

CAD/CAM Digital Processing



Technical Parameters

Width*depth*height	570mm*680mm*780mm	Weight	130kg
Cooling system	Automatic air-cooling spindle	Motor	AC servo
Number of axis	5	Voltage/Power	220V/2.6KW
Tool type	Zirconia Milling Bur: φ4mm*(2mm/1mm/0.6mm) Ball-mill, φ4mm*1mm End-mill Resin Milling Bur: φ4mm*(2mm/1mm)		
Automatic tool length detection	✓	Rotation angle	-30°~+40°
Automatic tool life monitoring	✓	Spindle speed	60000RPM
Built-in-burs	6	Fields of application	Dry milling
Environmental temperature	5°C~40°C	Monitor	9.7"LCD touch screen
Remote control	✓		

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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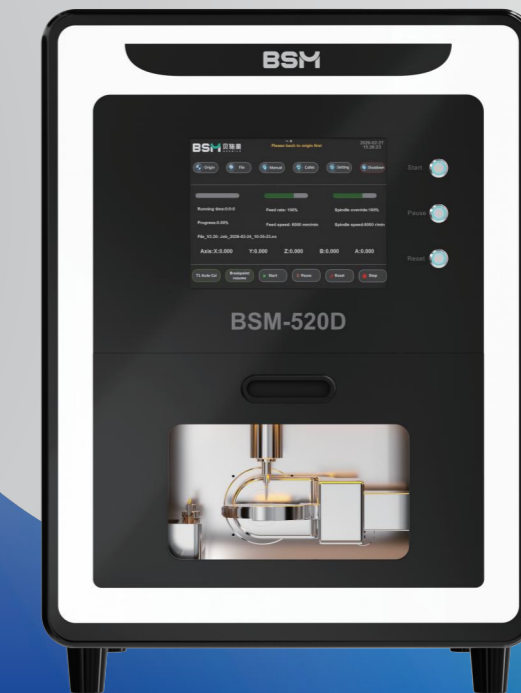
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Contact Us



Intelligent 5-axis Dental Milling Machine

BSM-520D BSM-520DS



Intelligent 5-Axis Dental Milling Machine

BSM-520D

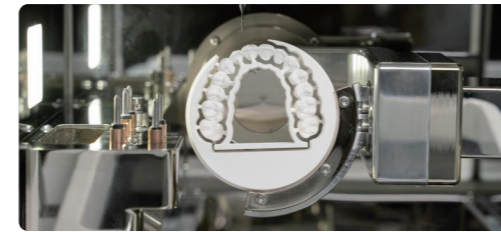
The BSM-520D 5-axis dental milling machine is engineered for labs demanding uncompromising accuracy without sacrificing efficiency.

Featuring 90° vertical milling and ultra-wide B-axis rotation, it handles intricate details with ease, while the 1/3 holder boosts ROI by 20%—perfect for precision-driven production.



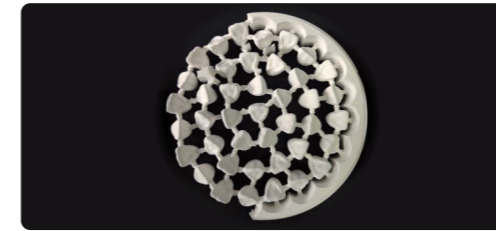
Key Features

High compatibility



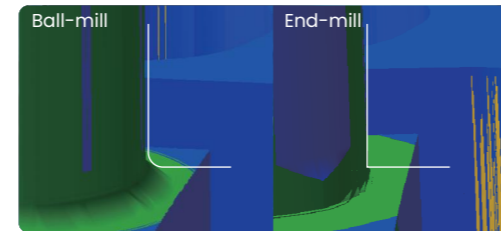
- Wide B-axis rotation (-30° to +40°)
- **90° vertical milling** precisely replicates natural tooth anatomy and surface texture
- Expanded chamber for enhanced productivity

Higher ROI



- 1/3 holder boosts output by 20% per block
- **Dust-proof design** extends machine lifespan

Intelligent Processing



- **Automatic changer for 6 tools** with haptic detection & breakage monitoring
- Integrated PC with **9.7 inch intelligent touch screen**
- Configuring a **end milling program** enables better handling of shoulders and corners.

High Accuracy



- **Digital servo system** with high resolution
- Guaranteed milling accuracy: **±0.005mm**
- ±0.01mm installation accuracy per axis

Milling speed:

zirconia anterior anatomic crown ≈ 12'
zirconia posterior anatomic crown ≈ 17';
zirconia 3-unit crown bridge ≈ 30';

The above data was obtained based on the BSM-520D milling of Aconia 3D Master 14mm.

Excellent Reliability



- **60,000 RPM premium spindle** for high-speed milling
- Industrial-grade **aerometal gantry structure** ensures ultimate reliability

BSM-520DS Compressor-Free Version

Built for Compact Spaces & Quiet Operation

Efficiency Upgrade

- **Lower maintenance:** No compressor upkeep required
- **Energy optimized:** Direct-drive cuts production energy use

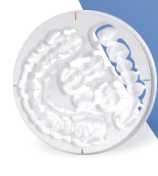
Space & Noise Control

- **Compact design saves space:** Ideal for clinics/small workshops
- **Ultra-low noise:** Vibration-free operation reduces sound output

Easy Operation

- **Plug-and-play setup:** No complex air lines needed
- **Instant production:** Start producing instantly at power-on

Millable Materials



Zirconia



PMMA



Wax



PEEK

Millable Restorations



Full contour crown



Coping



Inlay/onlay



Veneer



Crown bridge



Zirconia abutment



Zirconia implant bridge



Non-metal frame

Feature Comparison

Feature	BSM-520DS	BSM-520D
Power System	No compressed air needed	Compressed air needed
Maintenance	0 compressor upkeep	Annual maintenance cost
Environment	Clinic-quiet & desktop-ready	Standard noise output