

Rotoplas 2014

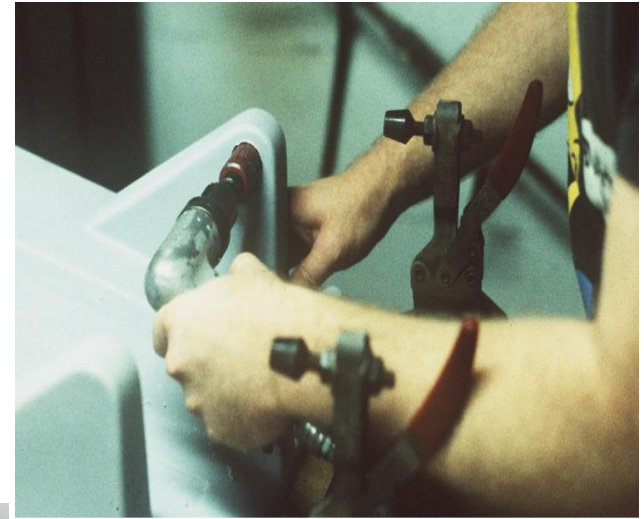
Advancements in High-Speed 5-Axis Routing & Machining

Adam Covington, Ferry Industries, Inc.



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Hand Routing/Drilling



Hand Routing/Drilling

Common methods, still required

Concerns:

- **Operator safety & fatigue**
- **Source of inconsistency or scrap**
- **Increased part handling**
- **Part complexities = complex work instructions**

Advanced Solutions

**SLIDE SPACE FOR VIDEO
-VIDEO AVAILABLE ON REQUEST-**

CONTACT:

Eric Kenney

Sales Manager

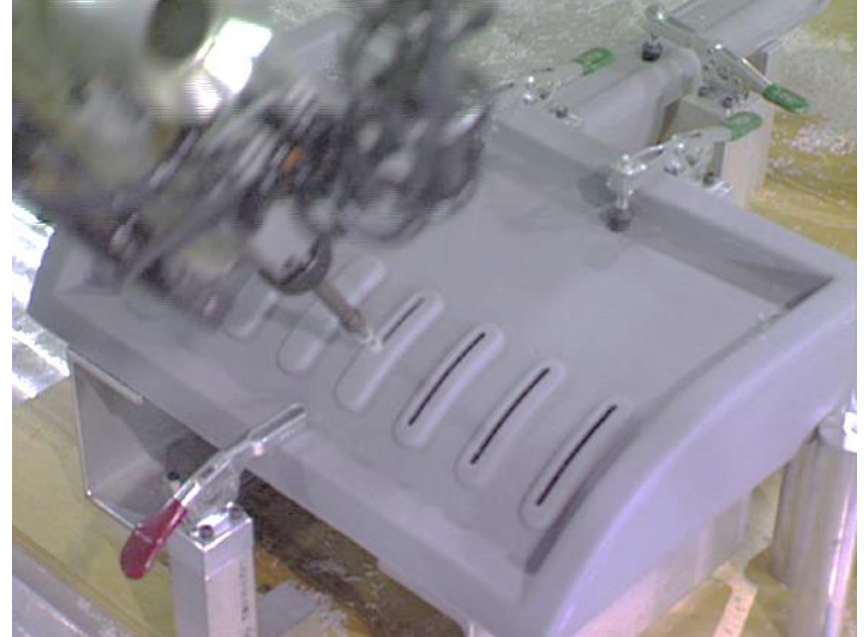
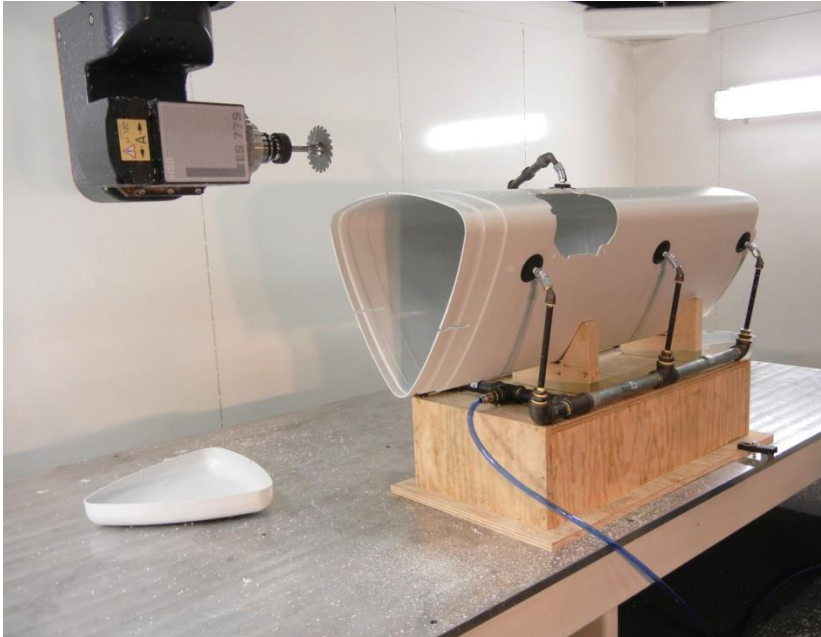
Quintax Machining Centers – A Product of Ferry Industries, Inc.

ekenney@quintax.com

330-920-9200 x137

5-Axis Machining Centers Designed For

Rotationally Molded, Blow Molded & Thermoformed Parts



- High-speed axis rapid rates to 3,000 inches per minute.
- Plastic material cut speeds to 1,000 inches per minute
- Spindle speeds to 24,000 RPM

E5510 Double Table



Twin 5' x 5' Tables Index In/Out for High-Production and Increased Safety

QUINTAX
MACHINING CENTERS

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E5510 Double Table



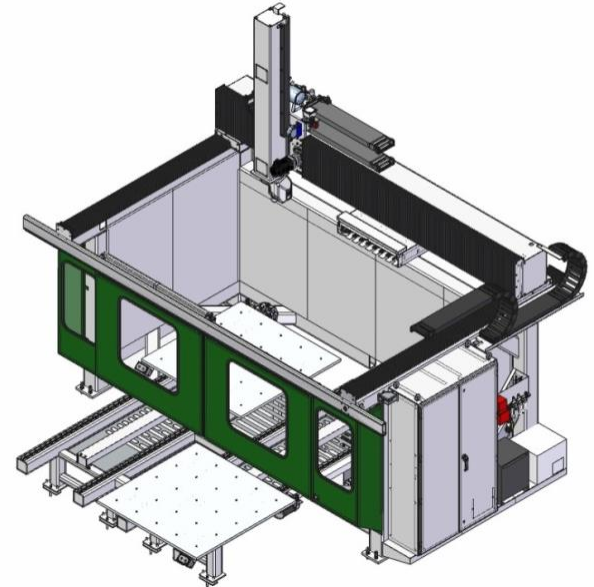
**Enclosed 5-Axis, Twin 5' x 5'
Tables with 48" Z-axis**

Safety

- **Reduce potential employee injuries**
 - Sharp tooling
 - Trip hazards
 - Tool slips/drops
- **Reduced worker fatigue**
 - More productivity
 - Less turnover
 - Hand tool vibration
- **Reduce flying debris**
 - Containment of chips
 - Broken tools (saw blades, drill bits)

Safety

- Enclosed machining cell
- Multiple E-stop positions
- Dedicated hardwired safety circuits meeting UL/CSA/CE requirements
- Reduced noise levels
- Safety mats, light curtains, laser zone scanning systems, programmable work zones, safety interlock door systems
- Dual Z axis braking systems
- Bi-lingual control languages and safety labeling



Productivity

- **Reduce waste/scrap & frequency of errors**
- **Cycle time consistency**
- **Automation**
- **Improve feature accuracy**
- **One-off to large volume production**

Trimming Roto-Molded Tank

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Productivity

- **Multi-tasking**
- **Reduced tooling cost - not using short life hand routers or die grinders**
- **Creation of lean work cells**
- **High-speed tool changes**

Trimming Roto-molded Part

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Productivity: Part-Probing



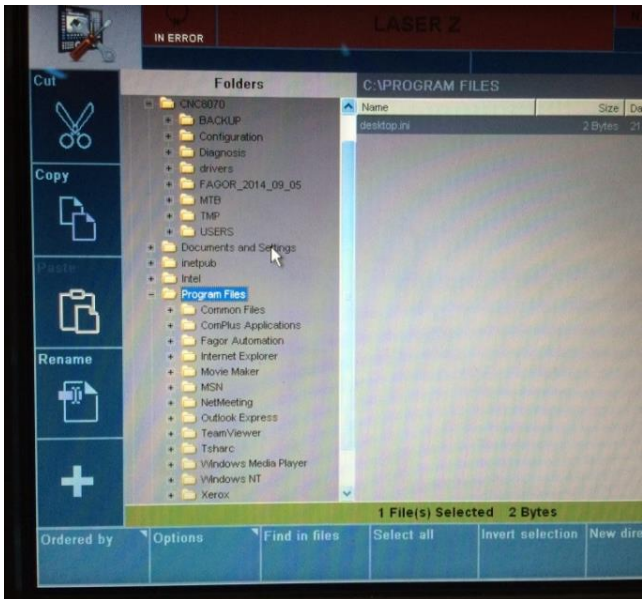
- **Adjust work offsets**
- **Machined feature verification**

Up Time

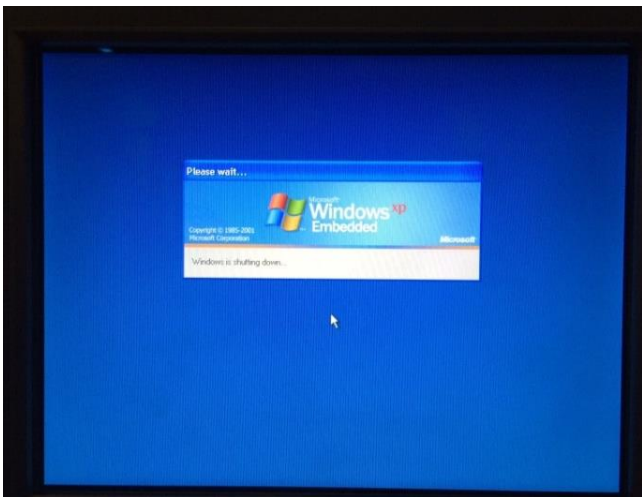


- 100% Duty Cycle
- Quick change Spindle Cartridge

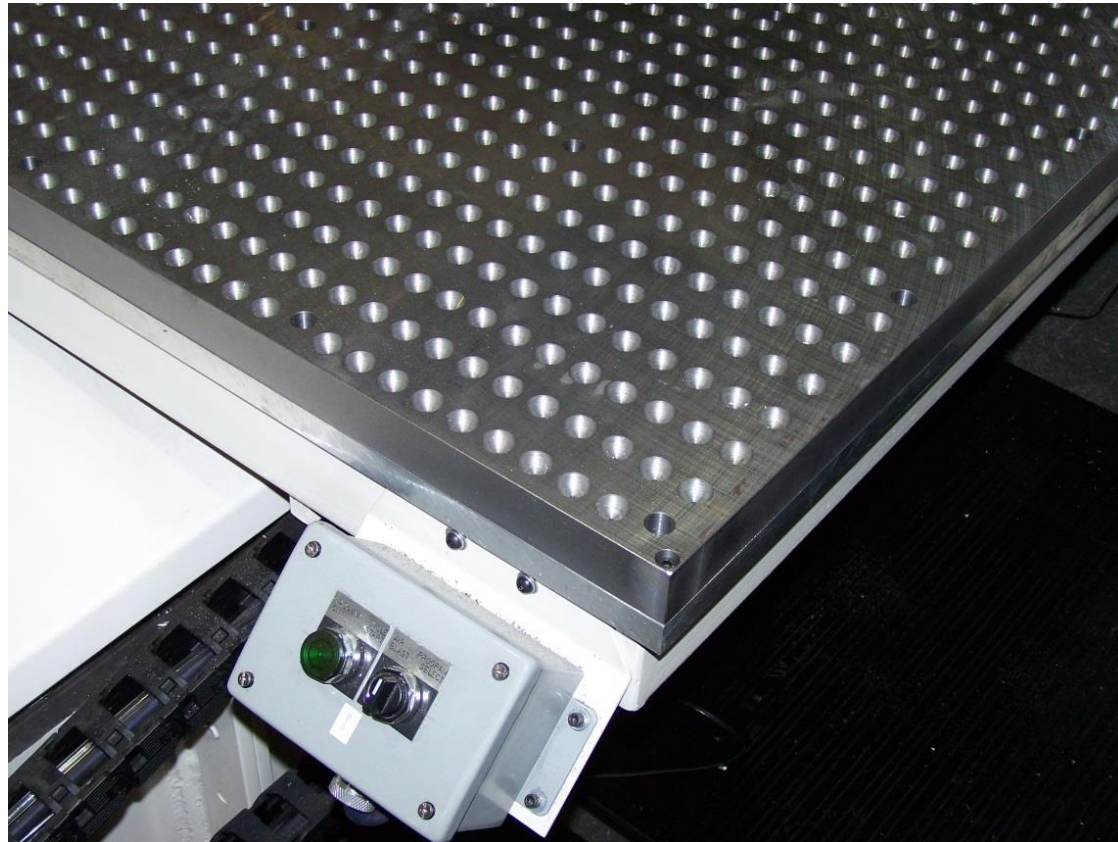
Ease of Use



- **Windows operating system**
- **High capacity part program storage at the CNC**
- **Simplified control functions and screen readability**
- **Offsite part programming sent via ethernet or USB drive**
- **Absolute encoded, no homing required**



Ease of Use



**Quick table load enable controls
allows CNC “touchless” operation**

Summary

- **Safety**
- **Production consistency through automation**
- **Ease of use**
- **Production cell**
- **Handle complex parts and operations**
- **High output, lower costs**

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Thank You

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MACHINING CENTERS



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