

## Feature

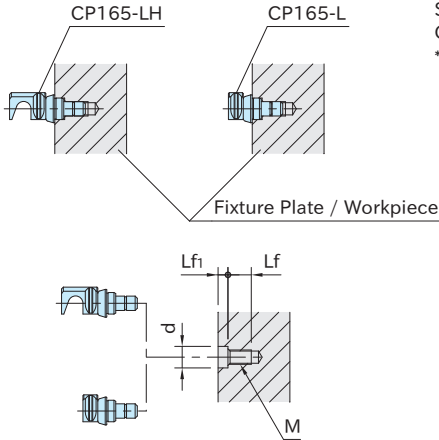
- Each clamping screw has commercially available O-ring to prevent rotation and keep the direction of arrow marking.
- O-ring should be replaced by the customer when it is worn.

## How To Use

### Tapered Clamping Screws

Can be used for locating fixture plate or workpiece.

#### ■ Mounting-Hole Dimension



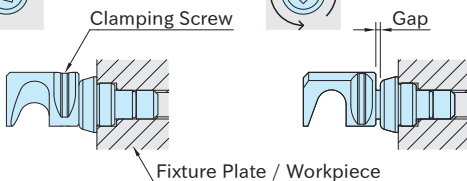
Size	d *)	Lf	Lf <sub>1</sub>	M
<b>CP165-08001</b>	12	13	5.5	M 8×1.25
<b>CP165-12001</b>	18	19	6.5	M12×1.75
<b>CP165-16001</b>	22	23	8	M16×2

\*) The hole tolerance should be  $\begin{smallmatrix} 0.010 \\ -0.025 \end{smallmatrix}$  when Tapered Clamping Screws are always mounted on the fixture plate. Fixture plate and tapered bushing fit tightly and keep the repeatability without chip incursion.

• The hole tolerance should be H7 when mounting on workpiece. Tapered bushing can be easily mounted / removed.

#### ■ Installation

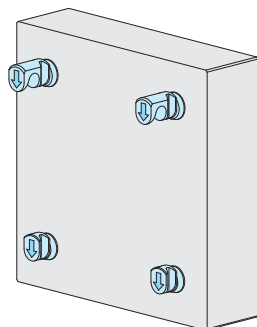
1. Fully tighten the clamping screw on fixture plate or workpiece.



2. Turn the screw counterclockwise within one turn until the arrow marking points downward. (There is a gap between clamping screw and tapered bushing.)



3. Install the clamping screws into the clamping modules.



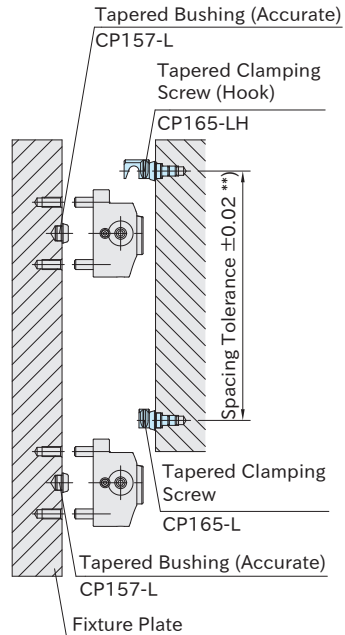
### Clamping Screws

Can be used for just clamping.

#### ■ Spacing Tolerance

Spacing tolerance should be  $\pm 0.02$  for Tapered Clamping Screws.

\*\*) Spacing tolerance should be  $\pm 0.2$  for Clamping Screws.



Note: Refer to the next page for the layout of the products.

## ■ Application Example

Tighten the hook type clamping screw firstly.  
The first one becomes the reference.

The products should be positioned as shown below.

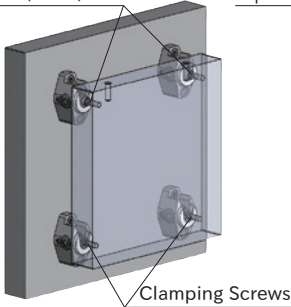
[CP165-LH](#) [CP165-L](#) Tapered Clamping Screws and [CP157-L](#) Tapered Bushings (Accurate) should be used together, and [CP166-H](#) [CP166](#) Clamping Screws and [CP157-S](#) Tapered Bushings (Standard) are also.

## Note

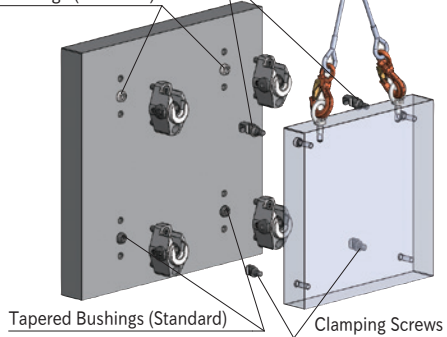
Do not remove the hoists until the unit fully clamped.

### Example 1

Tapered Clamping Screws (Hook)



Tapered Clamping Screws (Hook)  
Tapered Bushings (Accurate)

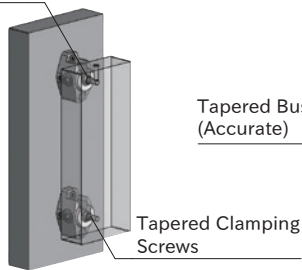


Tapered Bushings (Standard)

Clamping Screws

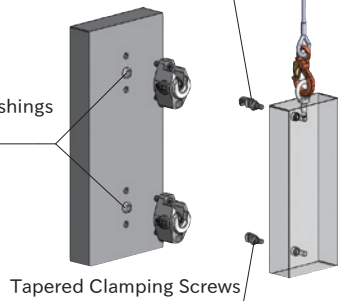
### Example 2

Tapered Clamping Screws (Hook)



Tapered Clamping Screws (Hook)

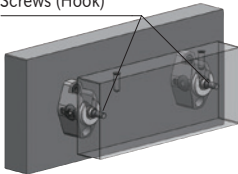
Tapered Bushings (Accurate)



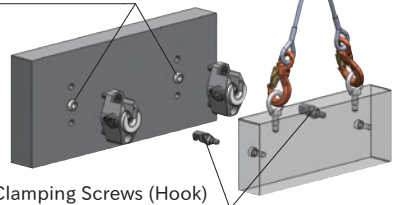
Tapered Clamping Screws

### Example 3

Tapered Clamping Screws (Hook)



Tapered Bushings (Accurate)



Tapered Clamping Screws (Hook)

Note: Use [CP166-H](#) [CP166](#) Clamping Screws when locating of workpiece is not necessary.

## Related Product

·[CP160](#) Clamping Modules (Hook)

·[CP165-LH](#) Tapered Clamping Screws (Hook)

·[CP165-L](#) Tapered Clamping Screws

·[CP166-H](#) Clamping Screws (Hook)

·[CP166](#) Clamping Screws