

# Technical Parameters

Width*depth*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



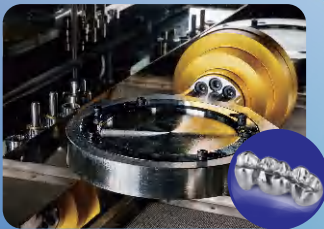
BSM-420W is a 4-axis simultaneous dental milling machine that features an open processing system, equipped with a premium spindle and high-quality core components.

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.

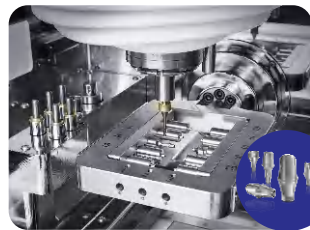
Holder Type



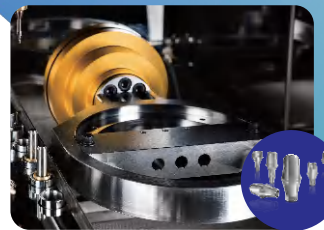
Square holder



Round holder



Square holder (10 units premill)



Round holder (3 units premill)



Key Features

Precise Milling

- High-resolution digital servo system with  $\pm 0.005$  mm repetition accuracy
- $\pm 0.01$  mm installation accuracy per axis

High Efficiency

- Premium spindle with speeds up to 60,000 RPM
- **Milling speed:**
  - Titanium full-contour single crown  $\approx 32$  mins
  - Titanium full-contour 3-unit bridge  $\approx 110$  mins
  - Customized abutment  $\approx 22$  mins (3 burs) / 19 mins (2 burs)
  - Glass ceramic full-contour anterior crown  $\approx 20$  mins
  - Glass ceramic inlay & onlay  $\approx 23$  mins
  - Glass ceramic veneer  $\approx 23$  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



$\phi 98$ mm titanium disc



Titanium alloy disc



Co-Cr alloy disc



Titanium premill



Glass ceramic

Millable Restorations



Metal crown bridge



Custom titanium abutment



Veneer



Inlay/Onlay



Full contour crown (anterior)



Full contour crown (posterior)



Full contour anterior bridge