

"We are saving approximately five months per project since integrating the Alaris30 Desktop Printer into our work process. The accuracy and ability to print fine details, greatly shortens our product development and production time"

Atiwat Komolrochanaporn,
Factory Manager, Sahameter Co., Ltd.



Case Study

At a Glance

Company: Sahameter Co., Ltd

URL: www.uhm.co.th

Location: Prachinbur, Thailand

Industry: Water supply equipment

Challenges

- CNC prototyping process was slow and it produced inaccurate models
- Errors were transferred to the production process, resulting in bad molds and faulty production parts
- These problems caused excessive development costs and prevented accurate production scheduling

Solution

Alaris30 Desktop 3D Printer from Objet Geometries

Results

- Prototypes are printed in hours instead of days
- Prototypes are now more accurate and functional
- Molding is done correctly on the first pass, saving an average of five months per project

Objet Helps Sahameter Reduce Production Time by Five Months

Sahameter Co. Ltd., a subsidiary of the UHM Group of Companies, located in Prachinburi, Thailand, has been producing water meter and pipe-fitting components for over two decades. The company researches, manufactures and develops high-quality, best-of-breed, water meter solutions for the Thai market.

Sahameter used to prototype its parts using CNC machines. This was a time consuming and inaccurate process that often took three to seven days for a single model. Worse, faulty prototypes repeatedly introduced inaccuracies into the molding process and those errors would then be transferred to production, resulting in actual parts that were faulty. Atiwat Komolrochanaporn, Factory Manager at Sahameter, explains what that meant to the business: "The whole development process would have to be started again, almost from scratch and this drove up the development costs and adversely effected scheduling."

After searching for a better, more accurate and faster alternative to CNC prototyping, Sahameter installed the Alaris30 Desktop 3D Printer by Objet Technologies. The company saw immediate benefits. Most importantly, accurate prototyping and correct molds instantly and dramatically shortened the development process – by an average of five months per project.

In addition, the aims and objectives of projects are now better understood because the management team at Sahameter is able to review models prior to production. Furthermore, parts printed on the Alaris30 meet Sahameter's form, fit and function testing requirements. Mr. Komolrochanaporn says: "We put a water meter printed on the Alaris30 through a water pressure test as high as six bars and it passed brilliantly!"





Speed and precision make Objet models a perfect fit

The speed and precision of Objet's PolyJet™ 3D printing technology allows for quick design reviews, with new design iterations being printed in just hours. As a result, product review meetings and decisions about the status of a project are made speedily and the whole production process is accelerated. Mold fabrications printed on the Alaris30 are now consistently correct the first time round. Sahameter is also pleased with the user-friendly Objet Studio software and the size of the desktop machine, which fits into their office space perfectly.



"Without a doubt, parts prototyped on the Alaris30 3D printing solution meet form, fit and function requirements due to the technology's accuracy and ability to print fine details," says Mr. Komolrachanaporn.

From concept to market, Sahameter has turned around its prototyping process thanks to the Alaris30. The inaccurate CNC technologies the company used in the past no longer burden production. Errors are minimized and time is saved, resulting in better revenue performance for Sahameter and an increase in the number of products released to market.



About Objet Geometries

Objet Geometries Ltd., the innovation leader in 3D printing, develops, manufactures and globally markets ultra-thin-layer, high-resolution 3-dimensional printing systems and materials that utilize PolyJet™ polymer jetting technology, to print ultra-thin 16-micron layers.

The market-proven Eden™ line of 3D Printing Systems and the Alaris™30 3D desktop printer are based on Objet's patented office-friendly PolyJet™ Technology. The Connex™ family is based on Objet's PolyJet Matrix™ Technology, which jets multiple model materials simultaneously and creates composite Digital Materials™ on the fly. All Objet systems use Objet's FullCure® materials to create accurate, clean, smooth, and highly detailed 3D parts.

Objet's solutions enable manufacturers and industrial designers to reduce cost of product development and dramatically shorten time-to-market of new products. Objet systems are in use by world leaders in many industries, such as Education, Medical / Medical Devices & Dental, Consumer Electronics, Automotive, Toys, Consumer Goods, and Footwear industries in North America, Europe, Asia, Australia, and Japan.

Founded in 1998, Objet serves its growing worldwide customer base through offices in USA, Mexico, Europe, Japan, China and Hong Kong, and a global network of distribution partners. Objet owns more than 50 patents and patent pending inventions. Visit www.objet.com.

Objet Geometries Ltd.
Headquarters
2 Holtzman st.,
Science Park,
P.O Box 2496,
Rehovot 76124, Israel
T: +972-8-931-4314
F: +972-8-931-4315

Objet Geometries Inc.
North America
5 Fortune Drive
Billerica,
MA 01821
USA
T: +1-877-489-9449
F: +1-866-676-1533

Objet Geometries GmbH
Europe
Airport Boulevard B 210
77836 Rheinmünster
Germany
T: +49-7229-7772-0
F: +49-7229-7772-990

Objet Geometries AP
Asia Pacific
Unit28, 10/f, HITEC
1 Trademart Drive
Kowloon Bay, Kowloon
Hong Kong
T: +852-217-40111
F: +852-217-40555

Objet Geometries AP
Limited China Rep Office
Rm1701, CIMIC Tower,
1090 Century Blvd,
Pudong Shanghai
200120 China
T: +86-21-5836-2468
F: +86-21-5836-2469

info@objet.com www.objet.com

© 2010 Objet, Quadra, QuadraTempo, PolyJet, FullCure, SHR, Eden, Eden250, Eden260, Eden260V, Eden330, Eden350, Eden350V, Eden500V, Job Manager, Objet Studio, CADMatrix, Connex, Connex350, Connex500, Alaris, Alaris30, PolyLog, TangoBlack, TangoBlackPlus, TangoGray, TangoPlus, VeroBlue, VeroWhite, VeroBlack, VeroGray, Durus, Digital Materials, PolyJet Matrix and ObjetGreen are trademarks of Objet Geometries Ltd. and may be registered in certain jurisdictions. All other trademarks belong to their respective owners.

