

5X Series

5-Axis Rotating Spindle



FRYER

MACHINE SYSTEMS[®]

Precision Built Solutions[™]

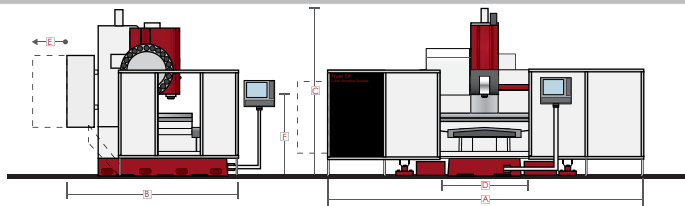
The 5X Series features a German made Kessler tilting / rotary head providing 360° of rotation and 200° of spindle tilt. This flexible spindle solution is perfect for the aerospace, automotive and oil field industries where rotating the part is not practical. Featuring the Fryer 2200 CNC 5 axis control with digital drives and Siemens 5 axis technology.



The Kessler heavy duty head is designed for steel and tough alloy machining.

- 40 tool high speed, twin arm ATC
- Full machine enclosure
- Kessler German-made 2-axis high accuracy head
- High torque 35 HP, 12,000 HP spindle (5x-60)
- High torque 55 HP, 15,000 HP spindle (5x-120 & 5x-160)
- Disc brake for A and C axis
- High capacity spindle refrigeration unit
- 5 axis remote electronic handwheel
- Siemens 840 DSL CNC
- Fanuc 31i A5 CNC
- Rotary tool center-point compensation

5X SERIES SPECIFICATIONS		5X-60	5X-120	5X-160
MACHINE CAPACITY	X Travel	60"	120"	160"
	Y Travel	30"	50"	50"
	Z Travel	35"	39"	39"
	A Travel	+/- 95°	+/- 105°	+/- 105°
	C Travel		+/- 200°	
	Table Load (Evenly Distributed)	5,000 lbs.	7,500 lbs.	8,500 lbs.
	Table Size	67" x 24"	40" x 126"	40" x 165"
	Way Type	Linear	Box Ways	Box Ways
	T-Slots (No./Width)		5 / 0.709"	
	Table Top to Floor	32"	38"	38"
SPINDLE	Motor HP (Peak)	35.0 HP	55.0 HP	55.0 HP
	Spindle Speed (RPM)	200 - 12,000 RPM	200 - 15,000 RPM	200 - 15,000 RPM
	Spindle Torque (max)	40 ft/lbs. @ 1,000 RPM	90 ft/lbs. @ 2,000 RPM	90 ft/lbs. @ 2,000 RPM
	Tool Type/Taper		HSK-63A	
	Spindle Nose to Center of Rotation		11"	
	Spindle Nose to Table - Vertical	0 - 30"	0 - 32.5"	0 - 32.5"
	Spindle Nose to Table - Horizontal	5" - 40"	4" - 43"	4" - 43"
	Spindle Center to Column	30"	51"	51"
ATC	Tool Storage Capacity	40-Station Arm Type (60-Tool optional)		
	Tool Change Time	3 Seconds		
	Max. Tool Diameter (full)	3.0"		
	Max. Tool Diameter (adjacent empty)	5.9"		
	Max. Tool Weight	15.0 lbs.		
	Max. Tool Length	13"		
PERFORMANCE	Positioning Accuracy X, Y, Z	+/- 0.0002"		
	Positioning Repeatability X, Y, Z	+/- 0.0001"		
	Positioning Accuracy A, C	5 Seconds		
	Position Repeatability A, C	3 Seconds		
	Rapid Traverse	1,200 IPM X, Y, Z	800 IPM X, Y, Z	800 IPM X, Y, Z
	Cutting Feed Rate	0.001 - 800 IPM X, Y, Z; 100 IPM A, C		
	Servo Type	AC Digital Brushless		
GENERAL INFO	Axis Thrust (Peak)	4,500 lbs.	10,800 lbs.	10,800 lbs.
	Air Pressure Requirements	90 PSI; 5 CFM		
	Coolant Capacity	100 Gallons		
	Coolant Flow	9 Gal/Min		
	Power Requirements	150 AMP; 380-500 VAC 3 PHASE		
	Shipping Dimensions* (WxDxH)	161" x 89" x 93"	140" x 105" x 105"	180" x 105" x 105"
	Operating Dimensions (WxDxH)	161" x 112" x 112"	285" x 135" x 126"	300" x 135" x 126"
Machine Weight	20,000 lbs.	34,000 lbs.	37,000 lbs.	



	5x-60	5x-120	5X-160
Overall Width (A)	161"	285"	300"
Overall Depth (B)	112"	135"	135"
Maximum Height (C)	112"	126"	126"
Door Opening Width (D)	62"	120"	160"
Electrical Cabinet Swing (E)	32"	25"	25"
Console Height (F)	62"	62"	62"



* Requires some disassembly to meet these minimum dimensions. Contact factory for more information.

* Requires some disassembly to meet these minimum dimensions. Contact factory for more information.