Intelligent 5-Axis Dry Dental Milling Machine

BSM-500D/BSM-500DS Compressor-Free Version

Key Features



- Digital servo system with high resolution
- Guaranteed milling accuracy: ±0.005mm
- Auto-calibration ensures consistent precision



- 60,000 RPM German spindle for high-speed milling
- 1/3 holder boosts output by 20% per block
- · Milling speed:

Coping: 11 mins(Zirconia), 5 mins(Wax) Crown: 16 mins(Zirconia), 6 mins(Wax) Splint: 45 mins(PMMA/PEEK)

Above data were obtained based on the BSM-500D milling of Aconia HT+ 14mm



- Industrial-grade aerometal gantry structure
- Advanced dust-proof system protects critical components
- Integrated ionizer neutralizes static for effortless cleaning



(🔏) Intelligent

- · Automatic tool changer
- Power-off protection & break-point resume
- Easy operation with intuitive LCD touch screen
- Automatic working-suspension function
- Intelligent working status indication light



BSM-500D, with a strong & reliable gantry structure design and 5-axis simultaneous linkage, features excellent reliability, intelligent processing, and efficient, precise milling at 5µm milling accuracy. With an automatic working-suspension function in case of accidental door opening during processing, it ensures operator safety to avoid physical injury. The built-in working status indicator provides intelligent monitoring of the milling operation. Equipped with a compact yet powerful spindle, it is an excellent choice for both dental labs and chairside practices

Millable Materials















lable Restorations











Veneer













Technical Parameters

Width*depth*height	700mm*480mm*645mm	Weight 90kg			
Number of axis	5	Motor AC servo			
Spindle power	800W	Spindle speed 60000RPM			
Cooling system	Automatic air-cooling spindle	Voltage/Power	220V/1KW		
Built-in-burs	6	Rotation angle	A axis: 360°,	A axis: 360°, B axis: -30°∼ + 30°	
	Zirconia End Mill	φ4mm*1mm			
Tool Type	Zirconia Ball Mill	φ4mm*2mm	φ4mm*1mm	φ4mm*0.6mm	
	Resin Mill	φ4mm*2mm	φ4mm*1mm		
Environmental temperature	5°C~40°C	Fields of application	Dry milling		
Milling accuracy	±0.005mm	External Control Linkage Vaccum			
Safety function	Automatic working-suspension function	CAM Software Open system			
Remote control	\checkmark	Monitor 8"LCD touch screen			

BSM-500DS

Compressor-Free Version

Built for Compact Spaces & Quiet Operation



Feature

Environment

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

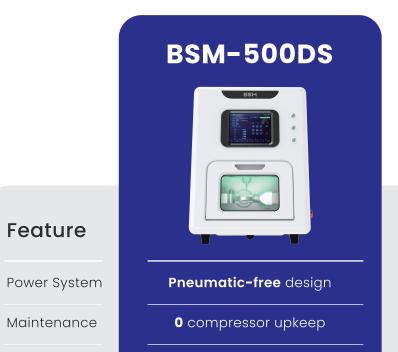


Compact design saves space: Ideal for clinics/small workshops Ultra-low noise: Vibration-free operation reduces sound output



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

Feature Comparison



Clinic-quiet & desktop-ready

BSM-500D

Compressor + air lines

Annual maintenance cost

Standard noise output



CAD/CAM Digital Processing



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.

BSM

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BSM-500D BSM-500DS











