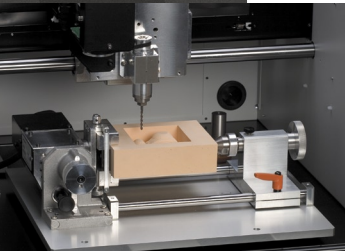


# MDX-40

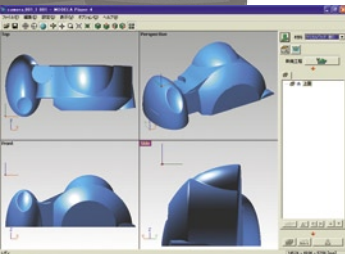
## Subtractive Rapid Prototyping Machine



*Finished prototypes are beautifully detailed and precise.*



*Precision XYZ motion control enables you to create smooth detailed prototypes — unattended.*



*Select from a wide variety of materials. Simulate prototyping process and estimate prototyping time.*



*Design models using your engineering sketches and any CAD program.*



Take a look under the hood of the mid-range, MDX-40 performance milling machine and see why it's the ultimate choice for prototypes, parts and precision models. The MDX-40 was designed for engineers, industrial designers, educators, and other product designers who want the convenience and security of having a compact, full-featured milling machine right on the desktop. Perfect for testing form, fit, and function in a wide variety of engineering plastics.

You'll appreciate numerous well-designed features, including a high-speed 15,000 rpm spindle that captures all the fine details of your design quickly and precisely. Rotary

axis design makes unattended two- and four-side milling fast and simple. An optional 3D scanning head using innovative Roland Active Piezo Sensor technology is ideal for reverse engineering. And powerful CAM and simulation software included is easy-to-use right out of the box.

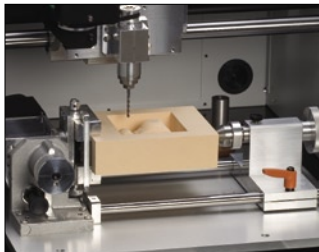
The fast, precise and affordable MDX-40 is all you need to bring your engineering department roaring to life for about half the price of any other machine in its class.

  
Advanced Solutions Division

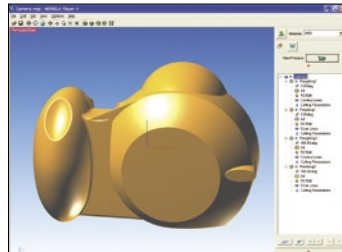
## ■ Specifications

# MDX-40 Subtractive Rapid Prototyping Machine

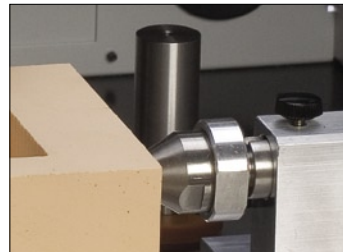
|                                    |                         | MDX-40   |
|------------------------------------|-------------------------|--|
| Acceptable materials               |                         | Urethane Modeling Boards and Wax, ABS, Delrin®, Nylon, and other plastics  |
| X, Y, and Z operation strokes      |                         | 305 (X) x 305 (Y) x 105 (Z) mm (12 (X) x 12 (Y) x 4-1/8 (Z) in.)   |
| Distance from spindle tip to table |                         | Maximum 125 mm (4-15/16 in.)   |
| Table size                         |                         | 305 (W) x 305 (D) mm (12 (W) x 12 (D) in.)   |
| Loadable workpiece weight          |                         | 4 Kg (8.8 lb)  |
| XYZ-axis motor                     |                         | Stepping motor   |
| Feed rate                          |                         | XY-axis : 0.1 to 50 mm/sec. (0.0039 to 118.1 IPM)<br>Z-axis : 0.1 to 30 mm/sec. (0.0039 to 70.9 IPM)   |
| Software resolution                |                         | 0.01 mm/step (0.00039 in./step)  |
| Mechanical resolution              |                         | 0.002 mm/step (0.0001 in./step)  |
| Spindle motor                      |                         | DC brushless motor, Maximum 100W   |
| Spindle type                       |                         | Modeling spindle   |
| Spindle rotation                   |                         | 4500 to 15000 rpm  |
| Tool chuck                         |                         | Collet   |
| Interface                          |                         | USB connector, sensor connector, expansion connector   |
| Power supply                       | Voltage and frequency   | AC100 to 240 ± 10%, 50/60 Hz   |
|                                    | Required power capacity | 2.1 A  |
| Power consumption                  |                         | Approx. 210W   |
| Acoustic noise level               |                         | No-load operation : 56 dB (A) or less, standby : 42 dB (A) or less (According to ISO7779)  |
| Dimensions                         |                         | 669 (W) x 760 (D) x 554 (H) mm (26-3/8 (W) x 29-15/16 (D) x 21-13/16 (H) in.)  |
| Weight                             |                         | 66 Kg (146 lb)   |
| Packed dimensions                  |                         | 785 (W) x 885 (D) x 735 (H) mm (31 (W) x 35 (D) x 29 (H) in.)  |
| Packed weight                      |                         | 73 Kg (161 lb)   |
| Operation temperature              |                         | 5 to 40°C (41 to 104°F)  |
| Operation humidity                 |                         | 35 to 80 % (no condensation)   |
| Accessories                        |                         | Power cord, collet, sensor, hexagonal wrench, hexagonal screw drivers, spanners, Roland Software Package CD-ROM, MODELA Player4 CD-ROM, user's manual, Roland Software Package installation and setup guide, MODELA Player4 installation and setup guide |



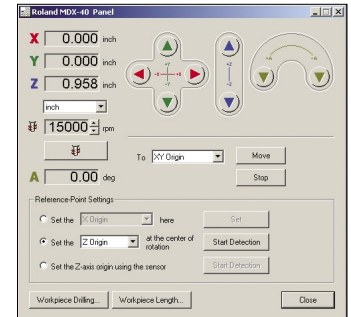
4th-axis and tail stock support



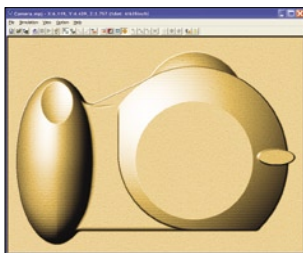
Modela Player 4-axis CAM software



Auto tool length setting sensor



Soft Control Panel



Virtual Modela tool path simulation interface



ZDX-40 Chip box will make it easy to collect cut chips from the cutting area. (Optional)



ZSC-1 Scanning Probe option will add scanning functionality to the MDX-40. (Optional)  
(Scanning Area is 305 (X) x 305 (Y) x 60 (Z) mm (12 (X) x 12 (Y) x 2.4 (Z) in.)

Roland reserves the right to make changes in specifications, materials or accessories without notice. Your actual output may vary. For optimum output quality, periodic maintenance to critical components may be required. Please contact your Roland dealer for details. No guarantee or warranty is implied other than expressly stated. Roland shall not be liable for any incidental or consequential damages, whether foreseeable or not, caused by defects in such products. All trademarks are the property of their respective owners.

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