



LIFE SCIENCE

Lateral Flow Device Assembly Solutions

Pharma | Diagnostics | Medical |
Technology | Biotechnology

Complete Solutions from a Single Source

For many years, ASYS has been solving assembly tasks for customers in a wide range of industries such as automotive, consumer goods or industrial products. In the INVENTUS product division, we have combined multiple automation processes and technologies to create customer-specific solutions. We have developed an assembly platform especially for the Life Science Industries and tailored

it specifically to the requirements of the regulated industry. In doing so, we use modules from all business areas. This helps us to provide a process-safe and GxP-compliant solution in a short time. We realize complete assembly lines and plants from one source.



- ✔ **More than 30 Years of Experience in Automation**
Since 1992, customers worldwide have trusted our solutions.
- ✔ **Turnkey solutions**
We develop and realize your manufacturing solution.
- ✔ **Everything from One Hand**
We provide complete assembly lines and plants from a single source.



High-Speed Assembly of Rapid Tests

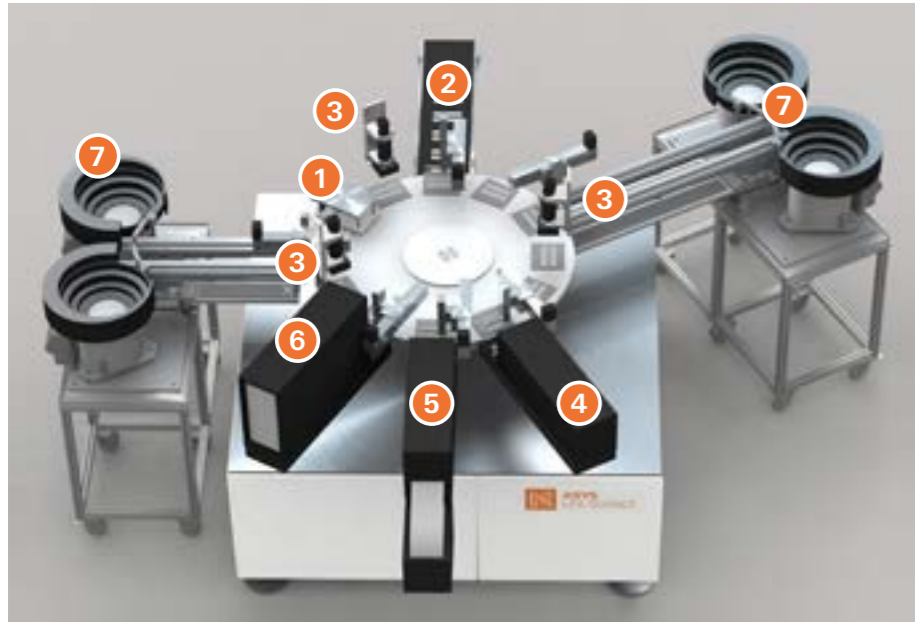
Our high-speed solution allows the assembly of rapid tests, e.g. COVID19, pregnancy, drugs or allergies at output speeds of up to 80 parts/min. These qualitative tests are based on thin-layer chromatography and immune marking of the test strip which is made of porous paper or sintered.

The compact design of our assembly system is based on a rotary table for high precision combined with short cycle times. Gripper and nest design allow fast product changeover according to the Poka Yoke principle and flexible production of product variants with different geometries.

Lateral Flow Device Assembly

The housing components can be fed to the assembly process in bulk via appropriate feeding systems or sorted via trays. The test strips are fed either as roll material or as pre-cut cards in magazines and are cut in the system. The positioning and the joining processes are controlled inline. Each individual assembly step is moni-

tored by a camera control for correct position, shape, and process result, and defective parts are safely separated from the process. Based on the basic layout, additional process stations can also be integrated at a later stage in order to be prepared for future requirements and product adaptations.



- 1 Housing press
- 2 Good part outfeed and reject of bad parts
- 3 QC camera
- 4 Strip cutting and insertion modules
- 5 Strip feeding from the reel
- 6 Strip feeding from pre-cut cards
- 7 Bowl feeder for housing parts

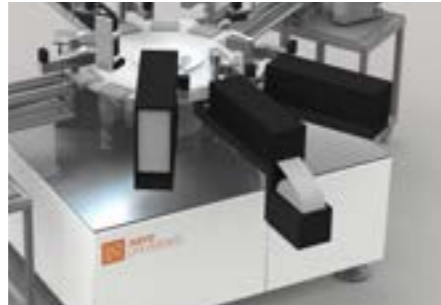
High Speed LFD Assembly – Key Features

- ✓ For different LFD specifications additional workstations can be added or changed
- ✓ Various strip cutter versions available (i.e. reel, single card, card magazine, customized)
- ✓ Optical quality control of product parts and each assembly step to guarantee maximum quality (i.e. parts positioning, defect detection, correct assembly, ...)
- ✓ Common industrial software platform
- ✓ GxP/GAMP5-compliant
- ✓ 21 CFR 820 / 21 CFR Part 11
- ✓ Flexible rotary table high speed LFD assembly cell
- ✓ Output approx. 80 pcs./min. (depending on product specifications)
- ✓ Compact and space saving rotary table system
- ✓ Easily adaptable to manufacture different devices
- ✓ Flexible set-up of workstations depending on LFD specifications
- ✓ Quick and easy changeover with minimal change parts (Poka Yoke), in-house qualification services and support





Housing Infeed Systems



Strip Cutter



Strip Infeed – Reel



Strip Infeed – Card Magazine



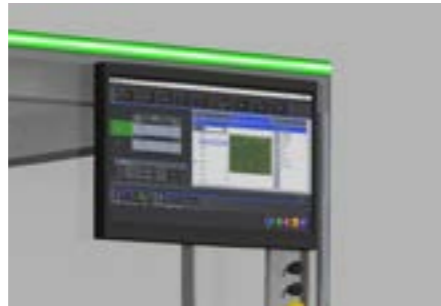
Housing Press



LAMINO-Flowbox



Accessibility



Intuitive Multi-Touch User Interface



PULSE PRO – Smart Alerts

Customized Solutions for a Wide Range of Processes



Laser Marking



Labeling



Testing



Depaneling



Tray Load/Unload



Press-Fit



Feeder Solutions



Screwing



Tray Handling



Riveting



Plasma Cleaning



Dispensing / Potting



Resistance Welding



Transport



Laser Welding



Laser Cleaning



Laser Depaneling



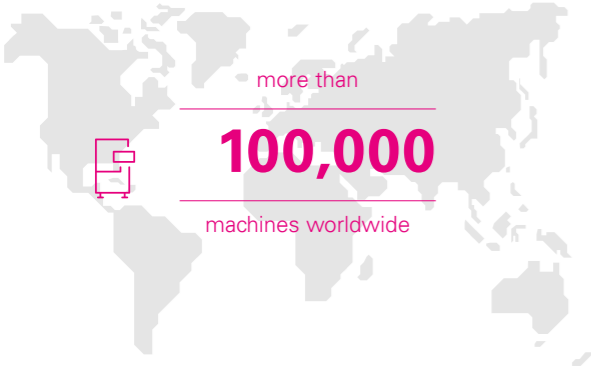
Laser Cutting



Laser Reflow Soldering

ASYS Group – Facts & Figures

The ASYS Group is a global technology company and leading supplier of machines for the electronic, life science and energy industry. The ASYS brand guarantees the same high quality and processing standards all over the world. The corporate headquarters in Dornstadt (near Ulm) coordinate activities across five continents and guarantees highest standards in quality and service.



The success of the ASYS Group is based on the qualification and personal commitment of more than 1,500 employees. Inspired and dedicated people are the key to developing and providing first-class products.

Business Areas

Business Unit
Electronics



Business Unit
Life Science



Business Unit
Energy



Strong and Fast Growing for over 30 Years

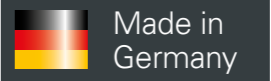
The launch of market leading innovations has significantly contributed to the success and growth of the company. Over the past two decades ASYS Group has expanded steadily and has attained a leading position with new products and processes.

Our Success Factor: Dedicated People

ASYS Group has installed more than 100,000 systems worldwide and invests continuously in state-of-the-art production processes at its worldwide sites. The production space at the headquarters in Dornstadt is constantly increasing and currently amounts to more than 27,000 sqm.

“German Engineering” and Manufacturing

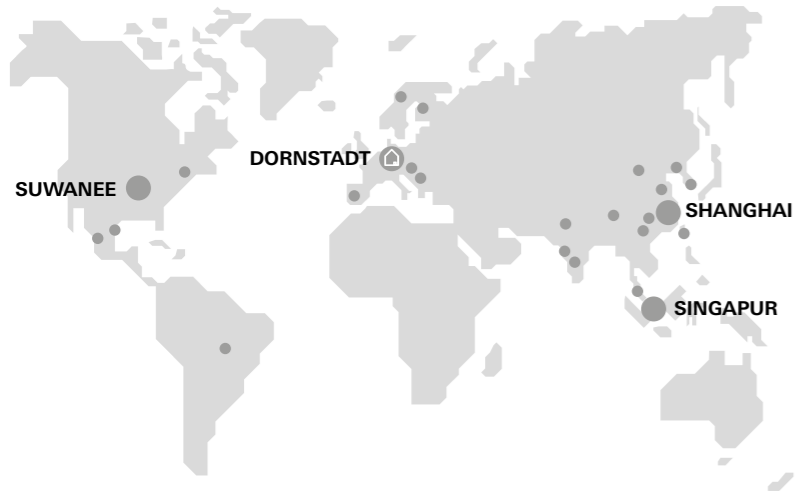
ASYS products exemplify the prestigious “Made in Germany” trademark: precise, high quality systems and machines that are intuitive to use and offer best functionality.



German Quality Across Five Continents

Worldwide Sales and Service Centers

The Group's business activities in more than 40 countries are controlled from the company's headquarters in Dornstadt near Ulm, Germany. A broad global network with local service centers in Asia and the Americas ensures a customer-focused service support. Worldwide service teams guarantee best response and spare parts availability.



24 Hour Availability for Service and Support

ASYS Group services are comprehensive and tailored to your individual needs. From installation and maintenance to training and a 24-hour service hotline. Our service takes you further in the long term and creates the best conditions for optimal use of your ASYS systems.

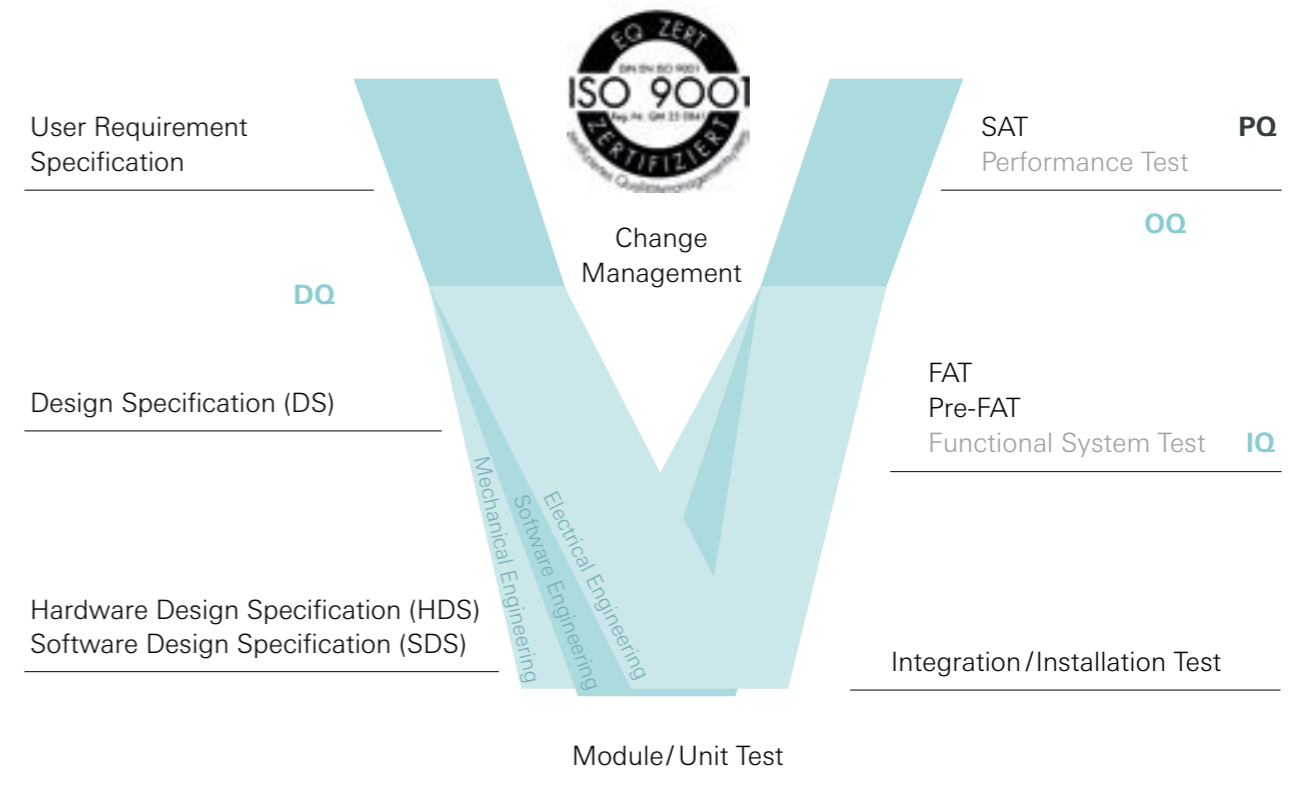
- ✓ 24 / 7 / 365 support worldwide
- ✓ Teams of experienced specialists
- ✓ Experts for each product segment
- ✓ Preventive maintenance
- ✓ Service agreements
- ✓ Installation of new systems
- ✓ Maintenance seminars
- ✓ On-site training upon installation



Qualification Services

- ✓ Design Documents (DS, HDS, SDS)
- ✓ IQ, OQ-Documents
- ✓ Traceability Matrix, Qualification Plan
- ✓ GMP Risk Analysis workshops and documents
- ✓ Qualification support on-site

GxP-compliant Project Management at ASYS Life Science



**ASYS
GROUP**

TRANSFORMING IDEAS
Automate, Digitalize & Connect

ELECTRONICS

AUTOMATE, DIGITALIZE & CONNECT

LIFE SCIENCE

ENERGY



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www.asys-group.com

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