

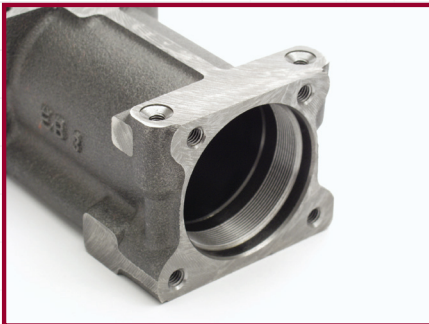
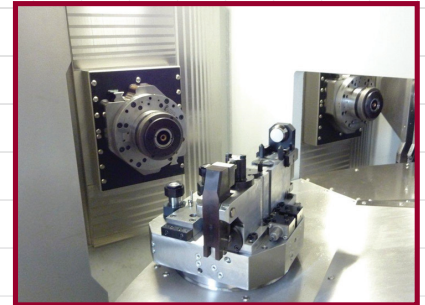
## ICON 6-250

## APPLICATION STUDY: ICON 6-250



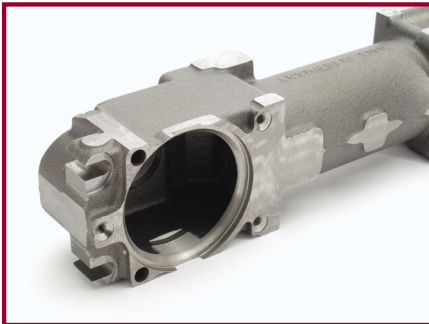
### *Application Details:*

<b>Part:</b>	Cast Iron Door Closure
<b>Size:</b>	3" x 4" x 14"
<b>Volume:</b>	240,000 annual
<b>Industry:</b>	Industrial Products



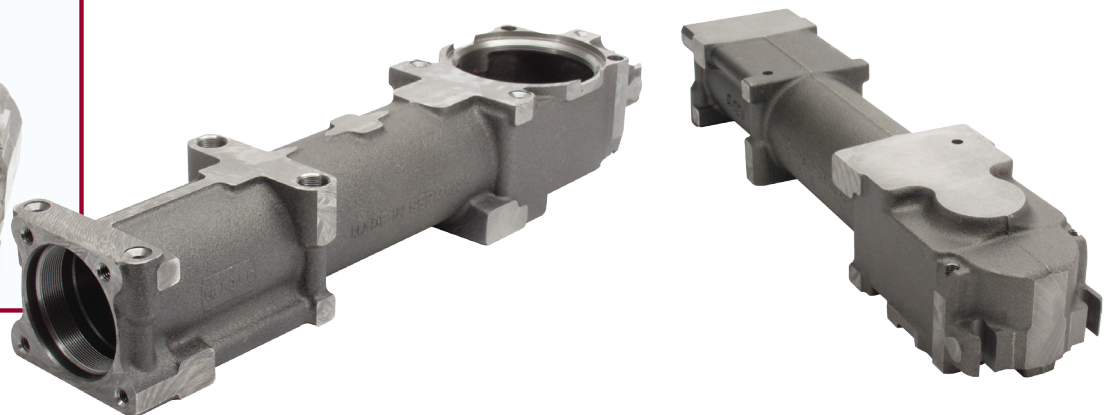
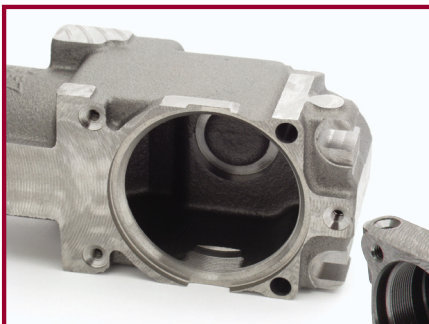
### *Product Turnkey Solution:*

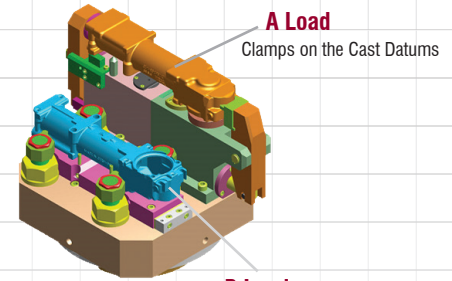
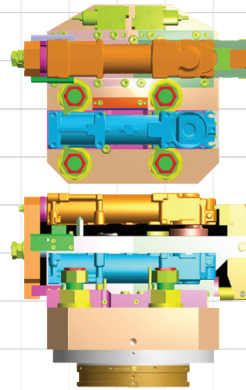
- One ICON 6-250/7 Productivity Center with 4 Horizontal and 3 Vertical 3-Axis Machining Modules
- Integrated Pallet Transfer Work-holding and versatile Direct Connect Automatic Tool Changer System
- Engineered for maximum Output in a Small Footprint
- A/B-Load Clamping in the same Fixture, where the A-Load clamps on the Cast Datums and the B-Load clamps on Qualified Machined Surfaces.
- Approximate Cycle Time = 70 Seconds



### *Product Turnkey Advantages:*

- Machine Process to produce the part complete with minimal Change-over requirements
- Flexibility of machining a family of various Door Closure styles and sizes
- Reduced Floor Space and Labor
- Eliminates a multiple stand-alone Machine Process and lengthy Cycle Time
- Only One Loading / Unloading System required
- Only One Coolant / Filtration System required





**A Load**  
Clamps on the Cast Datums

**B Load**  
Clamps on Qualified Machined Surfaces

## ICON 6-250

### Coolant System

Coolant tank: 1200 gallons  
Filtration system with vacuum drum, self cleaning  
Low pressure coolant: 2.5 bar  
Medium pressure coolant: 30 bar  
High pressure coolant: 80 bar (Optional)

### 3-Axis Machining Module

#### Integrated Spindle Motors:

Water Cooled  
Power @ 40%: 36 kW  
Torque @ 3,500 /12,000 RPM 98 / 29 Nm

#### Spindle Performance:

Spindle RPM: 12,000 max  
Acceleration: 1.0 sec. to 12,000 RPM  
Spindle Bearing Size: 70mm

#### Optional Spindle RPM:

8,000 RPM Max: 36 kW  
24,000 RPM Max: 48 kW

#### Massive Pre-Tensioned Ball Screws:

X Axis: 40mm X 10mm Pitch Double Lead  
Y Axis: 50mm X 20mm Pitch  
Z Axis: 40mm X 10mm Pitch Double Lead

#### Machining Stroke & Force:

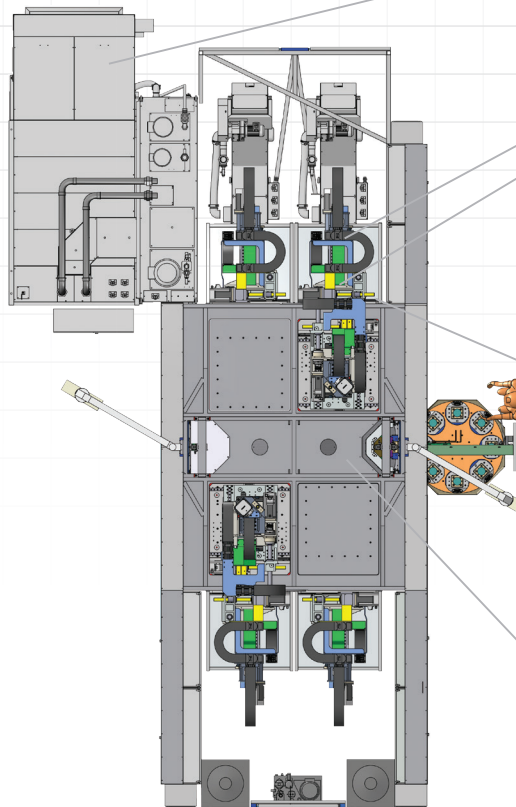
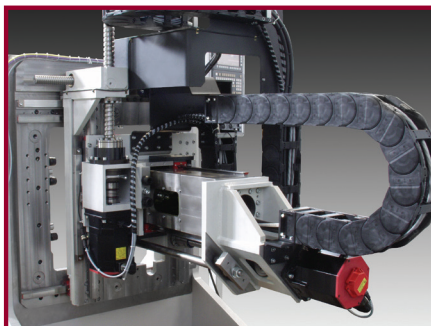
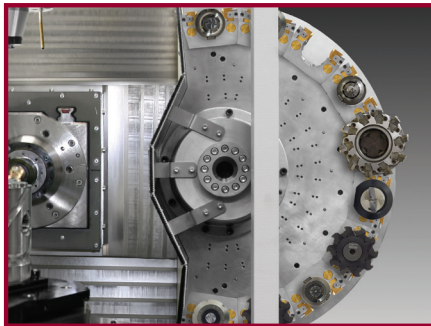
X Axis: 300mm @ 22 Nm  
Y Axis - 300mm @ 30 Nm  
Z Axis - 375mm @ 22 Nm

#### Size & Weight:

X Slide: 630mm X 840mm  
Y Slide: 570mm X 540mm  
Z Slide: 250mm X 250mm  
Weight: 1200 kg

#### Pallet Changer

Integrated electromechanical system, torque motor  
Amount of pallets: 6  
Max. Pallet Load: 140 lbs each



#### Tool Changer

Tool head receiver: HSK63  
12 tool positions per changer  
Maximum tool length: 260mm  
Maximum diameter: 125 mm  
Maximum tool weight: 15 lbs

#### Loading Station

Manual, Semi-Automatic  
or Robotic

#### Index Drives

Amount of Index drives: 4 positions  
Index speed 1.8 seconds for 180°  
Index accuracy +/- 4 sec.  
Integrated control pivot includes:  
3 hydraulic clamp circuits, 1 hydraulic  
return, and 1 air burst

