

# Fabworx Component Products

## Moly Blades

Thin Profile Molybdenum End Effectors

Molybdenum blades have the thinnest profile possible to provide increased clearance in cassettes.

Three replaceable perfluoroelastomer o-rings provide exceptional coefficient of friction to eliminate wafer sliding and associated particles.

- Available with or without pocket
- AMAT or Fabworx compatible wrist styles
- 150mm or 200mm

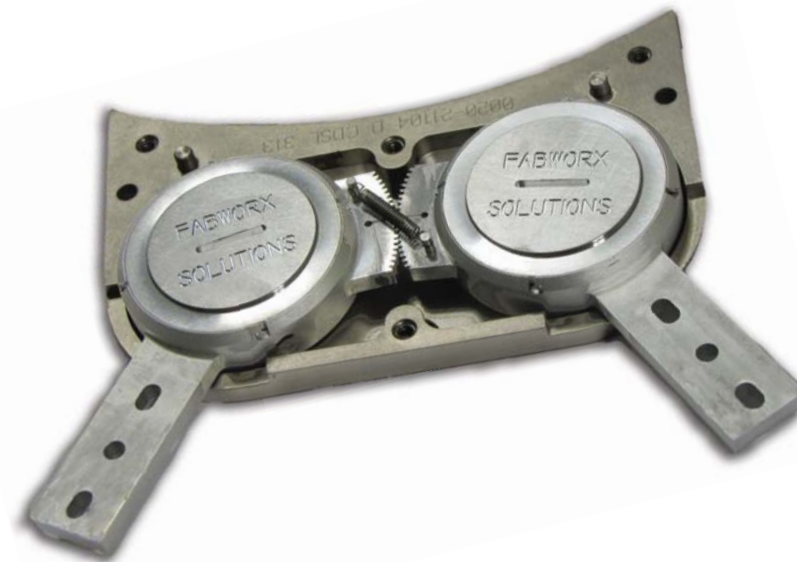


## Fab Pivot Assembly

For AMAT HP, HP+, HDP, VHP® and VHP+ Robots

The Fabworx Solutions™ pivot assembly includes pivots, bearings and all hardware necessary to install directly into OEM wrist plates.

- Fully compatible as a replacement part and intended to upgrade robot's performance
- Snap-on cover eliminates inconsistencies in setup and increases bearing life
- Enclosed bearings reduce particle escape and potential contamination of wafers
- 2-bearing pivot assembly decreases future replacement costs as compared to 4-bearing OEM design
- Durability of ceramic bearings and stainless steel races allow for 3+ years of use without replacement or repair
- Tightness of x-style bearing reduces wrist droop
- Includes a 2 year warranty



## Fabvhp Hub Bearings

For AMAT VHP® and VHP+ 200mm and 300mm Robots

Hybrid ceramic x-style hub bearings increase product life and reduce particle generation.

- Bearings consist of ceramic load-bearing balls with smaller stainless steel spacer balls for durability
- Races are made from hardened 440 stainless steel
- Shields help to retain lubricant within the bearing
- High-performance, long-life grease is compatible with high-vacuum environments and a wide range of process chemistries



## Fab Elbow Assembly

For AMAT HP and HDP Robots

The Fabworx elbow assembly maintains a constant preload force across the bearings, extending bearing life and reducing droop.

- Features an improved shaft and bearing spring preload mechanism
- Wave spring gives consistent and even force to the bearings, resulting in longer bearing life and decreased droop
- Fixed spring cap eliminates the tension adjustment and associated setup variability
- Includes a 2 year warranty



## Fabhp Hub Assembly

For AMAT HP and HP+ Robots

The Fabhp hub assembly improves bearing lifetime and wafer placement repeatability while reducing particles and motor sync errors.

- Hybrid ceramic hub bearings increase product life span and reduce particle generation
- Integral shields increase race stiffness and help retain lubricant to further reduce particles
- Patented stainless steel hub spacers provide stiffness against twisting and distorting
- Increased spring force keeps the hub assembly vertically aligned to ensure bearing stability and reduce robot droop
- Upper and lower motors are locked in place with specifically designed brackets to eliminate motor jumping and twisting



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