FSP systems

FSP 300X

The Moore Tool Company, a leader in precision machine tool design and manufacture, is proud to present a line of true high-speed, five-axis machining systems. The FSP300X offers a combination of high feed rates, spindle speeds, and acceleration. This results in faster turnaround for improved productivity and consistent accuracy to deliver a superior product.

features

- High-precision machining with high-speed cutting capability and exceptional dynamic response
- Massive cast-iron portal design with 3-point leveling enhances accuracy, stability and vibration damping
- Available in four- and five-axis configurations
- Siemens 840D modular CNC control with operator- and automation-friendly programming through Windows NT/High-speed, user-defined macros and flexible block search

productivity standards

- Up to 1.7G acceleration in five-axis mode
- Ergonomic machine cabin
- 24-position tool changer
- Laser toolsetter
- Coolant system
- Precision spindle with HSK40E taper

productivity options

- Oil hydrostatic, air turbine and high-frequency spindle options to 80,000 rpm
- High-capacity robotic part loader
- Graphite machining package
- Laser toolsetter with measurement and compensation standard
- Turnkey solutions and custom configurations

specifications

Capacity

Travel X axis	420 mm (16.54 in.)
Travel Y axis	320 mm (12.60 in.)
Travel Z axis	310 mm (12.20 in.)
Travel B axis	230 degrees (25+180+25)
Travel C axis	Infinite
B axis centerline to spindle nose (Z axis)	100 mm x 400 mm (3.94 – 15.75 in.)
Table Load	25 kg (55 lbs.)
Maximum Swing (C axis rotary)	300 mm (11.81 in.)

Speeds and feeds

Speed range	200 to 30,000 rpm
Spindle power	10 KW 13.4 HP
Maximum speed (B axis swivel)	140 rpm
Maximum speed (C axis rotary)	210 rpm
Rapid feedrate (X, Y, & Z axes)	30,000 mm/min. (1,181 IPM)
Contouring feedrate (X, Y, & Z axes)	20,000 mm/min. (787 IPM)
Maximum axis acceleration (X, Y, & Z axes)	16.6m/sec^2 (1.7 G)
Maximum axis acceleration (B axis swivel)	130 rad/sec^2
Maximum axis acceleration (C axis workhead)	300 rad/sec^2

Accuracy

Positioning: DIN/ISO 230-2	
Positional uncertainty P: X, Y & Z axes	.004 mm (.00016 in.)
Positional uncertainty P: B & C axes	10 arc seconds
Positional uncertainty PA: X, Y & Z axes	.003 mm (.00012 in.)
Positional uncertainty PA: B & C axes	5 arc seconds
Geometric: Straightness	
X, Y & Z axes	.005 mm (.0002 in.)
Geometric: Squareness	
XY, XZ & YZ axes	.0076 mm (.0003 in.)

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