

Part Centering

Precitech Part Centering Accessory

 **precitech**



The Precitech Part Centering Accessory (PCA) utilizes a combination probe and reference surface to align the outer diameter of a vacuum mounted, round, continuous surface component relative to the rotational axis of the work holding spindle to an accuracy of 2 microns in 15 seconds or less.

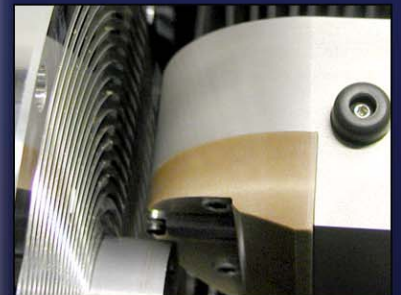
This PCA device mounts to the Z-axis tooling plate of a Precitech (N250, N250UG, N700 or FF705) with UPx control. The device consumes slightly more real estate than a standard Precitech tool holder however can be mounted in a location at the far end of the work envelope and requires very little X-axis travel to function. The combination probe/reference surface is protected from the environment with a cover that automatically opens when the device is enabled and is closed upon completion of the auto centering operation.

Hardware Components

- LVDT Touch Position Sensor
- Rigid Mounting Base
- Automatic Swarf Cover
- Same Space as One Tool Holder

Software Components

- Moves machine axes to null LVDT sensor on OD of part
- Rotates spindle and samples OD error motions
- Calculates eccentricity and angle of eccentricity
- Rotates spindle to high spot and uses PCA to bump part into alignment
- Resamples to determine improvement and pass/fail alignment



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