



5-Axis Dental Mill with Disc Changer

DWX-520C

INCREASED PRODUCTIVITY AND MAXIMUM VERSATILITY



AUTOMATIC DISC CHANGER

The DWX-52DC is equipped with a 6-slot Automatic Disc Changer capable of loading 98.5mm discs of different (or the same) materials for continuous milling of numerous dental restoration jobs in succession. There's also no need to stop milling to change discs or resend job data. Automated operation, in combination with its increased capacity, allows unattended milling of multiple materials or shades, throughout the day and overnight.



AUTOMATIC TOOL CHANGER

To minimise preparation work and time, the DWX-52DC is equipped with an Automatic Tool Changer which automatically replaces milling burs without needing to pause production. Up to 15 burs can be set up in the magazine for efficient milling of a wide range of materials, including zirconia, wax, PMMA, composite resin (in disc and block form*), PEEK, gypsum, CoCr sinter metal and fibre-reinforced resin.

* An included Pin-type Material Adapter enables setting up and milling of 7 pin-type materials consecutively.

OPEN ARCHITECTURE

The DWX-52DC gives you the freedom to work with your choice of the latest CAD/CAM software, scanners and materials. Users are not tied to a single manufacturer.

DWX-52DC

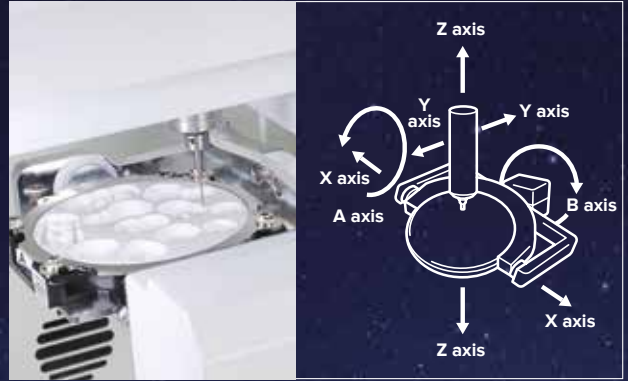
Automated Dental Milling, Day and Night

5-Axis Dental Mill with
Automatic Disc Changer



HIGH QUALITY, PRECISION MILLING

The ultimate in ease, material flexibility and unattended production, the DWX-52DC is designed to increase your laboratory's productivity and profit. Featuring a 6-slot Automatic Disc Changer, 15-station Automatic Tool Changer and other automated features, the DWX-52DC gives users of all skill levels an exceptionally powerful, efficient and affordable dental restoration solution. Plus, its open architecture means it can be used with CAD/CAM software your technicians are already familiar with. Ideal for dental laboratories looking to boost their production capabilities.



A robust and steady ball screw-driven system mills high quality complex dental restorations. Simultaneously rotating and tilting discs through 5 axes of movement enables the milling of deep undercuts, large arch restorations and other full-mouth prosthetics. An air pressure system has also been added to automatically change the volume of air for the type of material being milled, eliminating air control errors during milling.

EASY TO OPERATE



Complex controls often associated with CNC milling have been replaced by a user-friendly Virtual Machine Panel (VPanel) which will automatically change used burs at the end of their life (Intelligent Tool Changer function), conduct machine diagnostics and give you one-touch machine calibration. A new cleaning function has been added to reduce post-production work by removing dust from the surface of milled materials such as zirconia. The DWX-52DC also features an integrated ioniser which reduces static build up, helping to reduce the cutting residue when working with materials such as PMMA. Other convenient features include an LED status light which indicates machine status at a glance and a useful storage compartment for burs and other accessories.






DWX-52DC

Specifications	
Cuttable material	Zirconia, Wax, PMMA, Composite resin, PEEK, Gypsum, Fibre-reinforced resin, CoCr sinter metal
Loadable workpiece shape	Step section: 98.5 mm (diameter), height 10 mm Body section: 95 mm (diameter), height max. 35 mm Pin diameter: 6 mm
Loadable workpiece weight	Up to 850 g
Number of adapters housed	6
Operating speed	XYZ axis: 6 to 1,800 mm/min. (0.24 to 70.9 in./min.)
Spindle motor	Brushless DC Motor
Spindle speed	6,000 to 30,000 rpm
Rotary axis travel angle	A: $\pm 360^\circ$, B: $\pm 30^\circ$
Number of burs housed	15
Attachable bur	Shank diameter: 4 mm, Length: 40 to 55 mm
Compatible compressed air	0.2 MPa
Interface	USB
Control command set	RML-1, NC code
Power requirements	AC 100 V to 240 V $\pm 10\%$, 50/60 Hz, 2.0 A (overvoltage category II, IEC60664-1)
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	880 (W) \times 660 (D) \times 600 (H) mm (34.6 (W) \times 26.0 (D) \times 23.6 (H) in.)
Weight	105 kg (231.5 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 cable, Power plug adapter, USB cable, Manuals, Roland DG Software Package CD, Detection pin, Automatic correction jig, Pin-type material adapter, Hexagonal driver, Spanner, Milling bur holders, Milling bur positioner, Dust collection hoses, Dust collection hose adapter, Regulator, Cleaning tool, Option adapter labels, Material adapters

System Requirements for USB Connection	
Operating system	Windows [®] 7/8/8.1/10 (32 or 64 bit)
Optical drive	CD-ROM drive
USB cable	Use the included USB cable

Options				
Item	Model	Description		
Milling burs	ZDB-100D	R1.0 mm (ø 2 mm)	Diamond coating	Composite resin, Fibre-reinforced resin
	ZDB-50D	R0.5 mm (ø 1 mm)		
	ZDB-30D	R0.3 mm (ø 0.6 mm)		
	ZCB-100D	R1.0 mm (ø 2 mm)	Non-coating	Zirconia, Wax, PMMA, PEEK, Gypsum, CoCr sinter metal
	ZCB-50D	R0.5 mm (ø 1 mm)		
	ZCB-40D	R0.4 mm (ø 0.8 mm)		
Pin-type material adapter	ZV-52DC	Pin-type material jig for replacement (for DWX-52DC)		
Material adapter	ZMA-52DC	Material adapter for replacement (for DWX-52DC)		
Cleaning tool	ZCT-4D	Cleaning tool for replacement (for DWX-52DC)		
Milling bur holder	ZBH-4D	Milling bur holder for replacement (for DWX-52DC/51D/50/4)		
Spindle unit	ZS-4D	Spindle unit for replacement (for DWX-52DC/51D/50/4)		
Collet	ZC-4D	Collet for replacement (for DWX-52DC/51D/50/4)		
Spindle belt	ZSB-170	Spindle belt for replacement (for DWX-52DC/51D)		

Roland Care Warranty	
	Enjoy the peace of mind of having one of the most comprehensive warranty packages in the industry, included with the DWX-52DC.

The DGSHAPE Brand Promise

DGSHAPE is the brand name of the 3D business unit spun off from Roland DG with the core mission: "make innovation, make life better." DGSHAPE delivers digital technologies that bring ideas to life, revolutionise business processes, and shape a better future. Our goal is to fuse human creativity with digital workflows to provide exceptional value across multiple endeavours, from individual craftsmanship to manufacturing, healthcare and beyond.

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