How To Use PRECISION FLEX LOCATORS

Feature

Screw
Fixture Plate

⬇ The flange surface of the Precision Locating Receiver and
⬆ the fixture plate comes into full contact.

Precision Locating Receiver

Gap

Taper

Dual Contact

Seating Surface

Taper

① Set
（Contact only at the tapered area）

② Clamp
（Precise Dual Contact）

· When the fixture plate is lowered, the tapered surfaces make contact.
· By tightening the screws, the seating surfaces of the fixture plate and the flange of the Precision Locating Receiver come into full contact.
· The dual contact between the tapered and seating surfaces ensures high locating repeatability.

■Function

Round Receiver – Used for reference positioning
Locating with Round Receiver for full-surface reference

The entire tapered surface is used as a reference.
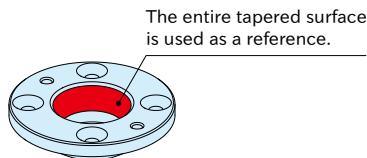
Diamond Receiver – Used for rotational positioning
Locating with Diamond Receiver for directional positioning

Recess

Two opposite tapered surfaces act as reference surfaces.
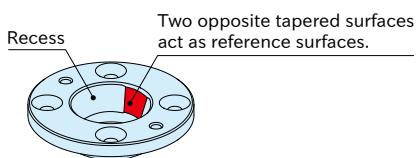
Spacer Type – Used where no locating is required
Supporting with Spacer Receiver
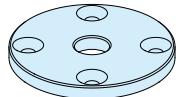
Accuracy

■Machining Accuracy

Spacing Tolerance ±0.02
Fixture Plate

Base Plate

Spacing Tolerance ±0.02
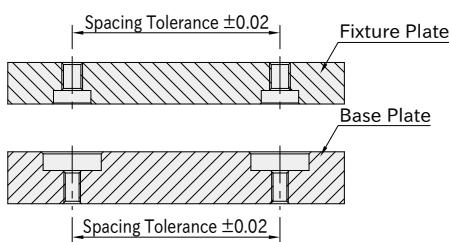
### ■Repeatability

Repeatability: 5 μm
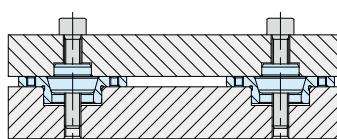
① Temporarily tighten the screws in the order of 1 → 2 → 3 → 4 using the minimum tightening torque.
② Perform final tightening in the same order (1 → 2 → 3 → 4). Make sure to apply torque evenly to all screws.

Size		Screw Size	Minimum Tightening Torque (N・m)
	20038	M 6	5
CP780-L	**28052**	M 8	15
CP780-D		M10	20
CP780-W	**36065**	M12	40
	50085	M16	70

Precision Locating Receiver (Round)

Precision Locating Receiver (Spacer)

Precision Locating Receiver (Diamond)

Precision Locating Receiver (Spacer)
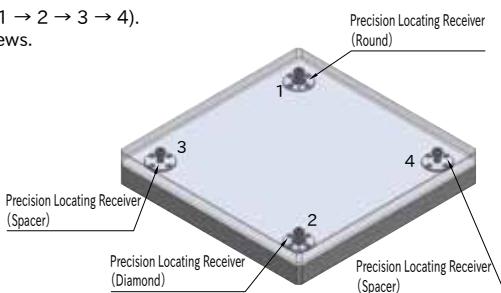
Application Example

Use of 2 Locators

Use of 4 Locators

Tapered Pin

Precision Locating Receiver (Round)

Precision Locating Receiver (Diamond)

Precision Locating Receiver (Round)

Tapered Pin

Precision Locating Receiver (Spacer)

Precision Locating Receiver (Diamond)

Precision Locating Receiver (Spacer)
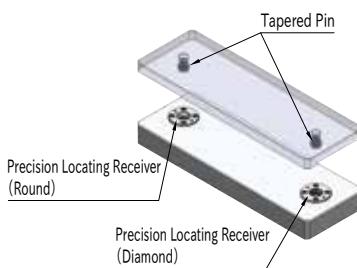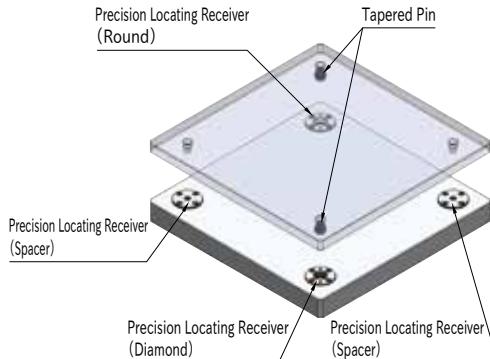
■Layout of Receivers

Mount the round receiver and diamond receiver as shown in the figure below.

The orientation of the diamond receivers changes between 2-point and 4-point locating to ensure proper rotational positioning.

Use of 2 Locators

Locating Reference
Rotational Reference 90˚
Round
Diamond
Mounting Direction

Use of 4 Locators

Locating Reference
Round
Spacer
Rotational Reference 90˚
Spacer
Diamond
Mounting Direction