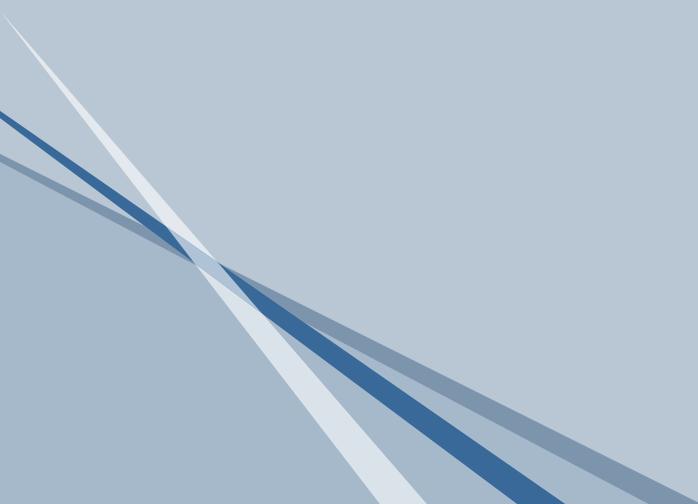
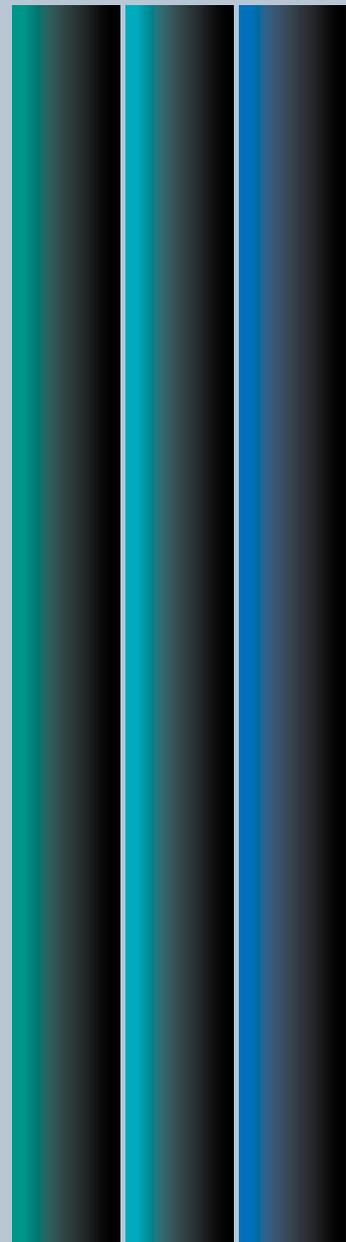
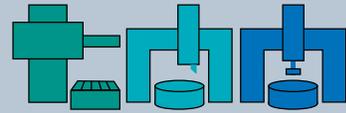
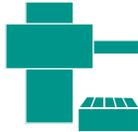


NEWLAND

Newland Machine Tool Group Inc.



HEAVY MACHINE TOOLS OVERVIEW



Horizontal Boring Mills

- KB Series T-type HBM with 130 or 165 mm extendable spindle (W-axis), column movable in the spindle direction (Z-axis), vertical travels (Y-axis) from 1.6 to 3.5 meters, and X-axis travels from 2 to 4 meters
- KF Series Floor-type HBM with square ram (Z-axis) and 165, 200 or 250mm extendable spindle (W-axis), vertical travels (Y-axis) from 2 to 7 meters, and X-axis travels from 3 meters and up as required
- For KF Series total spindle and ram extension is from 2.2 to 3.3 meters
- Optimal combination of hydrostatic and box ways
- Automatic systems of deflection compensation for KF Series
- Plain tables, floor plates or rotary tables with precision mechanical or hydrostatic bearings
- Special configurations available, including high speed milling spindle, or 1- or 2-axis heads in lieu of boring spindle head to provide 5-axis machining capability



Vertical Turning Centers

- Single column (1.6 to 2 meters swing) or double column (2.5 to 5 meters swing)
- Heavy-duty cast iron structure with box ways
- Movable crossrail with fixed precise positions
- Crossed roller table bearing, or hydrostatic bearing (for machines 4 meters and more)
- 60 to 120 kW main motor and 3 range gearbox
- Live spindle, C-axis, dual ram, special chucks are available



Precision Vertical Grinders

- Swings of 1.6 to 3.2 meters
- Solid polymer casting structure
- Precision linear guide ways (X, Z)
- Hydrostatic table bearing
- Heidenhain optical scales
- Various types of chucks and dressers available

OEM Products

- Rotary Tables
- Hydrostatic Linear way units
- Boring Heads
- Custom Milling Heads

The Company

Newland Machine Tool Group Inc. based in Canada, offers a complete line of large machine tools for the global market.

Our product lines include:

- [Horizontal Boring Mills](#)
- [Vertical Turning Centers](#)
- [Precision Vertical Grinders](#)
- [OEM Products](#)

Newland offers a wide variety of products and services including custom solutions, installation, training and technical and service support.

At Newland, our philosophy is, "Every customer deserves a machine with the newest technology at an affordable price". By choosing Newland machines, our customer receive the best price value ratio ever offered.

NEWLAND

Our Headquartes and Design Center, Newland Machine Tool Goup Inc., located in Toronto, Ontario, Canada is responsible for administration, sales, design, service and manufacturing operations management.

KHMT

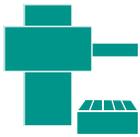
Kent Heavy Machine Tool North America provides inventory in North America. Our manufacturing center, KHMT Incorporated, Ltd. located in Taichung Taiwan, under Newland Management, provides low cost facilities and talented craftsmen for the build of our equipment.



Roundness Technologies provides roundness error compensation systems for machining high tolerance round parts.

Heavy Machine Tools Applications:





HORIZONTAL BORING MILLS

Newland offers two lines of horizontal boring mills: the KB Series T-type machines and the KF Series floor type machines with square ram.

Some special machine configurations are available, including 1- or 2-axis head for 5-axis machining, or high speed milling spindle. Also a floor type machine with the KB Series boring spindle head can be offered.

The Newland lines of horizontal boring mills bring innovation and affordability to the large machine tool market. State of the art designs, the highest quality components obtainable and the strictest manufacturing and build practices guarantee the finest machine performance and reliability available today.

Major design features include the optimal combination of hydrostatic and box ways, automatic systems of deflection compensation (for KF series), high structural rigidity and high power, to assure remarkable cutting efficiency, precision, speed, and long machine life.

Our modular design offers flexibility in machine styles, heads, controls, travels and performance enhancing options, providing the versatility you need to support a wide range of applications.



KB Series T-type HBM

SPECIFICATIONS	KB 13	KB 16
Spindle		
Boring spindle diameter, mm (in)	130 (5.1)	165 (6.5)
Spindle taper	ISO 50	ISO 50
Maximum speed, RPM	4000	3150
Maximum torque, Nm (lbs ft)	2500 (1844)	4150 (3060)
Power, kW (HP)	37 (50)	51 (68)
Travels		
X-axis (table), mm (in)	2000 (78.7)	2500 (98.4)
Optional	2500 (98.4)	3000 (118.1)
	3000 (118.1)	3500 (137.8)
	3500 (137.8)	4000 (157.5)
Y-axis (spindle head), mm (in)	1600 (63)	2000 (78.7)
Optional	2000 (78.7)	2500 (98.4)
	2500 (98.4)	3000 (118.1)
		3500 (137.8)
Z-axis (column in/out), mm (in)	1250 (49.2)	1500 (59)
W-axis (boring spindle in/out), mm (in)	750 (29.5)	1000 (39.4)
Plain table		
Size, mm (in)	1250 x 1600 (49.2 x 63)	1600 x 2000 (63 x 78.7)
Maximum table load capacity, kg (lbs)	10000 (22000)	20000 (44000)
Optional plain table sizes, mm (in)	1600 x 2000 (63 x 78.7)	1600 x 2500 (63 x 98.4)
	1600 x 2500 (63 x 98.4)	2000 x 3000 (78.7 x 118.1)
	1600 x 3000 (63 x 118.1)	2000 x 3500 (78.7 x 137.8)
Feed Rates		
X, Y, Z, mm/min (in/min)	20000 (787)	16000 (630)
Optional X, Y, Z, mm/min (in/min)	25000 (984)	20000 (787)
W, mm/min (in/min)	10000 (394)	10000 (394)
Rotary table (optional)		
mm (in)	1250 x 1600 (49.2 x 63)	1600 x 2000 (63 x 78.7)
	1600 x 2000 (63 x 78.7)	2000 x 2500 (78.7 x 98.4)
	2000 x 2500 (78.7 x 98.4)	2500 x 3000 (98.4 x 118.1)

Basic Features:

- Siemens 840D control and digital drives
- T-type layout with movable column (Z-axis)
- Heavy-duty cast iron construction
- Optimal combination of hydrostatic and box ways
- 80 mm (3.15 in) diameter ballscrews, or larger
- Plain table (X-axis)
- Operator cabin

Options:

- Fanuc 31i control and digital drives
- Rotary tables
- Linear scales
- Part probe
- Tool probe
- Automatic tool changer
- Coolant through spindle, 70 bar (1000 psi) max
- Right angle heads
- Facing head
- Boring spindle support
- Automatic head changer
- Enclosures
- Chip conveyor(s)
- Pallet systems

Note: Specifications are subject to change for design improvements. Please contact your distributor / our offices for detailed specifications and options to optimize a machine for your production needs.

Extraordinary Return - Ordinary Investment

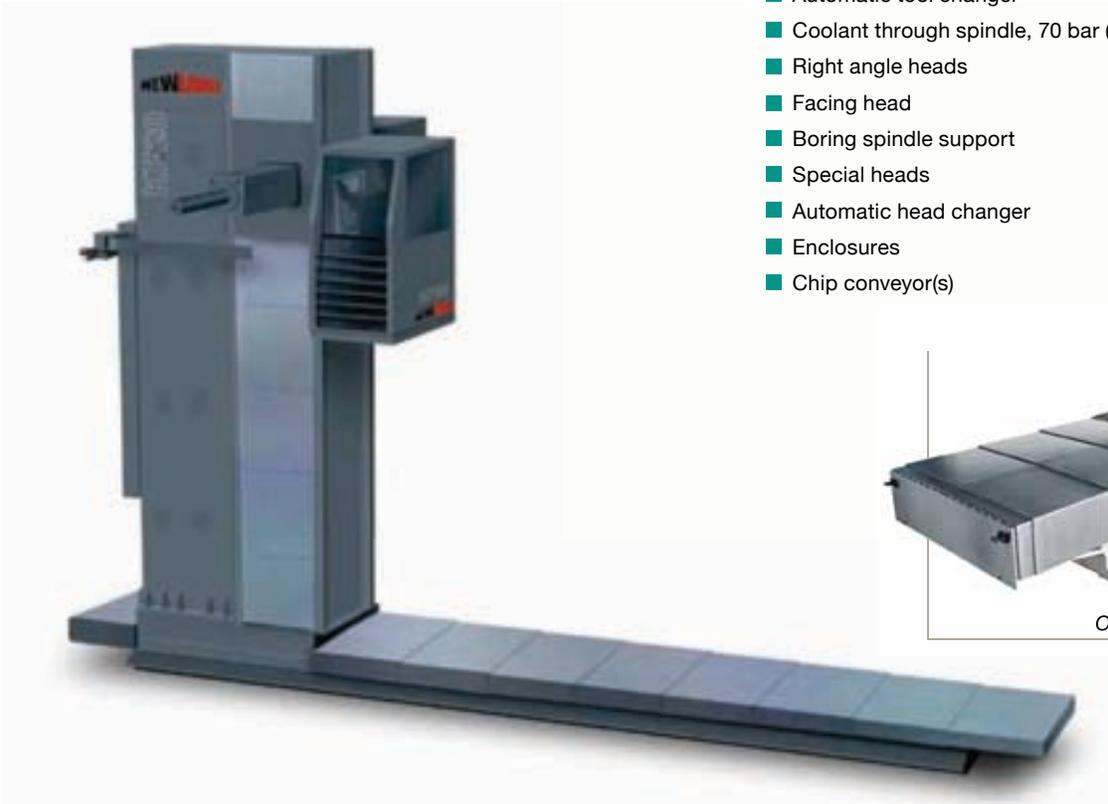
KF Series Floor-type HBM

Basic Features:

- Siemens 840D control and digital drives
- Heavy-duty cast iron structure
- Moveable column with rack & dual pinion transmission with electrical or mechanical preload (X-axis)
- Optimal combination of hydrostatic & box ways
- Ram type spindle head
- Operator cabin

Options:

- Fanuc 31i control and digital drives
- Rotary tables
- Floor plates
- Linear scales
- Tool probe
- Part probe
- Automatic tool changer
- Coolant through spindle, 70 bar (1000 psi) max
- Right angle heads
- Facing head
- Boring spindle support
- Special heads
- Automatic head changer
- Enclosures
- Chip conveyor(s)



Optional Rotary Table

SPECIFICATIONS	KF 16	KF 20	KF 25
Spindle			
Boring spindle diameter, mm (in)	165 (6.5)	200 (7.87)	250 (9.8)
Spindle taper	ISO 50	ISO 50/60	ISO 50/60
Maximum speed, RPM	3150	2000	1600
Maximum torque, Nm (lbs ft)	10000 (7375)	20000 (14750)	25000 (1844)
Power, kW (HP)	71 (95)	100 (134)	129 (173)
Travels			
X-axis (column), mm (in)	From 3000 (118.1) with increment 1000 (39.4)	From 4000 (157.5) with increment 1000 (39.4)	From 6000 (236.2) with increment 1000 (39.4)
Y-axis (spindle head / vertical), mm (in)	2000 – 4000 (78.7 –157.5)	2500 –5000 (98.4 –196.8)	3000 –7000 (118.1 –275.6)
Z-axis (ram), mm (in)	1200 (47.2)	1500 (59)	1800 (70.9)
W-axis (boring spindle in/out), mm (in)	1000 (39.4)	1250 (49.2)	1500 (59)
Z+W, mm (in)	2200 (86.6)	2750 (108.2)	3300 (129.9)
Feed rates			
X,Y, mm/min (in/min)	16000 (630)	12000 (472)	10000 (394)
Z, W, mm/min (in/min)	10000 (394)	10000 (394)	10000 (394)

Note: Specifications are subject to change for design improvements. Please contact your distributor / our offices for detailed specifications and options to optimize a machine for your production needs.



VERTICAL TURNING CENTERS

The Newland line of Vertical Turning Centers offers a proprietary ram head design, providing easy service and machine realignment should an accident occur due to possible programming errors or maintenance mistakes.

We provide the best torque and power diagram on the market through a proprietary design with an optimal match between the main motor and gearbox. The speed, accuracy, and rigidity of the spindle are achieved through optimal preload and lubrication of the main spindle bearing. The combination-type box guide ways provide the rigidity and dampening of sliding type box ways, and the high accuracy of linear ways, maintaining long-term durability and reliability.

A unique configuration and design of the crossrail clamps, and the tooling locating and clamping systems provide the highest possible rigidity and volumetric accuracies.

The main spindle and axes drives utilize chevron belt transmissions and optimized ratios, maintaining the lowest noise and best dynamic performance available today.



Basic Features:

- Siemens 840D control and digital drives
- Single or double column configuration
- Heavy-duty cast iron structure with box ways
- Movable crossrail with fixed precise positions
- Timken crossed roller table bearing, or hydrostatic bearing (for machines 3 meters and more)
- 3 range gearbox
- Faceplate type chuck with 4 top jaws
- 12 position automatic tool changer
- (1) chip conveyor
- Enclosure

Options:

- Fanuc 31i control and digital drives
- Live spindle
- Full contouring C-axis, or Simple C-axis (from main transmission)
- Extended height and travels
- Full X-axis travel
- Increased power
- Dual ram for 4-axis turning
- No gearbox
- Special chucks
- (24) position, or special automatic tool changer
- Linear glass scales
- Part probe
- Tool probe
- Grinding capability, and wheel dresser
- Special open top or full enclosure (with mist collector)
- 2-nd chip conveyor
- Pallet systems



SPECIFICATIONS

SPECIFICATIONS	KT1600	KT2000	KT2500	KT3200	KT4000	KT5000
	Single Column		Double Column		Double Column	
Capacity:						
Max turning diameter and swing, mm (in)	1600 (63)	2000 (78)	2500 (98)	3200 (126)	4000 (157)	5000 (197)
Table diameter, mm (in)	1250 (49)	1600 (63)	2000 (78)	2800 (110)	3500 (138)	4500 (177)
Max turning height, mm (in)	1000 (39.4)		1600 (63)		2500 (98)	
Extended turning height options, mm (in)	1600 (63)	1600 / 2000 (63 / 78)	2000 / 2500 (78 / 98)		3200 (126)	3200 / 4000 (126 / 157)
Max table load capacity, kg (lb)	12000 (26000)	20000 (44000)	30000 (66000)	40000 (88000)	50000 (110000)	80000 (176000)
Table Drive:						
Max speed, RPM	650	450	260	160	100	50
Power, kW (HP)	60 (80)		60 (80)		90 (120)	120 (160)
Increased power option, kW (HP)	N/A		90 (120)		Available	
Torque, Nm (lb.ft)	25000 (18450)	30000 (22140)	45000 (33210)	55000 (40600)	160000 (118000)	200000 (147600)
Ram:						
Ram size, mm (in)	204 x 204 (8 x 8)		254 x 254 (10 x 10)		305 x 305 (12 x 12)	
Max cutting force, N (lb)	50000 (11250)		50000 (11250)		60000 (13500)	
Travels:						
Ram (Z-axis), mm (in)	800 (31.5)		1250 (49)		1600 (63)	
Extended ram (Z-axis) travel, mm (in)	1250 (49.2)	1250; 1400 (49.2; 55.1)	1600 (63)		2100 (82.7)	
Crossrail travel, mm (in)	600 (24)		1000 (39.4)		1600 (63)	
Crossrail fixed positions pitch, mm (in)	200 (7.8)		200 (7.8)		400 (15.7)	
Number of crossrail positions	4		6		5	
Extended crossrail travel options, mm (in)	1000 (39.4)	1000; 1600 (39.4; 63)	1400; 1800 (55; 71)		2400 (94)	2400; 3200 (94; 126)
X and Z rapid travers, mm/min (ipm)	12000 (472)		10000 (400)		10000 (400)	
X and Z max feed rates, mm/min (ipm)	5000 (200)		5000 (200)		5000 (200)	

Note: Specifications are subject to change for design improvements. Please contact your distributor / our offices for detailed specifications and options to optimize a machine for your production needs.



PRECISION VERTICAL GRINDERS

The Newland line of grinders are designed for harmonics free machining for superior form and finish quality. The grinders are well suited for precision components such as bearings.

Advantages:

Machine vibration sources have been eliminated with direct drives for:

- Table
- Grinding spindle
- Linear axis drives

Process sources of vibration have been mitigated by dampening with:

- Polymer base
- Hydrostatic table bearing

Exceptional quality is guaranteed with:

- Precision grade linear roller ways and ballscrews
- Linear glass scale feedback
- Thermal stability from polymer base and temperature controlled spindle and hydrostatic bearing fluid



Features:

- Standard swing diameters from 1250 to 3200mm
- Larger machines available in special configurations
- Fixed and moveable crossrail
- Polymer base
- Direct drive table
- Hydrostatic table bearing
- Motorized grinding spindle
- Full enclosure
- Mist collection

Performance enhancing options include:

- Tilting spindle
- Dual spindle head
- Dual heads
- Automatic wheel changer
- Single point, rotary and swivel type dressers
- Roundness compensation technology
- Magnetic chucks

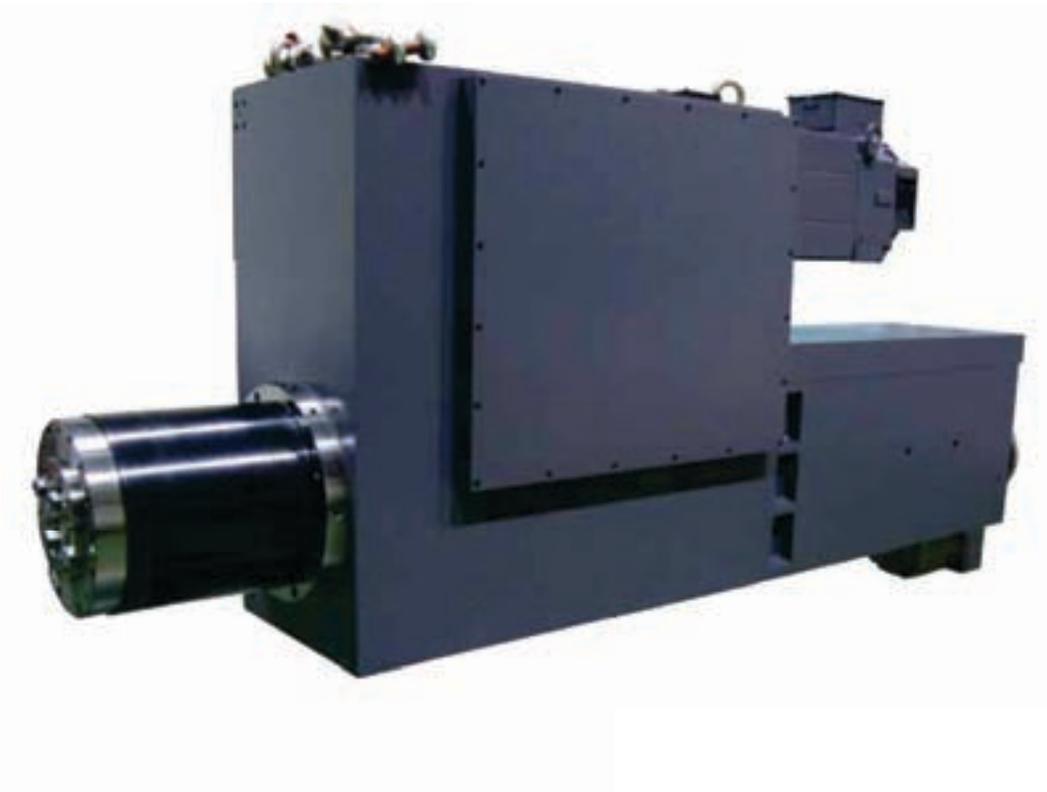
SPECIFICATIONS	NG1100	NG1600	NG2100	NG2600	NG3100
Table Diameter, mm (in)	1100 (43.3)	1600 (63)	2100 (82.7)	2600 (102.4)	3100 (122.0)
Swing Diameter - Max., mm (in)	1250 (49.2)	1700 (66.9)	2200 (86.6)	2700 (106.3)	3200 (126.0)
Z Axis Travel, mm (in)	300 (11.8)	400 (15.75)	500 (19.7)	500 (19.7)	500 (19.7)
Table Drive:					
Speed - Max., RPM	120	100	100	85	75
Torque, Nm (lb-ft)	2500 (1845)	3500 (2580)	5500 (4055)	7000 (5160)	10000 (7375)
Load Capacity, kg (lbs)	3000 (6600)	4000 (8800)	5000 (11000)	6000 (13200)	8000 (17600)
Grinding Spindle:					
Speed - Max, RPM	8000	8000	6500	6500	6500
Power - Max, kW (HP)	36 (48)	36 (48)	72 (96)	72 (96)	72 (96)
Maximum Wheel Diameter	300 (11.8)	300 (11.8)	400 (15.75)	400 (15.75)	400 (15.75)

Note: Specifications are subject to change for design improvements. Please contact your distributor / our offices for detailed specifications and options to optimize a machine for your production needs.

Newland offers a line of precision, heavy duty heads and rotary tables/linear axes for OEM builders and rebuilders.

Boring Head Advantages:

- Patented spindle head with the shortest spindle length to W axis stroke available for increased spindle speed and power capability
- Modular head stock with up to three gear ranges for optimum speed and torque/power



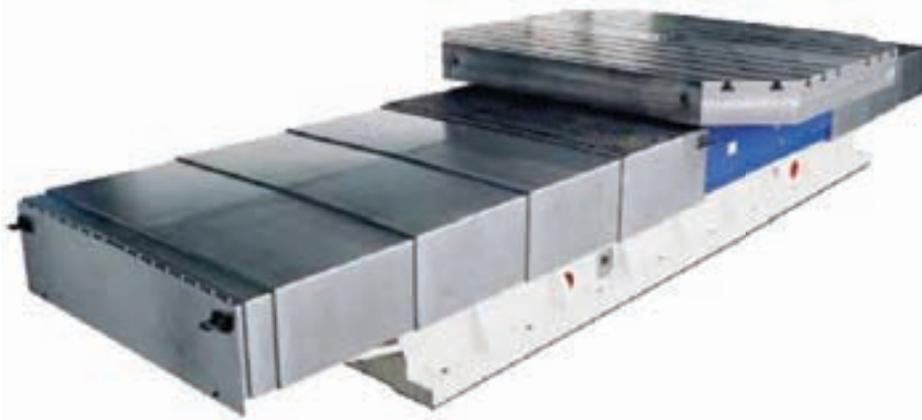
Boring Head Technical Specification

SPECIFICATIONS	KB 16	KF 20
Boring Spindle Dia., mm (in)	165 (6.5)	200 (7.87)
Milling Spindle Dia., mm (in)	250 (9.8)	300 (11.81)
Spindle Taper	ISO 50	50/60
Maximum Speed, RPM	3150	2000
Maximum Torque, Nm (lb ft)	4150 (3060)	20,000 (14,750)
Maximum Power - Continuous, kW (HP)	51 (68)	100 (134)
Boring Bar Travel, mm (in)	1000 (39.4)	1250 (49.2)
Feed Rate, mm/min (IPM)	10,000 (394)	10,000 (394)

Note: Specifications are subject to change for design improvements. Please contact your distributor / our offices for detailed specifications and options to optimize a machine for your production needs.

Rotary Table Advantages:

- Preloaded split worm anti-backlash table drive
- Hydrostatic table bearings available for some models
- Hydrostatic ways with A static flow regulators providing dampening, rigidity, high speeds and long life.



**Rotary Table
Technical Specification**

Model	NRT 12	NRT 16	NRT 20	NRT 25	NRT 30
Standard Parameters					
Rotary Tables:	1250x1250	1600x1600	2000x2000	2500x2500	3000x3000
Size, mm	1250x1600	1600x2000	2000x2500	2500x3000	3000x4000
	1600x1600	2000x2000	2500x2500	3000x3000	4000x4000
Maximum Table Load Capacity, kg	20000	30000	40000	60000	100000
Maximum Rotation Torque, kNm	16	20	25	30	50
Tangential Torque Locked, kNm	40	60	80	120	150
B maximum speed, RPM	5	4	3.5	3	1.5
B axis, positions	360000	360000	360000	360000	360000
Options (A - option is available N/A - not available)					
Increased Load	A	A	A	A	A
Increased Rotation Torque	A	A	A	A	A
Hydrostatic bearing	N/A	N/A	N/A	A	A
Linear Travel	A	A	A	A	A
Linear Travel, mm	1600	2000	2500	3000	4000
Increased Linear Travel	A	A	A	A	A
Linear Rapid Travel, mm/min	20000	16000	16000	12000	10000
Increased Travel	A	A	A	A	N/A

Note: Specifications are subject to change for design improvements. Please contact your distributor / our offices for detailed specifications and options to optimize a machine for your production needs.

NEWLAND

Newland Machine Tool Group Inc.

Headquarters:

64 Jardin Drive, Suite 3E, Vaughan

Ontario, L4K 3P3, Canada

Tel: +1-905-660-6667

Fax: +1-905-660-6678

US Office

645 Midship Circle

Webster, NY 14580

Tel: +1-585-781-0250

Fax: +1-585-787-4739

Info@newlandmachines.com

www.newlandmachines.com