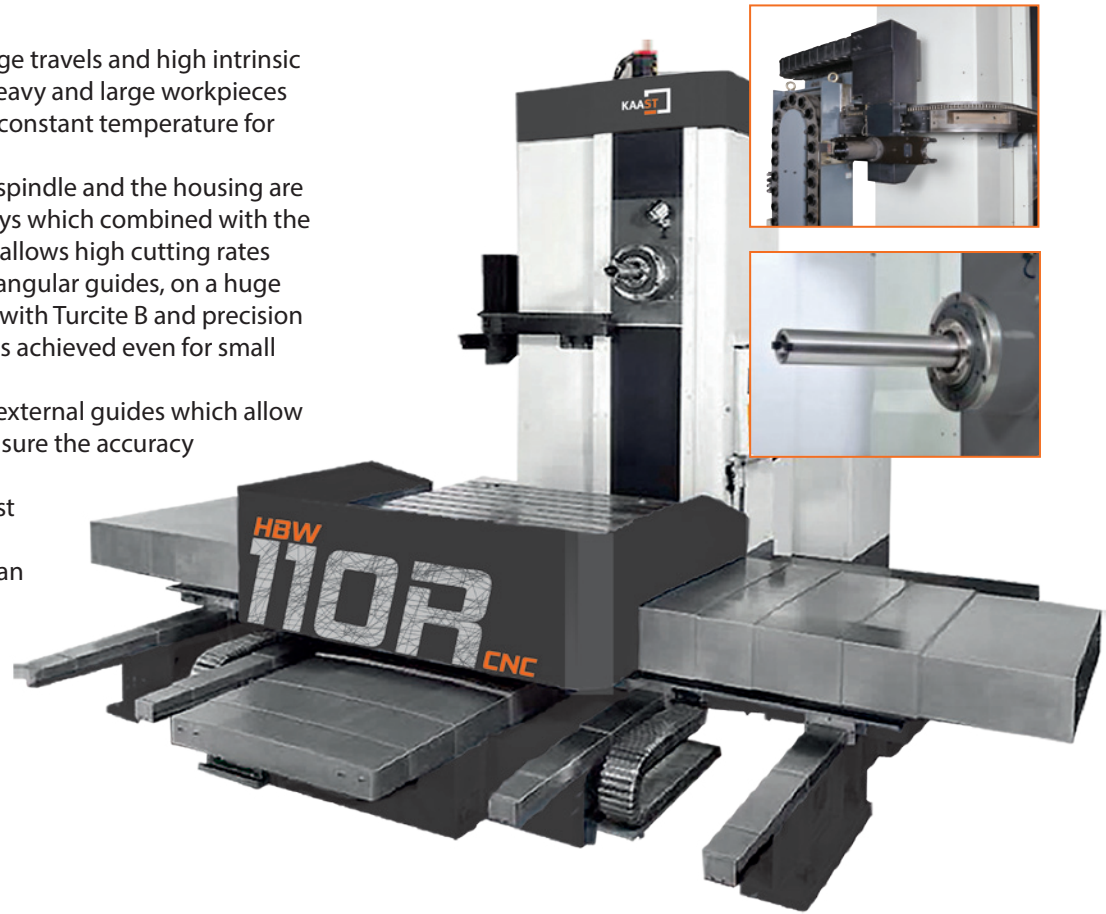


# CNC horizontal boring mill **HBW R CNC**



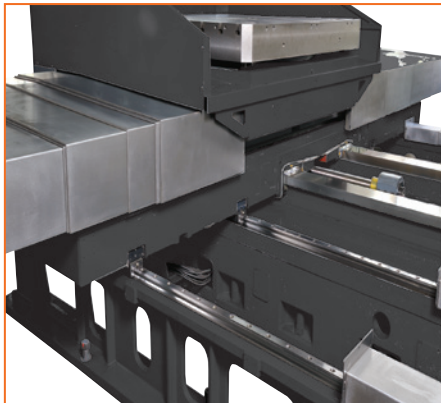
T e c h n i c a l   D a t a s h e e t

- Horizontal boring mill with large travels and high intrinsic weight for the machining of heavy and large workpieces
- The spindle cooling ensures a constant temperature for long-lasting accurate results
- Both the hardened HRC62-68 spindle and the housing are made of high quality steel alloys which combined with the two-stage automatic gearbox allows high cutting rates
- The hardened HRC 43-47, rectangular guides, on a huge rigid machine bed, are coated with Turcite B and precision ground, so smooth operation is achieved even for small movements at low speed
- The TR and TR2 also have two external guides which allow high workpiece weight and ensure the accuracy of the Z axis
- Pendant control panel - for best user performance
- The HBW 135 CNC machines can be equipped with a vertical or universal milling head



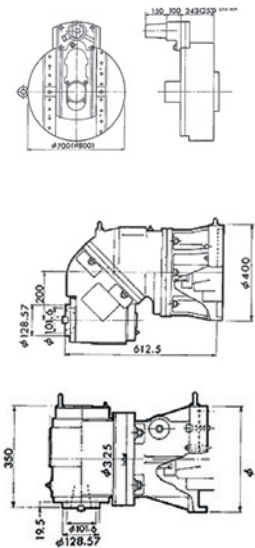
Technical specifications		HBW		
		110R CNC	110R2 CNC	110R3 CNC
<b>Travels</b>				
X-axis (table travel)	mm	1500	2000	3000
Y-axis (spindle vertical travel)	mm	1500	1800	2000
Z-axis (head vertical travel)	mm	1100	1300	1500
W-axis (quill travel)	mm		600	
Table dimensions	mm	1400x1250	1600x1400	1800x1600
T-slot	mm	22x7	22x7	22x9
Max. table load capacity	kg	6500	8500	10000
Rotary table resolution	degree	0.001°/360°	0.001°/360°	0.001°/360°
Max. rotation diameter (workpiece)	mm	1877	2126	2408
Table rotation speed	rpm		1	
<b>Feeds</b>				
X,Y,Z-axis rapid traverse	mm/min		10000	
X,Y,Z-axis working feeds	mm/min	1-5000	1-5000	1-5000
<b>Spindle</b>				
Spindle taper			BT / ISO 50	
Spindle speed	rpm		5-2500	
Spindle diameter	mm		Ø110	
Torque	Nm		1245	
Max. torque	Nm		19600	
Spindle power (30 min./cont.)	kW		18/22	
Power of X,Y,Z axis servomotor	kW		7	
Dimensions	mm	4650x6200x3800	5230x6280x4100	6230x6510x4300
Weight	kg	22800	24000	26000
Item-No.		<b>2630001</b>	<b>2630002</b>	<b>2630003</b>

\*The above specifications are subject to change without prior notice, no liability for printing mistakes. Machine may be shown with optional equipment.



### Optional configuration:

- Faceplate Ø700 mm
- Faceplate with automatic sled (for drill / bore jobs)
- 24 -, 32 -, 40 -, 60-tool magazine with automatic tool changer BT50
- Cooling trough spindle (20 bar pressure)
- Screw chip conveyor
- Chip conveyor chain
- Heidenhain glass scales in X, Y, Z axes
- Additional vertical milling head BT50 (HBW 135 CNC)
- Additional universal milling head BT50 (HBW 135 CNC)
- Siemens, Fagor, Heidenhain control
- Full enclosure
- Tool measurement Renishaw TS-27R
- Work piece measurement Renishaw OMP-60



### Standard configuration:

- ✓ CNC Fanuc Oi-MD
- ✓ Spindle oil cooling
- ✓ Heidenhain digital encoder in table rotation axis
- ✓ Hydraulic table clamping
- ✓ Quality SKF spindle bearings
- ✓ Electrical cabinet with heat exchanger
- ✓ Working area illumination
- ✓ Telescopic covers in the X, Y and Z-axis
- ✓ Portable handwheel for manual operation
- ✓ RS232 interface
- ✓ Automatic central lubrication system
- ✓ Machine feet
- ✓ Manual

Technical specifications	HBW				
	135TR CNC	135TR2 CNC	135TR3 CNC	135TR4CNC	
<b>Travels</b>					
X-axis (table travel)	mm	1500	2000	3000	4000
Y-axis (spindle vertical travel)	mm	1500	1800	2300	2800
Z-axis (head vertical travel)	mm	800	1100	1400	1700
W1-axis (spindle travel)	mm	700			
W2-axis (quill travel)	mm	350			
W(W1+W2)-axis	mm	1050			
Table dimensions	mm	1250x1400	1400x1600	1600x1800	1800x2000
T-slot	mm	22x7	22x7	22x9	22x9
Max. table load capacity	kg	6500	8500	10000	12000
Rotary table resolution	degree	0.001°/360°	0.001°/360°	0.001°/360°	0.001°/360°
Max. rotation diameter (workpiece)	mm	1877	2126	2408	2565
Table rotation speed	rpm	1			
<b>Feeds</b>					
X,Y,Z-axis rapid traverse	mm/min	8000			
W-axis rapid traverse	mm/min	3000			
X,Y,Z-axis working feeds	mm/min	1-5000			
W-axis working feed	mm/min	1-3000			
<b>Spindle</b>					
Spindle taper		BT 50 / ISO 50			
Spindle speed	rpm	5-2500			
Spindle diameter	mm	Ø135			
Torque	Nm	3227			
Spindle power (30 min./cont.)	kW	37/45			
Dimensions	mm	5230x6640x3750	5730x6950x4120	6730x7250x4620	7780x7550x5320
Weight	kg	33400	36300	40000	43700
Item-No.		<b>2630004</b>	<b>2630005</b>	<b>2630006</b>	<b>2630007</b>

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