

LEADING BATHROOM FIXTURES FIRM CREATES FUNCTIONAL, AFFORDABLE PROTOTYPES WITH HP DESIGNJET COLOR 3D PRINTER



With production centers on four continents and operations in over 135 markets, Roca is a world leader in bathroom furnishings. From product conception and design to manufacturing, logistics, and distribution, Roca strives to stay at the forefront of innovation. That's why when HP announced the launch of a 3D printing solution, Roca jumped at the chance to test the product.

The HP Designjet Color 3D Printer¹ enables users to easily produce robust, colored ABS plastic 3D models at the office, saving time and money. At Roca's headquarters in Barcelona, Spain, designers use the HP Designjet Color 3D Printer to build prototypes of bathroom fixtures during the conceptual and early development phases of projects.

"We used to outsource prototype production to external printers, but it was a trial-and-error process," explains Roca workshop manager Oriol Vegés. "We would have to wait to get a model back before we could determine what to change in the next version." With an in-house 3D printer, Roca decreases prototype production time and speeds testing and revision cycles.

How it works

The easy-to-use HP Designjet Color 3D Printer turns 3D CAD drawings into tangible prototypes. With up to eight colors to choose from, the printer finely layers partially melted ABS plastic into one-piece 3D models. And, it doesn't require any specialized training to use.

Josep Congost, design manager at Roca, explains: "We've placed the 3D printer on a table just like any other printer. It's so easy to use, anyone could build a prototype."

The HP Designjet Color 3D Printer also fits well with the firm's environmental philosophy. It uses recyclable, nontoxic ABS plastic,² with no need for special disposal methods or equipment.³ Plus, the durable, detailed models are ready to handle, directly from the printer—there's no special handling required.

¹ The HP Designjet Color 3D Printer is currently available in France, Germany, Italy, Spain and the UK. Availability in other countries will be announced at a later date.

² Customers should consult local recycling resources for recycling this material. Recycling opportunity for this material may not be available in your area.

³ A permit or form of pre-treatment may be required in your area. Consult your area's requirements regarding the disposal of this material prior to use.

At a glance

Name: Roca Sanitario S.A.

Industry: Bathroom fixture design & manufacture

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CHALLENGE

- Reduce time to market by producing functional prototypes in-house

SOLUTIONS

- HP Designjet Color 3D Printer
- HP Designjet 3D ABS material

RESULTS

- Time to market reduced by up to three months thanks to fast, functional prototypes that facilitate quick decision making
- Use of ABS plastic is one-twentieth the cost of producing brass and aluminum prototypes



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Concept to completion in less time

For new faucet designs, the Roca team used the HP Designjet Color 3D Printer to build full-scale, functioning faucet prototypes that they could actually run water through.

“We were able to test different water-flow options in the faucets, thanks to the strong mechanical properties of the ABS plastic,” says Vegés. And by applying a chrome coating to the outer surface of the prototypes, the team ended up with models that were not only functional but also conceptually realistic—work that would have been time-consuming and expensive if they had used traditional materials such as brass and aluminum, according to Vegés.

Roca’s new faucet is coming on the market much sooner than expected, thanks to the new printer. “Having an HP Designjet Color 3D Printer in-house speeds up decision making and reduces time to market by up to three months,” says Congost.

An essential investment

According to Congost, the HP Designjet Color 3D Printer’s ideal combination of affordability, model quality and usability make it a wise investment. He explains that Roca’s ABS models are one-twentieth the cost of metal prototypes produced at the later development phase, adding: “The cost of the machine itself is insignificant compared to the gains made in the market. In only a few months, it has become essential to the way we work.”



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— Josep Congost, Design Manager, Roca Sanitario, Barcelona, Spain

To learn more, visit www.hp.com/go/graphicarts

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