

Technical Parameters

Depth*width*height	880mm*800mm*1780mm	Weight	500kg
Number of axis	5	Motor	AC servo
Spindle power	2.5KW	Spindle speed	60000RPM
Cooling system	Automatic water-cooling spindle	Voltage/power	AC220V/4KW
Built-in-burs	16	Automatic tool life monitoring	✓
Automatic tool length detection	✓	Rotation angle	A axis: 360°, B axis: -30°~+30°
Environmental temperature	5°C~40°C	Air pressure	>0.65Mpa
External Control Linkage	Water pump	Remote control	✓
Fields of application	Wet milling	Monitor	13.3"LCD touch screen

About Besmile

Besmile is a global digital solutions provider for restorative and implant dentistry.

We offer integrated systems—premium CAD/CAM materials, advanced equipment, and precision implant systems—designed to streamline workflows and ensure reliable results.

All core products are developed and manufactured in-house, ensuring consistent quality and continuous innovation.

Trusted by over 1,000 partners in more than 100 countries, we empower dental professionals to create confident, lasting smiles.

Technology creates the best smile.



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Robust 5-Axis Dental Milling Machine

BSM-520W



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BSM-520W

CAD/CAM Digital Processing



BSM-520W, a 5-axis wet milling machine featuring excellent reliability, high precision, high efficiency, and intelligent processing, is well suited for the demanding processing of metal blanks. The solid gantry structure with core parts made of high-strength cast iron and the thermal symmetry structure design guarantee its excellent reliability. Equipped with 16 tools, the premium spindle, the smart CAM nesting system, and the intelligent touch screen, it achieves high efficiency easily. The installation accuracy of each axis is well controlled within $\pm 0.01\text{mm}$, ensuring excellent milling precision within $\pm 0.005\text{mm}$.



Millable Restorations



Key Features

Precise Milling

Digital servo system with high resolution
Installation accuracy: $\pm 0.01\text{mm}$
Repetition accuracy: $\pm 0.005\text{mm}$

Excellent Reliability

The gantry structure and thermal expansion symmetric design ensure excellent stability
B axis ($-30^\circ \sim +30^\circ$) wide rotation range meets customized needs

Intelligent Processing

Intelligent power-off protection
Easy operation with intuitive LCD touch screen

Tool Magazine Management

Magazine can be equipped with 16 tools, and supports automatic tool change
Tool life monitoring to reasonably plan the usage cycle of cutting tools

High Accuracy & High Efficiency

Milling speed:
Full contour posterior crown (TC4 14mm) $\approx 20\text{min}$
Coping (TC4 14mm) $\approx 15\text{min}$
3-unit full contour crown bridge (TC4 14mm) $\approx 40\text{min}$
3-unit coping bridge (TC4 14mm) $\approx 30\text{min}$
Frame (TC4) $\approx 2\text{h}$
Customized abutment (TC4) $\approx 30\text{min}$
Implant Bar $\approx 3.5\text{h}$

*Above data were obtained based on the BSM-520W milling of TC4 material

Millable Materials

