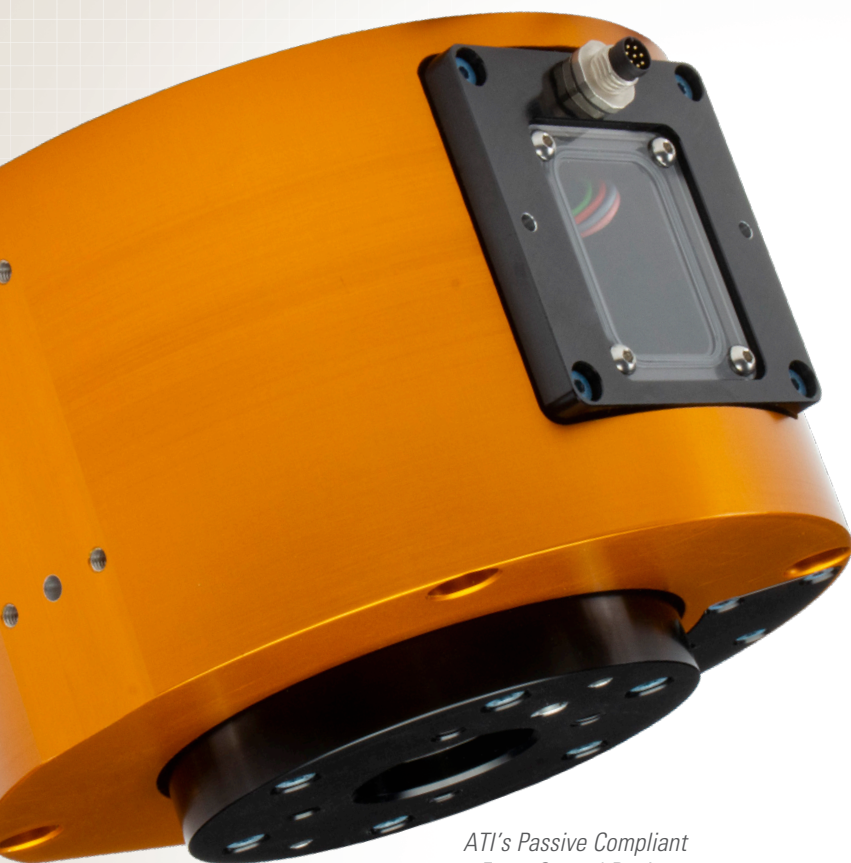


PCFC

Passive Compliant Force Control Device



ATI's Passive Compliant
Force Control Device

Product Description

ATI's Passive Compliant Force Control (PCFC) device is a standalone unit used to integrate passive axial compliance into a process. This device provides an open platform for users to incorporate highly customized passive compliant force control into automated material removal applications. The PCFC creates more responsiveness for automated processes that utilize rigid end-effectors such as bench grinding, die grinding, cutting, and gate removal.

The compliance force is modular giving users the ability to target specific force ranges for particular applications. The PCFC features up to three adjustable stages of compliance; by engaging or disengaging pistons, users can easily increase or decrease the compliance force range.

Product Features

Adjustable compliance force provides passive force control in both push and pull directions.

Reduced chatter allows easier path planning as cutting media approaches surface perpendicularly.

Compliance position sensing identifies if compliance is not engaged, engaged, or "bottomed out", allowing for easier programming.

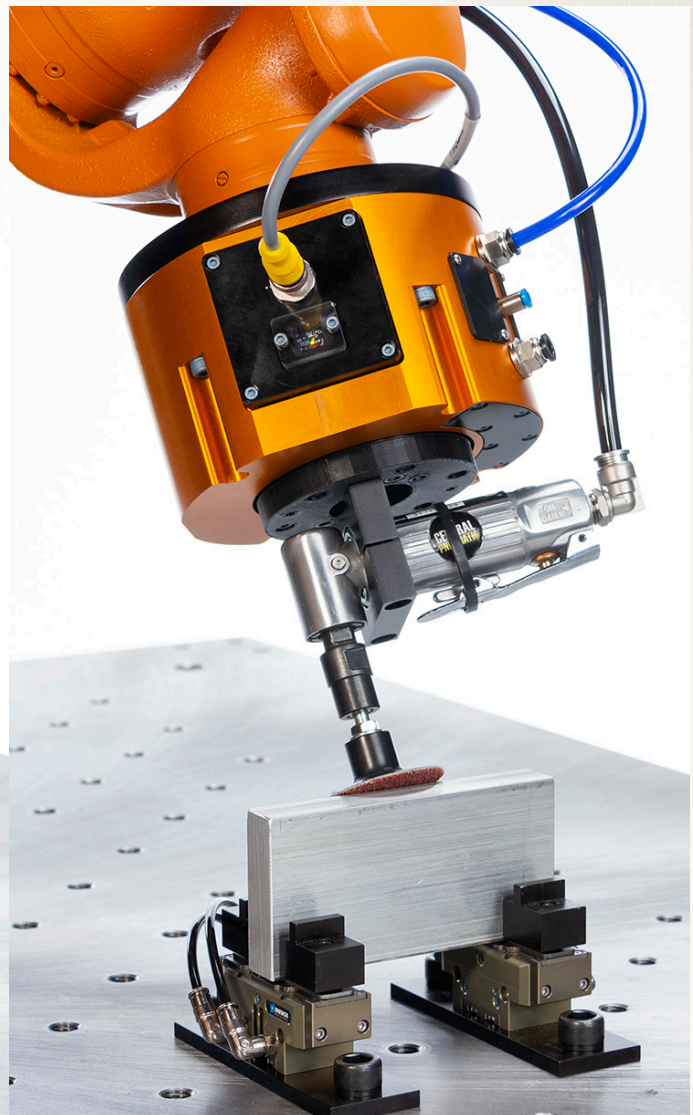
Through hole allows for a lower stack height and additional mounting options, as well as the integration of a small motor.

Gravity Compensation maintains a constant force, no matter what orientation of the tool or mass of the motor.

| Specifications | Values |
|-------------------|---|
| Weight | 7.8 lbs (3.5 kg) |
| Compliance Travel | 0.47 in (12 mm) |
| Moment XY | 130 in-lb (17.7 Nm) |
| Moment Z | 250 in-lb (28.2 Nm) |
| Compliance Force | Range A: 4 lbf - 19 lbf (17.8 N - 84.5 N) Range B: 10 lbf - 39 lbf (44.5 N-173.5 N) Range C: 11 lbf - 54 lbf (49 N - 240 N) |



The PCFC can be bench mounted for optimizing part-to-process operations.



The PCFC can also be mounted to a robot for process-to-part operations.