

# HB Series

Horizontal Boring Mill



HB-70

# FRYER

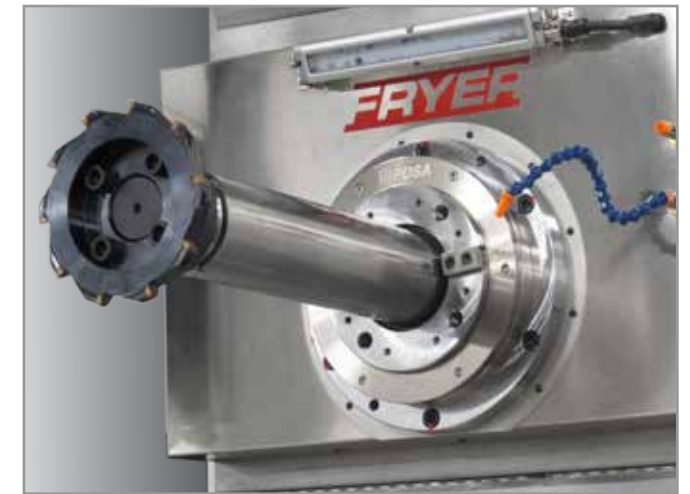
MACHINE SYSTEMS<sup>®</sup>

Precision Built Solutions<sup>™</sup>

Fryer's HB Series Boring Mills are heavy duty machines designed for high precision machining. Equipped with a 20" travel bar type spindle and a powerful 40 HP spindle motor. Rugged box way construction and high precision ballscrews ensure high performance cutting and high accuracy tolerances. The user friendly 2200 CNC allows shop floor programming for single piece runs or G code programming for high production.

## Rugged Bar-Type Spindle

The HB Series is equipped with a 4.33" quill-style spindle. This rugged spindle has 20" of travel and is fully programmable through the CNC as the W axis. It also features a standard thru-tool coolant system which offers 50 PSI of pressure and is upgradeable to 350 or 1,000 PSI.



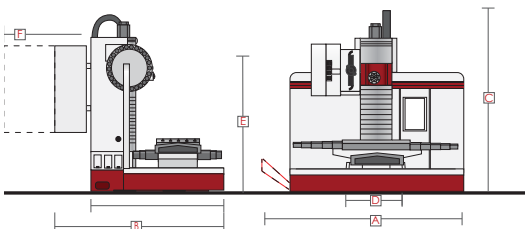
HB-70

- Rugged 4-box way construction
- 24, 30, 40, or 60 tool arm-type ATC
- 50 taper bar type spindle 4.33" diameter
- 20" travel bar fully programmable - W axis
- 3,000 RPM max spindle speed
- 40 HP spindle with 360 ft/lbs of torque
- Built-in contouring rotary table option
- Heidenhain high accuracy glass scales
- Chip auger or conveyor with washdown system
- Semi-guarding for easy access
- Full-guarding with front and rear access doors



HB-120

HB SERIES SPECIFICATIONS		HB-70	HB-120	HB-160
MACHINE CAPACITY	X Travel	72"	120"	160"
	Y Travel	55"	55"	55"
	Z Travel	36" (46")	50"	50"
	W Travel		20"	
	Table Size	36" x 80"	40" x 126"	40" x 165"
	Table Load (Evenly Distributed)	10,000 lbs.	10,000 lbs.	10,000 lbs.
	T-Slots (No./Width)	5 / 0.866"	7 / 0.709"	7 / 0.709"
	Table Top to Floor	40"	38"	38"
SPINDLE	Bar Diameter (Quill Size)		4.330"	
	Bar Travel (W Axis)		20.0" Fully Programmable "W" axis	
	Spindle Motor HP (Peak)		40.0 HP (55 HP)	
	Spindle Speed (RPM)		30 - 3,000 RPM	
	Spindle Torque (Max)		360 ft/lbs. @ 350 RPM (1,400 ft/lbs with 2-speed gearbox)	
	Speed Ranges		1 Range (2-speed ZF gearbox optional)	
	Tool Type/Taper		CAT 50 or BT-50	
	Spindle Nose to Table Center	2" - 27"	7" - 43"	16" - 66"
	Spindle Center to Table Top		5" - 60"	
BUILT-IN ROTARY OPTION	Platter Size	36"	40"	40"
	Maximum Rotation Speed		12 RPM	
	Maximum Table Load	2,000 lbs.	5,000 lbs.	6,000 lbs.
	Positioning Accuracy		12 arc seconds	
	Position Repeatability		5 arc seconds	
	Spindle Center to Table Top		0" - 53"	
ATC OPTION	Tool Storage Capacity		24 Station Arm Type (30-40-60 tool)	
	Tool Change Time		4 seconds	
	Max. Tool Diameter (full)		5.90"	
	Max. Tool Diameter (adjacent empty)		9.85"	
	Max. Tool Weight		33.0 lbs.	
	Max. Tool Length		16"	
PERFORMANCE	Positioning Accuracy		+/- 0.0002"	
	Positioning Repeatability		+/- 0.0001"	
	Ballscrew Diameter	1.96"	3.14"	3.14"
	Rapid Traverse	750 IPM X, Y, Z	600 IPM X, Y, Z	600 IPM X, Y, Z
	Cutting Feed Rate		0.001 - 600 IPM	
	Servo Type		AC Digital Brushless	
	Axis Thrust (Peak)		7,500 lbs.	
GENERAL INFO	Air Pressure Requirements		90 PSI; 5 CFM	
	Coolant Capacity		100 Gallons	
	Coolant Flow		5 Gal/Min	
	Power Requirements		80 AMP; 400-500 VAC (220 VAC optional)	
	Shipping Dimensions* (WxDxH)	120" x 94" x 96"	140" x 105" x 105"	180" x 105" x 105"
	Operating Dimensions (WxDxH)	195" x 185" x 145"	260" x 185" x 145"	300" x 185" x 145"
	Machine Weight	38,000 lbs.	44,000 lbs.	48,000 lbs.



	HB-70	HB-120	HB-160
Overall Width (A)	195"	260"	300"
Overall Depth (B)	185"	185"	185"
Maximum Machine Height (C)	145"	145"	145"
Door Width (D)	78"	78"	78"
Console Height (E)	63"	63"	63"
Electrical Cabinet Swing (F)	36"	36"	36"
Approximate Machine Weight	38,000 lb	44,000 lb	48,000 lb