

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°
Optional holders (sold separately)	Block holder * 1 (holds up to 6 glass-ceramic blocks); Medentika holder (holds up to 3 titanium abutments)		
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

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.



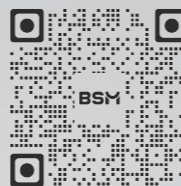
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Robust 5-Axis Dental Milling Machine

BSM-520W



Robust 5-Axis Dental Milling Machine

BSM-520W

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 $\pm 0.005\text{mm}$.



⚡ Efficient Processing

Milling speed:

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

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



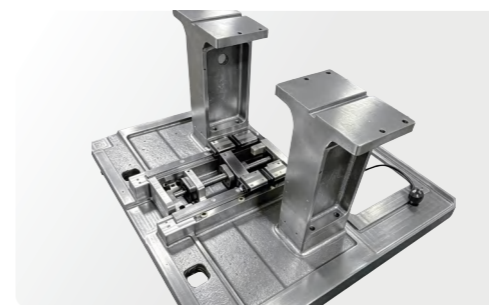
⚙️ Capacity Boost

- Multi-functional holders for seamless switching between titanium abutments, glass-ceramic blocks, and more
- Optional holders for multi-unit glass ceramics and multi-brand abutments



🔩 Outstanding Precision

- Full servo system, repeat accuracy $\pm 0.005\text{ mm}$
- Installation accuracy within $\pm 0.01\text{ mm}$
- Micron-level machining accuracy up to $\pm 0.005\text{ mm}$ in the processing area
- $\pm 30^\circ$ B-axis rotation range for precise undercut milling
- Supports both internal and external thread machining.



⚠️ Superior Stability

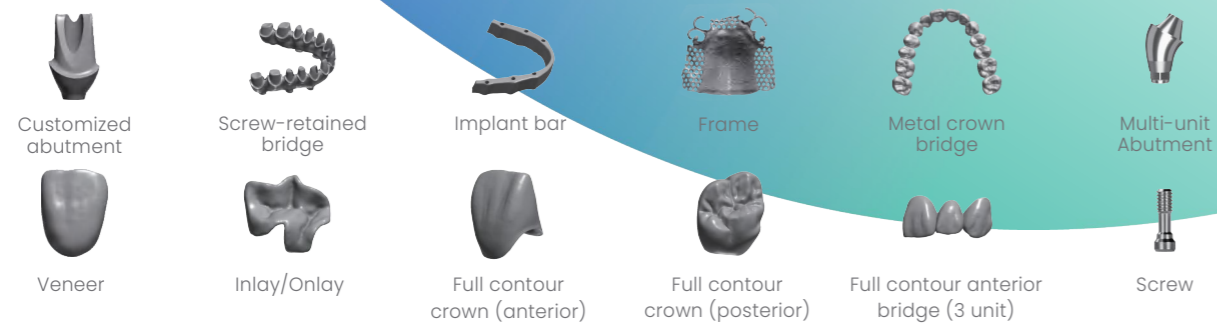
- 2.5 kW spindle with precision bearings
- One-piece gantry design ensures high machining stability
- Key components in high-strength cast iron minimize deformation
- Thermally symmetric structure with automatic compensation ensures long-term accuracy stability



👤 Intelligent Processing

- 16 burs with auto tool change & life management
- 13.3" intelligent touchscreen
- Breakpoint resume & power-off protection
- Low air pressure protection
- Remote control

Millable Restorations



Millable Materials

