CO-OP TOOL

WORLD CLASS WORKHOLDING SYSTEMS
FROM WORLD CLASS ENGINEERING EXPERIENCE

- Power Chucks
- Diaphragm Chucks
- Collet Chucks
- Advanced Workholding Applications
Over 45 years of engineering experience goes into every custom chuck, collet, diaphragm and tombstone fixture we manufacture. Co-Op Tool Workholding Systems provides a total workholding package that includes concept, design, test, and prove-out at the customer’s manufacturing facility.

We design and build custom workholding and tooling for machine tool builders, distributors, tier 1 and tier 2 manufacturers, and OEMs. We pride ourselves in our capability to engineer and manufacture custom workholding solutions for customers who require special fixturing for precision applications.

- **State-Of-The-Art Manufacturing Facilities:** Co-Op Tool utilizes the highest manufacturing technologies to produce the most accurate workholding in the industry. We invite all potential customers to visit our Toledo, Ohio facilities to audit our processes and analyze how we can meet your workholding needs.

- **ISO 9001 Certified:** Our production and manufacturing processes meet or exceed current ISO 9001 requirements.

- **Detail Component Manufacturing:** Co-Op Tool manufactures replacement part-touching details for Co-Op Tool designs and most of our competitors’ designs as well.

- **Rebuild/Retrofit Program:** Our Rebuild/Retrofit Program assumes total responsibility for maintaining your existing workholding. Our trained technicians will completely disassemble the work holding, inspect all internal mechanisms, repair/remake damaged components as required, reassemble and test your workholding to assure proper function and accuracy. Rebuilds are guaranteed to perform up to new specifications.

- **Tool Management Program:** Co-Op Tool stocks both finished and semi-finished part-touching details. Co-Op Tool will perform an audit of your facilities, analyze usage patterns, and design a custom Inventory Management Program to meet your production requirement needs.

- **Service & Troubleshooting:** Co-Op Tool provides complete service and troubleshooting for all your workholding needs. Our mission is to provide a full-service resource that you can depend on for your most difficult workholding problems.

- **24 Hour/6 Day Per Week Manufacturing:** Our efficient manufacturing facilities operate (3) fully staffed manufacturing shifts and (2) engineering shifts.
POWER CHUCKS

Ball Lock Power Chucks

OD Ball Lock Chuck for turning, boring and facing automotive damper hub

ID Ball Lock Chuck for facing, turning and grooving automotive damper ring

Wedge Grip Power Chucks

OD Wedge Grip Chuck for turning, boring and facing automotive input sun gear

2-Jaw ID Wedge Grip Piston Chuck for facing, turning and grooving automotive piston

2-Jaw & 3-Jaw Power Chucks

2-Jaw, OD Counter-Centrifugal Chuck for finish turning medical hip implant

3-Jaw OD, Counter-Centrifugal Chuck for facing, turning & boring automotive damper ring

Co-Op Tool Workholding Systems

1517 Coining Drive • Toledo, Ohio 43612 • 419-476-9125

www.co-op-tool.com
OD Diaphragm Chuck for high-speed turning automotive ring gear

ID Diaphragm Chuck for turning and facing compressor cover plate

OD Double Diaphragm Chuck for finish boring automotive input clutch housing assembly

OD Diaphragm Chuck with Hydraulic Dampeners for finish turning and boring automotive torque convertor
ID Pullback Collet Chuck for facing, boring and turning automotive damper hub

ID Pullback Collet Chuck for high-speed turning automotive rear sun gear

ID Static Collet Chuck for turning & facing automotive clutch housing

OD Pullback Collet Chuck for “dual-gripping” automotive axle tube assembly

ID Pullback Collet Chuck w/special collet for finish turning facing & grooving small engine piston

Part Piece
Chuck Body
Machine Adapter
Clamping Function
Part Stop
5-Jaw Shoe Chuck for finish turning, boring & facing outer ring bearing hub

2-Jaw Dovetail Piston Chuck for rough and finish turning piston

5-Jaw Ying / Yang Chuck for boring, facing and parting-off engine wiper seal

OD Eccentric Collet Chuck for finish turning small engine crankshaft

OD Collet Chuck with Centrifugal Dampeners for finish boring automotive input clutch housing

Contact CO-OP TOOL for these product brochures:
POWER CHUCKS

Versatile, power-gripping chucks designed for first operation applications.

- Ball Lock Power Chucks
- Wedge Grip Power Chucks
- 3-Jaw and 2-Jaw Power Chucks

DIAPHRAGM CHUCKS

Primarily a second operation chuck generally used for grinding, boring, facing and turning applications.

COLLET CHUCKS

The most common and versatile of all workholding devices. Superior holding power, higher accuracy and engineered for high-speed applications.

ADVANCED WORKHOLDING APPLICATIONS

Custom workholding solutions designed and built for each customer’s unique application.

Applications:

Co-Op Tool custom designs and builds its workholding devices to our customer’s unique manufacturing needs. Our chucks are “Production-Intent” and can be designed to incorporate any of the following criteria, and more...

- **Clamping Function** — Actuation may be hydraulic, pneumatic, manual, internal springs or any combinations of these functions.

- **High-Precision Designs** — Concentricity and repeatability as close as 0.00005”.

- **Pull Back Designs** — As the chuck clamps, the part is positively located (pulled back) against the part stop to assure proper part loading.

- **Static Clamping** — Non-Pull Back Chucks. As the chuck clamps, the part piece location is not influenced. Typically utilized for thin wall or thru-hole applications.

- **Compensating Designs** — The chuck will compensate as it clamps to allow the part to be radially located prior to clamping. Typically, a gear nest, diamond pin, or center is used to provide location of the part and the chuck clamps the part securely without influencing the part location.

- **Thru-Hole Designs** — Designs intended to accommodate the use of bar stock. Thru-hole capacity is only limited by the capacity of the machine tool. We can accommodate as large a diameter as required.

- **Air Sensing** — Proper part location is assured through the use of air sensing through the part stop. Small air passages are routed through the chuck. When the part is clamped properly, the air passages do not allow air to flow through. The machine control then senses the presence or lack of airflow, assuring proper part location.

- **Counter Centrifugal Designs** — Our chucks are precision balanced to accommodate high RPM applications. Thus, the effects of centrifugal force are negated.
CO-OP TOOL Workholding Systems  
*Custom Workholding Division*
- Excelling in the design, development and manufacture of custom workholding, including chucks, collets, hydraulic arbors and tombstone fixtures
- 40,000 Sq. Ft. Facilities
  1517 Coining Drive • Toledo, Ohio 43612
  419-476-9125 • Fax 419-476-7568

Hammill Precision Tooling  
*Precision Tool & Die Division*
- Fabrication of carbide, stainless and high-speed steel tooling and dies
- 20,000 Sq. Ft. Facilities
  5020 Enterprise Blvd. • Toledo, Ohio 43612
  419-729-0723 • Fax 419-729-1151

Hammill Manufacturing Company  
*Medical Division*
- The highest machining technology serving the medical implant industry
- 40,000 Sq. Ft. Facilities
  1517 Coining Drive • Toledo, Ohio 43612
  419-476-0789 • Fax 419-476-7568

Impact Cutoff Services  
*High Speed Shearing and Sawing Division*
- Cost-effective impact shearing of ferrous and non-ferrous metals
- 57,000 Sq. Ft. Facilities
  129 Dixie Highway • Rossford, Ohio 43460
  419-661-0800 • Fax: 419-661-1776