För att möta ökad efterfrågan och att kunna bemöta nya kunders krav på ökad tillgänglighet utökar vi vår maskinpark med en 4-axlig horisontal flerop av märke HAAS EC-300.
Med växlingspalettsystem, full fjärde axel samt XYZ rörelse på 508x457x508 mm kan vi effektivt och med stor precision erbjuda bearbetning av såväl större arbetsstycken som längre serier än vi tidigare haft möjlighet till

Owe Hägglund
VD
SGV Produktion AB

Haas Twin Rotary Pallet Horizontal Machining Center: EC-300

machine shown with optional equipment

Technical Features and Benefits

The Haas EC-300 Horizontal Machining Center is an American-made machining center that combines innovative design principles, unique control features and quality construction to make it simple, versatile and affordable.

The Haas CNC control is designed to be easy to use without referencing the manual, using steps that are logical to operators, and utilizing built-in software that makes producing parts – not programming – the operator's key thought.

Built using a wide-base, cast-iron frame with heavy ribbing and cross-beam reinforcement, the EC-300, like all Haas machines, yields rigidity and damping beyond that of machines using fabricated or weldment-type frames.

The machine's design provides high rigidity and a clean work area. The powder-coated, full steel enclosure features large doors for easy access to the worktable. These features, combined with local distributor service, make the Haas EC-300 the standard for design innovation, quality and affordability.

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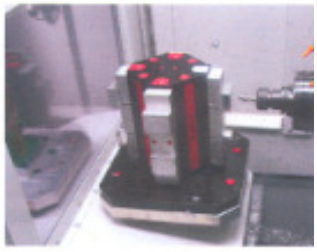
MACHINE FEATURES AND BENEFITS, EC-300

All features, benefits and specifications are subject to change.



- **Twin pallet changer:**
  The EC-300's built-in twin pallet changer (300 mm pallets) allows the operator to load and unload parts on one pallet while the machine mills parts on the other. A servo-driven changer swaps pallets in less than 5 seconds. The indexer provides precise positioning, in 45° increments, for multi-sided parts and tombstones.
- **Powerful 20-hp (14.9 kW) inline direct-drive spindle:**
  This unique, Haas-designed direct-drive system couples the motor directly to the 8000-rpm, 40-taper spindle, for less vibration, less heat and less noise than belt-drive systems. This improves surface finishes and thermal stability, and also quiets operation. The 20-hp (14.9 kW) Haas vector drive produces plenty of low-end torque, as well as the rpm necessary for high-speed machining.
- **24-pocket side-mount tool changer:**
  The Haas-built 40-taper SMTC stores tools outside of the work envelope, to free up valuable workspace for large fixtures. A quick-change double-arm gripper swaps tools in 2.6 seconds.
- **Chip auger system:**
  The EC-300 comes standard with a chip removal system that utilizes a single auger in the X direction. Chip removal is fast and efficient, particularly from behind the saddle, and chips exit the side tube at a 24-inch (610 mm) height.

- **Rigid tapping:**
  Using an encoder attached directly to the spindle, Z-axis motion is synchronized with the spindle's rotation. This eliminates the need for expensive floating tap holders, and also prevents lead-thread distortion and start-thread pullout.
- **Massive cast-iron construction:**
  All Haas CNC machines are built utilizing American-made cast-iron components, which provide up to ten times the damping capacity of steel. Haas castings are internally reinforced with numerous heavy ribs to resist flex and damp vibrations, and each one is thoroughly inspected to ensure it is free of flaws.
- **Hardened-steel bearing packs:**
  Haas uses hardened-steel bearing packs rolling on hardened-steel ways. Built using the same precision grinding technology utilized in bearing manufacturing, they feature zero clearance and full load-carrying capacity in all directions.

- **100% ball bar testing before shipping:**
  Haas uses a stringent ball bar test that not only checks linear accuracy, but also the machine geometry. This ensures the three-dimensional squareness and accuracy of each machine.

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Other Features Include:

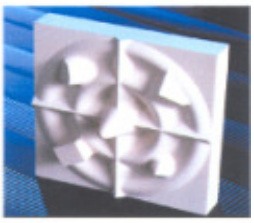
- Incremental indexing
- 1000-ipm (25.4 m/min) rapids
- Rigid tapping
- Automatic lubrication
- Free-flow enclosure design
- Direct-coupled servo motors
- High-capacity cartridge spindle
- Double-anchored ballscrews

STANDARD MACHINE FEATURES, EC-300

- XYZ Travels 20" x 18" x 14" (508 mm x 457 mm x 508 mm)
- 20-hp (14.9 kW) Vector Dual Drive
- Heavy-Duty Sheetmetal Enclosure
- 24-Pocket Side-Mount Tool Changer
- Spindle Speed 8000 rpm
- Rugged Cast-Iron Construction
- Tool Release Button
- USB Port
- Full 4th Axis
- Tool Load Monitoring
- CT 40-Taper Spindle
- 4 Spare M-Functions
- Coolant Washdown Kit
- Compact Footprint
- 1-Year Parts and Labor Warranty

MACHINE OPTIONS (partial list):

- High-speed machining:
  The HSM option provides a powerful tool to reduce cycle times and improve accuracy. Using a motion algorithm called "acceleration before interpolation," combined with full look-ahead of up to 80 blocks, HSM provides fast contouring feeds without distortion of the programmed path. The Haas HSM option accepts ISO standard G code, and is a fraction of the cost of other high-speed controls.



- 40-Pocket Side-Mount Tool Changer:
  Haas-built side-mount tool changers provide more tools, more workspace and faster tool changes to increase your productivity and reduce setup times. Quick-change double-arm grippers yield fast tool changes, and additional pockets hold more tools for additional machining operations or back-up tooling.
- 12,000-rpm, 30-hp Inline Spindle:
  With the same design, this optional spindle has all the advantages of the standard spindle – plus even more power and higher speed. The Haas vector dual drive system yields plenty of low-end torque, as well as the speed necessary for high-speed machining.