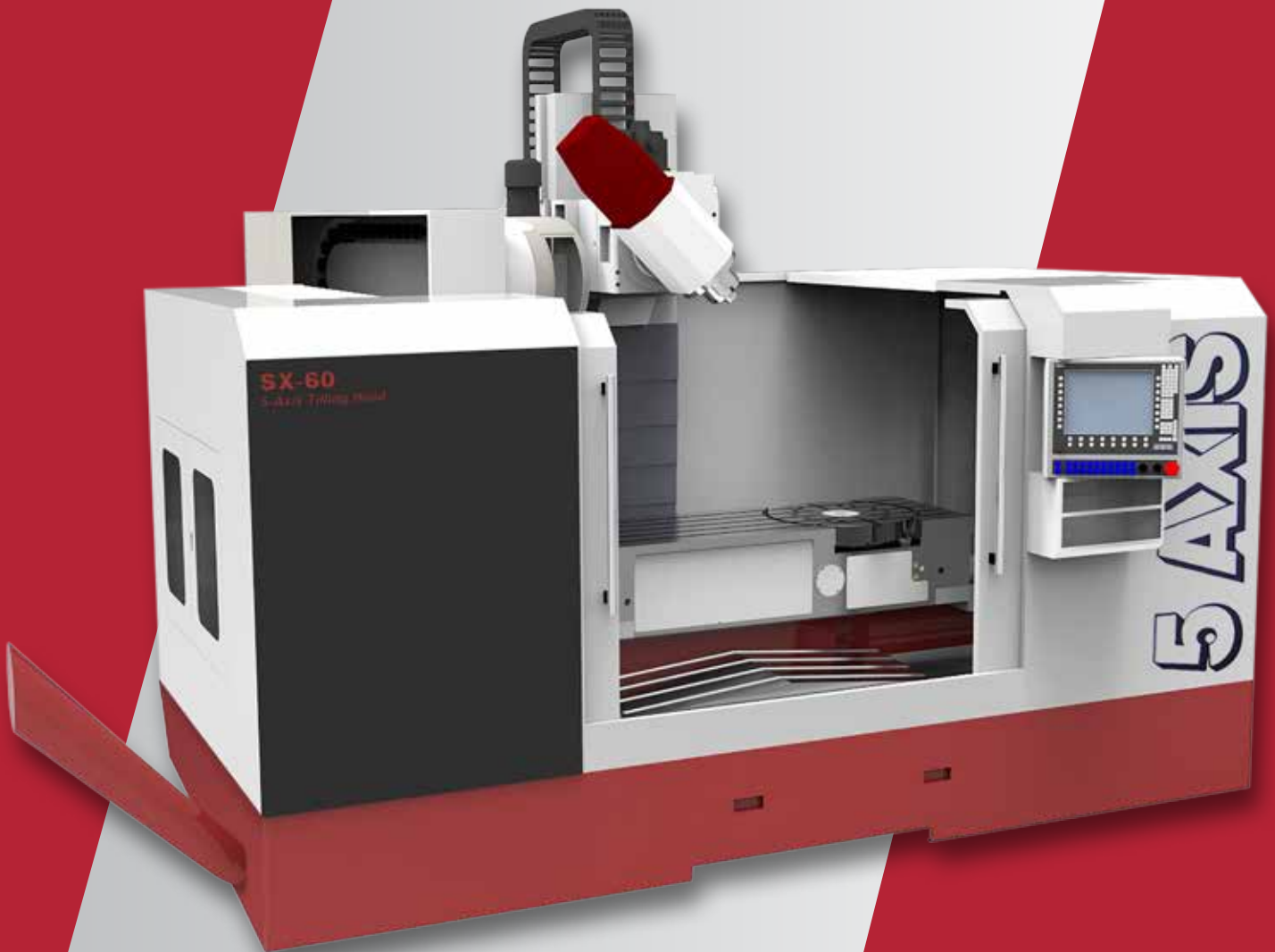


SX Series

5-Axis with Tilting Spindle



FRYER

MACHINE SYSTEMS[®]

Precision Built Solutions™

The Fryer SX Series 5 Axis Machining Centers feature a swivel head that moves +/- 110°. The 24" rotary table is flush mounted into the large machine table and can handle parts up to 5,000 lbs. The machine features a 40 tool ATC, 16,000 RPM spindle, 40 HP and 1,400 IPM rapids. The standard Siemens CNC features the ultimate in 5 axis features and programming convenience.

- 16,000 RPM high torque 40 HP motorized spindle
- Unique rotating spindle axis
- Spindle can move up to +/- 110°
- 40 tool high speed twin arm ATC
- 8,500 BTU spindle refrigeration unit
- All axes laser calibrated & ballbar verified
- Remote electronic handwheel & full machine enclosure



SX-60

Siemens Touch 2200 CNC

Siemens 840D SL is offered in an advanced configuration that features a 15" color touch screen, one touch set-up, 5 axis cycles and advanced digital drives and motors.

- Advanced 5 axis motion control
- Faster set-up and operation
- Handwheel control of program execution
- 3D solid model verification



Sliding ATC



RETRACTED POSITION
Allow for full movement of the head right or left +/- 110°.



TOOL CHANGE POSITION
ATC automatically moves in to allow fast tool changes. 40-tool capacity.

Head Configurations

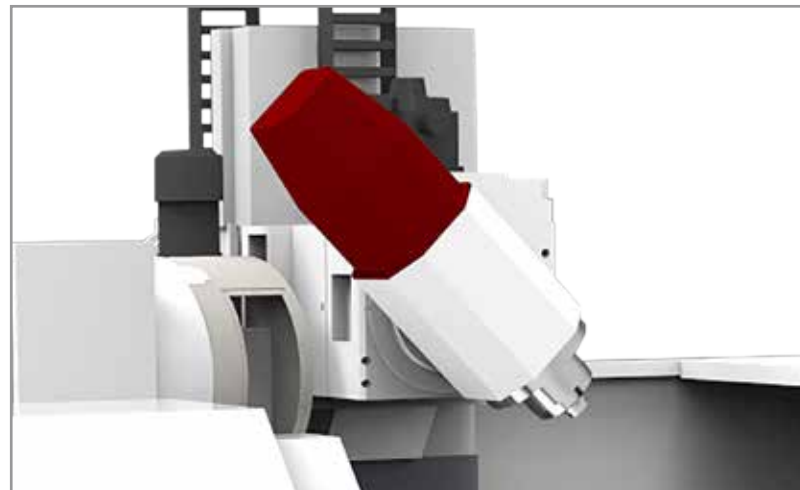
OFFSET HEAD

- Offset head keeps tool tip at center of rotation
- Increases accuracy
- High precision gear cutting and blade machining
- Reduced witness marks



CONVENTIONAL HEAD

- Conventional head offers increased throat distance
- Balanced design does not require counter balance
- Smaller design than offset
- Hidden wire tracks



Rotary Configurations

BUILT-IN ROTARY TABLE

- Flush mounted 24" rotary
- Large parts can be 5 side machined
- Large weight capacity
- Hidden when not in use

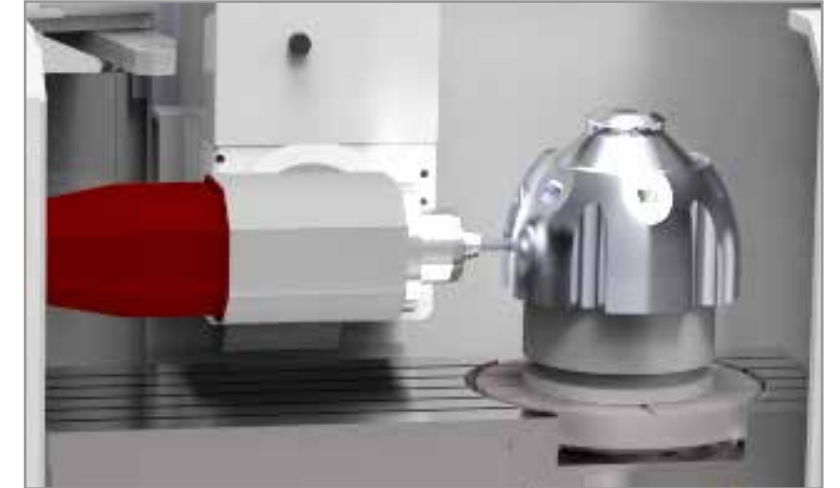
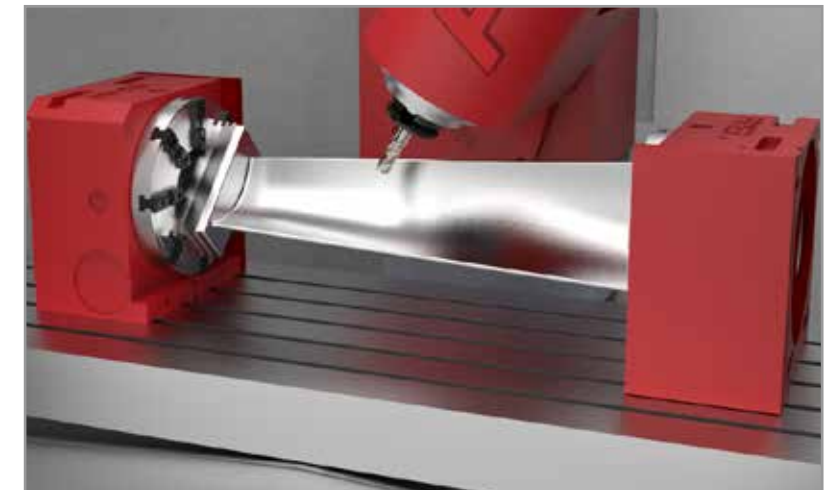
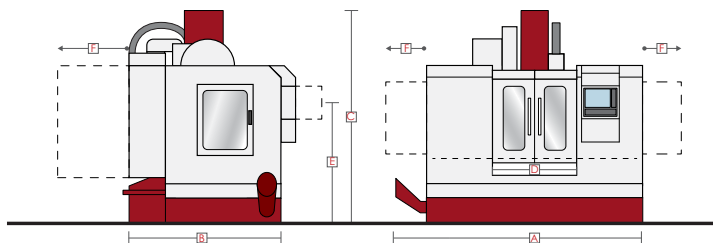


TABLE MOUNTED ROTARY

- Multiple size rotary available
- Perfect for spinning large rectangular parts
- Available tailstock support
- Available dual synchronized rotary package



SX SERIES SPECIFICATIONS		SX-45	SX-60
MACHINE CAPACITY	X Travel	45"	60"
	Y Travel	25"	30"
	Z Travel	25"	35"
	B Travel		+/- 110°
	C Travel		+/- 360°
	Table Load (Evenly Distributed)	5,000 lbs.	5,000 lbs.
	Machine Table Size	24" x 51"	24" x 67"
	T-Slots (No./Width)	4 / 0.630"	3 / 0.630"
	Built-in Rotary Table Size		24"
	Way Type		Linear
SPINDLE	T-Slots (No./Width)		5 / 0.709"
	Table Top to Floor		35"
	Motor HP (Peak)		40.0 HP
	Spindle Speed (RPM)		100 - 16,000 RPM (18,000; 25,000)
	Spindle Torque (Max)		85 ft/lbs. @ 850 RPM
	Tool Type/Taper		CAT 40 (BT-40, HSK-63)
	Spindle Nose to Table (Max to Min)	2" - 27"	2" - 37"
	Spindle Center to Column	26"	31"
	Tool Storage Capacity		40 Station Arm Type
	Tool Change Time		3 Seconds
ATC	Max. Tool Diameter (Full)		3.2"
	Max. Tool Diameter (Adjacent Empty)		5.9"
	Max. Tool Weight		15 lbs.
	Max. Tool Length		13"
	Positioning Accuracy X, Y, Z		+/- 0.0002"
PERFORMANCE	Positioning Repeatability X, Y, Z		+/- 0.0001"
	Positioning Accuracy B, C		12 Seconds (5 Seconds)
	Positioning Repeatability B, C		5 Seconds (2 Seconds)
	Axis Rapid Traverse		1,400 IPM X, Y; 1,000 IPM Z
	Rotary Rapid Traverse		"B" Axis - 33 RPM; "C" - 22 RPM
	Cutting Feed Rate		0.001 - 900 IPM
	Servo Type		AC Digital Brushless
	Axis Thrust (Peak)		4,955 lbs. X, Y; 6,193 lbs. Z
GENERAL INFO	Air Pressure Requirements		90 PSI; 5 CFM
	Coolant Capacity		100 Gallons
	Coolant Flow		9 Gal/Min
	Power Requirements		80 AMP; 430-500 VAC 3 PHASE (200-250 optional)
	Shipping Dimensions* (WxDxH)	127" x 87" x 87"	161" x 89" x 93"
	Operating Dimensions (WxDxH)	127" x 104" x 110"	161" x 112" x 112"
Machine Weight	15,500 lbs.	21,500 lbs.	



	SX-45	SX-60
Floor Width (A)	127"	161"
Floor Depth (B)	104"	112"
Maximum Height (C)	110"	112"
Door Opening Width (D)	53"	85"
Floor to Console Height (E)	62"	62"
Electrical Cabinet Swing (F)	38"	38"