

## *Workholding Product Line*



WORKHOLDING SOLUTIONS WORLDWIDE

## QLC/QLK SERIES POWER CHUCKS

- Improved **backlash free wedge-hook system**.
- Centrifugal force compensation.
- Patented slide system providing exceptionally long support for greater stability and precision.
- **30 to 40% lighter weight** than comparable chucks.
- Patented **forced lubrication system** for extended service.
- **Improved sealing** minimizes loss of lubrication through gaps and undercuts.
- Jaw guides are precision ground with a circular profile, reducing maintenance and increasing consistency.
- **Nitrided chuck body** for long service life.
- Variations include large through hole, long stroke and compensating versions.



## VC QUICK CHANGE JAW SYSTEM

- Increases productivity and reduces costs by simplifying jaw change set-up times.
- Top jaws can be used for OD and ID clamping.
- **Precise repeatability** even under high clamping pressures.
- Quick jaw change within approximately 5 seconds.
- Jaw change system easily automated.

## FNC HIGH ACCURACY UNIVERSAL POWER CHUCK

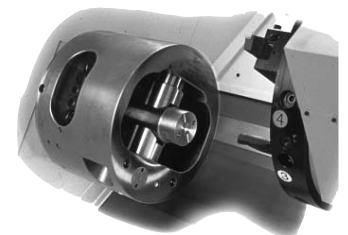
- Patented wedge-hook design permits **high gripping forces**.
- **Quick change jaw system** reduces change-over time to a few seconds.
- One-piece rigid **high-strength chuck body** is heat treated for long service life.
- Closely maintained concentricity and repetitive accuracy.
- Proven F-style jaw system can be used on FNC chucks, so existing jaw sets can continue to be used.



## INDEX CHUCKS

Forkardt offers a complete line of indexing chucks aimed at reducing your multi-axis part turning to a single operation. Forkardt works through the conception and design process in close cooperation with the customer to ensure the perfect solution.

- Created for parts such as universal joints, fittings and valves.
- Reduces both the number of operations and the amount of investment capital.
- Hydraulic control packages and machine integration are also available.



## KCHP/S HIGH PRECISION POWER CHUCKS FOR CYLINDRICAL GRINDING, HARD-TURNING, OR FINISHING OPERATIONS

- High precision wedge-hook design.
- Ball positioning system that allows quick jaw change without reworking gripping positions.
- Draw tube, front end operation (rotary air facility through spindle), or fully front end operated (integrated cylinder with air feed ring) versions available.
- TIR repeatability **2 microns**.
- **Fully sealed** chuck body ensures lasting accuracy and long life with minimal maintenance.
- **Permanent lubrication**.
- Optional Type SA automatic drive dog attachment to convert chuck from centric clamping to machine between centers.



## CUTTING TOOL GRINDING CHUCK WITH EXTENDED CLAMPING RANGE

The tool chuck is a high precision extended range OD clamping device designed for applications involving tool grinding machines for re-sharpening of tools or the production of VHM tools (end-milling cutters). The ability to clamp tools within a wide range of diameters is possible without a change of chucks.

- Clamping repeatability of 0.005mm.
- Clamping range of **2mm to 17mm**.
- Adapters available for virtually all tool grinding machines.

## LZK MULTI-BLADE COLLET CHUCKS

The LZK multi-blade clamping system is designed to provide an extremely large clamping range and tight production tolerances.

- **9mm clamping range** (LZK-U model).
- Clamping of thin walled workpieces without deformation.
- Large through hole.
- Resistant to chip contamination.
- Repeatability better than 10 microns.



## EM+D MANDRELS

*EM Series Mandrels with Interchangeable Clamping Sleeves* - The clamping sleeves are interchangeable modular units requiring no re-adjustment. With the double conical expansion of the clamping sleeves by 0.8mm, a perfect clamping geometry is achieved.

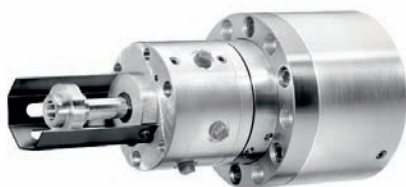
*D Series Multi-Blade Mandrels* - Accuracy, shorter set-up times and greater flexibility are achieved with the D series Forkardt multi-blade mandrels. Wide clamping range enables clamping of workpieces with diverse bore diameters using the same mandrel.

- Repeatability to 0.01mm.
- Wide clamping range.

## SKM ELECTRONIC GRIPPING FORCE METER

The SKM Series are compact electro/mechanical devices for measuring static gripping force. They are designed for routine testing of chucks to ensure reliable production. The SKM can be utilized with chuck having 2 to 6 jaws.

- Advance C-MOS technology.
- Consistent high accuracy.
- Lightweight, easy handling.
- Robust design.



## "HCT" SERIES CLOSED CENTER HYDRAULIC CYLINDER

ITW offers a line of standard hydraulic cylinders, featuring optimum speed and operating force. Standard features include:

- Through-hole for coolant, oil or air with rotating union.
- Rear or front side spindle mount configuration.
- Prox switch or linear stroke control.
- Up to 8,000 RPM.
- Up to 80 Bar Max Operating Force.

# **ITW** Workholding Group

## WORKHOLDING WORLDWIDE



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