

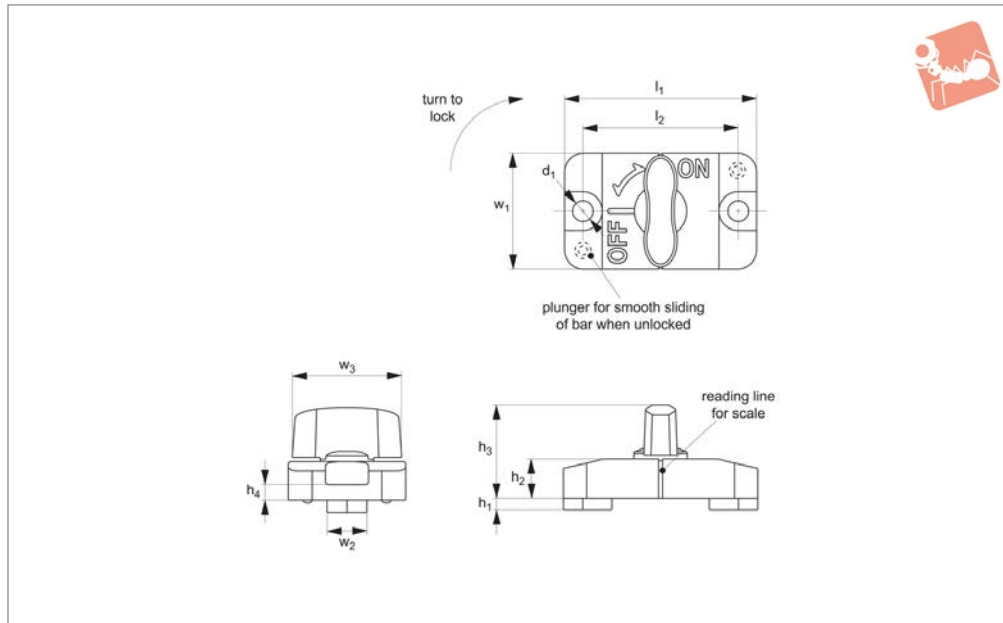


Sliding Clamps - for Slotted Hole

quarter turn lock - t-handle grip - zinc



One Touch Fasteners



33970

ONE TOUCH FASTENERS

Material

Body: die-cast zinc, chrome plated.
 Grip: polyamide plastic (black or orange), or stainless steel SUS304.
 Clamping shaft/wedge: stainless steel.
 Ball plunger: polyacetal.

Technical Notes

Sliding clamps are ideal for the quick positioning, locking, releasing and re-positioning of sliding bars in many applications. When additionally used with a scale plate (see part no. 33975, 33976 and 33977), the reading line on the sliding clamp enables quick, easy and accurate alignment.

The sliding clamp is mounted, for greater stability, in a fixed position in an assembly. With the clamp set to its off position the

sliding bar (not supplied) can be moved left or right, with two spring loaded ball plungers provide for free movement of bar. Once in its desired position the sliding bar can be locked in place, through a 90 degree turn of the sliding clamp's handle which engages the clamp's clamping shaft/wedge.

Please see technical diagram below for recommended machining details for your sliding bar (not supplied). Riser plates can be used to provide clearance between sliding bar and mounting surface to improve free running of sliding bar, see part no. 33971.

Temperature resistance up to 90°C.
 Max. static load up to 500N - please refer to performance graph below.

Important Notes

Sliding clamps are suited only to straight linear movement of sliding bar (not supplied), and do not tolerate any other applied loads.

Displacement of sliding bar, through repetitive use, will increase if excessive shock or vibration is present. Do not use sliding clamp in vertical applications where vibration is present. Displacement will also increase with adhesion or immersion of oil or other foreign substances. Ensure sliding bar is not bent nor warped as this may cause the sliding bar to slip even when sliding clamp is in its on position.

| Order No. | For slot width | Handle | Slot depth min. | d ₁ | h ₁ | h ₂ | h ₃ | h ₄ | Weight g |
|-------------|----------------|-----------------|-----------------|----------------|----------------|----------------|----------------|----------------|----------|
| 33970.W0103 | 10 | Plastic, Orange | 3 | 5.5 | 3 | 10 | 24 | 4.5 | 80 |
| 33970.W0106 | 10 | Plastic, Orange | 6 | 5.5 | 6 | 10 | 24 | 4.5 | 80 |
| 33970.W1103 | 10 | Plastic, Black | 3 | 5.5 | 3 | 10 | 24 | 4.5 | 80 |
| 33970.W1106 | 10 | Plastic, Black | 6 | 5.5 | 6 | 10 | 24 | 4.5 | 80 |
| 33970.W2103 | 10 | Stainless | 3 | 5.5 | 3 | 10 | 24 | 4.5 | 95 |
| 33970.W2106 | 10 | Stainless | 6 | 5.5 | 6 | 10 | 24 | 4.5 | 95 |

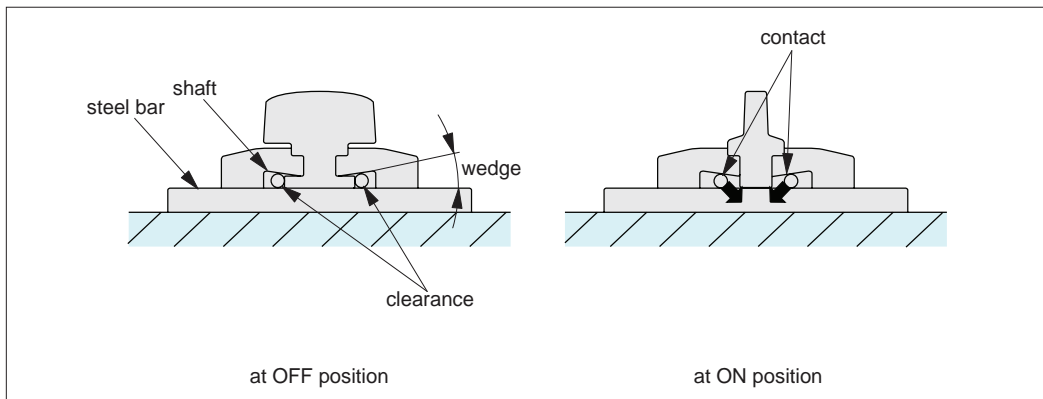
| Order No. | l ₁ | l ₂ | w ₁ | w ₂ 0 -0.05 | w ₃ | Static load N max. |
|-------------|----------------|----------------|----------------|------------------------|----------------|--------------------|
| 33970.W0103 | 50 | 40 | 30 | 10 | 28 | 500 |
| 33970.W0106 | 50 | 40 | 30 | 10 | 28 | 500 |
| 33970.W1103 | 50 | 40 | 30 | 10 | 28 | 500 |
| 33970.W1106 | 50 | 40 | 30 | 10 | 28 | 500 |



| Order No. | l_1 | l_2 | w_1 | w_2 0 -0.05 | w_3 | Static load N max. |
|-------------|-------|-------|-------|------------------|-------|--------------------------|
| 33970.W2103 | 50 | 40 | 30 | 10 | 28 | 500 |
| 33970.W2106 | 50 | 40 | 30 | 10 | 28 | 500 |



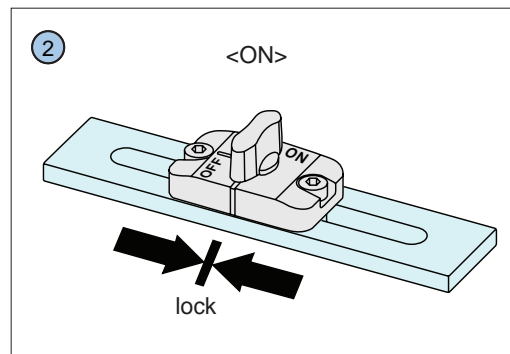
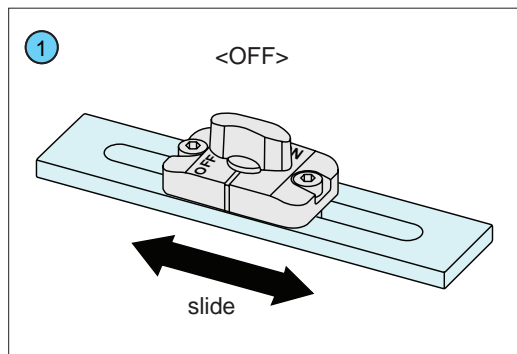
Operating Principle



You can slide the steel bar when the knob is at the "OFF" position since there is clearance between the steel bar and the shafts.

The steel bar is locked when the knob is at the "ON" position since the shafts are pushed by the wedge.

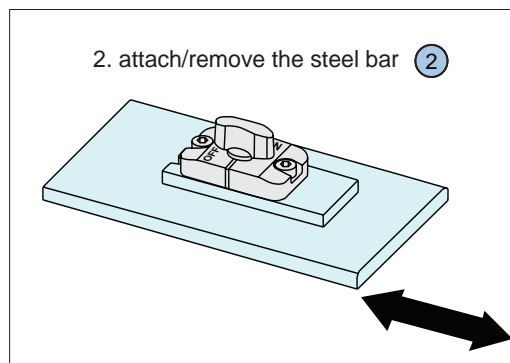
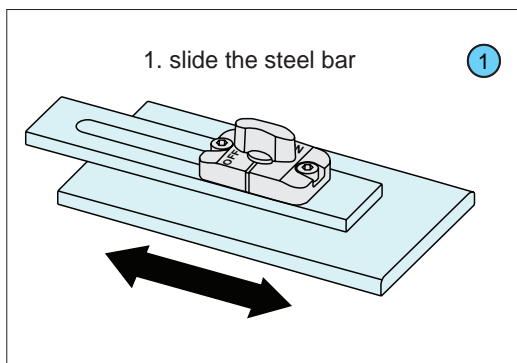
Operating Instructions



1 The steel bar can slide to the right and left at the "OFF" position.

2 The steel bar is locked at the "ON" position.

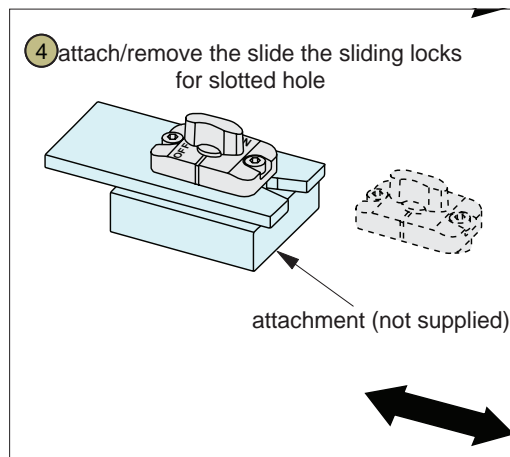
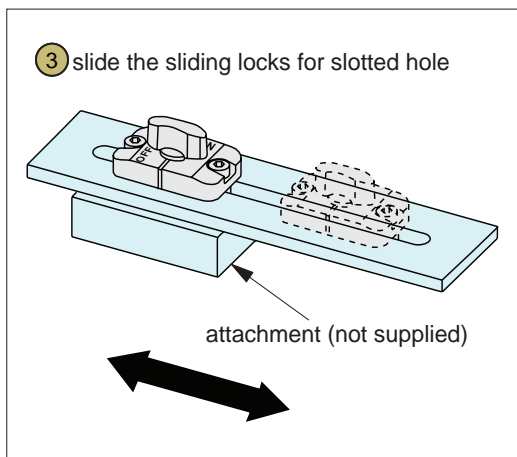
Note: The knob clicks at the "ON" and "OFF" positions, and this gives the operator confirmation it has locked/unlocked securely.



How to Use

Please refer to notes for safe use (last page of guide).

- 1 Slide the steel bar.
- 2 Attach/remove the steel bar.
- 3 Slide the sliding locks for slotted hole.
- 4 Attach/remove the sliding locks for slotted hole.



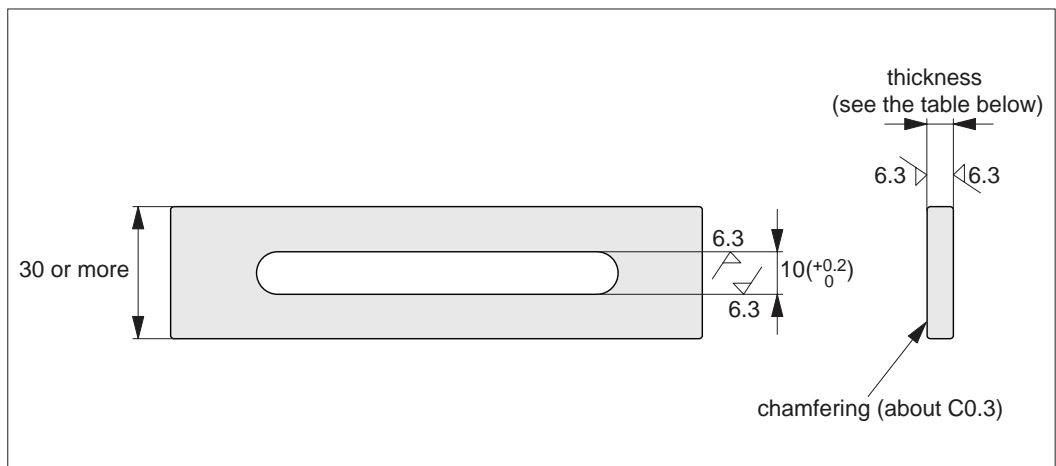


How to Use Steel Bar Materials

Usable Materials: Flat bar (JIS h14 grade) made of SS400, S45C or SUS304 etc.

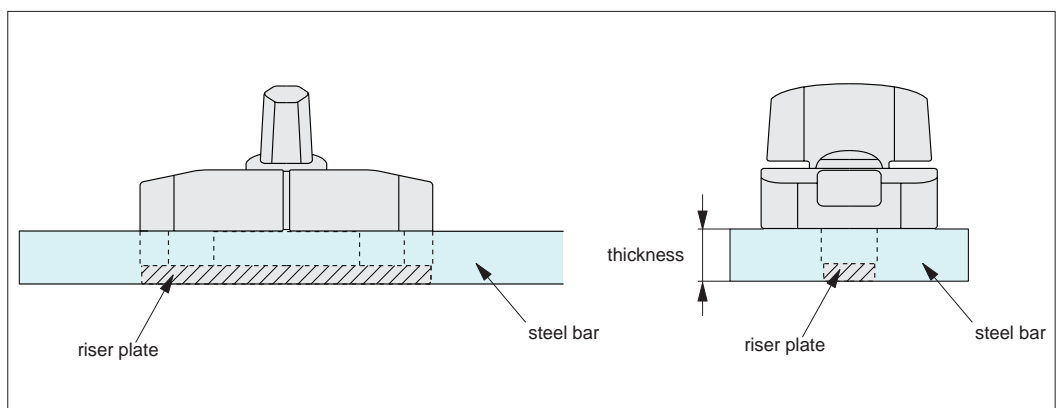
Machining of slotted hole: Recommended tolerance of the slotted hole to prevent chattering is shown left.

For more accurate sliding, machine the slotted hole to fit the dimension of 10mm (-0.05 to 0) on the bottom of sliding locks. Remove the burr around the slotted hole to ensure locking.



How to Use Riser Plate

Can be used for various steel thicknesses by attaching the riser plates (ordered separately, see 33971).

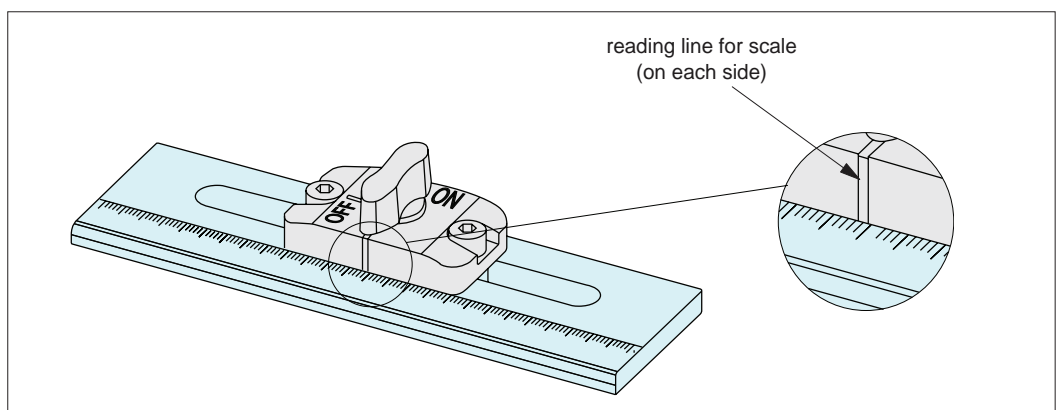


How to Use Scale Plate

You can read the scale with the line on the body of the sliding lock.

Scale plate is separately available.

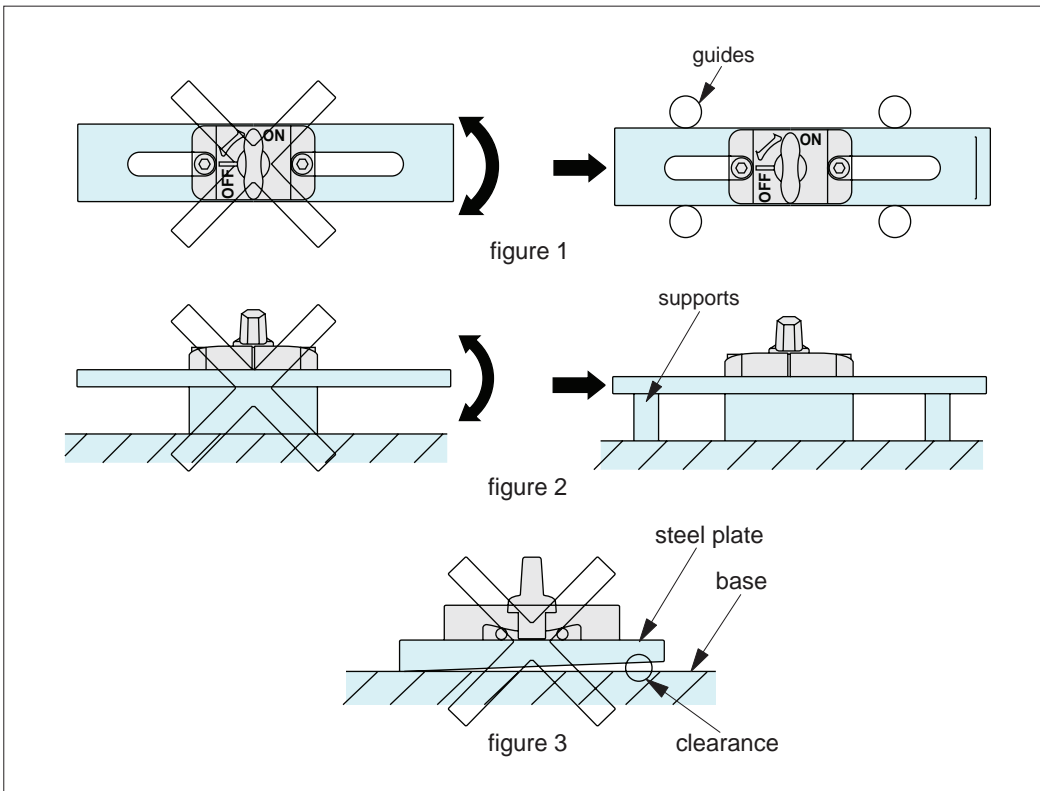
See ranges 33975, 33976 and 33977.



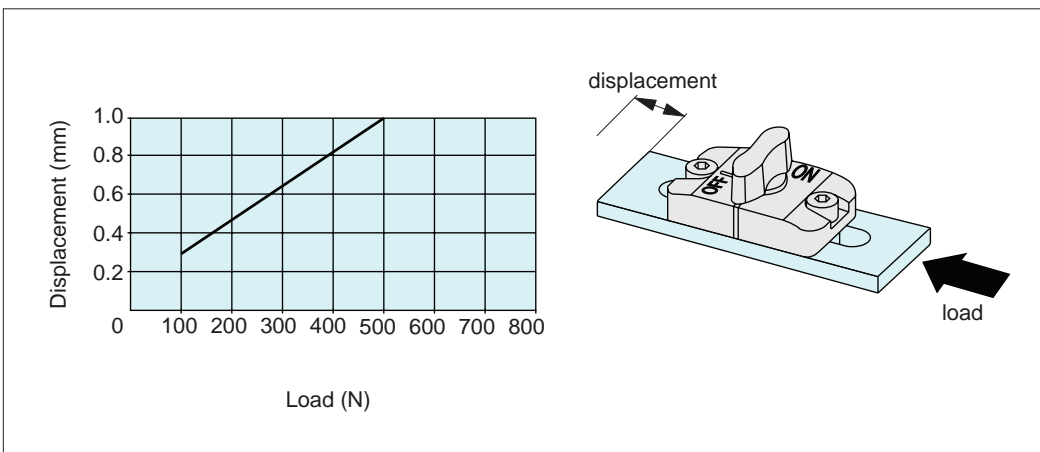


Notes

- Ensure that the knob is at the "OFF" position when mounting. Mounting of sliding locks at the "ON" position may cause damage.
- The displacement will increase with excess shock or vibration. Do not use this product vertically in environments where excess vibration is present.
- The displacement can increase with adhesion or contamination by oil or foreign substances.
- If the steel plate slips or chatters by the load applied to the steel plate, prepare guides or supports as needed. (See figure 1 and 2 below)
- Excess displacement or misalignment may be caused if there is a clearance between the steel bar and the base when the sliding locks at the "ON" position. (See figure 3 below) Ensure that the steel plate and the base are not bent or warped.



Performance Curve



The Displacement of Steel Bar by Axial Load (static load from single direction)

Note: The data is for a flat bar made of SUS304 stainless steel, SS400 steel and S45C steel. Using an aluminium flat bar the surface will be scratched or dent by applied load.