

## **3D SOLUTIONS**



Roland Mox

# 3D SCANNING AND MILLING SOLUTIONS FROM START TO FINISH

5.5

Roland makes your 3D projects come roaring to life with a full line of high performance 3D scanning and milling machines – each designed from the ground up to make product design, benchtop prototyping, reverse engineering, animation and more much easier, whether you're just adding 3D capabilities to your shop or you are already an industry expert. Plus, each comes with a complete software suite to help you get the most out of your new machine.



## SCANNING AND MILLING MACHINE MDX-15 MDX-20

Benchtop prototyping has never been easier. Ideal for jewelers and product designers on a budget. These desktop machines mill tooling board, resins, and plastics with ease. So you can test form, fit, and function wth confidence, making them the perfect choices for prototypes, parts and precision models. The MDX-15 and MDX-20 models feature scanning and milling in one at a resolution of up to 0.002" scanning and 0.001" milling. Bundled with MODELA Player4,<sup>™</sup> MODELA 3D Design,<sup>™</sup> Dr. PICZA<sup>™</sup> and Virtual MODELA,<sup>™</sup> Dr. Engrave,<sup>™</sup> and 3D Engrave software.

MDX-15 \$3,145 US MDX-20 \$4,695 US



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MDX-40 \$7,345 US MDX-40K \$11.595 US

## MILLING MACHINE

#### MDX-40 MDX-40K

The Roland MDX-40 is a desktop Subtractive Rapid Prototyping (SRP) system that offers product designers a major value. The MDX-40 is less than half the cost of most additive systems while producing prototypes out of a wider variety of non-proprietary materials with greater precision and better surface finish. The MDX-40K includes a 4th rotary axis that allows unattended 360° milling. An optional 3D scanning head that uses Roland's innovative Active Piezo Sensor technology - ideal for reverse engineering - is also available. Included powerful CAM and simulation software enables you to get started immediately. Bundled with MODELA Player₄,™ MODELA 3D Design,™ Dr. PICZA™ and Virtual MODELA,™ Dr. Engrave,<sup>™</sup> and 3D Engrave software.

### **3D LASER SCANNERS**

#### LPX-60 DS LPX-600 DS LPX-1200 DS

Stop wasting hours cleaning up scanned data! With the touch of a button, LPX DS Series 3D laser scanners can generate a detailed, high resolution 3D model with watertight surfaces. Bundled LPX EZ Studio reverse engineering software automatically scans, aligns, merges planes, fills holes and decimates 3D models. The LPX-60 DS scans objects up to 12" tall by 8" in diameter at up to 0.008" maximum resolution. The LPX-600 DS scans objects up to 16" tall by 10" in diameter at up to 0.008" maximum resolution, and the LPX-1200 DS scans objects up to 8" tall by 5" in diameter at up to 0.004" maximum resolution.

## **PRECISION PROTOTYPING MDX-540 SRP® SYSTEM**

rapid injection molds.

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 nonproprietary materials and popular engineered plastics such as ABS, Delrin<sup>®</sup>, and nylon. The benchtop device produces functional prototypes ideal for structural, thermal, and electrical testing. It even produces non-ferrous metal

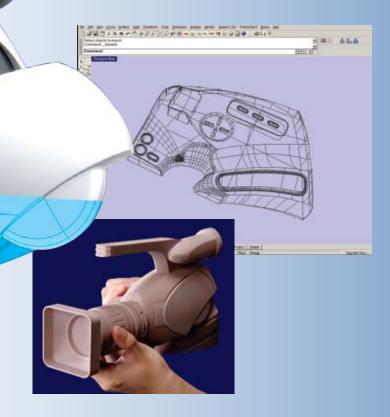
MDX-540 \$20,995 US (Precision Spindle) MDX-540A \$31,495 US (Automatic Tool Changer) MDX-540S \$26,295 US (High Precision) MDX-540SA \$36,795 US (High Precision with Automatic Tool Changer)



LPX-60DS \$8,395 US LPX-600DS \$12,595 US LPX-1200 \$15,995 US



## **3D SOLUTIONS**







Roland 3D scanning and milling machines allow engineers and designers to quickly and inexpensively create 3D prototypes as well as wax models for jewelry design.



#### **PRODUCT SPECIFICATIONS**

INCOUCI							
MODEL	MDX-15 MDX-20		MDX-40 – Base model			MDX-40K – Base model plus automatic tool changer	
Max Work Area	6.0"(X) x 4.0"(Y) x 2.4"(Z) 152.4mm x 101.6mm x 60.5mm	8.0"(X) x 6.0"( 203.2mm x 1	(Y) x 2.4"(Z) 52.4mm x 60.5mm	12.0"(X) x 12.0"(Y) x 4.1"(Z) 305.0mm x 305mm x 105mm		12.0"(X) x 12.0"(Y) x 4.1"(Z) 305.0mm x 305mm x 105mm	
Rotary Axis	N/A	N/A		N/A		3.3" (D) x 5.3" (L)	
Max Feed Rate	15mm/sec.	15mm/sec.		X-Y Axis: 50mm/sec Z-axis: 30mm/sec		X-Y Axis: 50mm/sec Z-axis: 30mm/sec	
Spindle Motor	10W	10W		100 W		100 W	
Spindle Speed	6500 rpm	6500 rpm		4,500 - 15,000 rpm		4,500 - 15,000 rpm	
Largest Tool Diameter	1/8" (Optional 1/4" and 6mm Spindle)	ptional 1/4" and 6mm Spindle) 1/8" (Optional		nd 6mm Spindle) 1/4" or 6mm		1/4" or 6mm	
Scanning Probe	Included	Included		Optional		Optional	
Rotary Axis Unit	NA	NA		Optional		Standard	
Scanning Pitch (Smallest)	0.05mm	0.05mm		0.05mm		0.05mm	
Scanning Method	Contact Roland Active Piezo Sensor	Contact Rolar	d Active Piezo Sensor	Contact Roland Active Piezo Sensor		Contact Roland Active Piezo Sensor	
Interface	Serial (RS-232C)	Serial (RS-23	2C)	USB		USB	
Power Supply	AC 100 to 240 ± 10%, 50/60 Hz (2.1 A)	AC 100 to 240	0 ± 10%, 50/60 Hz (2.1 A)	AC 100 to 240 ± 10%, 50/60 Hz (2.1 A)		AC 100 to 240 ± 10%, 50/60 Hz (2.1 A)	
External dimensions	16.8"(W) x 11.1"(D) x 12.1"(H); 426mm x 280mm x 305mm			26.3"(W) x 29.9"(D) x 21.8"(H) 669mm x 760mm x 554mm		26.3"(W) x 29.9"(D) x 21.8"(H) 669mm x 760mm x 554mm	
Bundled Software	Modela Player 4, 3D Engrave, Dr. Engrave, Modela Player			SRP Player, 3D Engrave, Dr. Engrave, Modela Player 4		SRP Player, 3D Engrave, Dr. Engrave, Modela Player 4	
MDX-540S – Base model plus high MDX-540A – Base model plus factory MDX-540SA – Base model plus high tolerance							
MODEL	tolerance bal			installed automatic tool changer 15.7"(X) × 15.7"(Y) × 6.1"(Z)		MDX-34USA – Base model plus nigh tolerance ball screws and automatic tool changer 15.7"(X) x 15.7"(Y) x 6.1"(Z)	
Max Work Area			mm x 155mm	400mm x 400mm x 155mm		400mm x 400mm x 155mm	
Max Feed Rate	125mm/sec	125mm/sec		125mm/sec		125mm/sec	
Spindle Motor	400W	400W		400W		400W	
Spindle Speed	400 - 12,000 rpm 400 - 12,000		rpm	400 - 12,000 rpm		400 - 12,000 rpm	
Largest Tool Diameter	8" or 10mm 3/8" or 10mm			3/8" or 10mm		3/8" or 10mm	
Rotary Axis Unit	Optional Standard			Optional		Standard	
Interface	USB USB			USB		USB	
Power Supply	AC 100 to 120V (7A) or 220 to 240V (4A) AC 100 to 120		0V (7A) or 220 to 240V (4A)	AC 100 to 120V (7A) or 220 to 240V (4A)		AC 100 to 120V (7A) or 220 to 240V (4A)	
External dimensions	29.3°(W) x 37.6°(D) x 33.8°(H); 30.1°(W) x 37 745mm x 955mm x 858mm 765mm x 955		.6"(D) x 33.8"(H); mm x 858mm	29.3"(W) x 37.6"(D) x 33.8"(H); 745mm x 955mm x 858mm		30.1"(W) x 37.6"(D) x 33.8"(H) 765mm x 955mm x 858mm	
Bundled Software	SRP Player, 3D Engrave, Dr. Engrave SRP Player, 3D		D Engrave, Dr. Engrave	SRP Player, 3D Engrave, Dr. Engrave		SRP Player, 3D Engrave, Dr. Engrave	
Optional Software	SRP Player Pro SRP Player Pr		0	SRP Player Pro		SRP Player Pro	
MODEL	LPX-60DS		LPX-600DS		LPX-1200DS		
Max Work Area	8.0"(D) x 12.0"(H); 203.2mm x 304.8mm		10.0"(D) x 16.0"(H); 254.0mm x 406.4mm		5.0°(D) x 8.0°(H); 130mm x 203.2mm		
Operating Speed	50mm/sec, 4.9 rpm		37mm/sec, 4.5 rpm		7.6mm/sec, 4.5 rpm		
Scanning Pitch (Smallest)	0.2mm		0.2mm		0.1mm		
Scanning Method	Noncontact Laser Sensor		Noncontact Laser Sensor		Noncontact Laser Sensor		
Interface	USB		USB USB		USB	JSB	
Power Supply	AC 100 to 240V ±10% 50/60 Hz (1.7 A)		AC 100 to 240V ±10% 50/60 Hz (1.7 A) AC 100 to 240		AC 100 to 240V ±	:10% 50/60 Hz (1.7 A)	
External dimensions	19.7"(W) x 15.0"(D) x 24.4"(H); 500mm x 382mm x 619mm				17.4"(W) x 15.6"( 443mm x 396mm		
Bundled Software	LPX EZ Studio, Dr. Picza 3		LPX EZ Studio, Dr. Picza 3		LPX EZ Studio, Dr. Picza 3		
Optional Software	Pixform Pro II		Pixform Pro II		Pixform Pro II		



FOR COMPLETE PRODUCT SPECIFICATIONS AND FEATURES, OR MORE INFORMATION, CALL 800-542-2307 OR VISIT WWW.ROLANDDGA.COM ROLAND DGA CORP. | 15363 BARRANCA PARKWAY | IRVINE, CALIFORNIA 92618-2216 | 800.542.2307 | 949.727.2100 | CERTIFIED ISO 9001:2000 RDGA-3D-01 May 2009