

## Feature

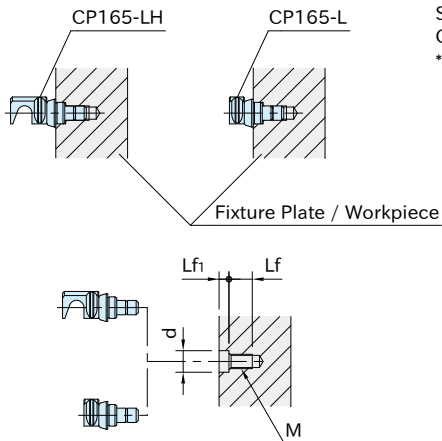
- Each clamping screw has commercially available O-ring to prevent rotation and keep the direction of arrow marking.
- O-ring should be replaced by the customer when it is worn.

## 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 pin fit tightly and keep the repeatability without chip incursion.

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

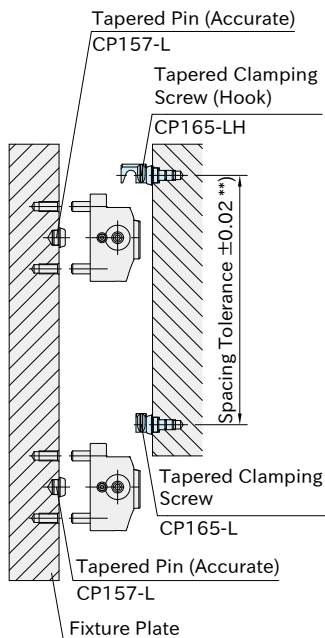
### Clamping Screws

Can be used for just clamping.

#### ■ Spacing Tolerance

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

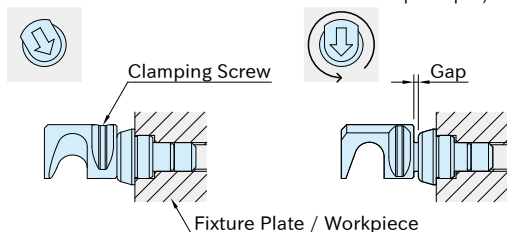
\*\*) Spacing tolerance should be  $\pm 0.2$  for Clamping Screws.



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

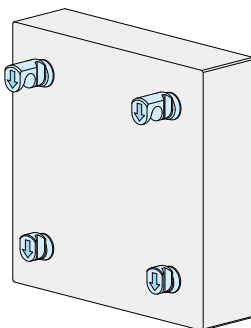
#### ■ Installation

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 pin.)

3. Install the clamping screws into the clamping modules.



## ■ Application Example

Tighten the tapered clamping screw first.  
It will act as the reference.

The products should be positioned as shown below.

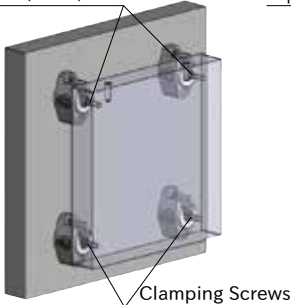
[CP165-LH](#) [CP165-L](#) Tapered Clamping Screws and [CP157-L](#) Tapered Pins (Accurate) should be used together, and [CP166-H](#) [CP166](#) Clamping Screws and [CP157-S](#) Tapered Pins (Standard) are also.

## Note

Do not remove the hoists until the unit fully clamped.

**Example 1** The tapered clamping screws can also be arranged diagonally.

Tapered Clamping  
Screws (Hook)

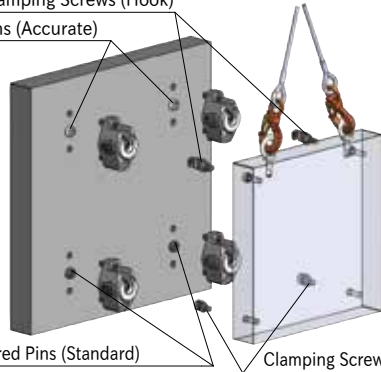


Tapered Clamping Screws (Hook)

Tapered Pins (Accurate)

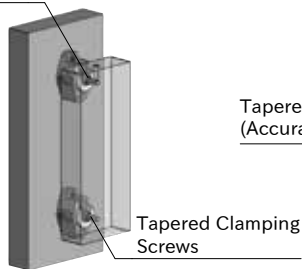
Tapered Pins (Standard)

Clamping Screws



**Example 2**

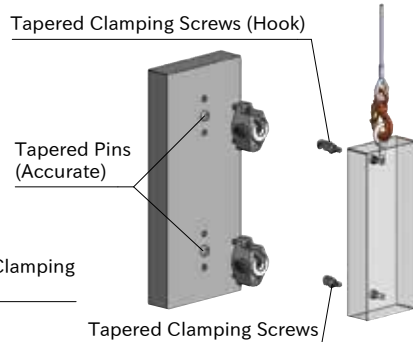
Tapered Clamping  
Screws (Hook)



Tapered Clamping Screws (Hook)

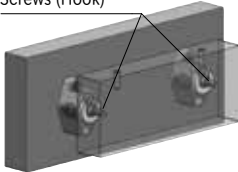
Tapered Pins  
(Accurate)

Tapered Clamping  
Screws



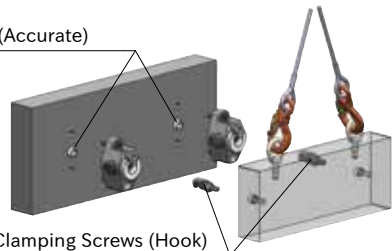
**Example 3**

Tapered Clamping  
Screws (Hook)



Tapered Pins (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