



## Faster Output

### New Tools and Strategies

The DWX-52D Plus saves you time. Its reengineered spindle easily holds 3.0 mm and 4.0 mm milling burs. New CAM strategies\* combined with large burs shorten the roughing process and speed up production. In addition, the DWX-52D Plus's stronger spindle reduces the amount of friction generated while milling, allowing users to increase its feed rate and speed rate.

\*The CAM software must be updated to use the new CAM strategies.

# More of What You Need

## Advanced Dry Milling Technology

The DWX-52D Plus brings advanced engineering to a new level. With faster milling times, smoother operation and a newly designed, more robust spindle, your production will be more efficient and accurate than ever before.



## Enhanced Precision

### Improved Output Quality

The DWX-52D Plus is more accurate than ever before. It offers an impressive 190% reduction in friction and vibration while milling zirconia, PMMA, and other CAD/CAM materials. This improvement yields enhanced output quality on significantly thinner margins as well as on PMMA applications.



SHAPE DIMENSION  
**DWX-52D Plus**



## 5-Axis DRY Dental Mill

# DWX-52D Plus



Specifications		
Millable material	Zirconia, Wax, PMMA, Composite resin, PEEK, PEKK, Gypsum, Glass fiber reinforced resin, CoCr sinter metal, Polycarbonate	
Loadable workpiece shape	Disc-type (with step)	Step section: 98.5 mm (3.88 in.) (diameter), height 10 mm (0.39 in.) Body section: 95 mm (3.74 in.) (diameter), height max. 60 mm (2.36 in.)
	Pin-type	Pin diameter: 6 mm (0.24 in.)
Operating speed	XYZ axis: 6 to 1,800 mm/min. (0.24 to 70.9 in./min.)	
Spindle motor	Brushless DC Motor	
Spindle rotating speed	6,000 to 30,000 rpm	
Rotary axis travel angle	A: $\pm 360^\circ$ , B: $\pm 30^\circ$	
Number of milling burs housed	15	
Attachable milling bur	Shank diameter: 4 mm (0.16 in.), Length: 40 to 55 mm (1.57 to 2.17 in.)	
Compatible compressed air	0.02 to 0.2 Mpa	
Control command set	RML-1, NC code	
Interface	USB	
Power requirements	AC 100 V to 240 V $\pm 10\%$ , 50/60 Hz (overvoltage category II, IEC60664-1), 2.0 A	
Power consumption	Approx. 200 W	
Operating noise	During operation: 70 dB (A) or less (when not cutting), During standby: 45 dB (A) or less	
External dimensions	Width $\times$ Depth $\times$ Height: 495 $\times$ 660 $\times$ 600 mm (19.5 $\times$ 26.0 $\times$ 23.6 in.)	
Weight	67 kg (147.7 lbs.)	
Installation environment	Indoor use, Altitude: Up to 2,000 m (6,562 ft.), Temperature: 5 to 40 $^\circ\text{C}$ (41 to 104 $^\circ\text{F}$ ), Humidity: 35 to 80 % (no condensation), Ambient pollution degree: 2 (as specified by IEC 60664-1), Short-term temporary overvoltage: 1,440 V, Long-term temporary overvoltage: 490 V	
Included items	Power cord, USB cable, Manuals, DGS SHAPE Software Package CD, Detection pin, Automatic correction jig, Material Adapters, Material Adapter Rack, Pin-type material adapter, Hexagonal driver, Spanner (for clamp), Spanner (for spindle), Milling bur holders, Milling bur positioner, Cleaning tool, Option adapter ID labels, Dust collection hoses, Dust collection hose adapter, Regulator, Cleaning brush, etc	

System requirements for USB connection	
Operating system	Windows <sup>®</sup> 10, 8.1, 7 (32-bit or 64-bit) or an upgraded computer originally preinstalled with Windows 7 or later
USB cable	Use the included USB cable

Options				
Item	Model	Description		
Milling burs	ZPB-100D	R1.0 mm	DLC coating	Zirconia, Wax, PMMA, PEEK, PEKK, Gypsum, CoCr sinter metal, Polycarbonate
	ZPB-50D	R0.5 mm		
	ZPB-30D	R0.3 mm		
	ZDB-100D	R1.0 mm	Diamond	Composite resin, Glass fiber reinforced resin
	ZDB-50D	R0.5 mm		
	ZDB-30D	R0.3 mm		
	ZCB-100D	R1.0 mm	Non coating	Zirconia, Wax, PMMA, PEEK, Gypsum, CoCr sinter metal
	ZCB-50D	R0.5 mm		
	ZCB-40D	R0.4 mm		
	ZRB-150D	R1.5 mm	Special three-layer coating	Milling bur for CA-DK1/CA-DK2 (for DWX-52DCi/DWX-52DC/DWX-52D), PMMA, Polycarbonate
	ZRB-200D	R2.0 mm	Special three-layer coating	PMMA, Polycarbonate
Pin-type material adapter	ZV-52D	Pin-type material jig for replacement (for DWX-52DCi/DWX-52DC/DWX-52D)		
Material adapter	ZMA-52DC-6	Material adaptor for replacement (for DWX-52DCi/DWX-52DC/DWX-52D)		
Open edge adapter	ZMA2-52D	Open edge adapter for replacement (for DWX-52D)		
Cleaning tool	ZCT-4D	Cleaning tool for replacement (for DWX-52DCi/DWX-52DC/DWX-52D)		
Milling bur holder	ZBH-52D	Milling bur holder for replacement (for DWX-52DCi/DWX-52D)		
Spindle unit	ZS-52D	Spindle unit for replacement (for DWX-52DCi/DWX-52D)		
Collet	ZC-52D	Collet for replacement (for DWX-52DCi/DWX-52D)		
Spindle belt	ZSB-180	Spindle belt for replacement (for DWX-52DCi/DWX-52D)		
Material adapters rack	ZR-52D	Material adapters rack for replacement (for DWX-52DCi/DWX-52DC/DWX-52D)		
Denture kit 1	CA-DK1	Denture kit 1 for casted denture base (for DWX-53DC/DWX-52DCi/DWX-52DC/DWX-52D)		
Option for CA-DK1	CA-DK1-FX	Fixture for CA-DK1 for replacement (for DWX-53DC/DWX-52DCi/DWX-52DC/DWX-52D)		
	CA-DK1-TR	Tray for CA-DK1 for replacement (for DWX-53DC/DWX-52DCi/DWX-52DC/DWX-52D)		
Denture kit 2	CA-DK2	Denture kit 2 for replacement (for DWX-52DCi/DWX-52DC/DWX-52D)		
Option for CA-DK2	CA-DK2-FX	Fixture for CA-DK2 for replacement (for DWX-52DCi/DWX-52DC/DWX-52D)		
	CA-DK2-TR	Tray for CA-DK2 for replacement (for DWX-52DCi/DWX-52DC/DWX-52D)		

## DGS SHAPE a Roland DG Company

Roland DG has been at the forefront of advanced machine manufacturing for over 35 years, providing practical and reliable technology with unmatched service and support. DGS SHAPE further delivers on this reliability promise but also improves user experience, making it incredibly easy for labs and clinics to produce high quality, cost-effective dental prosthetics while improving workflow efficiencies.

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