

YB200 Precision CNC Vertical Gear Hobbing Machine

A six-axis CNC platform for precision hobbing of cylindrical spur and helical gears.



YB200 vertical gear hobbing machine

Ø200 mm	Module 6	Grade 6*
Maximum workpiece diameter	Maximum module	Stated gear accuracy

*The source sheet states Grade 6 accuracy for spur and helical gears with module $m \leq 3$ mm under the stated conditions. See the technical overview for the full qualification.

MACHINING AREA

Hobbing zone and tool arrangement

The supplied photograph shows the work spindle, hob-side tooling and machine enclosure. It is presented at large scale so customers can inspect the working area and tooling layout.



Interior view of the YB200 machining area

Work spindle	Maximum speed 300 rpm; rated torque 30 N·m.
Hob spindle	Maximum speed 2,000 rpm; rated power 11 kW.
Hob head	Swivel range $\pm 45^\circ$; maximum hob diameter $\varnothing 130$ mm.

SUPPORTING EQUIPMENT

Machine, tooling and control in context

This source image includes the machine-side equipment, tooling and a control/computer interface. The original photograph is retained without removing any visible components.



Supporting equipment and control interface shown in the supplied material

Typical work range	The YB200 is described for cylindrical spur and helical gears with workpiece diameter below 200 mm. Maximum module is listed as 6 mm.
Gear accuracy statement	For modules $m \leq 3$ mm, the source states that Grade 6 accuracy to GB/T 10095-2001 can be achieved with suitable cutting parameters and hob accuracy. This is a source claim, not an independent performance guarantee.
Automation and programming	A graphical operating interface and automatic programming are described as available capabilities. Confirm the installed software and options for the quoted machine.

ENGINEERING OVERVIEW

Configuration for rigid, accurate hobbing

The following capability statements are translated and edited from the supplied Chinese material. Specifications and performance claims should be confirmed against the final machine configuration.

01	Workpiece envelope	Designed for cylindrical spur and helical gears with module up to 6 mm and workpiece diameter below 200 mm.
02	CNC axes	The source specifies a Japanese FANUC CNC system controlling six servo axes: X, Y, Z, A, B and C, with six-axis/four-axis coordinated machining capability.
03	Rigid structure	The machine bed, spindle-box slide and hob arbor are described with a high-rigidity design.
04	Linear guideways	High-precision, high-rigidity linear roller guideways are specified.
05	Tangential slide	The tangential slide is equipped with an auxiliary locking mechanism.
06	Process capability	The source describes the machine as suitable for high-speed, high-precision machining and automated production.
07	Programming interface	A graphical operating interface and automatic programming functions are described; confirm the software scope and options for the quoted machine.

Gear accuracy qualification

The source states that Grade 6 accuracy according to GB 10095-2001 can be achieved for spur and helical gears with module $m \leq 3$ mm when suitable cutting parameters are selected and hob accuracy is appropriate. Actual results depend on the workpiece, tooling, setup and process conditions.

Machine configuration and optional equipment should be confirmed in the current quotation and acceptance documentation.

TECHNICAL DATA

YB200 technical parameters

Values transcribed from the supplied parameter sheet. Confirm the final specification before ordering.

GROUP	PARAMETER	VALUE
Workpiece	Maximum workpiece diameter	Ø200 mm
Workpiece	Maximum module	6 mm
Slides	Maximum slide travel	250 mm
Gear range	Number of teeth	3-999
Hob head	Swivel angle	±45°
Hob	Maximum hob diameter	Ø130 mm
Hob	Maximum hobbing length	230 mm
Hob	Maximum hob axial shift stroke	180 mm
Hob arbor	Supplied arbor diameter	Ø22 mm (optional Ø27, Ø32 or Ø40 mm)
Work spindle	Maximum speed	300 rpm
Work spindle	Rated torque	30 N·m
Hob spindle	Maximum speed	2,000 rpm
Hob spindle	Rated power	11 kW
Axis drives	X/Z servo motor rated torque	11 N·m
Axis drives	Y-axis servo motor rated torque	3.5 N·m
Axis drives	A-axis servo motor rated torque	7 N·m
Control	CNC system	FANUC (Japan)
Motors	Spindle and servo motors	FANUC (Japan)
Gear accuracy	Stated accuracy class	Grade 6 to GB/T 10095-2001 for spur/helical gears, m ≤ 3 mm
Machine	Machine weight	8,000 kg
Machine	Overall dimensions (L × W × H)	2,150 × 2,400 × 2,850 mm

Note: The source states that parameters may change without prior notice. Dimensions, accuracy, controller options and included accessories should be confirmed with the machine supplier.