

# BSM-520D

## 5-Axis Dental Milling Machine



Revolutionary technologies

Top-quality results



Chengdu Besmile Medical Technology Co., Ltd.  
www.bsm dental.com  
T:+86-28-85317108  
E:info@cdbesmile.com

Besmile Dental America Inc.  
20311 Valley Blvd, Suite# I, Walnut, CA 91789  
T: (626)921-5798  
E:admin@bsmdentalus.com

@Besmile @besmile\_acionia



# BSM-520D 5-Axis Dental Milling Machine

BSM-520D is a 5-Axis dry-milling machine for dental CAD/CAM system with wide range of materials, featuring high accuracy, durable stability and excellent compatibility. It is an ideal choice for high-precision restorations including bridges, frames, abutments, base and complicated operations like zirconia perforation. Equipped with premium spindle, smart CAM nesting system and intelligent touch screen, BSM-520D offers better disc handling, wider material capabilities, automatic tool change to deliver a higher efficiency.

## CAD/CAM Digital Processing



## Key Features



### High Compatibility

B Axis (-30°~+40°) wide rotation range  
**Indications:** crown, bridge, inlay, onlay, abutment, veneer



### Higher ROI

- 1/3 holder, simplified operation; Increased 20% production per block
- 2-second block insertion
- Special dust-proof design ensures long lifespan



### Intelligent processing

- Smart CAM nesting strategy
- Integrated PC with 9.7 inch intelligent touch screen
- Automatic changer for 6 tools with haptic tool detection and tool breakage monitoring



### Excellent Reliability

- Premium spindle with 60,000RPM
- Heavy industrial quality and aerometal structure
- The gantry structure and thermal expansion symmetric design ensure accuracy stability



### High Accuracy & High Efficiency

- Digital servo system with high resolution, ±0.005mm repetition accuracy
  - ±0.01mm installation accuracy for per axis
  - 90° vertical processing
- Milling speed:** zirconia posterior anatomic crown ≈ 17' (Aconia HT+ 14mm); zirconia 3-unit crown bridge ≈ 24' (Aconia HT+ 14mm)

# Wide Accessibility



## Millable Materials



Zirconia

PMMA

Wax

Wood

PEEK

## Millable Restorations



Full Contour Crown

Coping

Inlay/Onlay

Veneer

Crown Bridge

Abutment

Implant Bridge

Frame

## Technical Parameters

Dimension (W*D*H)	570mm*680mm*780mm	Weight	130kg
Cooling system	Automatic air-cooling spindle	Motor type	AC Servo-motor
Number of axes	5	Voltage/power	220V//2.6KW
Tool type	φ4mm*2mm (Ball-mill)	φ4mm*1mm (Ball-mill)	φ4mm*0.6mm (Ball-mill)
	φ4mm*1mm (End-mill)	φ4mm*2mm (Resin-mill)	φ4mm*1mm (Resin-mill)
Built-in tools.	6	Dry milling	Support
Spindle Power	500W	Air pressure	>0.65MPa