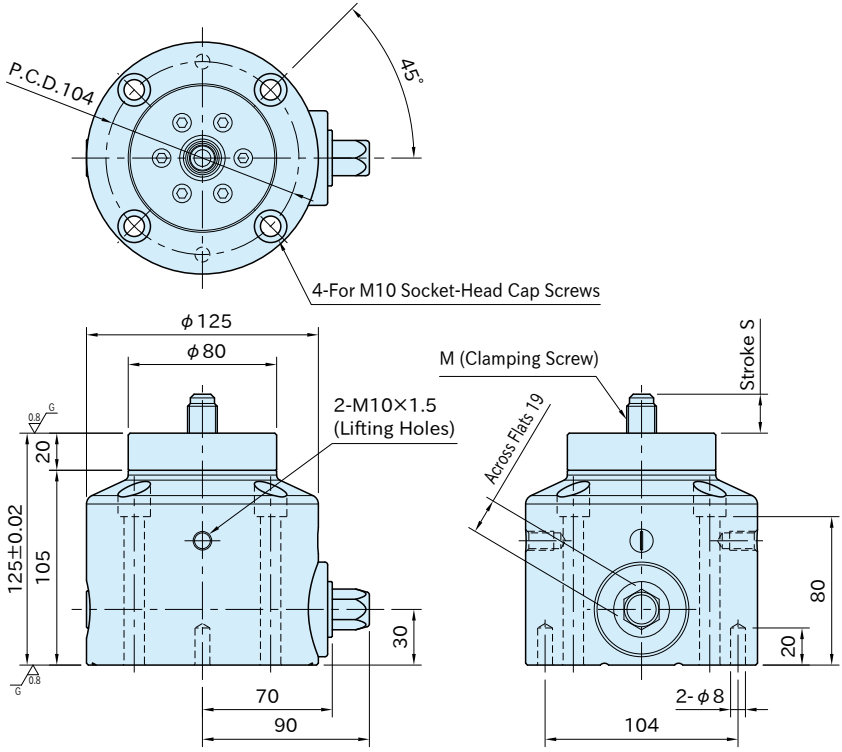
PTPD1 NUTRUNNER PULL CLAMPS

★Key Point
No need for mounting clamping screws.

Body	Hex. Head	Riser	Clamping Screw
S45C steel Black oxide finished	SCM440 steel Induction hardened Black oxide finished	S45C steel Quenched and tempered HRC 39-45 Black oxide finished	SCM415 steel Carburized-hardened Black oxide finished



Part Number	M	S	Clamping Force (kN) *)	Allowable Tightening Torque (N·m) *)	Weight (kg)
PTPD1-12	M12×1.75	18	10	27	7.6
PTPD1-16	M16×2	21	15	45	

Supplied With
- 1 of plastic cap
- 2 of parallel pin φ8(h7)×40L

*) To operate with an impact wrench, use less than 50% of the clamping force and allowable tightening torque.

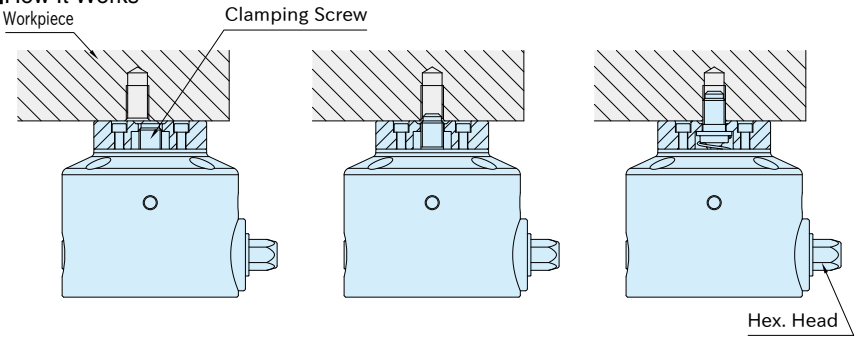
Feature

The clamping screw integrated with the body clamps the workpiece by pulling in the tapped hole on the workpiece.

Technical Information

The minimum rotations required for clamping/unclamping
・PTPD1-12 : 8 (Thread engagement length 14mm)
・PTPD1-16 : 8 (Thread engagement length 16mm)
Note: The number of rotations to be set on the nut runner should have a margin based on the minimum number of rotations above.

How It Works



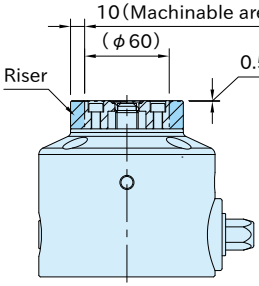
1. Load the workpiece onto the clamp. The internal spring is compressed and the clamping screw retracts into the body.

2. Locate the workpiece in position. The clamping screw tip fits into the tapped hole by spring pressure.

3. Turning the hex. head rotates and thrusts the clamping screw. The workpiece is pulled down and clamped.

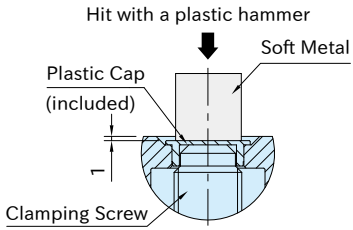
Riser Machining Dimension

・Machine the risers to align heights and prevent tool interference.
・For machining of the riser, attach the supplied plastic cap to prevent chips and dust from entering the body.



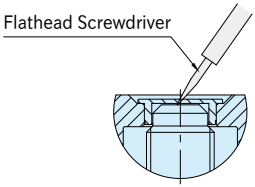
Note: Ensure that the plastic cap is fully inserted before machining the riser.

Attachment of Plastic Cap



・Put a plastic cap over the tip of the clamping screw, press it toward the riser, and hit it with a plastic hammer.
・Be sure to place a soft metal against the plastic cap and hammer it.

Removal of Plastic Cap



・Make a hole in the center of the plastic cap with a flathead screwdriver or other tool and insert the tip of the screwdriver in the hole to remove the cap.
・Alternatively, put the tip of the flathead screwdriver under the flange of the plastic cap and remove the cap.

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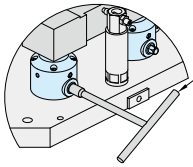
How To Use

■Application Example

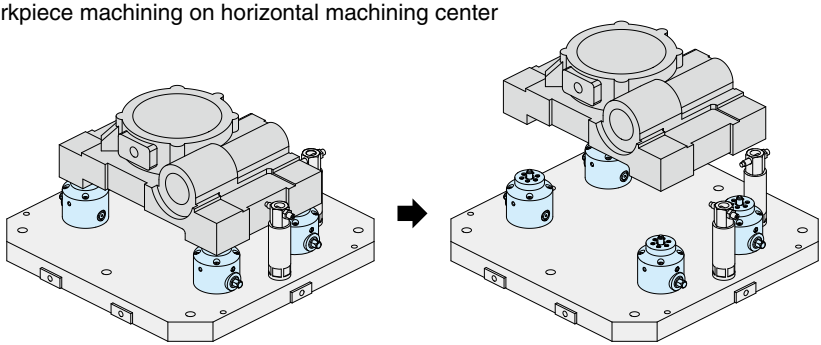
・Ideal for use with a nut runner for automated production line.
・This clamp can be also operated manually.
・Clamping/unclamping can be done simply by mounting a workpiece and turning the hex. head.



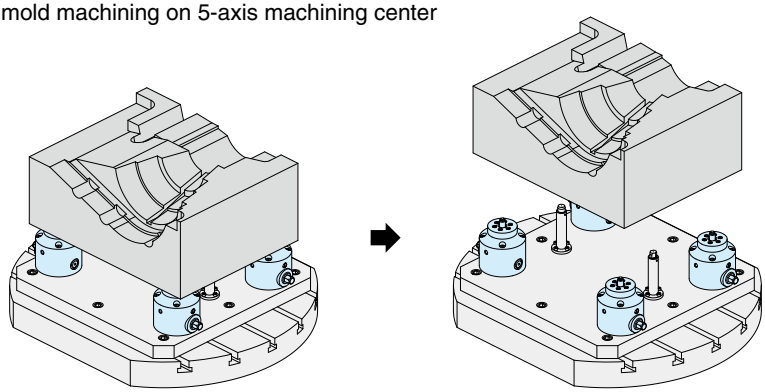
T-Handle Socket Wrench

This clamp can also be clamped/unclamped manually using a T-handle socket wrench.
For manual unclamping, turn the wrench until the clamp clicks, and the clamping screw releases a workpiece.

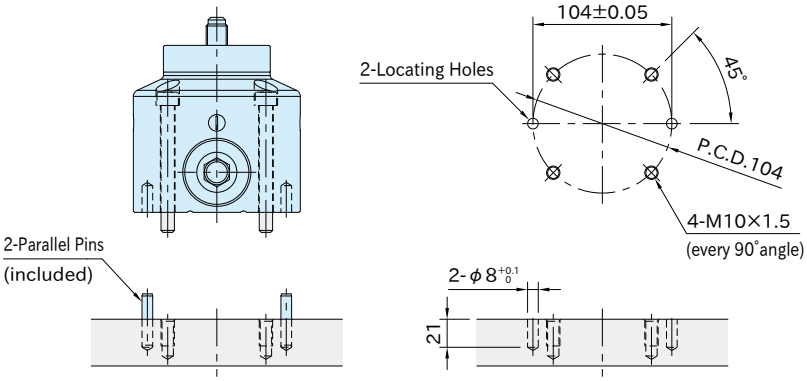
Workpiece machining on horizontal machining center



Die & mold machining on 5-axis machining center



■Mounting Hole Dimension



・For using multiple pull clamps, the spacing tolerance of the central axes should be ±0.05.
・The spacing tolerance for tapped holes on a workpiece should be ±0.2.

Note

・This clamp can be operated with an impact wrench. Use an impact wrench that can set the tightening torque.
・Clamping screws are available as maintenance parts.

Reference

PTRC1 EXTENSION UNITS