



FORCE CNC Rotary Transfer Machine



VERSATILITY

MACHINE SPECIFICATIONS

FORCE CNC - 12 Station

The FORCE CNC 12 Station Collet model offers a max stock size of 1 3/4" round, 1 1/2" hex, and 1 1/4" square, with a length of 6". It features 12 horizontal and 6 vertical stations, with an index time of .8 seconds. The machine weighs 15,000 lbs and has an average power rating of 60HP.

FORCE CNC - 16 Station

The FORCE CNC 16 Station Collet model offers a max stock size of 1 3/4" round, 1 1/2" hex, and 1 1/4" square, with a length of 6". It features 16 horizontal and 8 vertical stations, with an index time of .9 seconds. The machine weighs 16,500 lbs and has an average power rating of 60HP.

FORCE CNC - HS Indexing Chuck

The FORCE CNC HS 12 Station model offers a max stock size of a 4" cube or 1 3/4" round with a length of 8". It features 12 horizontal and 6 vertical stations, with an index time of 1.2 seconds. The machine weighs 18,500 lbs and has an average power rating of 53HP.

The FORCE CNC HS 16 Station model offers a max stock size of a 3" cube or 1 3/4" round with a length of 6". It features 16 horizontal and 8 vertical stations, with an index time of 1.0 second. The machine weighs 20,000 lbs and has an average power rating of 66HP.



FORCE CNC Rotary Transfer Machine

Unmatched Precision and Versatility in Metal Cutting

The FORCE CNC Rotary Transfer Machine Line Up is a fully electromechanical machine with ballscrew drive technology and direct drives, available in 12 or 16 station configurations with collets or chucks. It delivers the same trusted Hydromat quality, now enhanced with Force 50/150 tool spindle units that support 1, 2, 3, and 4 axis configurations, providing capabilities for drilling, tapping, threading, thread milling, single-point threading, profiling, and milling. The machine handles stock sizes up to 1.75 inches round, 1.5 inches hex, and 1.25 inches square, with part lengths up to 6 inches. It operates at a maximum spindle speed of 8,500 RPM for mill/drill units and 5,000 RPM for lathe

turning. The modular design features horizontal and vertical tool spindles mounted around a precision cast base, accommodating up to 24 tools in the cut at once. Designed, engineered, and assembled by Hydromat OEM experts and FANUC Authorized Integrators, it offers exceptional rigidity and versatility for all materials and components within its work envelope.

The FORCE CNC rotary transfer machines eliminate secondary operations by producing complete parts from bar stock, castings, forgings, or cold-formed blanks, reducing work in progress and saving material costs with short remnants. The modular toolspindle system



PRECISION

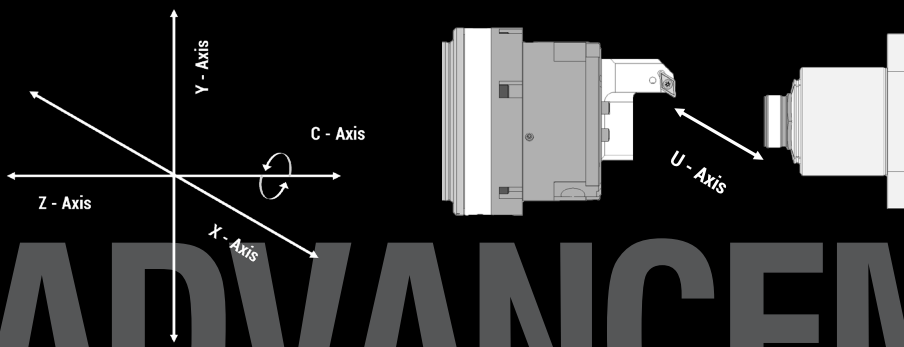
and quick-change presettable tool heads increase productivity through easy changeovers, while a precision ground Hirth ring ensures station-to-station accuracy and reliability within .0002 inches.

These machines are ideal for a wide range of components, including automotive ABS and brake systems, fuel, electrical, engine and steering parts, plumbing, HVAC valve castings, faucet bodies, gas valves, connectors, power tool housings, and aerospace and defense

components. With its state-of-the-art ballscrew electromechanical system, the FORCE CNC offers modularity and flexibility, enabling a range of machining operations. The FANUC 30i-B control system supports both conversational and G-code programming, with high-speed processing, advanced diagnostics, and optional Hydromat oscillation chip breaking technology, ensuring smooth operation and increased productivity.

FORCE CNC 50 / 150 TOOLSPINDLE UNITS

- Fanuc Controlled, Offering Advanced Technology for AI-Learning and Chip Breaking Functions
- Standard with C-Axis Servo Motor for Tapping or Single Point Turning Compatibility
- Direct Coupled Motor/Ballscrew for Y & Z-Axis
- Unit Configurations: Single Axis - Z-Axis | 2-Axis - X & Z Axis | 3-Axis - X, Y, & Z | 4-Axis - X, Y, Z, & U
- 4-Axis Lathe Unit Offers Position Control or Eccentric Turning/Boring Requirements
- OEM Designed for Maximized Ergonomics, Physical Size, and Adaptability to the Hydromat Machine



ADVANCEMENTS

The Series 30i-MODEL B by FANUC was designed for today's most complex, high-performance machines with a large number of axes, multiple part program paths and high-speed auxiliary machine functions. The Series 30i-MODEL B CNC is ideal for your next Hydromat rotary transfer machine, whether it is running a simple application, or the most complex part profile, with a multi-axis application. The PC functions with the Windows® OS system. There is consistent support at shop floor with the FANUC iHMI.

High Reliability and Easy Maintainability

Highly reliable hardware allows stable operation in a harsh factory environment. Various types of enhanced diagnosis functions improve maintainability so that the cause of trouble can be identified quickly.

The use of ultra-high-speed serial communications reduces wiring. Powerful PMC allows flexibility of machine design, and built-in safety function helps to confirm safety regulation easily.



FANUC Operational Features

- Enhanced functionality and superior performance extends the potential of machine capabilities into the future
- CNC enhancements can be adopted over time, either by learning on the CNC or by using FANUC's realistic and efficient NCGuide CNC simulator
- Custom Macro extends the standard programming language to include the features of an easy-to-use, yet powerful computer programming language
- Familiar folder tree-view is similar to that used on PCs, making it easy to visualize the structure
- Simple menu-driven conversational programming screens eliminate the tedium and error-prone process of generating the same multiple blocks of G-code
- MANUAL GUIDE i is supported by NCGuide and NCGuidePro

FANUC Control Benefits

- Available on the World's Best-In-Class Machine Tools
- Ultimate Resolution And Precision for Quality Machining
- High-Speed, High Precision and High Quality Machining and Reduced Cycle Times
- Simple Operation For Maximum Productivity
- Connectivity For Today's High-Tech Manufacturing
- High Reliability And Easy Maintenance
- High-Speed, High Precision and Smooth Simultaneous Multi-Spindle Machining
- Powerful Simulation Tools
- State-of-the-Art Hardware
- Customer-Specific Solutions



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FANUC 30i-B