# FAST, EASY AND AFFORDABLE
## RAPID PROTOTYPING

Roland Subtractive Rapid Prototyping (SRP) machines provide snap-fit, functional parts and prototypes milled from a wide variety of materials with smooth surface finishes, tight tolerances and a low cost of ownership. Each comes with a complete software suite to help turn your ideas into reality.

By starting with a solid object and removing unwanted material, Roland desktop and benchtop milling machines enable engineers and designers to produce highly accurate, functional parts and snap-fit prototypes quickly and inexpensively from a wide range of materials and software. Advantages include:

- **Low cost of ownership** – With no annual maintenance fees and low cost materials, Roland milling machines can save users thousands of dollars on outsourcing or operating expenses compared to other machines.

- **Wide range of materials** – Choose from a wide range of non-proprietary materials, including non-ferrous metals, acrylics, chemical woods and popular engineered plastics such as ABS, Delrin and nylon.

- **Smooth surface finish** – Deliver tight tolerances up to +/- 0.02 mm and a smooth surface finish without post finishing.

## SRM-20  THE NEXT EVOLUTION IN COMPACT MILLING MACHINES

The monoFab™ SRM-20 is Roland's latest generation desktop milling machine for the office, studio and educational environment. Since pioneering desktop milling in 1986, Roland has continued to deliver accuracy and efficiency in a compact format. The SRM-20 incorporates innovative features, including a new spindle, collet, circuit boards and control software. The SRM-20 comes with a package of advanced yet user-friendly CAM and production software that includes SRP Player, MODELA Player 4, iModela Creator and ClickMill. The result is a leap forward in milling precision, speed and ease of use.

The SRM-20 can mill a variety of non-proprietary materials typically used for prototyping, including chemical wood, acrylic and modeling wax. Optional collets are also available to extend the mill's capability with a wide range of end mill shapes and sizes, which are ideal for creating beautiful finishes and intricate details.

**SRM-20  $4,995 US**

▶ To see the SRM-20 in action, watch the video at www.rolanddga.com/SRM20

## MDX-40A  MILLING MACHINE

The Roland MDX-40A is a desktop milling system that offers production designers major value. At less than half the cost of most professional additive systems, the MDX-40A produces prototypes out of a wider variety of non-proprietary materials with greater precision and a better surface finish. The MDX-40A has a large 12" x 12" x 4.1" maximum work volume without the rotary axis installed and an optional 4th rotary axis that allows unattended 360° milling and supports materials up to 10.6" long by 4.7" in diameter. An optional 3D scanning head that uses Roland's innovative Active Piezo Sensor technology – ideal for reverse engineering – is also available. Bundled with the MDX-40A is powerful CAM and simulation software that lets you get started immediately. This software includes SRP player, Virtual MODELA®, ClickMill™, Dr.Engrave™ and 3D Engrave.

**MDX-40A $7,995 US**
**ZCL-40A ROTARY 4TH AXIS $3,699 US**

For complete case studies on SRP products, visit www.rolanddga.com/gallery/RapidPrototyping.

## MDX-540 SRP® SYSTEM  PRECISION PROTOTYPING MACHINE

The MDX-540 SRP system combines precision desktop milling with powerful CAM software, making it easy to produce prototypes with industry-leading speed and accuracy. The MDX-540 mills a wide variety of non-proprietary materials and popular engineered plastics such as ABS, Delrin® and nylon. This advanced benchtop device creates functional prototypes ideal for structural, thermal and electrical testing. It even produces non-ferrous metal rapid injection molds. MDX "S" models deliver ultra-smooth surfaces and higher repeat accuracy for optics, metal molds and other low tolerance applications.
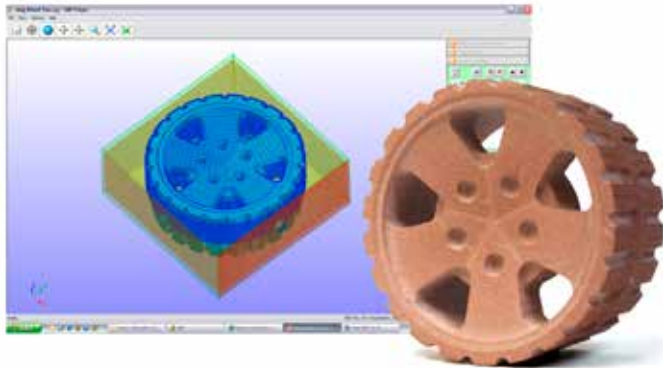
**MDX-540**  **$20,995 US**
**MDX-540S**  **$26,995 US** (High Precision)
**MDX-540A**  **$31,995 US** (Automatic Tool Changer)
**MDX-540SA**  **$36,995 US** (High Precision with Automatic Tool Changer)

**Roland**®

Included with all milling machines, SRP Player software is ideal for rapid prototyping and custom rapid manufacturing applications.

- Optimum tool paths for each application for surface or polygon data
- Produces flawless shapes with smooth, accurate curves
- Extends the lifespan of tools by reducing their load
- Cuts only desired sections, producing shapes with maximum efficiency
- Detailed parameter settings ensure professional precision and quality
- Easy-to-use, intuitive operation
- Compatible with all Roland MDX Series and SRM-20 milling devices

For a video demonstration on SRP Player software, visit www.rolanddga.com/SRPplayer.

## PRODUCT SPECIFICATIONS

| MODEL | SRM-20 | MDX-40A | MDX-540 | |
|---|---|---|---|---|
| Max Work Area | 8.0"(X) x 6.0"(Y) x 2.38"(Z) 203.2mm x 152.4mm x 60.96mm | 12.0"(X) x 12.0"(Y) x 4.1"(Z) 305mm x 305mm x 105 mm | **MDX-540** 19.7"(X) x 15.7"(Y) x 6.1"(Z) 500mm x 400mm x 155mm **MDX-540A** 15.7"(X) x 15.7"(Y) x 6.1"(Z) 400mm x 400mm x 155mm | **MDX-540S** 19.7"(X) x 15.7"(Y) x 6.1"(Z) 500mm x 400mm x 155mm **MDX-540SA** 15.7"(X) x 15.7"(Y) x 6.1"(Z) 400mm x 400mm x 155mm |
| Rotary Axis | N/A | 4.7" Diameter x 10.6" Long 60mm x 270mm | 7.0" Diameter x 14.6" Long 180mm x 371mm | |
| Rotary Axis Unit | NA | Optional | Optional | |
| Max Feed Rate | 70.9 ipm (30 mm/sec.) | XY-axis: 188 ipm (50 mm/sec.) Z-axis: 70.9 ipm (30 mm/sec.) | 295 ipm (125 mm/sec) | |
| Spindle Motor | DC motor Type 380 | Brushless DC motor, Maximum 100 W | Brushless DC motor, Maximum 400W | |
| Spindle Speed | Adjustable 3000-7000 rpm | 4500 to 15000 rpm | 400 - 12,000 rpm | |
| Largest Tool Diameter | .236" (6mm) | 1/4" (7mm) | **MDX-540** 3/8" (10mm) **MDX-540A** 1/4" (7mm) optional: 3/8" (10mm) | **MDX-540S** 3/8" (10mm) **MDX-540SA** 1/4" (7mm) optional: 3/8" (10mm) |
| Scanning Probe | N/A | Optional | N/A | |
| Scanning Resolution | N/A | 0.002" (.05mm) | N/A | |
| Scanning Method | N/A | Contact Roland Active Peizo Sensor | N/A | |
| Interface | USB | USB | USB | |
| Power Supply | AC 100 to 240V ± 10%, 50/60 Hz (2.1 A) | AC100 to 240V ±10%, 2.1 A,; 50/60 Hz | AC 100 to 120V (7A) or 220 to 240V (4A) | |
| External Dimensions | 17.76"(W) x 16.80"(D) x 16.78"(H); 451mm x 427mm x 426mm | 26.4"(W) x 30"(D) x 21.9"(H); 669mm x 760mm x 554mm | **MDX-540** 29.3"(W) x 37.6"(D) x 33.8"(H); 745mm x 955mm x 858mm **MDX-540A** 29.3"(W) x 37.6"(D) x 33.8"(H); 745mm x 955mm x 858mm | **MDX-540S** 30.1"(W) x 37.6"(D) x 33.8"(H); 765mm x 955mm x 858mm **MDX-540SA** 30.1"(W) x 37.6"(D) x 33.8"(H) 765mm x 955mm x 858mm |
| Bundled Software | V-Panel for SRM-20, SRP Player, MODELA Player 4, iModela Creator, ClickMill | ClickMill, SRP Player, Virtual MODELA, Dr. Engrave, 3D Engrave | SRP Player, 3D Engrave, Dr. Engrave | |
| Supported Machine Code | RML & G-Code | RML & G-Code | RML & G-Code | |