



## PMI CNC Machining Centers

### PMI-CNC S-Type 5-Axis Machining Center



#### Machine Features:

- Standard available X-axis working lengths from 137.76 to 295 Inches (3.5m to 7.5m)
- Short scale multiple processing (2 Zone), Long scale processing, 5-axis processing
- The traveling column features precision positioning accuracy
- The traveling column is driven through servomotor combined with a gear/rack transmission
- The Z and Y axis are driven through servomotor combined with ball screw
- Each Axis moves on precision linear guide ways to allow for fast and smooth movements
- Automatic tool changer - 12 tool capacity
- The Machine is equipped with air clamps to hold material in position
- Automatic Clamp Movement
- The machine is equipped with a safety guard to ensure operator safety (Partial or Full cover available)
- Industrial PC based CNC Control is the standard equipment. It is easy to learn and operate.
- The machine is equipped with an oil misting system. The oil mist system will extend tool life and also ensures superior cutting quality.
- Spindle air blast is standard on the machine
- Equipped with an auto lubrication system for the linear guide ways and ball screws
- Chip conveyor is standard on this machine



### **Travel**

X-Axis Travel	137.76 Inches (3500mm) to 295 Inches (7500mm)
Y-Axis Travel (3-axis)	27.55 Inches (700mm)
Y-Axis Travel (4-axis)	15.74 Inches (400mm)
Y-Axis Travel (5-axis)	7.87 Inches (200mm)
Z-Axis Travel	14 Inches (350mm)
A-Axis Travel	+/-120 degrees
C-Axis Travel	+/- 220 degrees

### **Table**

Table Working Type	4 to 10 Vises (with automatic movement)
Table Working Surface to 7500mm)	27.55 inches x 137.76 inches to 295 inches (700mm x 3500mm
Max Holding Power (per vise)	242 lbs (110kg)

### **Spindle**

Spindle Speed	20,000 RPM
Spindle Motor	10 HP (7.5 kw)
Spindle taper	HSK63

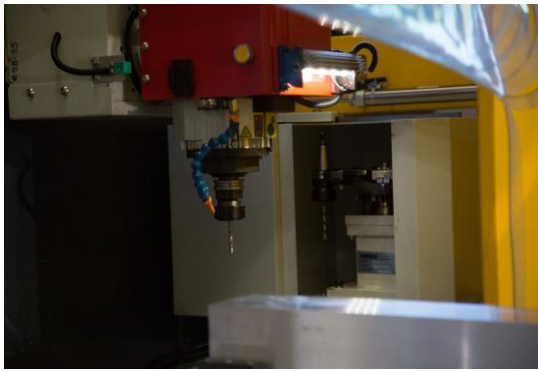


### **Feed Rate**

Rapid Traverse	X: 196.8 FPM (60m/min)
	Y: 78.72 FPM (24M/Min)
	Z: 78.72 FPM (24 M/Min)
3-Axis Servomotors	X-axis: 2Kw    Y-Axis: 1Kw    Z-Axis: 2Kw    (Mitsubishi)
Positioning Accuracy (+/-)	X-Axis: 0.002 Inches (0.05mm)
	Y-Axis: 0.0008 Inches (0.02mm)
	Z-Axis: 0.0008 Inches (0.02mm)
Cutting Feed Rate	0.0394 to 196.85 Inches/min (1 to 5000mm/min)

### **Tool Storage**

Tool storing capacity	12 Tools
Tool Holder	HSK 63
Magazine Type	Automatic Disk Type



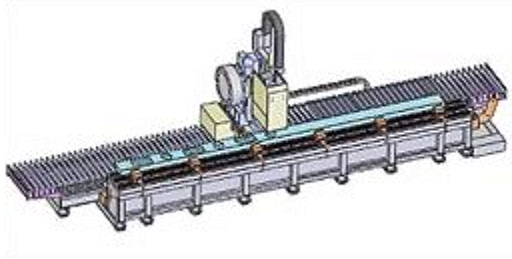


### General

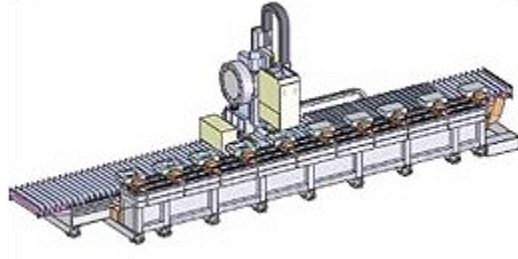
Machine weight 11,000lbs (3.5m) or 17,600lbs (7.5m)

Machine dimensions 268" x 99" x 108" (65800 x 2504 x 2742mm) 3.5m or 374" x 99" x 108" (9500 x 2504 x 2742mm) 7.5m

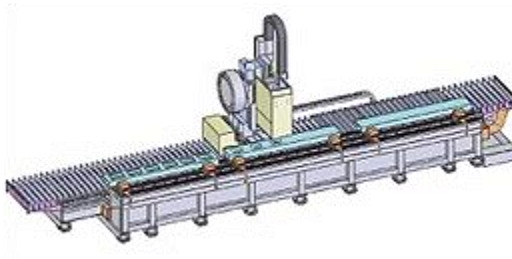
### Long Scale Single Piece Processing or Short Scale Zone Processing



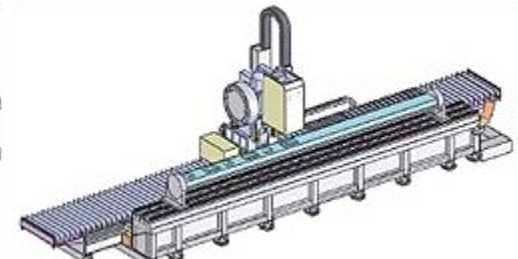
Long-scale Processing



Short-scale multiple processing



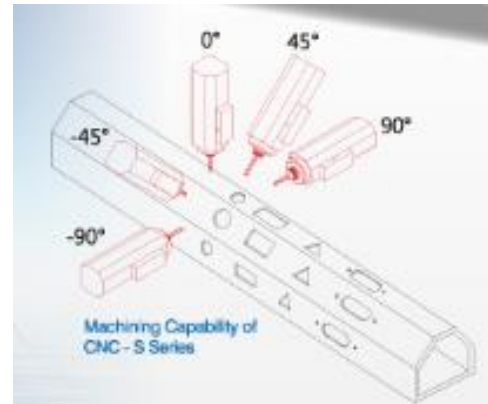
Short-scale multiple processing



For 4-axis processing (Optional)

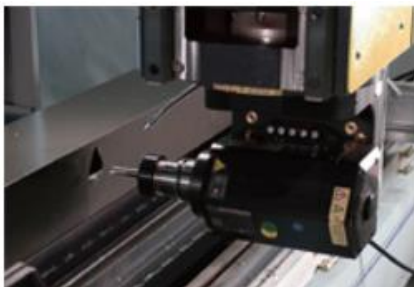


#### 4<sup>th</sup> A-Axis for +/- 120 degrees Tilt movement of the spindle head



- With the 4 axis rotary spindle, the head can be positioned 95 degrees to the left and right of the work piece. This allows the machine to drill or tap on an angle into the work piece.
- The machine can also do face milling and multi-surface machining in one setup.
- The swiveling degree of the spindle head is adjusted through the computer control.
- Minimum indexing of the angle is 5 degrees
- A tool clamp/release button is provided on the angular head
- Built-in type spindle features high accuracy, low vibration, low noise, and no backlash

#### 5<sup>th</sup> Axis C-Axis Rotary Movement of the Spindle -- +/- 220 degrees





### **Oil Mist Cooling System**

The machine is equipped with an oil mist cooling system which provides a cool cutting tool and work piece. The Oil Mist system will extend the service life of the tool and ensure a superior cut quality.

### **CNC Control**

The Syntec Industrial PC Based Control is easy to learn and operator friendly.



### **Automatic Lubrication System**

All Linear guide ways and ball screws are automatically lubricated to ensure long service life and smooth movement on all axes.



### **Automatic Clamp Movement**

The clamps are automatically positioned so the machine can process 3 sides of a profile in a single setup. Each vise has a safety zone that is built into the machine's control.

