



Alaris™30

Desktop 3D Printing System

The smallest details create the real design



Print Detailed, True-to-life Models

From the convenience of your office, now you can print high-quality, detailed 3D models more easily than ever before. The Alaris™30 Desktop 3D Printer delivers a unique combination of high-quality, finely detailed models in a compact, office-friendly system – Just the technology you need to shorten design cycles and propel your business forward.

Based on Objet's proven PolyJet™ Photopolymer Jetting Technology, the Alaris30 creates true-to-life parts of any kind with superb accuracy. Create smooth surfaces, complex geometries, small moving elements, fine details, stand-out text and whatever else your design demands. The Alaris30 can build models simply, cost effectively and precisely as you design them.



The Alaris30 Advantage

Printing Your Details

The smallest details create the real design. Just as fine details are crucial to sophisticated product designs, the details are just as vital in the printed part. The Alaris30 printer excels in printing exceptional detail by combining thin 28 μ layers with a very small drop size and high resolution of 600 x 600 dpi. The exceptionally smooth and highly detailed printing provided by Alaris30 enables:

- Precise parts for functional, fit and form testing.
- Highly accurate model size and shape (typically 0.1–0.2 mm).
- Complex geometries and small moving elements.
- Design verification for a wide range of applications.
- Printing of text and other details that stand-out clearly.

High Productivity

You can do more, in less time, with the Alaris30.

- Build tray size of 300 x 200 x 150mm (11.81 x 7.87 x 5.9 in). enables big parts or many small parts to be printed simultaneously.
- Four-cartridge loading delivers up to 36 hours unattended printing.

Office Convenience

Small and lightweight, the Alaris30 is a desktop 3D printer that is perfect for any office, anywhere.

- Fits on a desk or dedicated stand.
- Requires no special electricity.
- Network-enabled to support multiple designers.

Ease of Use

The Alaris30 is designed to be easy to use, with simple printer management and operation.

- Turn any 3D CAD file into a part with just a few mouse clicks – Intuitive Objet Studio™ software ensures easy operation.
- Fast and easy support removal – Just minutes from printing to finished parts.
- Easy, error-free loading of Model and Support materials.



PolyJet™ Technology

Objet's patented PolyJet Inkjet Technology works by jetting photopolymer materials in thin layers (28 μ / 0.0011 in) onto a tray, building parts layer by layer. Each photopolymer layer is cured with UV light immediately after it is jetted, producing fully cured models that can be handled and used without post-curing. The gel-like support material, which is specially designed for complex geometries, is easily removed with a water-jet or by hand.

PolyJet Technology Advantages

- High quality – 28 μ (0.0011 in) layers deliver smooth, accurate, highly detailed models.
- High accuracy – Precise jetting and advanced material properties produce parts with fine details and thin walls down to 0.6 mm.
- Fast – High-speed build at full width enables simultaneous building of multiple items in the same print run.
- Clean – Suitable for an office environment, with sealed cartridge loading/unloading and easy support material removal.

Applications

Fit & Form

High-accuracy printing enables models with multiple assembled parts. This allows validation that all elements fit properly and that moving parts interact correctly. Electronic components can be inserted for emulation of final products.



Functionality

Alaris30 prints with high accuracy and produces fine details, as well as thin walls, enabling models with moving parts of any size. This makes it easy to confirm that all parts – even small ones – interact and move correctly.



Painting

Super-thin build layers create exceptionally smooth surfaces that can be painted to produce a close representation of the look and feel of the final product – Ideal for internal and external marketing presentations.



Rapid Tooling

Durable models with outstanding feature detail and excellent surface characteristics provide direct tools for creating and duplicating real silicone parts.



Vacuum Forming

Smooth surfaces and the strong model material create models that are ideal for vacuum forming, enabling reduced-weight models, packaging and economical production of tools.



VeroWhite™ FullCure®830 Material

Alaris30 uses VeroWhite FullCure830 as its modeling material.

- Opaque white color, with excellent surface smoothness and details
- Models ready to use, no extra finishing required
- Provided in easily handled 1 kg (2.2 lb) cartridges – The ideal size for typical usage

Alaris30 Technical Specifications

| Specification | Attribute |
|-------------------------|---|
| Tray Size (x,y,z) | 300 × 200 × 150 mm (11.81 × 7.87 × 5.9 in) |
| Net Print Size | 294 × 196 × 150 mm (11.57 × 7.72 × 5.9 in) |
| Layer Thickness | 28 µm (0.0011 in) |
| Accuracy | 0.1 – 0.2 mm (0.0039 – 0.0078 in) Accuracy varies according to geometry, part orientation and print size |
| Resolution | 600 × 600 × 900 dpi |
| Materials | VeroWhite FullCure830 modeling material FullCure705 gel-like support material |
| Cartridge Weight | 1 kg (2.2 lbs) |
| No. of Cartridges | 2 for Model & 2 for Support |
| No of Print Heads | 2 |
| Machine Size | 82.5 × 62 × 59 cm (32.28 × 24.4 × 23.22 in) |
| Machine Size (crate) | 87 × 86 × 104 cm (34.25 × 33.85 × 40.94 in) |
| Machine Weight | 83 kg (183 lbs) |
| Power Requirements | 110 – 240 VAC 50/60 Hz 1.5 KW single phase |
| Operational Environment | Temperature: 18°C to 25°C (64 to 77°F) Relative Humidity: 30 – 70 % |
| Input Format | STL and SLC file |



VeroWhite FullCure830 Material Data Sheet

| Property | ASTM | Metric Units | Imperial Units |
|-----------------------|----------|--------------|----------------|
| Tensile Strength | D-638-03 | 49.8 MPa | 7,221 psi |
| Modulus of Elasticity | D-638-04 | 2495 MPa | 361,775 psi |
| Elongation at Break | D-638-05 | 20 % | 20 % |
| Flexural Strength | D-790-03 | 74.6 MPa | 10,817 psi |
| Flexural Modulus | D-790-04 | 2137 MPa | 309,865 psi |
| Izod Notched Impact | D-256-06 | 24.1 J/m | 0.45 ft lb/in |
| HDT at 0.45 MPa | D-648-06 | 43°C | 109.4°F |
| Tg | PMA,E" | 58°C | 136°F |

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.

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