 | | | 85 | | | | | | |
| SYT2035 | SYTS2035 | 18 | | | 35 | | | | | | |
| 2050 | 2050 | 30 | | | 50 | | | | | | |
| 2065 | 2065 | 40 | | | 65 | | | | | | |
| 2080 | 2080 | 50 | 12 ^{±0.1} | 30 ^{±0.1} | 80 | 11.5 | 12 | 6 | 22 | M3 | 5.5 |
| 2095 | 2095 | 60 | | | 95 | | | | | | |
| 2110 | 2110 | 70 | | | 110 | | | | | | |
| 2125 | 2125 | 80 | | | 125 | | | | | | |



| | | center rail mounting-hole dimensions | | | accuracy※ | | basic load rating | | allowable static moment | | | mass g | size |
|----------------------|---------------------------------------|--------------------------------------|----------------------|---------------------------------------|-----------|---------|-------------------|---------|-------------------------|-----------------------|-----------------------|-----------|-------------|
| N ₁ mm | M ₁ × P ₂ mm | S ₂ | N ₂ mm | M ₂ × P ₃ mm | T μm | S μm | dynamic | static | M _P N·m | M _Y N·m | M _R N·m | | |
| | | | | | | | C N | Co N | | | | | |
| 3.5 | 1 × 18 | M2.6 | 5 | 2 × 7.5 | 2 | 4 | 340 | 312 | 1.1 | 1.0 | 1.1 | 22 | 1025 |
| 3.5 | 1 × 28 | | 7.5 | 2 × 10 | 2 | 4 | 572 | 624 | 2.0 | 2.3 | 2.3 | 33 | 1035 |
| 12.5 | 1 × 20 | | 7.5 | 3 × 10 | 2 | 5 | 676 | 780 | 4.6 | 4.3 | 2.9 | 42 | 1045 |
| 12.5 | 1 × 30 | | 7.5 | 4 × 10 | 2 | 5 | 776 | 936 | 6.3 | 5.9 | 3.5 | 52 | 1055 |
| 12.5 | 2 × 20 | | 7.5 | 5 × 10 | 2 | 5 | 871 | 1,090 | 8.3 | 7.8 | 4.1 | 63 | 1065 |
| 22.5 | 1 × 30 | | 7.5 | 6 × 10 | 2 | 5 | 1,050 | 1,400 | 13.0 | 12.4 | 5.3 | 72 | 1075 |
| 12.5 | 2 × 30 | | 7.5 | 7 × 10 | 2 | 5 | 1,140 | 1,560 | 15.7 | 15.0 | 5.9 | 83 | 1085 |
| 3.5 | 1 × 28 | M3 | 7.5 | 1 × 20 | 2 | 4 | 594 | 588 | 3.5 | 2.9 | 3.8 | 79 | 2035 |
| 3.5 | 1 × 43 | | 10 | 2 × 15 | 2 | 4 | 805 | 882 | 6.1 | 5.5 | 5.7 | 113 | 2050 |
| 17.5 | 1 × 30 | | 10 | 3 × 15 | 2 | 5 | 999 | 1,180 | 9.7 | 8.8 | 7.6 | 150 | 2065 |
| 17.5 | 1 × 45 | | 10 | 4 × 15 | 2 | 5 | 1,350 | 1,760 | 14.0 | 15.3 | 11.5 | 185 | 2080 |
| 17.5 | 2 × 30 | | 10 | 5 × 15 | 2 | 5 | 1,520 | 2,060 | 19.1 | 20.6 | 13.4 | 215 | 2095 |
| 32.5 | 1 × 45 | | 10 | 6 × 15 | 2 | 5 | 1,680 | 2,350 | 31.7 | 30.0 | 15.3 | 255 | 2110 |
| 17.5 | 2 × 45 | | 10 | 7 × 15 | 2 | 5 | 1,840 | 2,650 | 39.1 | 37.2 | 17.2 | 295 | 2125 |

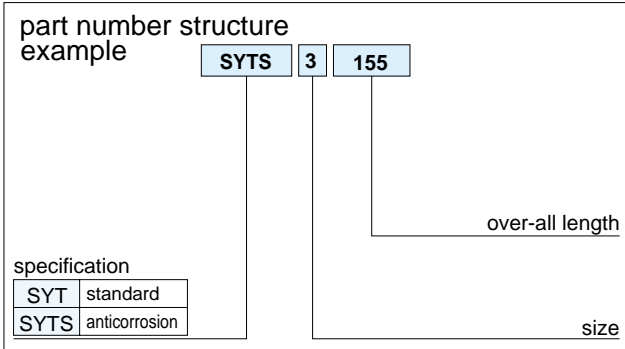
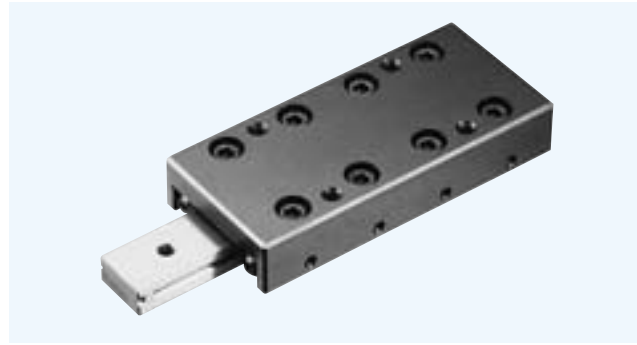
※ Refer to Figure H-13 (page H-21) for accuracy T and S.

1N ≒ 0.102kgf 1N·m ≒ 0.102kgf·m

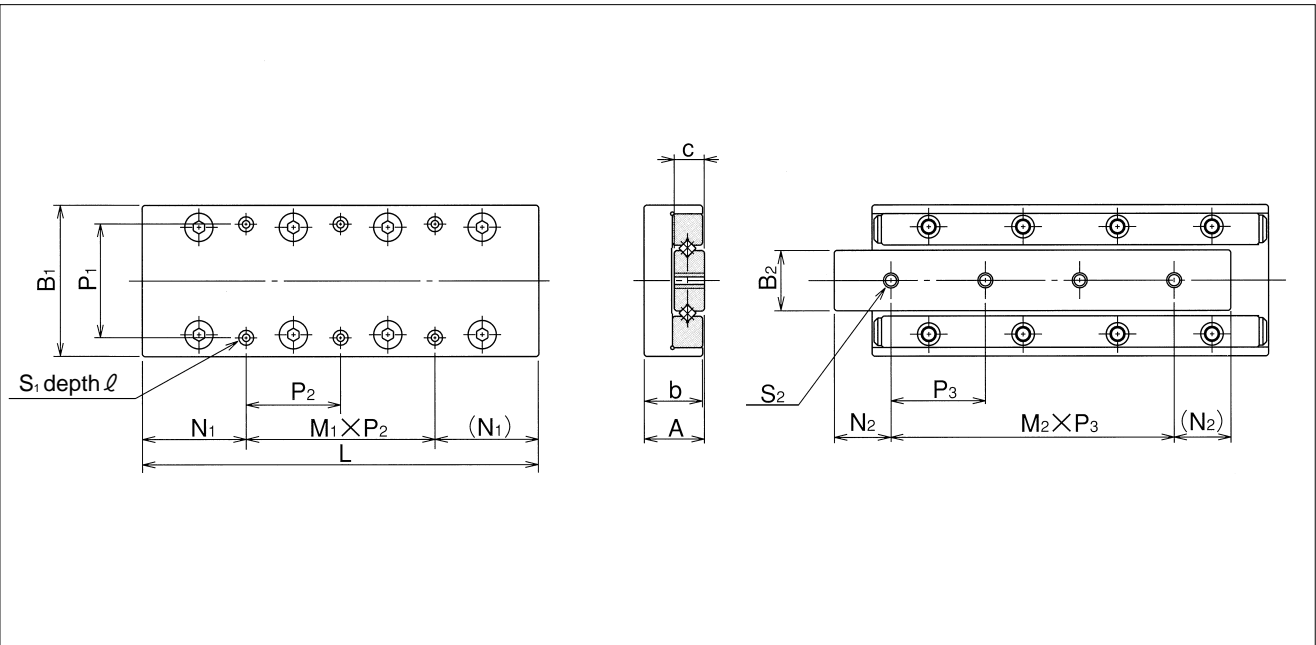


SYT TYPE

– SYT3 –



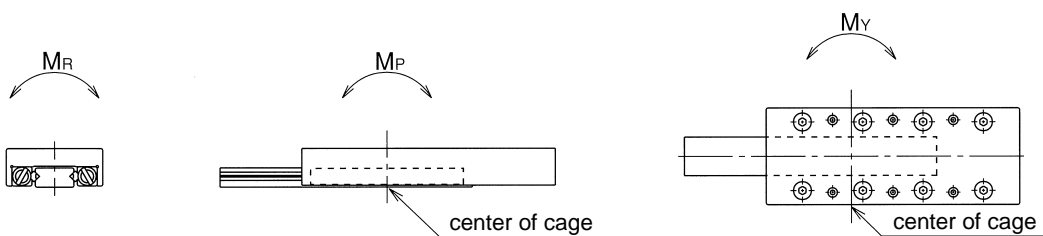
| part number | | stroke mm | major dimensions | | | | | | table-top mounting-hole dimensions | | |
|----------------|-----------------|--------------|--------------------|----------------------|---------|---------|----------------------|---------|---------------------------------------|----------------|---------|
| standard | anticorrosion | | A mm | B ₁ mm | L mm | b mm | B ₂ mm | c mm | P ₁ mm | S ₁ | ℓ mm |
| SYT3055 | SYTS3055 | 30 | | | 55 | | | | | | |
| 3080 | 3080 | 45 | | | 80 | | | | | | |
| 3105 | 3105 | 60 | | | 105 | | | | | | |
| 3130 | 3130 | 75 | 16 ^{±0.1} | 40 ^{±0.1} | 130 | 15.5 | 16 | 8 | 30 | M4 | 7.5 |
| 3155 | 3155 | 90 | | | 155 | | | | | | |
| 3180 | 3180 | 105 | | | 180 | | | | | | |
| 3205 | 3205 | 130 | | | 205 | | | | | | |



| | | center rail mounting-hole dimensions | | | accuracy※ | | basic load rating | | allowable static moment | | | mass g | size |
|-------------|------------------------|--------------------------------------|-------------|------------------------|--------------------|--------------------|-------------------|-------------------|-------------------------|--------------|--------------|-----------|-------------|
| N_1 mm | $M_1 \times P_2$ mm | S_2 | N_2 mm | $M_2 \times P_3$ mm | T μm | S μm | dynamic C N | static Co N | M_P N·m | M_Y N·m | M_R N·m | | |
| 7.5 | 1×40 | M4 | 10 | 1×35 | 2 | 5 | 1,800 | 2,120 | 10.6 | 12.4 | 18.4 | 225 | 3055 |
| 7.5 | 1×65 | | 15 | 2×25 | 2 | 5 | 2,640 | 3,530 | 29.2 | 32.4 | 30.7 | 340 | 3080 |
| 27.5 | 1×50 | | 15 | 3×25 | 3 | 5 | 3,030 | 4,240 | 57.4 | 53.5 | 36.9 | 440 | 3105 |
| 27.5 | 1×75 | | 15 | 4×25 | 3 | 5 | 3,760 | 5,650 | 95.1 | 90.0 | 49.1 | 560 | 3130 |
| 27.5 | 2×50 | | 15 | 5×25 | 3 | 5 | 4,440 | 7,060 | 117 | 124 | 61.4 | 655 | 3155 |
| 52.5 | 1×75 | | 15 | 6×25 | 3 | 5 | 5,100 | 8,470 | 169 | 177 | 73.7 | 770 | 3180 |
| 27.5 | 2×75 | | 15 | 7×25 | 3 | 5 | 5,410 | 9,180 | 199 | 207 | 79.8 | 880 | 3205 |

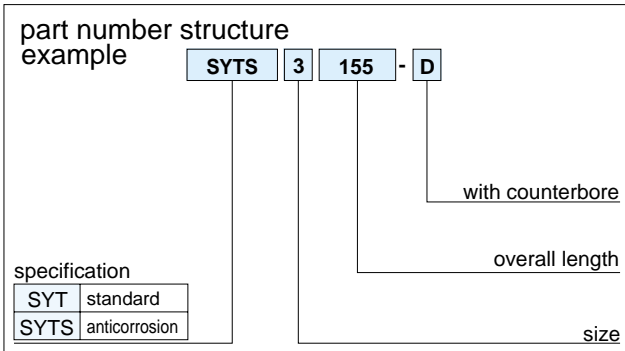
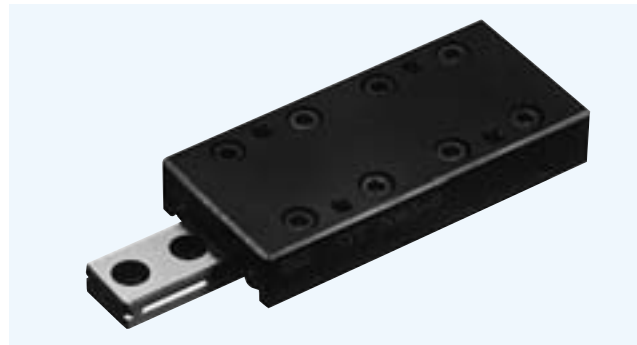
※ Refer to Figure H-13 (page H-21) for accuracy T and S.

1N≒0.102kgf 1N·m≒0.102kgf·m

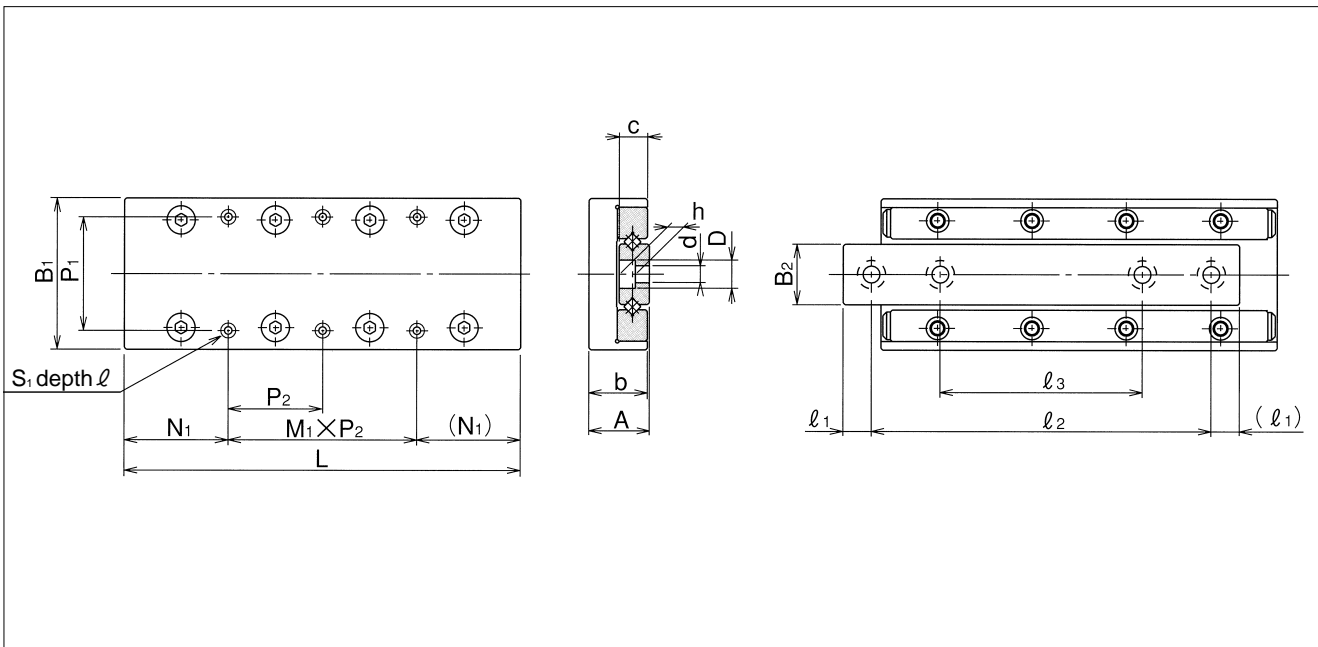


SYT-D TYPE

– SYT1/SYT2 –



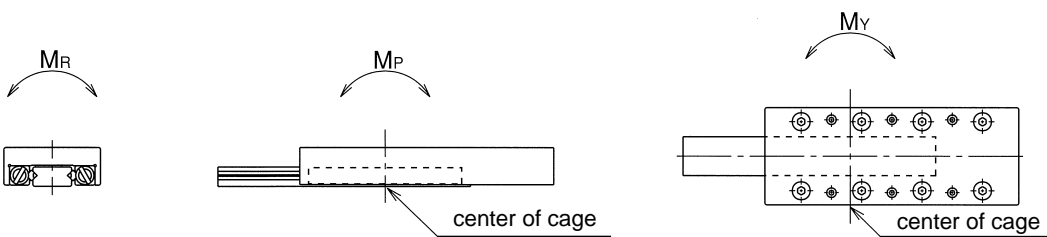
| part number | | stroke mm | major dimensions | | | | | | table-top mounting-hole dimensions | | | |
|------------------|-------------------|--------------|--------------------|----------------------|---------|---------|----------------------|---------|---------------------------------------|----------------|---------|----------------------|
| standard | anticorrosion | | A mm | B ₁ mm | L mm | b mm | B ₂ mm | c mm | P ₁ mm | S ₁ | ℓ mm | N ₁ mm |
| SYT1025-D | SYTS1025-D | 12 | | | 25 | | | | | | | 3.5 |
| 1035-D | 1035-D | 18 | | | 35 | | | | | | | 3.5 |
| 1045-D | 1045-D | 25 | | | 45 | | | | | | | 12.5 |
| 1055-D | 1055-D | 32 | 8 ^{±0.1} | 20 ^{±0.1} | 55 | 7.5 | 6.6 | 4 | 14 | M2.6 | 3.5 | 12.5 |
| 1065-D | 1065-D | 40 | | | 65 | | | | | | | 12.5 |
| 1075-D | 1075-D | 45 | | | 75 | | | | | | | 22.5 |
| 1085-D | 1085-D | 50 | | | 85 | | | | | | | 12.5 |
| SYT2035-D | SYTS2035-D | 18 | | | 35 | | | | | | | 3.5 |
| 2050-D | 2050-D | 30 | | | 50 | | | | | | | 3.5 |
| 2065-D | 2065-D | 40 | | | 65 | | | | | | | 17.5 |
| 2080-D | 2080-D | 50 | 12 ^{±0.1} | 30 ^{±0.1} | 80 | 11.5 | 12.0 | 6 | 22 | M3 | 5.5 | 17.5 |
| 2095-D | 2095-D | 60 | | | 95 | | | | | | | 17.5 |
| 2110-D | 2110-D | 70 | | | 110 | | | | | | | 32.5 |
| 2125-D | 2125-D | 80 | | | 125 | | | | | | | 17.5 |



| $M_1 \times P_2$ mm | center rail mounting-hole dimensions | | | | | accuracy※ | | basic load rating | | allowable static moment | | | mass g | size |
|------------------------|--------------------------------------|-------------|-------------|-------------|--------------------|--------------------|---------|-------------------|------------------------------------|------------------------------------|------------------------------------|-----|-------------|-------------|
| | $d \times D \times h$ mm | l_1 mm | l_2 mm | l_3 mm | T μm | S μm | dynamic | static | M_P $\text{N} \cdot \text{m}$ | M_Y $\text{N} \cdot \text{m}$ | M_R $\text{N} \cdot \text{m}$ | | | |
| | | | | | | | C N | C_o N | | | | | | |
| 1×18 | 2.5×4.1×2.2 | 3.5 | 18 | — | 2 | 4 | 340 | 312 | 1.1 | 1.0 | 1.1 | 22 | 1025 | |
| 1×28 | | 5 | 25 | — | 2 | 4 | 572 | 624 | 2.0 | 2.3 | 2.3 | 33 | 1035 | |
| 1×20 | | 3.5 | 38 | 25 | 2 | 5 | 676 | 780 | 4.6 | 4.3 | 2.9 | 42 | 1045 | |
| 1×30 | | 3.5 | 48 | 29 | 2 | 5 | 776 | 936 | 6.3 | 5.9 | 3.5 | 52 | 1055 | |
| 2×20 | | 5 | 55 | 31 | 2 | 5 | 871 | 1,090 | 8.3 | 7.8 | 4.1 | 63 | 1065 | |
| 1×30 | | 5 | 65 | 35 | 2 | 5 | 1,050 | 1,400 | 13.0 | 12.4 | 5.3 | 72 | 1075 | |
| 2×30 | | 5 | 75 | 40 | 2 | 5 | 1,140 | 1,560 | 15.7 | 15.0 | 5.9 | 83 | 1085 | |
| 1×28 | | 3.5×6×3.3 | 5 | 25 | — | 2 | 4 | 594 | 588 | 3.5 | 2.9 | 3.8 | 79 | 2035 |
| 1×43 | 7.5 | | 35 | — | 2 | 4 | 805 | 882 | 6.1 | 5.5 | 5.7 | 113 | 2050 | |
| 1×30 | 5 | | 55 | 33 | 2 | 5 | 999 | 1,180 | 9.7 | 8.8 | 7.6 | 150 | 2065 | |
| 1×45 | 5 | | 70 | 40 | 2 | 5 | 1,350 | 1,760 | 14.0 | 15.3 | 11.5 | 185 | 2080 | |
| 2×30 | 5 | | 85 | 45 | 2 | 5 | 1,520 | 2,060 | 19.1 | 20.6 | 13.4 | 215 | 2095 | |
| 1×45 | 7.5 | | 95 | 50 | 2 | 5 | 1,680 | 2,350 | 31.7 | 30.0 | 15.3 | 255 | 2110 | |
| 2×45 | 7.5 | | 110 | 55 | 2 | 5 | 1,840 | 2,650 | 39.1 | 37.2 | 17.2 | 295 | 2125 | |

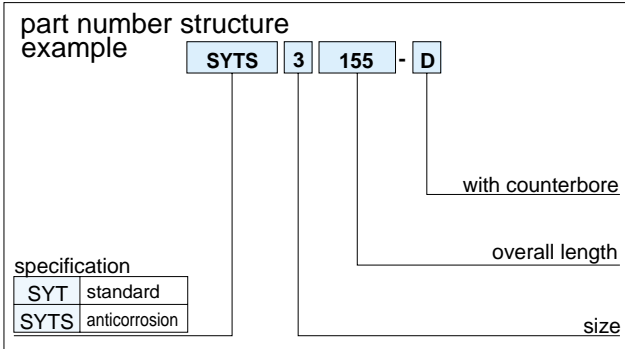
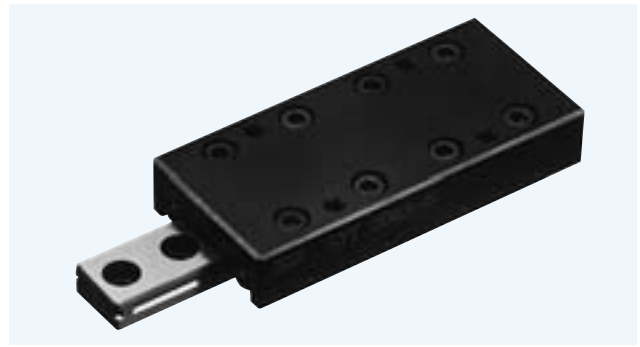
※ Refer to Figure H-13 (page H-21) for accuracy T and S.

1N≒0.102kgf 1N·m≒0.102kgf·m

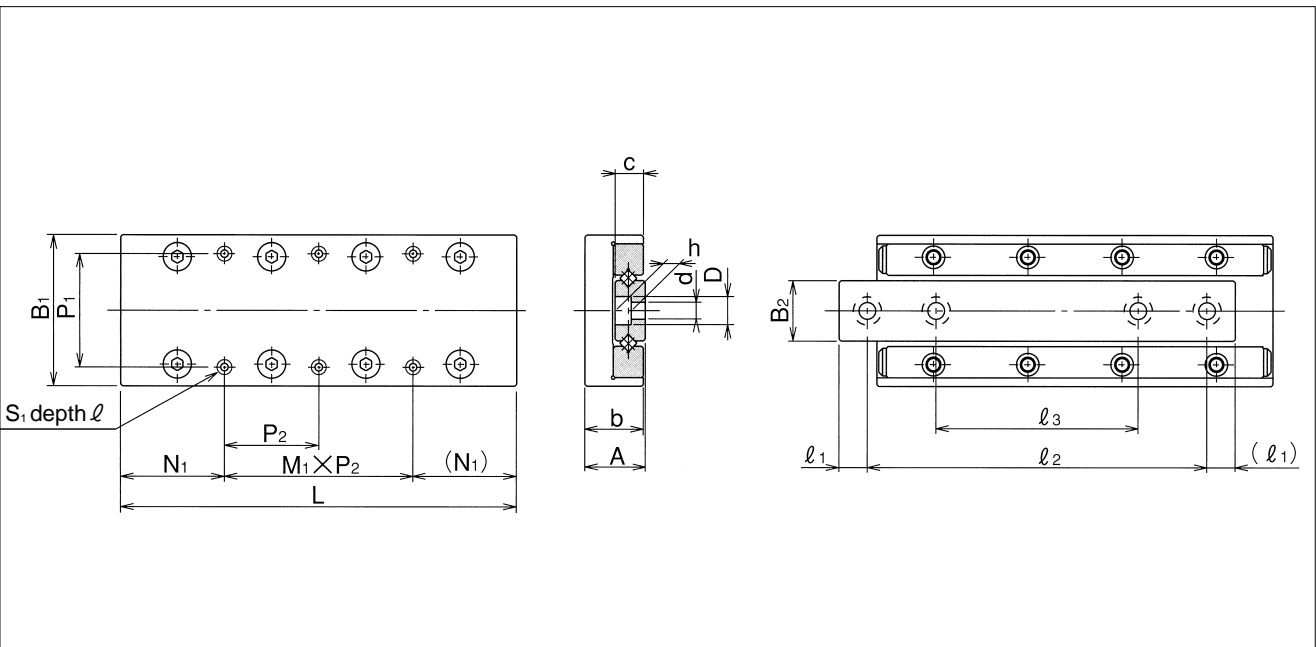


SYT-D TYPE

– SYT3 –



| part number | | stroke mm | major dimensions | | | | | | table-top mounting-hole dimensions | | | |
|------------------|-------------------|--------------|--------------------|----------------------|---------|---------|----------------------|---------|---------------------------------------|----------------|---------|----------------------|
| standard | anticorrosion | | A mm | B ₁ mm | L mm | b mm | B ₂ mm | c mm | P ₁ mm | S ₁ | ℓ mm | N ₁ mm |
| SYT3055-D | SYTS3055-D | 30 | | | 55 | | | | | | | 7.5 |
| 3080-D | 3080-D | 45 | | | 80 | | | | | | | 7.5 |
| 3105-D | 3105-D | 60 | | | 105 | | | | | | | 27.5 |
| 3130-D | 3130-D | 75 | 16 ^{±0.1} | 40 ^{±0.1} | 130 | 15.5 | 16 | 8 | 30 | M4 | 7.5 | 27.5 |
| 3155-D | 3155-D | 90 | | | 155 | | | | | | | 27.5 |
| 3180-D | 3180-D | 105 | | | 180 | | | | | | | 52.5 |
| 3205-D | 3205-D | 130 | | | 205 | | | | | | | 27.5 |



| $M_1 \times P_2$ mm | center rail mounting-hole dimensions | | | | accuracy※ | | basic load rating | | allowable static moment | | | mass g | size |
|------------------------|--------------------------------------|-------------|-------------|-------------|--------------------|--------------------|-------------------|------------|----------------------------------|----------------------------------|----------------------------------|-----------|-------------|
| | $d \times D \times h$ mm | l_1 mm | l_2 mm | l_3 mm | T μm | S μm | dynamic | static | M_P $\text{N}\cdot\text{m}$ | M_Y $\text{N}\cdot\text{m}$ | M_R $\text{N}\cdot\text{m}$ | | |
| | | | | | | | C N | C_o N | | | | | |
| 1×40 | 4.5×7.5×4.3 | 7.5 | 40 | — | 2 | 5 | 1,800 | 2,120 | 10.6 | 12.4 | 18.4 | 225 | 3055 |
| 1×65 | | 6 | 68 | 43 | 2 | 5 | 2,640 | 3,530 | 29.2 | 32.4 | 30.7 | 340 | 3080 |
| 1×50 | | 7.5 | 90 | 55 | 3 | 5 | 3,030 | 4,240 | 57.4 | 53.5 | 36.9 | 440 | 3105 |
| 1×75 | | 7.5 | 115 | 65 | 3 | 5 | 3,760 | 5,650 | 95.1 | 90.0 | 49.1 | 560 | 3130 |
| 2×50 | | 7.5 | 140 | 95 | 3 | 5 | 4,440 | 7,060 | 117 | 124 | 61.4 | 655 | 3155 |
| 1×75 | | 7.5 | 165 | 85 | 3 | 5 | 5,100 | 8,470 | 169 | 177 | 73.7 | 770 | 3180 |
| 2×75 | | 7.5 | 190 | 95 | 3 | 5 | 5,410 | 9,180 | 199 | 207 | 79.8 | 880 | 3205 |

※ Refer to Figure H-13 (page H-21) for accuracy T and S.

1N \approx 0.102kgf 1N·m \approx 0.102kgf·m

