Roland®

MDX-540
SRP® System

CAN YOUR **3D PRINTER** DO THIS?

SRP™ (Subtractive Rapid Prototyping) offers the most value, flexibility and accuracy in the market today. And it's easy! Just open your 3D model in the bundled SRP player software, click through the wizard based interface, then hit the "print" button to send it to your Roland MDX-540.

Your part, your material

Produce functional prototypes for aesthetic, structural, thermal and electrical testing from a wide range of materials including FDA approved resins that additive system can't offer. We also support popular engineered plastics such as ABS, Acetal and Nylon. Transparent parts in acrylic or polycarbonate are just a few clicks away. Need an aluminum faceplate or heat sink? No problem, Roland SRP technology works great with aluminum, brass and copper. Why limit yourself to a few proprietary materials from a 3D printer when SRP gives you the power to create your part in your material?

Precision accuracy

The MDX-540 series produces high repeat accuracy and tight tolerances over the entire work area resulting in high feature to feature accuracy that layered 3D printer models can't touch.

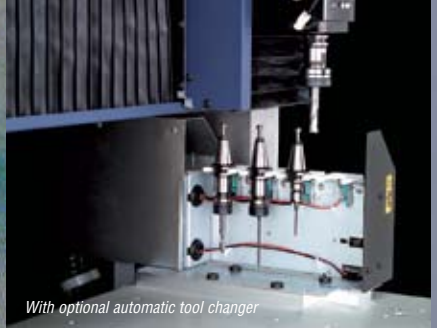
Smooth surface finish

SRP parts come directly from the machine with a smooth surface finish. To get that kind of finish from a 3D printer you would need to apply fillers, sand surfaces and coat the model, all of which change the accuracy of your part. SRP also eliminates the need for expensive support removal baths and chemicals.

Create functional prototypes from real world materials including ABS, Acetal, Nylon, aluminum, brass and wood.


Optional ZCL-540 4th rotary axis


Tight tolerances are no problem for SRP


With optional automatic tool changer


Your parts, your materials

Low cost of ownership

Thanks to its low entry price, use of non-proprietary materials and low maintenance, Roland SRP devices easily beat the cost of ownership of 3D printers. Use the chart below to compare the true purchase price of a 3D printer and the annual cost for support and build materials, maintenance contracts, and software upgrades.

	Competing 3D Printer**	Roland MDX-540A
Build Area	10x10x12	15x15x6
Warranty	1 year	1 year
Machine Purchase Price	$34,900.00	$31,495.00
Accessories/options/support removal bath***	$3,000.00	$6,970.00
Purchase Price Sub Total	$37,900.00	$38,465.00
Annual Maintenance	$3,500.00	$0.00
Annual Material Cost* – Finishing costs (binders, fillers, support removal solution, support removal tools, etc)	$2,592.00	$432.00
Annual Cost Sub-Total	$6,092.00	$432.00
5 year maintenance & material cost	$30,460.00	$2,160.00
Total 5 year cost of ownership	$68,360.00	$40,625.00
5 year savings over competing 3D printer	$27,735.00	
* Material cost calculator		
Estimated cost/cubic inch	$6.00	$1.00
Average cu/in per part	12	12
Average cost per part	$72.00	$12.00
Parts per year	36	36
Total annual material cost	$2,592.00	$432.00

***Information correct at time of printing*
****MDX-540A accessories include: safety cover, rotary 4th axis, 4 standard tools, 4 collets*

Your machine, your configuration

The MDX-540 series is designed to give you the freedom to configure your system exactly the way you want. Choose from safety covers, rotary 4th axis, automatic tool changer and a range of collets to work with industry standard tooling. With so many options you can design the system you need to get started in SRP and add new capabilities if your needs change in the future.


Optional ZBX-540E safety cover

The process is simple

Roland's powerful, easy-to-use CAM software guides you through each step of the process. Just export industry standard STL/IGES/DXF data from your 3D design package and you are ready to go. Our machines and software are created for designers and engineers who need to make parts. You don't have to be an expert to operate our machines.

Roland reliability

With over 10,000 SRP milling machines installed worldwide, Roland is the leading supplier of rapid prototyping equipment. The MDX-540, like all our precision devices is backed by Roland Care™, our unmatched warranty and support program.

Ready to see an MDX-540 in action? Visit www.rolanddga.com/srp to watch a video and see how companies around the world use SRP to create their parts with their materials on the Roland MDX-540.

PRODUCT SPECIFICATIONS

MODEL	MDX-540 – *base model*	MDX-540A – *base model plus factory installed automatic tool changer*	MDX-540S – *base model plus high tolerance ball screws*	MDX-540SA – *base model plus high tolerance ball screws and automatic tool changer*
Usable Materials	Plastic, resins, wood and non-ferrous metals	Plastic, resins, wood and non-ferrous metals	Plastic, resins, wood and non-ferrous metals	Plastic, resins, wood and non-ferrous metals
Max Work Area	19.7"(X) x 15.7"(Y) x 6.1"(Z); 500mm x 400mm x 155mm	15.7"(X) x 15.7"(Y) x 6.1"(Z); 400mm x 400mm x 155mm	19.7"(X) x 15.7"(Y) x 6.1"(Z); 500mm x 400mm x 155mm	15.7"(X) x 15.7"(Y) x 6.1"(Z); 400mm x 400mm x 155mm
Milling Area w/ Optional Rotary Axis (ZCL-540)	12.7"(L) x 7.0" (Dia.); 325mm x 177.8mm	12.7"(L) x 7.0"(Dia.); 325mm x 177.8mm	12.7"(L) x 7.0"(Dia.); 325mm x 177.8mm	12.7"(L) x 7.0"(Dia.); 325mm x 177.8mm
XYZ-axis drive system	AC servo motor 60W	AC servo motor 60W	AC servo motor 80W	AC servo motor, 80W
Max Feed Rate	125mm/sec	125mm/sec	125mm/sec	125mm/sec
Positioning accuracy	+/-0.004"/12" (+/-0.1mm/300mm), under no-load conditions	+/-0.004"/12" (+/-0.1mm/300mm), under no-load conditions	+/-0.004"/12" (+/-0.1mm/300mm), under no-load conditions	+/-0.004"/12" (+/-0.1mm/300mm), under no-load conditions
Repeat accuracy	+/-0.002"(+/-0.05mm)	+/-0.002"(+/-0.05mm)	+/-0.0008"(+/0.02mm)	+/-0.0008"(+/0.02mm)
Spindle motor	400W DC Brushless Motor	400W DC Brushless Motor	400W DC Brushless Motor	400W DC Brushless Motor
Spindle speed	400 - 12,000 rpm	400 - 12,000 rpm	400 - 12,000 rpm	400 - 12,000 rpm
Interface	USB	USB	USB	USB
Power Supply	AC 100 to 120V (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)	AC 100 to 120V (7A) or 220 to 240V (4A)
External dimensions	29.3"(W) x 37.6"(D) x 33.8"(H); 745mm x 955mm 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	30.1"(W) x 37.6"(D) x 33.8"(H) 765mm x 955mm x 858mm
Weight	225lb (102kg)	249lb (109kg)	225lb (102kg)	249lb (109kg)
Bundled Software	SRP Player, 3D Engrave, Dr. Engrave	SRP Player, 3D Engrave, Dr. Engrave	SRP Player, 3D Engrave, Dr. Engrave	SRP Player, 3D Engrave, Dr. Engrave

MODEL	Automatic Tool Changer (ZAT-540)
Number of tools housed	4
Tool-holder format	Taper shank: JBS4002 15T
Compatible compressed air	102 to 145 psi, 1.8CFM (0.7 to 1.0 MPa, 50 L/min or higher)

Imagine. Roland®

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-MDX540-01 May 2009