

## Envisiontec

Envisiontec GmbH introduced its RP machine commercially in March 2003. The machine uses acrylate photopolymer and Digital Light Processing (DLP) technology from Texas Instruments. DLP is very similar to a conventional LCD data projector used to project presentations from a computer. The projected image from the DLP light source represents the cross section that is being solidified in the photopolymer. Visible light is projected from underneath, so the build platform is above the build area instead of below. The machine images an entire layer at once, so the layer cycle time is constant and relatively fast (10–15 seconds, depending on the photopolymer used). With its visible light DLP engine, energy consumption is relatively low.

The company is offering “standard” and “mini” versions of its Perfactory system. The standard version has a build volume of 200 x 160 x 230 mm (8 x 6.3 x 9 inches), while the mini has a build volume of 90 x 72 x 230 mm (3.5 x 2.8 x 9 inches). The machines are priced at about \$65,000 and \$54,000, respectively.



Photo of the build area of the Perfactory machine

Initially, the company experienced difficulty in separating the cured layer from the coated glass build platform. This prevented the building of parts that had large surface areas in the  $x$ - $y$  plane. At EuroMold 2002, most of the parts on display measured less than 50 mm (2 inches) in the  $x$ - $y$  direction. Now, rather than attempting to move the part downward vertically to separate the part from the glass, the part pivots away from the build platform, making it easier for the hardened photopolymer to peel away from the platform. The company also reinforced the build platform to reduce the likelihood of it moving and bending.

Last year, the company also began to sell its Bioplotter system. The machine produces scaffold structures from various biochemical materials for tissue engineering, and can process living cells.

Envisiontec is preparing to sell its systems in the U.S. Last year, the company sold one Perfactory and Bioplotter system, both in Europe.

## EOS

EOS GmbH produced an estimated 33.8 million euros (\$31.1 million) in revenues last year, up about 35% from the 25 million euros (\$23 million) produced in 2001. At a press conference in December 2002, Hans Langer, chief executive of EOS, stated that the company expected to produce 40 million euros (about \$37 million) this year. It is not known whether privately owned EOS was profitable last year.