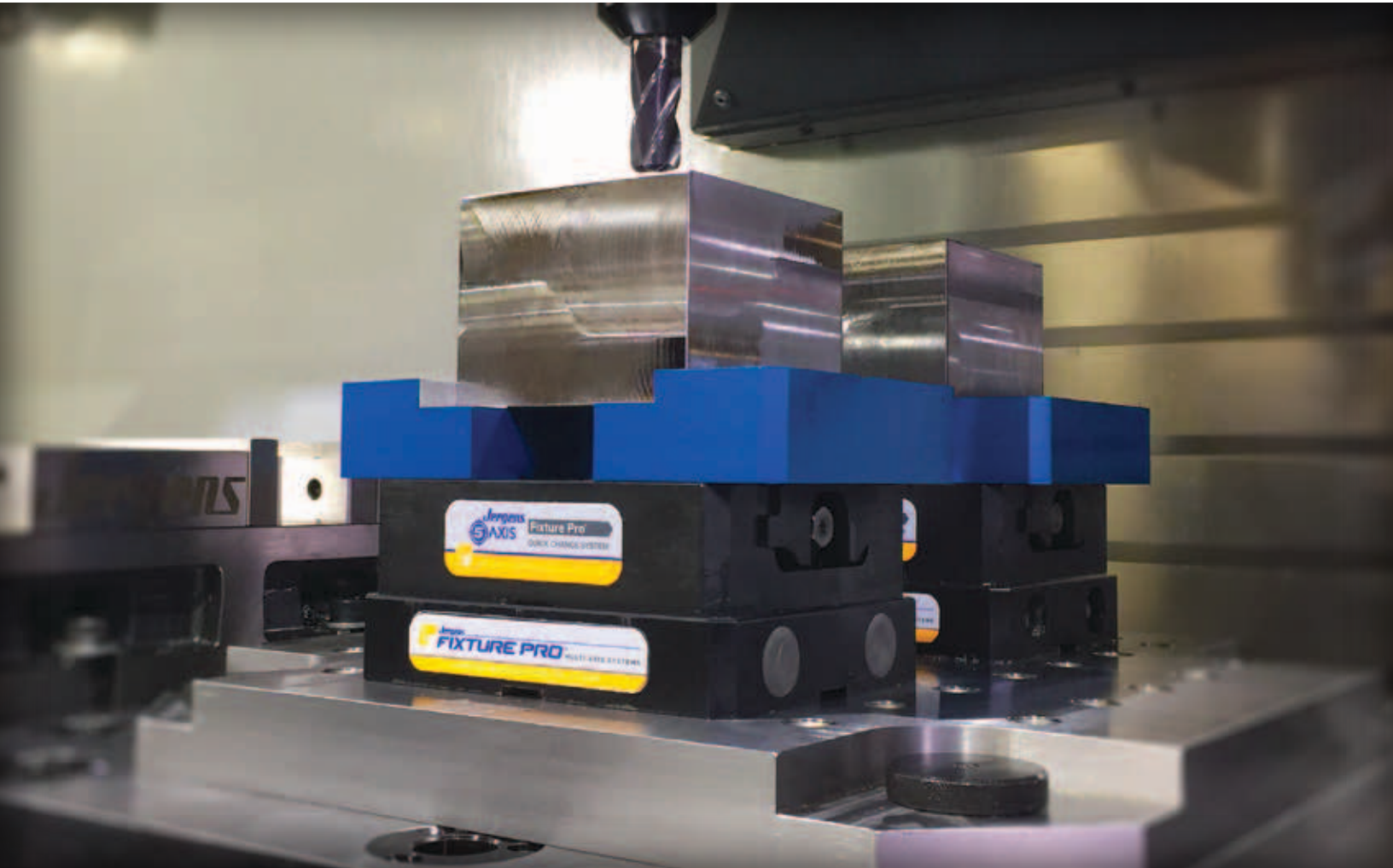




## WORKHOLDING SOLUTIONS

INCREASE YOUR MACHINING UPTIME AND PRODUCTIVITY  
QUICK-CHANGE PALLETS, TOP TOOLING FIXTURING AND MOUNTING SYSTEMS



# SOLVING INDUSTRY'S WORKHOLDING CHALLENGES

Jergens families of workholding products focus on getting the most productivity from your machines, especially given today's demands for short lead times, small batch sizes and frequent setup changes. Accuracy and repeatability are within tenths, but it's Jergens' ability to offer industry's fastest changeover that makes them truly unique. Setup times can be reduced by as much as 90% through a combination of fixture plates, sub plates and tooling columns.

## Jergens efficiency provides:

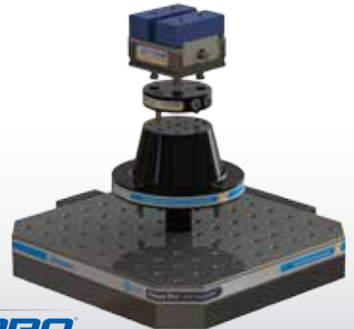
- Increased spindle uptime
- Speed implementation of lean manufacturing
- Improved productivity
- Optimized workholding
- Reduced downtime
- Maximized cost savings
- Elimination of setup errors, inefficiencies
- Faster part-to-part changeover

# 90% SETUP TIME REDUCTION



Jergens  
**DROP & LOCK**  
PALLET CHANGERS

Industry's leading quick change pallet system



Jergens  
**FIXTURE PRO**  
QUICK-CHANGE FIXTURING

Modular system for maximum part accessibility



Jergens  
**ZPS**  
ZERO.POINT.SYSTEM

Unique pull studs for maximum repeatability



Jergens  
**BALL LOCK**  
MOUNTING SYSTEM

Lean-optimized quick change solutions



# INDUSTRIES FROM AROUND TOWN AND AROUND THE GLOBE

Jergens' approach to solving unique challenges, both at the customer and OEM level, is based on an in-depth knowledge of the processes that drive manufacturing. Jergens products are prevalent throughout industries such as automotive, aerospace and defense, medical equipment and orthopedics, and machining and metalworking. At the end of the day, they all have a common purpose of working lean, maximizing resources and increasing profitability. With more than 60 years of field experience, Jergens provides technical assistance and problem-solving to make sure customers get the most from their plant floor.

## CUSTOMER SUCCESSES . . . RESULTS THAT SPEAK FOR THEMSELVES

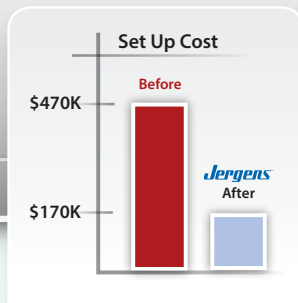
### MILITARY CONTRACTOR

**Application:** Multiple job changes average 15 to 20 set up changes per week

**Product:** Ball Lock

**Results:**

- 76 hours per week set up time reduction
- 3,800 annual machine hours gained
- Annual Cost Saving: **\$300,000 +**



### ELECTRICAL MANUFACTURING

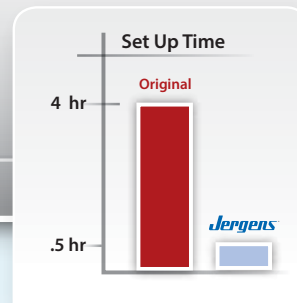
**Application:** Horizontal Cross Columns with ZPS & Dual Station Vises

**Set Up Time:** Between 2 and 4 hours

**Products:** ZPS and Drop & Lock

**Results:**

- Set Up time reduced to 30 min



### JOB SHOP

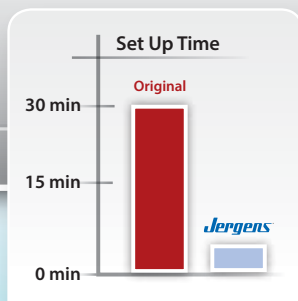
**Application:** Rotary indexer set up

**Set Up Time:** 30 minutes

**Product:** Ball Lock

**Results:**

- Set up time reduced to <5 minutes
- Set up time reduction 87%



### AEROSPACE MANUFACTURING

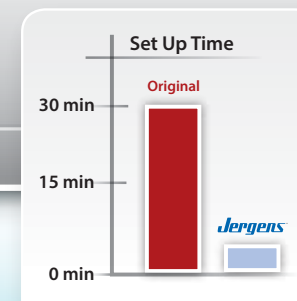
**Application:** Large aerospace parts with multiple change overs

**Set Up Time:** 30 minutes

**Products:** Drop & Lock and Fixture-Pro

**Results:**

- Set Up time reduced to 5 min
- Saves 4-5 hours of machine time per week
- \$500 to \$1000 per week realized savings equates to 2 week ROI



# PALLET CHANGERS

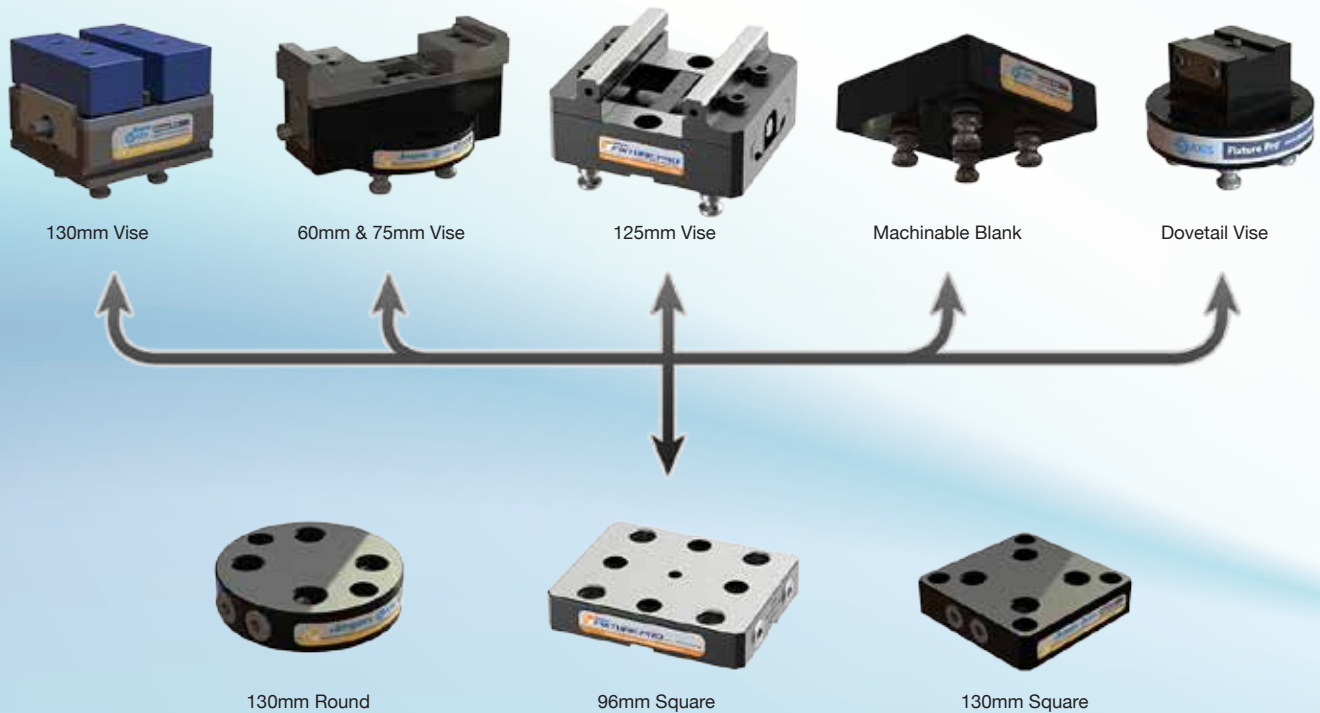
*Jergens*  
**DROP & LOCK™**  
PALLET CHANGERS

## Universal Pallet Changers – Drop it, Lock it and Go!

Jergens Drop & Lock™ pallet changers are the industry's leading quick change pallet system. The Jergens Drop & Lock™ is an integral part of the Fixture-Pro® line of 5-Axis and Multi-Axis tooling.

### Features:

- Quick Set-Up
- Rapid Part Changeover
- Accurate & Repeatable
- 5-Axis Part Access
- Well-Suited for Custom Fixtures and Direct to Part Mounting
- Allow Parts to Remain in Original Clamping Through Multiple Operations
- Useful in Non-Cutting Operations i.e. CMM – First Article Inspection







# QUICK CHANGE FIXTURING

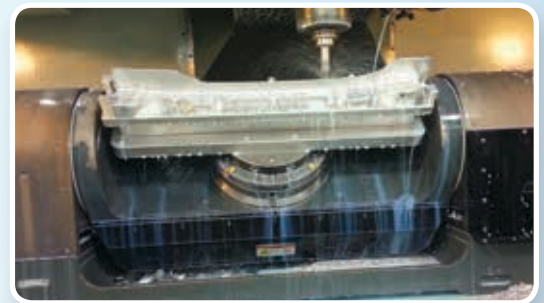
## Jergens **FIXTURE PRO** QUICK-CHANGE FIXTURING

### Complete Modular Workholding

Multi-Axis machining presents the challenge of how to access the part while avoiding obstructions. Jergens' Fixture-Pro® unique modular system offers a variety of solutions to get your part off the table and allow for greater access.

#### Features:

- Flexible Multi-Axis Workholding, works on all applications 5-Axis, 3+2, 4+1
- Modular components include sub plates, risers, adapters and top tooling
- Rigid, modular design, from light machining to heavy roughing
- Rapid set up and part exchanges, reduced setup time, saves money and keeps spindle running
- Portability from machine to machine, easily transfer work to new machines or as demand dictates



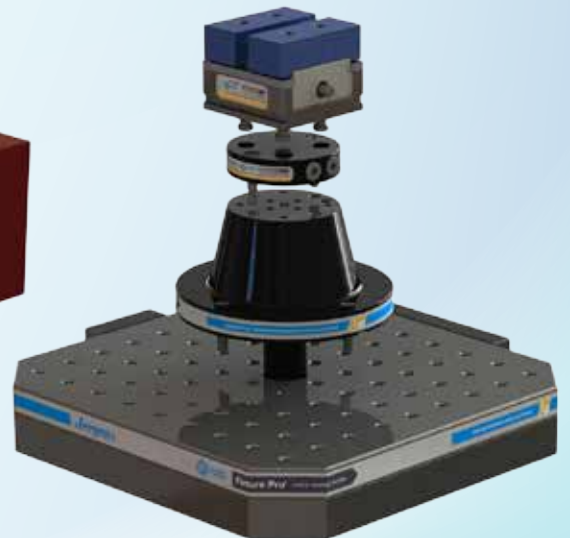
Trunnion with Drop & Lock and 5-Axis Vise



Rotating with Drop & Lock and Dovetail Vise



Fixture-Drop & ZPS Rotary Adapters 160mm and 210mm



500mm with Riser and Drop & Lock Pallet and Vise

# MODULAR PALLET SYSTEMS

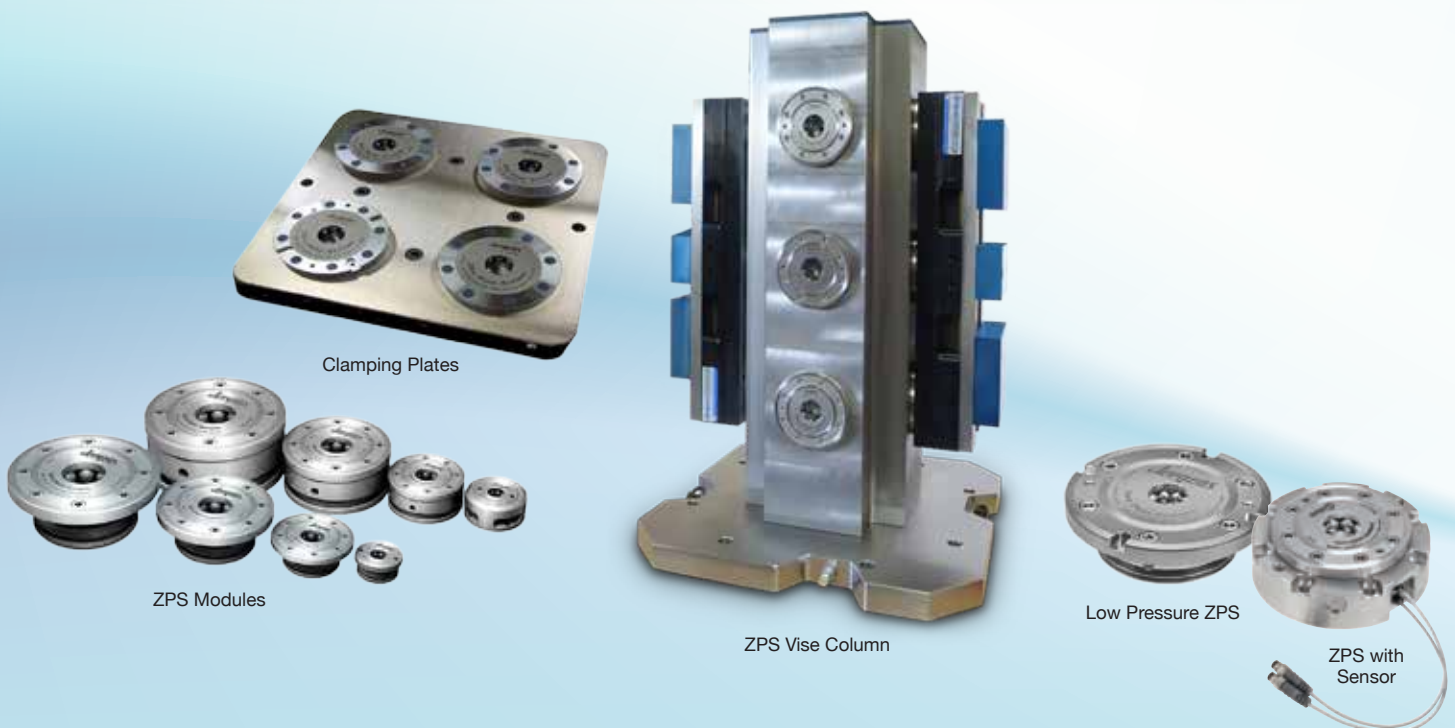
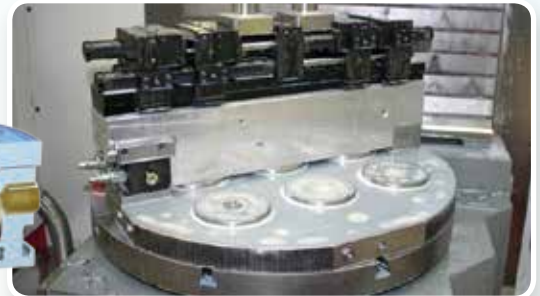
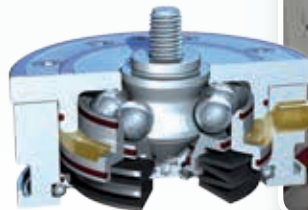


## Harness the Power of "Zero"

Quickly and accurately locate and clamp vises or fixtures... and with retention studs attached to your part, direct mount your component for machining or welding without interference from jaws or clamps. That's the beauty of what Jergens ZPS, Zero Point System, can deliver.

### Features:

- Position & Clamp in One Operation
- Repeatability up to .0002"
- Flexible Design Options
- Solutions for Small and Large Parts
- Available in Pneumatic & Hydraulic Modules
- Reduce Set Up Time up to 90% or More





## FLEXIBLE MOUNTING SYSTEMS

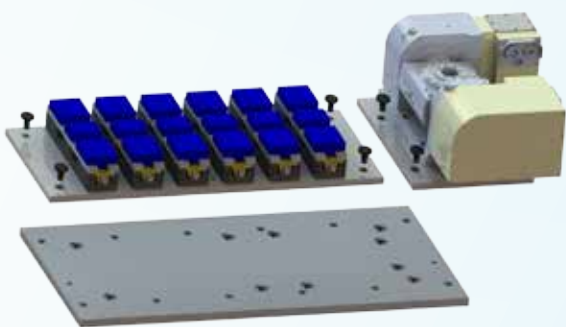
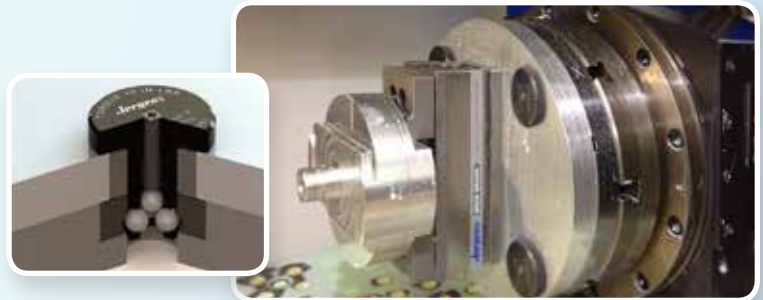
# Jergens **BALL LOCK**<sup>®</sup> MOUNTING SYSTEM

### The Original Quick Change.

Ball Lock<sup>®</sup> is the industry's most popular quick-change, fixturing-flexible mounting system that can be configured to create lean-optimized solutions for your most demanding needs.

#### Features:

- Incredibly FAST setups and changeover
- Powerfully strong holding forces
- Combines locking and locating in the same motion
- Eliminates the need for indicating on CNC machines
- Repeatability of  $\pm 0.0005$ " ( $\pm 0.013$ mm) or better
- Save time and expense in specifying, ordering and installation
- Components designed to work together for maximum cost and time savings
- Machine tool Selector Guides available for custom kit configurations



Custom Kits



Shanks, Liners and Bushings



Selector Guides

# CNC MACHINE VISES AND VISE COLUMNS

Jergens' Production Vises offer multiple part holding for Vertical Machining Centers and Horizontal Machining Centers.

## Features:

- Multiple mounting systems
- Fastest quick-change jaw system
- Full-jaw travel
- Hardened and ground stainless steel rails support jaws and resist wear
- Fully sealed lead screw assembly
- Supplied with machinable soft jaws
- Available with hard jaws



## VERTICAL MACHINE SOLUTIONS



### Ball Lock® Base Production Vise Columns

The mounting flange is cut into a jigsaw pattern to allow vises to nest closely together. Designed for use with Jergens Ball Lock® Mounting System.



### Narrow Base Production Vises

The small footprint allows maximum density of vises on your fixture or table. Best choice for applications where parts are held in multiple vises.



### Universal Base Production Vises

The mounting flange has slotted holes to allow mounting on any machine table.



### Interlocking Base Production Vises

This base has an interlocking pattern to allow the vises to be mounted close to each other.



### Self Centering Vises (3 Base Styles)

Self-Centering vises provide quick, simple fixturing for concentric machining of different sized workpieces.



### Hydraulic Vise

Innovative compact design. Reduced set-up time. Internal Slide Assembly with Hydraulic Clamping Cylinder.

## HORIZONTAL MACHINE SOLUTIONS



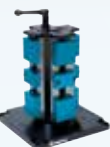
### 3-Sided Production Vise Columns

For machining 3 faces of production parts on HMC's. Large spindle noses can access the workpiece. Allows for up to 240° workpiece accessibility.



### 6-Sided Production Vise Columns

Increase the number of parts per load, while maintaining a small footprint. Available with bases to fit directly onto machine tables or to a Ball Lock® sub-plate.



### 4-Sided Production Vise Columns

Available with bases to fit directly onto machine table pallets or to a Ball Lock® sub-plate.

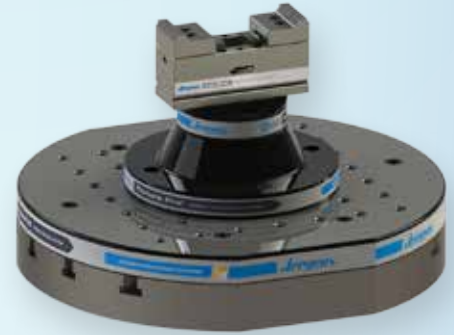




## MULTI-AXIS CLAMPING

Jergens offers numerous vises for Vertical Machining Centers, Horizontal Machining Centers and 5-Axis Machining.

Jergens vises are an integral part of the Quick Change Systems that provide maximum productivity and flexibility.



- **Flexible Multi-Axis Workholding**
  - Works on all applications 5 Axis, 3+2, 4+1
- **Rigid, modular design**
  - From light machining to heavy roughing
- **Rapid set up and part exchanges**
  - Reduced setup time saves money and keeps spindle running
- **Portability from machine to machine**
  - Easily transfer work to new machines or as demand dictates



### 125mm Self-Centering Vise

- 125mm low profile, self-centering vise
- 96mm universal Drop & Lock pallet with popular pattern for industry compatibility
- Increase machining access and quick change over



### 60mm & 75mm Self-Centering Vises

- Self-centering and fixed jaw
- 40mm to 125mm widths
- Wide range of standard, reversible hard and soft jaws available



### 130mm Low Profile Self-Centering Vise

- Lower profile for increased "Z" travel
- 130mm square low profile on 5CV13012
- Direct mount to table with optional clamps



### Dovetail Vises

- 130mm light and heavy duty standard dovetails
- 10 Degree dovetail angle permits high clamping force
- Heavy Duty Block Style dovetails for large parts and extreme cutting conditions



### 5-Axis Production Vises

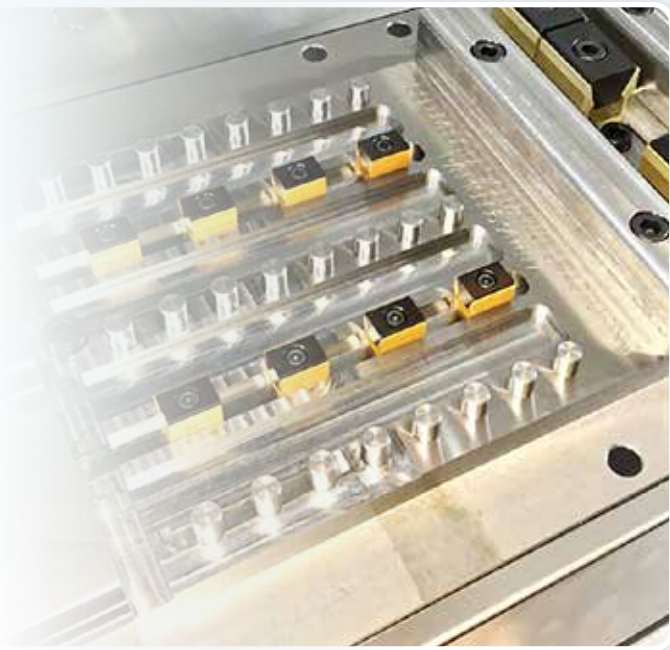
- 5-Axis production vises and accessories rigidly clamp parts without obstructing access to multiple part faces.

# CLAMP LOW WITH POWER & CONTROL

Jergens offers Micro™ Clamp's Ok-Vise low profile clamping products for your unique applications. Our product lines are ready to interface with all modern machining systems, from vertical and horizontal to 5-Axis, allowing efficient machining for any workpiece.

## Features:

- More efficient usage of machinable area
- Reduction in the number of tool changes
- Extended cycle times
- Free tool access to workpiece
- Less space required compared to traditional vises
- Overall time savings

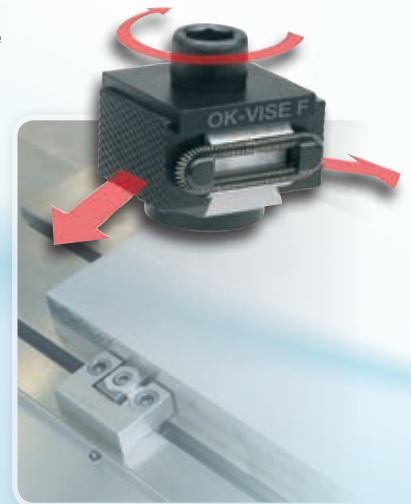
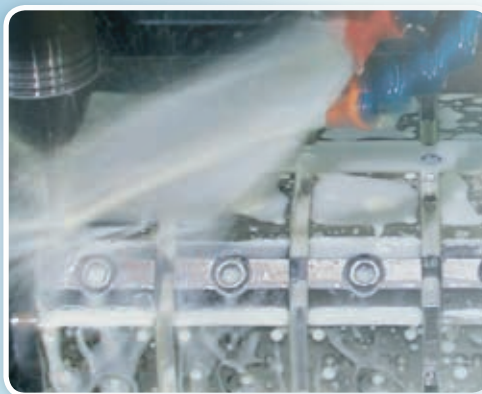


**Jergens / OK-VISE**  
WORKHOLDING CLAMPS AND ACCESSORIES

Jergens OK-Vise workholding clamps and accessories bring three-dimensional machining to your workflow, which means improved accuracy.

## Features:

- Pull-down action: no upward or downward movement required
- Machinable jaws available
- Special models and kits available





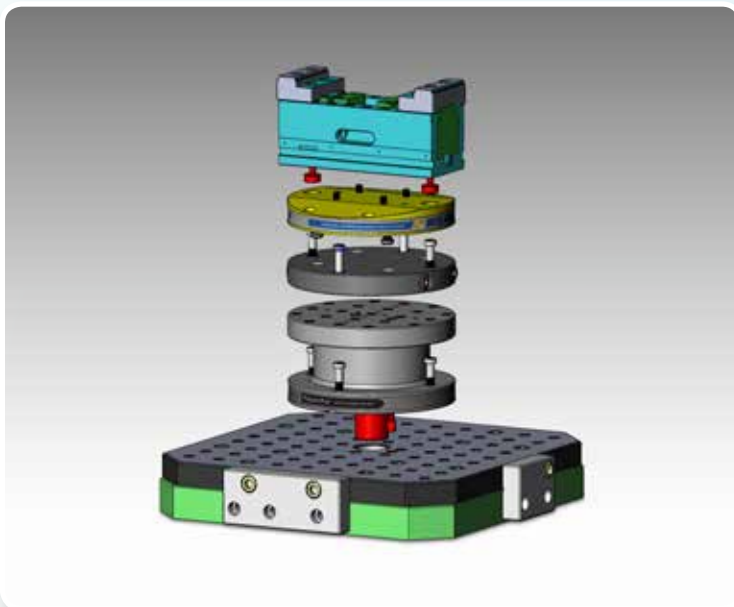


# COMMITMENT TO QUALITY

Our state-of-the-art manufacturing facility is ISO 9001:2008 certified and we maintain strict control of our processes from start to finish. This kind of control makes it possible for us to meet tight deadlines, control costs and guarantee quality.



## WORKHOLDING DESIGN & ENGINEERING



Discover the savings under the spindle™.

### WORKHOLDING / QUICK-CHANGE DESIGN

To further customers' pursuits of productivity and efficiency, Jergens is staffed with workholding application engineers to provide application design assistance. Workholding systems are combined using standard, and sometimes custom tooling, to provide specific solutions. The team's workholding knowledge and experience regularly creates simplified solutions to even complex workholding challenges, keeping machining performance as a top priority.

#### Opportunities:

- Application and Cost Savings Analysis
- Workholding / Quick Change Fixturing System Design
- Implementation and Retrofit Assistance
- Call 877-486-1454 to speak to a team member



# Jergens 75

MANUFACTURING EFFICIENCY FOR 75 YEARS

## WORLD HEADQUARTERS

15700 S. WATERLOO ROAD  
CLEVELAND, OH 44110-3898

 877.426.2504

 [JERGENSINC.COM/WORKHOLDING](http://JERGENSINC.COM/WORKHOLDING)

 [WORKHOLDING@JERGENSINC.COM](mailto:WORKHOLDING@JERGENSINC.COM)



### ALSO AVAILABLE:

WORKHOLDING SOLUTIONS CATALOG  
REQUEST A COPY OR DOWNLOAD AT [JERGENSINC.COM](http://JERGENSINC.COM)

