



Hydromat EPIC R/T HS 16 Indexing Chuck Machines Make Precision Production of Irregular-Shaped Parts Fast and Accurate

ST. LOUIS, MO — The Hydromat EPIC R/T HS 16 Indexing Chuck Rotary Transfer machines produce precision metalcutting for cast parts, near-net shapes, profiled stock and standard bars. It's designed with the flexibility and versatility to easily accommodate a variety of part families as well.

The EPIC R/T HS style machines combine precision chucks with the indexing accuracy and reliability of the Hirth ring — a proven hallmark of Hydromat machine design excellence and accuracy and repeatability. Available in 16 and 12 station models, the HS is fully integrated into the Hydromat machine program, so the same modular components used with Hydromat's popular rotary transfer models are compatible with the HS machines. All EPIC R/T machines feature EMC Technology - Embedded Motion Control - an advancement that brings additional CNC power to the Hydromat's already impressive capabilities.

Each cutting station has its own CNC control system integrated into the toolspindle unit resulting in a plug & play control architecture. The by-products of this technology are substantially lower re-tooling costs and superior flexibility, with changeover times that are generally only 1-3 hours. All EPIC R/T units employ a linear scale for position feedback creating a true closed loop CNC system. The Fixture Compensation feature adds an additional level of accuracy by applying individual offsets for each fixture. This impressive system has a feedback resolution of 1 micron.

The EPIC R/T HS 16 Indexing Chuck machines utilize hydraulically actuated, self-centering two- or three-jaw chucks, or custom clamp fixtures, to provide the highest accuracy and part clamping rigidity. This accurate chuck indexing provides precise part positioning for complex multi-axis machining that requires one chucking to maintain overall part quality and statistical capability.

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The HS Indexing Chuck machines combine precision chucks with the indexing accuracy and reliability of the Hirth ring, a proven hallmark of the Hydromat machine design for excellence, accuracy and repeatability. The chucks are positioned on the indexing table in a satellite arrangement and are indexed



hydraulically. Indexing of the satellite chucks is free-programmable and can be arranged so that no cycle time is lost. Variable clamping pressure can be provided to critical chucks at certain stations for ideal gripping performance without damaging or distorting the finished part.

A large group of irregular-shaped components, cast or forged, can be loaded by semi-automatic or fully automatic pick-and-place systems or bowl feeding, depending upon the specific part requirements. Loading and unloading takes place on the same station and typically falls well within the cycle time. Bar fed applications can also utilize the advantages of the EPIC R/T HS Indexing Chuck configuration by employing a fully automatic barfeeder and cutoff saw. Materials up to 45 mm in diameter and 200 mm in length to be machined without problem.

This 16-station EPIC R/T machine has the rigidity to handle all components within their 76 mm cube capacity, while the other model, the HS-12, features a 102 mm cube work envelope. Typical components ideally suited for machining on the Indexing Chuck type Hydromats include automotive ABS and brake systems, as well as fuel, electrical, engine and steering components; plumbing and HVAC valve castings, faucet bodies and gas valves and connectors; hardware power tool and appliance housings; electrical wire connectors and switch bodies; defense and aerospace fuse bodies and instrument housings.

Hydromat, Inc., is the industry leader in the manufacture and assembly of precision transfer machines — Rotary, Inline, and Trunnion models, the revolutionary AT Advanced Technology machines, as well as the newly introduced ICON 6-250 Productivity Center — and has a reputation built on a commitment to product quality, customer service and technological innovation.

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Caption: The Hydromat EPIC R/T HS 16 Indexing Chuck Rotary Transfer machines produce precision metalcutting for cast parts, near-net shapes, profiled stock and standard bars. It's designed with the flexibility and versatility to easily accommodate a variety of part families within it's 76 mm cube capacity.