

Tight tolerance and 24/7/365 industrial reliability.

For applications ranging from engraving steel and stainless steel to machining small parts from plastics, aluminum and brass tight tolerance and accuracy are of paramount importance. Enter the excelsior **EX**[®]— the flagship of our elite Excelsior[®] Class of machining centers that is designed with these applications in mind. Specifically, **EX** stands for **extra** low-pitch precision ball screws. The use of these ball screws results in a resolution of $\pm 0.00008''$ an absolute accuracy of $\pm 0.0005''$ and a relative accuracy of $\pm 0.0002''$. This finesse, shall we say, is combined with a ruggedized construction that yields 24/7/365 industrial reliability. With a compact 51" x 51" footprint, we know this machine will easily fit your into floor space. This machine is for serious manufacturers who want all of the vanguard technology and dependability that Datron is known for — the EX will not disappoint.

Beyond the ball screw.

While the extra low pitch precision ball screw produces superiority above your workpiece, the solid granite slab used for the machining table provides rigidity beneath it. Figure in the 60,000 RPM high-frequency spindle and an aged cast-steel chassis and you have an industrial grade machine that delivers precision and quality. And that's not all ... other standard features include:

- ⊙ Ample 20" x 20" machining area
- ⊙ Windows[®]-based controller & software
- ⊙ 5-tool Auto Tool Management System
- ⊙ Tool-length sensor and tool database
- ⊙ Ethanol-Mist Coolant System
- ⊙ Full Enclosure with Safety Interlock
- ⊙ Removable Chip Disposal Tray
- ⊙ C3 1GHz PC with 256 MB RAM
- ⊙ 17" LCD monitor, keyboard & controller
- ⊙ Ethernet capability, CD-ROM & USB ports
- ⊙ Smoothing/NURBS function for 3D molds

The right options for your application:

In addition to all of these great standard features, our engineers thoroughly considered all of the typical uses for the excelsior **EX** and developed integrated options to make your job easier. These include:

- ⊙ Micro-Jet oil coolant for machining steel
- ⊙ Z-Correction Probe for surface scanning
- ⊙ Renishaw TP20 Probe for CMM functions
- ⊙ 2kW spindle for added strength & speed
- ⊙ Graphite Protection Shroud for electrodes
- ⊙ 15-tool Auto Tool Changer Upgrade
- ⊙ RPM Control - program speed control
- ⊙ Integrated vacuum tables clamps & vices



Affordable Industrial Strength & Accuracy:

- ⊙ **Ideal for Small Parts, Mold Making & Graphite!**
- ⊙ Great tolerance and accuracy including $\pm 0.00008''$ Resolution
- ⊙ 60,000 RPM high-frequency spindle & 475"/min. feed rate
- ⊙ Solid Granite bed provides rigidity for 3D engraving

Cost-effective precision for anyone who needs it.

Call toll free 888.262.2833

WARNING: Utilizing the power and flexibility of the ✦ **excelsior EX** may be hazardous to your competition.

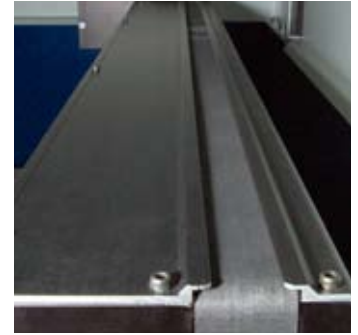
Intricacy. Detail. These make an excelsior an excelsior.

While our Raptor® Class was designed for speed and “hogging” out high volumes of material, the Excelsior® Class is intended more for intricate or detailed machining and engraving of small parts. Still, with feeds of up to 475” per minute this machine is perfectly equipped for a great variety of industries and applications — from **medical** and **aerospace** to 3D engraving and mold making.



Take the Grit out of Graphite with the Graphite Vortex™.

The **Graphite Vortex™** is designed to protect the excelsior EX against abrasive dust. The unique design forms a vortex-like airflow capturing airborne particles and safely removing them outside of the machine. The setup includes plumbing to the outside of the machine where the customer can hook up their own dust-collection system or an optional one from Datron.



Rock solid!

A solid slab of dense granite provides the excelsior EX® with vibration-free rigidity. Combine that with double-sided Y-drive precision guides and you have the recipe for sure-fired positioning accuracy and repeatability. Add in a mix of optional workholding solutions like pneumatic clamps or our proprietary Vacuumate™ (vacuum table), and you have a system that is both powerful and versatile. It's big enough for small production runs and small enough for rapid prototyping in an office environment.

For even more strength, we offer a 2kW Spindle Upgrade option, as well as a Micro-Jet (oil-based) Coolant option for **machining steel and stainless steel**. With these, you can aggressively machine steel and produce intricate medical parts or aerospace components.



Tech Specs	◆ excelsior EX™
Coordinate Table	Solid granite on a steel base, portal set up with double-sided Y-drive precision guides
Machining Area (X x Y x Z)	20" x 20" x 9.5"
Portal Height	8"
Drive System	Digital servo drives, extra low-pitch ball screw
CAD Interface	ISO G-Code (standard for NC machining code)
Control System	Microsoft Windows®-based control (open PC), 3-axis decentralized high-speed
Coolant System	Minimal quantity lubrication, electronically adjustable dispensing, Ethanol coolant
Machining Spindle	600W high-frequency spindle, 7,000 - 60,000 rpm 6mm collet, hybrid ceramic bearings
Tool Changer	5-tool changing unit with tool length sensor or 15-tool changing unit with tool length sensor
Accuracy (with pitch compensation)	Resolution: ±0.00008" Absolute: ±0.0005" / Relative: ±0.0002"
Feed Rate	475" per minute
Footprint	51" x 51" x 77" (W x D x H)
Weight	1,760 lbs.
Power Requirement	208/220V, 7Amps (single phase)