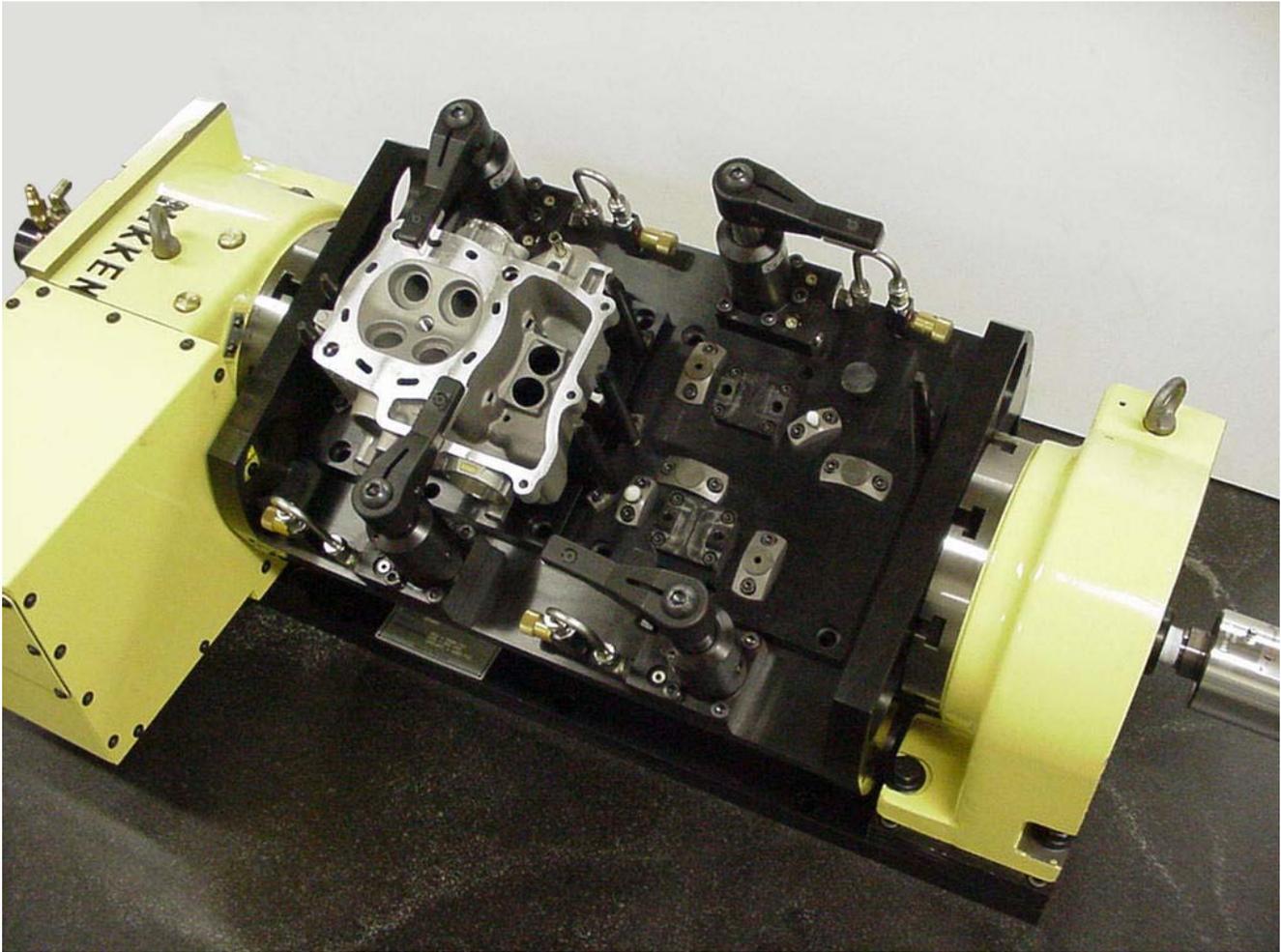


TRUNION FIXTURES



Powerhold Custom Fixtures are designed to meet the criteria of your machining application

- **DESIGN SOFTWARE:** Fixtures are designed in AutoCad or Solidworks Software
- **DESIGN CRITERIA:** Fixture cost, setup time, cycle time, part quantity, tooling, and operator safety are just a few of the design criteria considered
- **INTEGRATION:** Our design team can integrate any machine tool, rotary table, toolholder, or tailstock to develop a fixture for your part
- **DOCUMENTATION:** All fixtures are delivered with a complete set of paper and electronic assembly drawings showing all consumable items and spare parts
- **50 YEARS OF WORKHOLDING EXPERIENCE:** Powerhold can support your fixture for years of reliable operation

TRUNION FIXTURES

Technical Features:

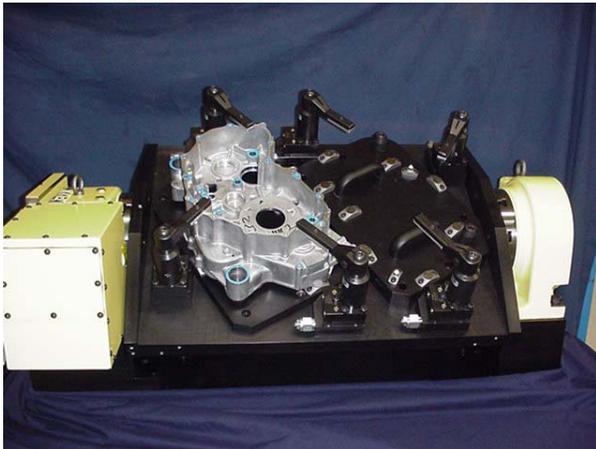
All fixtures are designed to meet the machining requirements of a specific part

- Hydraulic, Pneumatic, or Mechanical clamping
- Precision part locating and diamond pins
- Fool proof part orientation
- Quick change features such as:
 - Precision locating pins or slots for quick change of sub-plates
 - Base Plate with precision ball lock, locating pins or slots for quick change of various fixtures
- Clamping options include: Jaw Chucks, Diaphragm Chucks, Collet Chucks, Clamping Discs, or Swing Clamps (any brand)



(Pictured – Trunion Fixture with a Collet Chuck featuring quick change collets and locator plates)

TRUNION FIXTURE EXAMPLES



Swing Clamp Grip
- Quick Change Sub Plates



ID Grip Collet and Swing Clamp Grip
- Powerhold Standard Tailstock
- Custom Unions (2)

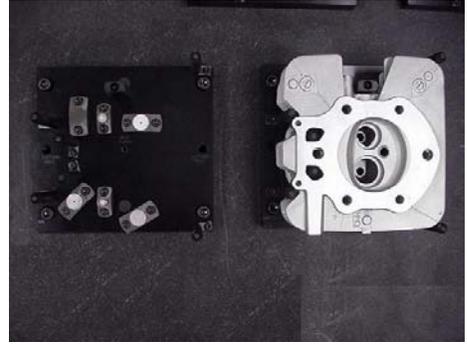


Swing Clamp Grip
- Common base fixture with quick change sub-plates for machining two different parts on the same fixture
- Quick Change swing clamp insert pads
- Thru-coolant blast, and air sensing

TRUNION FIXTURE OPTIONS:

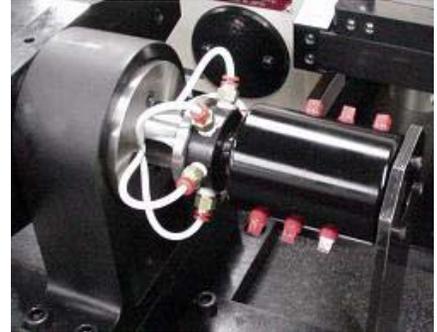
AIR SENSING

- Built in safety to confirm that the part is loaded on the fixture or sub-plate properly



CUSTOM UNIONS

- If a standard union will not accommodate the fixture requirements (i.e. thru coolant, air sensing, hydraulic operation), Powerhold can custom design and build a union for your application



TAILSTOCKS

- If a standard Powerhold Tailstock does not meet the needs of your application, Powerhold can design and build a tailstock to support your application. Options include large thru-holes, and specific heights



QUICK-CHANGE SUB-PLATES

- Used to machine multiple parts on a single base fixture or for setting up additional parts while the fixture is in use
- Reduces time between parts



WINDOW

- Machine both sides of a part by indexing the fixture 180°
- The fixture headstock and tailstock must be tall enough to accommodate a 180° index



Your Workholding Solutions Company

 <p>Power Chucks</p>	 <p>Stationary Chucks</p>	 <p>Live Centers</p>	 <p>Cartridge Spindles</p>
 <p>Workheads</p>	 <p>Tombstone Fixtures</p>	 <p>RINGSPANN System</p>	 <p>Cylinders</p>

Powerhold Inc. is a leading provider of workholding solutions: from Tombstone Fixtures to Hydraulic Face Drivers.

Our Mission:

To be the Premier Workholding Supplier to the Manufacturing and Machine Tool Industries;
Providing Cutting Edge Solutions and Improving the Manufacturing Process.

POWERHOLD

POWERHOLD, INC.

P.O. Box 447, Old Indian Trail
Middlefield, CT 06455
P: (800)349-1044, (860)349-1044
F: (860)349-1815
www.powerholdinc.com