5-Axis Dental Mill with Disc Changer

DWX-52DCi
The ultimate in 24-hour productivity

Introducing the DWX-52DCi 5-Axis Dental Mill with Performance Monitoring Software

The DWX-52DCi 5-axis dental mill with Automatic Disc Changer expands your lab production and profits with open architecture, material flexibility, unattended production, and new DWINDEX software for visualising ROI and productivity at a glance. With a 6-slot Automatic Disc Changer, 15-station Automatic Tool Changer and other automated features, it offers the ultimate in 24-hour productivity for users of all skill levels. Capable of producing a wide range of restorations, including crowns, copings, bridges, inlays and onlays, veneers, abutments, implant bars, screw-retained crowns, digital dentures, models, surgical guides and bite splints, the DWX-52DCi provides an exceptionally powerful, efficient, affordable, and intelligent dental restoration solution.

Increased productivity and maximum versatility

Increase productivity overnight and during the weekends with a dental mill that continues working, even when your office is closed. A snap-on clamp system for the Automatic Disc Changer enables loading of up to six 98.5mm discs for continuous milling of multiple jobs in zirconia, Wax, PMMA, composite resin, PEEK, gypsum, CoCr sinter metal, and glass fibre-reinforced resin. Additionally, a pin-type material adapter facilitates setting up and milling of up to eight pin-type blocks consecutively.

DWINDEX Software Monitors Your Milling Performance

The DWX-52DCi features new DWINDEX software to monitor milling operations and help you determine ROI so you can better plan, identify and manage machine productivity and lab profitability. DWINDEX monitors:

- operation time per tool
- operation time per disc
- operation time of the unit (day/week/month)
- error log
- materials used
- history of deliverables.

Reliable, Unattended Milling

Load the 15-station Automatic Tool Changer (ATC) with a variety of coated and uncoated tools to continuously mill jobs in different materials and multiple shades of zirconia or pin-type blocks without stopping production.

Precision 5-Axis Milling

A smooth and steady ball-screw-driven system offers exceptionally precise results. The DWX-52DCi simultaneously rotates and tilts discs for deep undercuts and milling large arch applications and other full-mouth restorations with ease.

Comprehensive Support Network

A comprehensive support network provides customers with peace of mind when using DGSHAPE products. In addition to online or telephone assistance, DGSHAPE also offers educational seminars aimed at increasing customers’ familiarity and confidence with products and services. Service engineers are also available worldwide to assist customers with any questions they may have.
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Specifications

Cuttable material

<table>
<thead>
<tr>
<th>Material</th>
<th>Description</th>
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</thead>
<tbody>
<tr>
<td>Zirconia, Wax, PMMA</td>
<td>Composite resin, Glass fibre-reinforced resin, high translucent Zirconia</td>
</tr>
<tr>
<td>Disc-type (with step)</td>
<td></td>
</tr>
<tr>
<td>Pin-type</td>
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</tbody>
</table>

Loadable workspace shape

<table>
<thead>
<tr>
<th>Shape</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Disc-type</td>
<td></td>
</tr>
<tr>
<td>Pin-type</td>
<td></td>
</tr>
</tbody>
</table>

Loadable workspace weight

- 850 g or less

Number of loadable adapters

- 6

Operating speed

<table>
<thead>
<tr>
<th>Axis</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>XYZ</td>
<td>6 to 1800 mm/min. (0.24 to 70.9 in./min.)</td>
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</tbody>
</table>

Spindle motor

Brushless DC Motor

Spindle rotating speed

6000 to 30000 rpm

Rotary axis travel angle

A: ±360°, B: ±30°

Number of burs housed

- 15

Attachable milling bur

Shank diameter: 4 mm (016 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 ±10 %, 50/60 Hz (overvoltage category II, IEC60664-3), 2.0 A

Power consumption

Approx. 200 W

Operating noise

<table>
<thead>
<tr>
<th>Description</th>
<th>During operation</th>
<th>During standby</th>
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</thead>
<tbody>
<tr>
<td></td>
<td>70 dB (A) or less (when not cutting)</td>
<td>45 dB (A) or less</td>
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</tbody>
</table>

External dimensions

890 (W) × 660 (D) × 600 (H) mm (34.7 × 26 × 23.6 in.) (additional 150 mm depth required for extraction pipe)

Weight

105 kg (231.5 lb)

Installation environment

- Indoor use, Altitude: Up to 2000 m (6562 ft), Temperature: 5 to 40 °C (41 to 104 °F), Humidity: 35 to 80 % (no condensation), Ambient pollution degree: 2 (as specified by IEC 60664-3), Short-term temporary overvoltage: 1440 V, Long-term temporary overvoltage: 490 V

Included items

- Power cable, USB cable, Manuals, DGSHAPE Software Package CD, Detection pin, Automatic correction jig, Material Adapter, Material Adapter Rack, Pin-type material adapter, Hexagonal driver, 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® 10, 8.1, 7 (32 or 64 bit) or an upgraded computer originally pre-installed with Windows 7 or later

USB cable

Use the included USB cable

Options

- Model: Description
- ZDB-100D: R1 mm (0.2 mm)
- ZDB-50D: R0.5 mm (0.1 mm)
- ZDB-30D: R0.3 mm (0.06 mm)
- ZCB-100D: R1 mm (0.2 mm)
- ZCB-50D: R0.5 mm (0.1 mm)
- ZCB-40D: R0.4 mm (0.08 mm)
- ZRB-100D: R1 mm (0.2 mm)

Milling burs

Pin-type material adapter

- ZV-52D: Replacement pin-type material jig (for DWX-52DCi/DWX-52DC/DWX-52D)

Material adapter

- ZMA-52DC: Replacement material adapter (for DWX-52DCi/DWX-52DC/DWX-52D)

Cleaning tool

- ZCT-4D: Replacement cleaning tool (for DWX-52DCi/DWX-52DC/DWX-52D)

Milling bur holder

- ZBH-4D: Replacement milling bur holder (for DWX-52DCi/DWX-52DC/DWX-52D/51D/50/4)

Spindle unit

- ZS-4D: Replacement spindle unit (for DWX-52DCi/DWX-52DC/DWX-52D/51D/50/4)

Collet

- ZC-4D: Replacement collet (for DWX-52DCi/DWX-52DC/DWX-52D/51D/50/4)

Spindle belt

- ZSB-170: Replacement spindle belt (for DWX-52DCi/DWX-52DC/DWX-52D/51D/50/4)

Material adapters rack

- ZMR-52D: Replacement material adapters rack (for DWX-52DCi/DWX-52DC/DWX-52D/51D/50/4)

Time reduction kit

- CA-MK1: Time reduction kit for model milling (for DWX-52DCi/DWX-52DC/DWX-52D)
- CA-DK1: Time reduction kit for denture base milling (for DWX-52DCi/DWX-52DC/DWX-52D)

Options for time reduction kit

- CA-52DC: Replacement material adapter of time reduction kit (for DWX-52DCi/DWX-52DC/DWX-52D)
- CA-DK1-FX: Replacement fixture for CA-DK1 (for DWX-52DCi/DWX-52DC/DWX-52D)

Specifications, designs and dimensions listed may be subject to change without notice.

Roland Care Warranty

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

DGSHAPE is the name of the new business that inherited 30 years of innovative 3D technologies of Roland DG from which it was spun off. The DGSHAPE core mission - “make innovation, make life better” - is focused on delivering digital technologies that bring ideas to life, revolutionize business processes, and shape a better future. Our objective is to fuse human creativity with digital workflows to provide exceptional value across multiple endeavors, from individual craftsmanship to manufacturing, healthcare and beyond.

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