The SRP™ Advantage!

Before you buy ANY RP system, learn about the clear advantages of Subtractive Rapid Prototyping (SRP):

- Better surface finish straight out of the machine.
- Greater choice of materials for more accurate prototype test results.
- Higher dimensional accuracy for precision assemblies.
- No expensive, proprietary materials, powders, resins or infiltrates.
- Lower purchase price and cost of ownership.

Do you need functional prototypes with accurate mechanical and thermal properties, high precision and a smooth surface finish? Roland SRP devices offer it all at half the price of a 3D Printer.

The better the prototype performs during functional testing, the sooner the final product can hit the market and start making money.

SRP devices start with a solid block and mill away unwanted material. As a result, they can handle a wide variety of homogeneous, commercially available materials such as ABS, Delrin, Nylon and many other engineered plastics. These affordable materials yield a smooth surface finish and have no need for chemicals or post finishing work. Best of all, they are well-suited for accurate fatigue, stress and thermal testing.

3D Printers build prototypes one layer at a time using only a slim selection of expensive proprietary materials. Due to the dimensional variance inherent to their layer-on-layer build method, 3D Printers produce prototypes with rough, stair-stepped surfaces. The prototypes also have non-homogeneous material properties, layer-to-layer adhesion issues, material phase-change shrinkage, and a porous structure that allows liquid to permeate the surface. Even though they are more expensive to own and operate, 3D Printers actually produce prototypes with less functionality.

Form & Fit Models

Compared to 3D Printers, SRP devices offer designers the best return for their engineering dollars. In addition to producing functional prototypes, they generate superior form and fit models due to their high precision and accuracy.

Form models, also known as concept models, are often scrutinized in marketing meetings where a smooth surface finish is perhaps the most important characteristic. SRP devices produce especially smooth prototypes because the cutting tool can move in the X, Y and Z directions simultaneously.

Fit models have two or more pieces that must fit together. Examples include phone housings, hand drill casings and camera bodies. SRP devices have the precision needed to produce hole patterns on these mating parts that match up and snap into place.

MDX-650
The MDX-650 SRP device mills large prototype parts with speed, accuracy and precision. Powered by AC servo motors on all three axes, the benchtop uses Feed Forward Processing technology to mill ABS, modeling wax, aluminum, brass, and other non-ferrous metals with speed and precision. The MDX-650 also supports Roland's optional Rotary Axis and Automatic Tool Changer, enabling engineers to mill the full circumference of 3D objects without having to stop and change tools.

RP Benchmark Study

Todd Grimm, the man who wrote the book on rapid prototyping for the Society of Manufacturing Engineers, conducted an independent benchmark study that examines the industry's seven most-popular RP systems. According to the results, the Roland MDX-650 produced the best fit, function and pattern prototypes. Download a copy of the report at www.rolandasd.com

MDX-40
Roland recently introduced the MDX-40 SRP device. With a list price of $10,995, the desktop mill offers product designers a major value. Its high-precision spindle produces resolutions up to 0.000039 inches per step and creates extremely accurate prototypes for complex snap fits. With its included fourth rotary axis, the MDX-40 performs both unattended two- and four-sided milling to produce clean, functional prototype parts. When one side is completed, the part is automatically rotated until all four sides have been milled.

MDX-15/20
Capable of 3D scanning and milling, the MDX-15/20 is ideal for a variety of product design tasks, including reverse modeling, rapid prototyping, jewelry and model making, and small lot production. Select the spindle tip for state-of-the-art CNC milling, or select the Roland Active Piezo Sensor for precise 3D scanning. By testing and modifying your virtual 3D designs, the MDX-15/20 will save time and money.

Roland SRP: Better finish, wide material selection & lower cost of ownership.
Why spend money for an RP system that only creates visual models when a Roland SRP device can create both visual and fully-functional prototypes?

Contact your local authorized Roland reseller today for a free sample part and learn more about our complete line of SRP and 3D scanning solutions.

Roland: Built with precision, backed with passion®