DGSHAPE

4-Axis Dental Mill

DWX-4

A Roland Company

DGSHAPE DWX-4.
Dental Milling Machine.

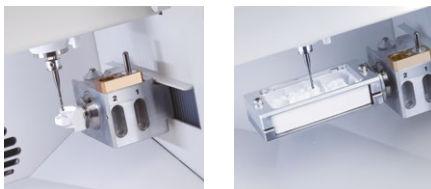**DGSHAPE is leading the digital dental revolution.**

Today, digital dental technologies are transforming every aspect of the dental industry. The days of tedious, manual production of crowns, copings and bridges are fast disappearing.
The latest technological advancements in scanning, CAD/CAM software and CNC milling allow both digital dental labs and clinics to deliver custom production with speed and precision. Better fit and aesthetics promote patient satisfaction, while labs enjoy greater productivity with faster turnaround and optimal accuracy and repeatability.

Small footprint, big results.
The DGSHAPE DWX-4 is the most compact and user-friendly dental milling machine available. Like its larger family member the DWX-52D, it is capable of milling a wide variety of materials with reliable precision. Now, you can produce dental prosthetics with consistent accuracy at a very affordable price.
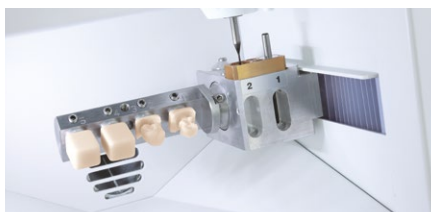
Built for clinics and labs of any size.
With its small footprint and entry-level price, the DWX-4 is ideal for small and mid-size clinics not yet using digital tools. It's also perfect for labs needing a second device for urgent jobs that don't tie up their larger production mills. You can economically mill a single crown or small bridge quickly and easily.

A wide variety of materials.
The DWX-4 is equipped to mill standard blocks and pin-type materials, including wax, PMMA, Zirconia and composite resin.

Powerful yet easy to use.
The DWX-4 combines simultaneous 4-axis milling with simple one-button operation. An automated tool changer provides two tools for precision milling from start to unattended finish. Monitoring production is enhanced by the large viewing area and LED-lit interior. A status light alerts the operator of any errors or malfunction to help prevent wasted time and materials and enabling them to carry out the milling process with confidence.

Showing optional block adaptor ZV-4D.

Economical open architecture.
Open architecture allows the DWX-4 to work with the latest materials and CAD/CAM software so you're never limited by older technology. If you already have a production solution, the DWX-4 works seamlessly with your existing scanner and compatible CAD/CAM software while eliminating the need to rely on a single source for materials. Compatible with RML-1 and NC code, the DWX-4 interfaces with your computer via USB.

Virtual Machine Panel.
Unlike traditional CNC mills, Roland has replaced the complex controls with a user-friendly Virtual Machine Panel (VPanel) which operates machine diagnostics and the calibration and milling processes right from your computer desktop. The VPanel also tracks overall machine time for maintenance purposes.

The Ioniser is always active during milling process.

Ioniser off.

Ioniser on.

Clean cutting area for precision milling.
The DWX-4 is equipped with an integrated air blower that prevents excessive dust buildup and a negative ion generator that neutralises static electricity when milling PMMA. Adding to peace of mind, the DWX-4 can be connected to your chosen dust collection system and sensor that prevents the machine from starting if the vacuum is inadvertently left off.

DWX-4 shown with optional 4 bay tool charger.

Growth potential.
Highly scalable, the DWX-4 offers multicast capability that allows you to connect up to four Roland machines to one computer, making it easier than ever to expand your business and increase your production capacity. The DWX-4 dental milling machine lets clinics control the entire process in-house with a single software seat, minimising your investment in time and money.

Backed by Roland.
DGSHAPE dental milling machines combine superior performance with legendary reliability. Tens of thousands of DGSHAPE and Roland users in more than 133 countries rely on Roland's unmatched customer service and support. As a company, Roland DG's ISO 9001:2008 and 14001 certifications assure consistent quality in manufacturing.

Specifications

Cuttable Material		Zirconia (pre-sintered), wax, PMMA and composite resin
Loadable workpiece shape	Block	Width x Depth: 76×38, Height: 10 to 22 mm
	PIN type	Width x Depth x Height: Maximum 85 x 40 x 22 mm
Operating speed		XYZ axis: 6 to 1800 mm/min.
Spindle motor		Brushless DC motor
Spindle speed		6,000 to 30,000 rpm
Rotary axis travel angle		A: ±360°
Number of tools housed		2 (4 tool adapter ZAT-4D sold separately)
Attachable tool		Shank diameter: 4 mm, Length: 40 to 55 mm
Compatible compressed air		0.02 to 0.2 MPa
Interface		USB
Control command set		RML-1, NC code
Power requirements		AC100 to 240 V ± 10 %, 50/60 Hz, 0.8 to 0.4 A (overvoltage category II, IEC 60664-1)
Power consumption		Approx. 70 W
Operating noise		During operation: 70 dB (A) or less (when not cutting) During standby: 40 dB (A) or less
External dimensions		Width x Depth x Height: 340×365×405 mm
Weight		22 kg
Installation Environment		Indoor Use, altitude: up to 2000 m Temperature: 5 to 40 °C Relative humidity: 35 to 80 % (no condensation) Ambient pollution degree: 2 (as specified by IEC 60664-1) Short-Term Temporary Overvoltage: 1440 V Long-Term Temporary Overvoltage: 490 V
Included items		Power cord, USB cable, Manual, Software Package CD-ROM, Detection pin, Automatic correction jig, Clamp for block workpiece, Hexagonal screwdriver, spanner, Tool holder, Tool positioner, Dust collection hose, Regulator.

System Requirements for USB Connection

Computer	Windows 10, 8.1, 7 (32 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
4-Position ATC *1 *2	ZAT-4D	Number of tools housed: 4 Loadable workpiece shape: PIN type (small)
Multi-Pin Clamp *2	ZV-4D	Loadable workpiece supported: PIN type (small) Number of loadable workpieces: max. 4 Loadable workpiece sizes: For 4 workpieces (Width x Depth x Height): Max. 14,5 x 21 x 20 mm For 3 workpieces (Width x Depth x Height): Max. 20 x 21 x 20 mm
Spindle Unit	ZS-4D	For replacement
Milling Bur	ZDB-100D	R1,0 mm billing bur for composite resin (2 mm diameter)
	ZDB-50D	R0,5 mm billing bur for composite resin (1 mm diameter)
	ZDB-30D	R0,3 mm billing bur for composite resin (0.6 mm diameter)

*1 The 4-position ATC works with Roland's Virtual Machine Panel (Vpanel) ver. 1.1 or later
*2 The multi-pin clamp cannot be used simultaneously with the 4-position ATC

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