

Technical Parameters



Depth*width*height	800mm*570mm*1650mm	Weight	300kg
Number of axis	4	Motor	AC servo
Spindle power	1800W	Spindle speed	60000RPM
Cooling system	Automatic water-cooling spindle	Voltage/Power	220V/3.7Kw
Holding quantity (round)	3 units premill, φ98mm Titanium disc		
Holding quantity (square)	10 units premill, 3 units glass ceramic		
Built-in-burs	6	Automatic tool length detection	✓
Tool Type	Tool for metal	φ6mm*3mm, φ6mm*2mm, φ6mm*1mm	
	Tool for glass ceramic	φ6mm*2.5mm, φ6mm*1mm, φ6mm*0.6mm	
Environmental temperature	5°C~40°C	Air pressure	>0.65Mpa
Fields of application	Wet milling	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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4-Axis Dental Milling Machine BSM-420W



4-Axis Dental Milling Machine

BSM-420W

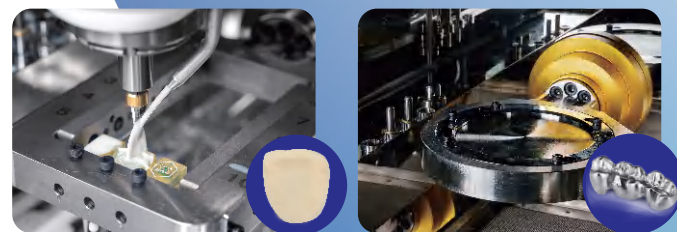
CAD/CAM Digital Processing



BSM-420W is a 4-axis simultaneous dental milling machine that features an open processing system, equipped with a premium spindle and high-quality core components.

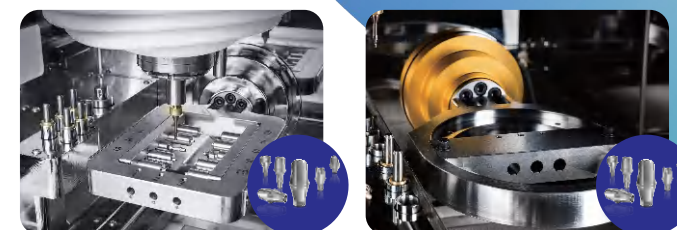
It delivers high-precision milling and exceptional reliability, making it ideal for processing sophisticated metal materials such as titanium, cobalt-chrome, and composites—perfectly suited for producing high-quality crowns, bridges, abutments, and more.

Holder Type



Square holder (10 units premill)

Round holder



Square holder (10 units premill)

Round holder (3 units premill)



Key Features

Precise Milling

- High-resolution digital servo system with ± 0.005 mm repetition accuracy
- ± 0.01 mm installation accuracy per axis

High Efficiency

- Premium spindle with speeds up to 60,000 RPM
- **Milling speed:**
 - Titanium full-contour single crown ($\varnothing 6 \times 14$ mm TA2) ≈ 32 mins
 - Custom abutment ($\varnothing 6$ Titanium premill TC4) ≈ 20 mins (3 burs) / 14 mins (2 burs)
 - Glass ceramic full-contour anterior crown ≈ 20 mins
 - Glass ceramic inlay/onlay ≈ 23 mins
 - Glass ceramic veneer ≈ 23 mins

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

Stable Operation

- Heavy industrial quality featuring a durable aerometal structure
- Gantry structure and thermally symmetric design ensure outstanding stability

Intelligent Processing

- Smart CAM nesting strategy for optimized material usage
- Integrated PC with 9.7-inch intelligent touch screen
- Automatic tool changer with haptic detection and breakage monitoring
- Automatically generates efficient tool paths, prevents sticking, and facilitates easy debris removal

Millable Materials



Millable Restorations

