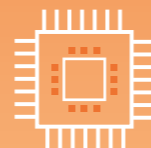**Packaging** Automation

Additive Manufacturing

Assembly Automation

Medical Electronics

→ HANDLING

PRINTING

ASSEMBLY

MARKING

< > SOFTWARE

INSPECTION

⊕ Cleanroom Technology

ADDITIVE
MANUFACTURING

Pharma | **Diagnostics** | **Medical Technology**

Additive Manufacturing Competence

3D Screen Printing Development Process - From the Idea to the Production Solution

Together with the Exentis Group, ASYS Life Science offers complete 3D printing solutions for the pharma and diagnostics industries as well as medical technology. 3D screen printing technology represents a significant expansion of screen printing methods established to date. This method is expanded by a third dimension, printing in the Z-axis, which opens up new possibilities, thanks to precise knowledge of materials and processing.

This results in complex three-dimensional geometries in a highly parallel printing process, which allows for projects suited to large-scale production, as well as a free choice of materials.

The Exentis 3D Mass Customization® production method brings with it considerable advantages compared to conventional methods.

Advantages of ASYS 3D Screen Printing

Proven parallel print and automation process

Scalable production volumes

Printing of production batches instead of individual parts or prototypes

Unlimited choice of materials

Highest precision and repeatability

GMP conformity, including documentation and traceability

Applications

Solid Oral Dosage Forms

Biological Cellular Tissue

3D Screen Printer XH3D

Features

› Automatic snap of setting according to the printed layer

› Alignmment accuracy +/-10 μm@ 6 sigma

› Dedicated vacuum table

Options

› Screen Exchange Unit

› Curing, IR or UV Unit

› 3D Measurement System, for precise snap off setting

› Different dispensing types

› Motorized Squeege head

› Stencil Cleaning System iROCS

The 3D screen printing system "XH3D" is a machine type out of EKRA´s unique 3D Printer platform. By using stencil- or screen technology, it generates complex 3D structures on an base plate. According to the actual printed layer height, the machine adjusts automatically the snap off distance. Optionally the machine communicates with the patented screen exchange unit. The capacity of the unit allows to store up to 10 screens. The base plate for the 3D compenent print can be fixed by vacuum, directly at the movable print table. An optional drying system can be placed beside the machine to cure the actual layer.