S300X
LIQ21 | LIQ11

IDEX SILICONE 3D PRINTER

Lynxter equips various industries with its S300X – LIQ21 | LIQ11 machine, providing them with a powerful and groundbreaking tool. This technology is designed to elevate production, fostering limitless innovation to enhance profitability and multiply projects.

KEY FEATURES	MAIN SECTORS	BENEFITS
IDEX technology	R&D	**Accelerate** product development.
Water soluble support	Aerospace	**Reduce** lead times
High quality silicones & PU	Surface treatment	**Save** costs
Voluminous print	Maintenance	**Enables** sophisticated design
Industrial & medical grade	Medical	**Reduce** machine downtime
	Fashion	

*« **We are having fun on our new workshop tool. The machine is well designed and constructed. The IDEX for supports is super** ».* Peter de Corte, OMD3D

Optimize prototyping and small to medium-scale production activities with the S300X – LIQ21 | LIQ11, an affordable and high-performance 3D printer. Produce custom mask series for post-processing, shock absorbers, sealing components, certified skin-contact prosthetics and epitheses, and innovative textiles. Print industrial and medical-grade silicones and polyurethanes of exceptional quality.

LIQUID MEX DEPOSITION – HIGH-QUALITY, SIMPLE, ISOTROPIC MATERIAL

The S300X – LIQ21 | LIQ11 enables the rapid 3D printing of parts made up of fine strands of extruded material. These gradually polymerize and crosslink during printing, resulting in a uniform gel-elastic state change, creating isotropic parts comparable to those made through casting or injection molding. The materials used are industrial and medical-grade, free from pollution or degradation due to the process. This approach is innovative in the field and significantly extends the boundaries of known elastomeric 3D printing, particularly through layer-by-layer photopolymerization or extrusion with crosslinking.

IDEX TECHNOLOGY

The S300X – LIQ21 | LIQ11 is designed with IDEX (Independent Dual EXtrusion) technology, featuring dual extrusion capabilities through the integration of two independent heads: the

LIQ21 for extruding two-component materials and the LIQ11 for single-component materials, specifically support material that is entirely soluble. With this technology, forget about shape constraints and print complex geometries with complete freedom.

AN ASSET FOR MULTIPLE SECTORS

R&D, aerospace, maintenance, medical: the ability of the S300X – LIQ21 | LIQ11 to produce complex, customized, high-quality parts meets various needs and encompasses significant applications. For example, custom and reusable masking solutions in the aerospace industry. The medical sector is revolutionized by the possibility of printing customized epitheses, prostheses, and other medical devices using qualified materials. R&D centers benefit from a new open platform for developing 3D printed thermosetting applications. The textile industry is reinvented through volume printing directly on fabrics or leather.

USE CASE EXAMPLES

INDUSTRIAL APPLICATIONS
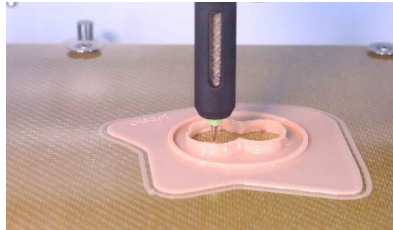

SURFACE TREATMENT MASK

SOFT ROBOTICS

REPAIR MAINTENANCE

MEDICAL APPLICATIONS
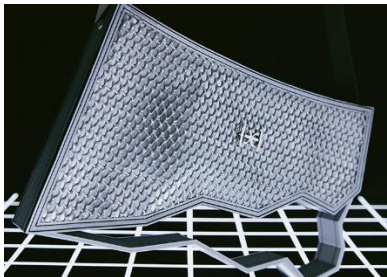

EXTERNAL PROTHESIS

EAR EPITHESIS

OSTOMY BAG WAFER

OTHERS

INNOVATION FABRIC

OPTIMAL MATERIALS

Print industrial and medical-grade silicone (skin-contact certified) and polyurethane materials that are both user-friendly and high-performing, with heat resistance, chemical resistance, flexibility, and elasticity. All these advantages make silicone and PU versatile materials used in various applications. In summary, produce robust and functional parts right out of the machine, using materials previously inaccessible in additive manufacturing.

Lynxter develops its own range of silicones and polyurethanes for effortless printing. Note that the machine's openness allows for printing a large range of liquids and gels.

SMALL AND LARGE CAPACITY

There are two material packaging options for the S300X – LIQ21 | LIQ11: the small syringe (55cc) or the large cartridge (750cc). Syringes are perfectly suited for low consumption, expensive material, or discovering new references. Opt for the large capacity for production, printing large parts, or achieving economies of scale. Easily switch between small and large capacity with a set of accessories.

ACCESSIBLE TO ALL

The S300X – LIQ21 | LIQ11 offers the ability to print certified Lynxter materials, but the entire ecosystem remains open for use. Configuring and printing with other materials is possible. This flexibility allows for exploring and adapting the properties of silicones or polyurethanes for specific projects. Dimensionally, the machine measures W 991 x L 720 x H 985 mm and weighs 135 kg, making it a compact format that fits perfectly on a workbench. Its price and ease of use make the S300X – LIQ21 | LIQ11 accessible to businesses of all sizes.

ENHANCED PRODUCTIVITY

The machine features an interchangeable PEI composite bed, allowing for intensive printing. The S300X has the highest print speed in its category, with a print volume of 300 x 250 x 200 mm.

ROBUSTNESS AND REPRODUCIBILITY, PRINT AFTER PRINT

Calibration is entirely automated, with a single click, using a probe to level the bed and measure the nozzle height and offset. The chamber is temperature-controlled up to 45°C, and the bed up to 160°C. Its active mixing system ensures uniform thermal consistency throughout the printing volume. This feature is particularly valuable for working with a wider range of materials and shaping more complex geometries by adjusting material crosslinking times. The produced parts are uniform, functional, and exhibit excellent mechanical properties.

PRINT SAFELY

The machine is fully secure with its closed, locked, and filtered chamber. It includes industrial HEPA H14 and activated carbon filters that prevent the release of particles and VOCs (volatile organic compounds) outside the chamber. Its interface allows for fine management of users, procedures, and data, both online and locally.

AUTONOMOUS PRINTING

Regarding control, the S300X – LIQ21 | LIQ11 boasts a 10-inch screen for easy navigation through different tabs, along with a web interface available on PC, tablet, and smartphone for remote printer control.

The HUB, a platform that centralizes all necessary data for full use of the S300X – LIQ21 | LIQ11, accompanies you. Find video tutorials, printing profiles, customer support tickets, 3D libraries, and the latest updates.