

DWX-53D



5-Axis Dry Dental Mill

SPECIFICATIONS

Millable material*1	Zirconia, Wax, PMMA, Gypsum, PEEK, PEKK, Glass-fiber-reinforced resin, Composite resin, CoCr sinter metal, Polycarbonate
Loadable workpiece shape	Disk-type (with step) work-piece Step section: 98.5 mm (3.88 in.) (diameter), 10 ± 0.3 mm (0.39 ± 0.01 in.) (height) Body section: 95 mm (3.74 in.) (diameter), 60 mm (2.36 in.) max. (height)
	Pin-type workpiece Pin diameter: 6 mm (0.24 in.)
Loadable workpiece weight	850 g (1.87 lb.) or less
Number of loadable adapters	1
Operating speed	X, Y: 3,000 mm/min (118.11 in./min) max., Z: 2,700 mm/min (106.29 in./min) max.
Spindle motor	Brushless DC motor
Spindle rotating speed	6,000 to 30,000 rpm
Rotary axis travel angle	A: ±360°, B: ±35°
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	0.4 MPa
Interface	USB
Control command sets	RML-1, NC code
Power requirements	100 to 240 VAC ± 10%, 50/60 Hz (overvoltage category: II, IEC 60664-1), 1.8 A
Power consumption	Approx. 170 W
Operating noise	During operation: 70 dB (A) or less (when not cutting) During standby: 48 dB (A) or less
External dimensions	Width × depth × height: 555 × 725 × 705 mm (21.85 × 28.54 × 27.76 in.)
Weight	105 kg (231.49 lb.)
Installation environment	Indoor use at altitudes up to 2,000 m Temperature: 5 to 40° C, 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: 490V
Included items	Power cord, power plug adapter, USB cable, Safety Precautions, Quick Access Guide, detection pin, automatic correction jig, torque screwdriver, T-shaped hexagonal screwdriver, L-shaped hexagonal wrench, collet attaching/detaching jig, milling bur holder, milling bur positioner, regulator, adapter ID labels, standard adapter, open edge adapter, adapter rack, pin-type workpiece adapter, milling burs, etc.

*1 Even when made from the described materials, some workpieces cannot be milled due to specifications or physical properties. For more information, contact your authorized Roland DG Corporation dealer.

System Requirements

Computer	Operating system (OS)	Windows 11, Windows 10 (64-bit)
	CPU	Core i5 4th generation or equivalent
	Memory	8 GB or more
	Video card and monitor	A video card that supports at least 256 colors and a resolution of 1,024 × 768 or more is recommended.
	Hard disk	The following free hard-disk space is required. •Installation destination: 200 MB or more •Error video recording function: 20 GB or more
USB cable	Use the included USB cable. If you will connect a conversion cable, separately prepare a USB cable whose total length, including the length of the conversion cable, is 3 m (118.11 in.) or less.	

Exceptional Service, Support, and Training for Seamless Business Operation

DGSHAPE is dedicated to providing the industry's best customer service, support, and training. Our excellent team of customer support staff, certified service engineers, and technicians delivers prompt, reliable responses and online outreach to ensure your business can continue to run smoothly.



DGSHAPE BRAND PROMISE

DGSHAPE Corporation is a wholly owned subsidiary of Roland DG Corporation, established in 2017 to develop and market innovative fabrication technology worldwide. With over 30 years' experience in innovative 3D design, DGSHAPE's core mission to "make innovation, make life better" is focused on delivering digital technologies that bring ideas to life, revolutionize business processes, and shape a better future.

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DWX-53D

5-Axis Dry Dental Mill



STRENGTH

Reinforced Rigidity Benefits Your Dental Business

With an upgraded frame structure, the DWX-53D offers twice the rigidity of our previous model, the DWX-52D.

This robust and stable desktop dry dental mill enables the production of high-quality, amazingly precise, and cost-effective dental restorations from PMMA, zirconia, and other CAD/CAM materials.



Faster Milling of PMMA Materials

The innovative CAD/CAM milling strategy with our 4mm roughing tool (ZRB-200D) significantly reduces PMMA milling times, * bringing advanced, efficient performance to digital denture production. The milling time for a full-arch denture using the DWX-53D and a PMMA disc material is more than 30% faster than when using the previous model DWX-52D.

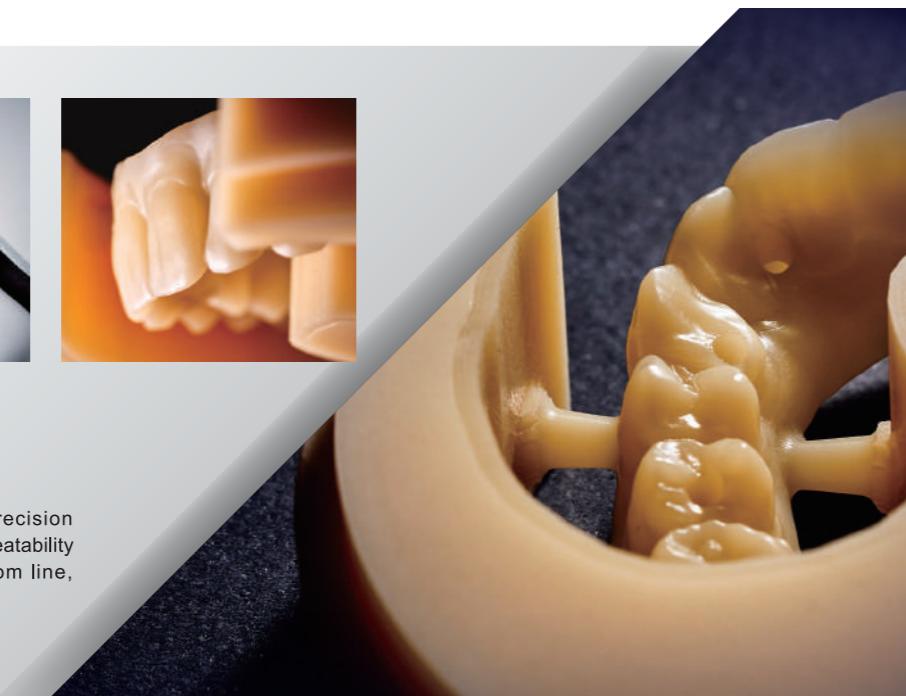
*Please ask your reseller about CAD/CAM software that is compatible with this new strategy using 4mm tool.

In addition, our Milled Digital Denture Solution "DK2-53" and tools (ZRB/ZPB Series) offers highly efficient and precise production of dentures with perfect fitting.



Improved Milling Precision, High Output Quality

Thanks to its reinforced rigidity, tool gripping power, and precision components, the DWX-53D's milling yields high stability and repeatability for every part of the restoration: surface, margin line, bottom line, thickness, and fitting.



PRECISION

High Quality Milling of All Dental Applications

The B-axis rotation, now increased by ± 35 degrees, combined with the open-edge adapter allows precise milling of anterior parts and accurate production of full-arch restorations such as full-implant bridges, full dentures, and more.

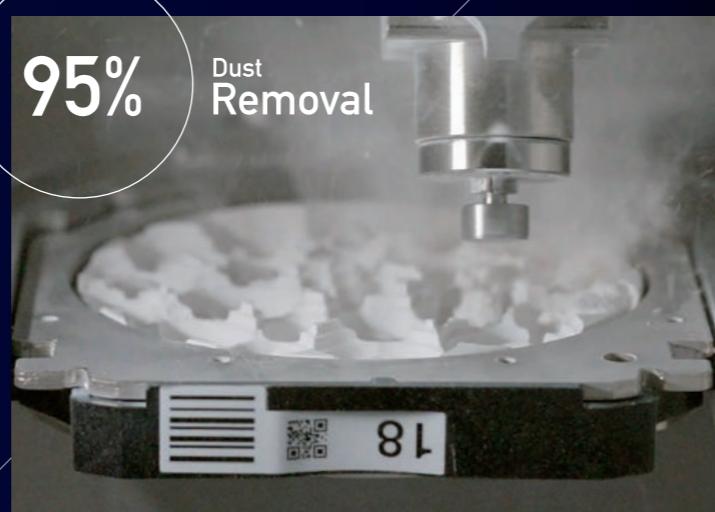


INTELLIGENCE

Automatic Cleaning System Removes Dust from Every Surface

After the milling process, the DWX-53D's integrated cleaning system automatically blows away dust on every part of the output using high-pressure airflow that even removes dust adhered to the back surface of the zirconia output. This new feature significantly reduces the time needed for manually removing zirconia dust.

*Users can select one of three cleaning modes (high quality, normal, and high speed) or turn off this function if not needed.



Advanced Monitoring and Maintenance With DGSHAPE Insights

The DWX-53D's integrated camera connected to DGSHAPE Insights provides live images and updates, allowing users to monitor the status of their machine and production progress from anywhere, anytime using a smartphone, tablet, or PC. These updates also support timely maintenance and servicing, which in turn enables consistent, high-quality device performance.

With no limit on the number of devices that can be connected, DGSHAPE Insights ensures seamless integration of all your DWX devices* and facilitates 24-hour remote monitoring capabilities.

*The DWX models compatible with DGSHAPE Insights are DWX-53DC/53D, DWX-52DCi/52DC/52D Plus, DWX-42W Plus, and DWX-4.