

Etteplan modular systems

A standard solution for custom products

When it comes to automated production processes, a couple aspects are crucial. They need to deliver quality and be reliable. And preferably, save you time and costs by providing great efficiency. We developed a modular machine platform that promises to do just that.

Our modular machine platform lets you configure all nonproduct dependent functions as standard. It saves you time on less critical parts of a machine, so you can focus on the most important parts: The interfaces and processes you use to manufacture your product. With this machine platform we can deliver machines of the highest quality and at an affordable price that can be fully adapted to your product needs and specifications.



Discover for yourself how our modular system adds more reliability, quality, and speed to your automated manufacturing processes. Read on!

Modular & configurable

Everything you need to know about our system



Base frame & covering

- Dimensions (W x D x H): W x 900 x 2000
- Available in width size: 600–900–1200–1500
- Base frame can be equipped with active or passive damped baseplate for high accuracy
- Top frame configurable with panels: closed panel, window panel, slider panel, entry with door, light screen



Alignment & motion modules

Tyrian systems

- Linear stages $\pm 0,02$ mm accuracy (2 – 3 Axis)
- Gantry systems (2 – 4 Axis)
- 6 axis robot

Indigo systems (high accuracy)

- Linear axis up to $\pm 0,002$ mm accuracy
- Hexapod system(s)



Transportation options

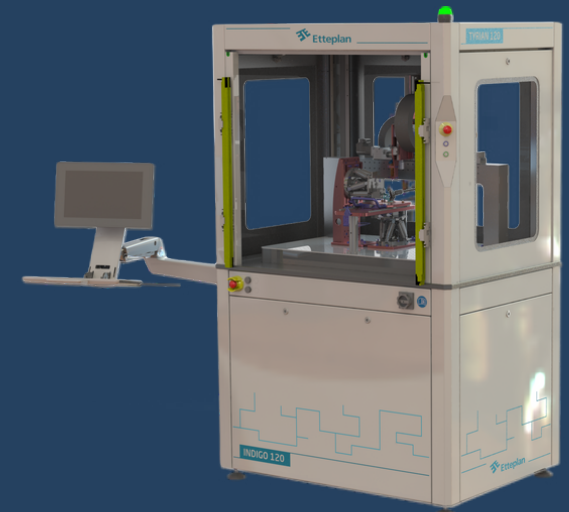
- Conveyor systems
- Rotary table
- 4 axis robot
- 6 axis robot
- Tray loader

Process modules

- Vision alignment
- Vision measurement
- Optical measurement
- Time pressure dispensing
- Volumetric dispensing
- Jet dispensing
- UV curing
- Thermal curing

Software

- Modular approach
- Based on software standards as ISA-88, IEC 61131-3 (ST), and packML
- Capable of controlling motion systems like (2-4 axis) gantries, rotary tables, robots, linear stages, hexapods, and piezo actuators
- Parametrizable process modules such as dispensers, curing, vision, and more
- Configurable processes: activate and deactivate modules, change modules, process parameters
- Recipe management for product configuration flexibility
- User management
- Data logging and audit reporting capabilities



Modular and configurable, step by step

From feasibility to a full-automated production system



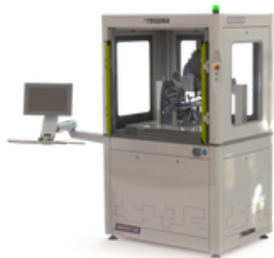
Feasibility

In this first step, we develop the right interfaces for your product, and determine how it needs to be handled and processed. In this phase, we test proposed processes.



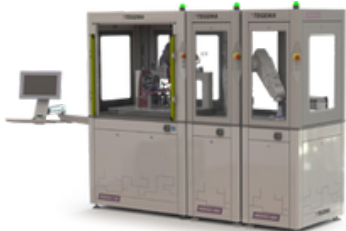
Pilot production

When we've determined how your product is handled and processed, we'll start up a pilot production solution. In a lab environment, we'll produce a first series of products.



Semi-automated production

Does the number of products that you want to manufacture, not allow for fully automatic production? Opt for this cost-conscious choice where the machine is loaded and unloaded by an operator.



Full-automated production

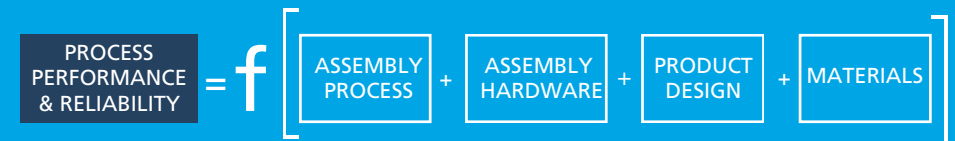
Are you in the market to achieve the highest output? Then the fully automatic machine is what you need. By adding a conveyor belt, robot, or tray feeder, these machines can produce continuously while maintaining the highest quality.

Choose the best process performance & reliability

Our approach

How we optimize your production performance

Assembly processes, assembly hardware, product design, and selected materials. You don't get to pick and choose one of these, if you want to optimize your production performance. Process performance and reliability is a result of enhancing all these critical factors in your manufacturing processes. They all need to be robust to lead to your desired performance result. We are experts on optimizing assembly lines, but to help you come out on top, we also evaluate your product designs and selected materials. These aspects deliver a significant contribution to your production performance. If necessary, we'll recommend further development on both, so you can add even more value to your process performance.



How we take care of process development

We develop our production machines together with a solid assembly process, that fits your product requirements. During the project life cycle, the maturity of the product, process and machine increases. By merging information between product, process and equipment, we ensure that the interface between these important aspects is guaranteed.

How we keep an eye on your business case

Our approach ensures the best match between your business case and technical question. We create optimal clarity in risks and timelines by separating feasibility from engineering & realization.



How our modular machine platforms are being used

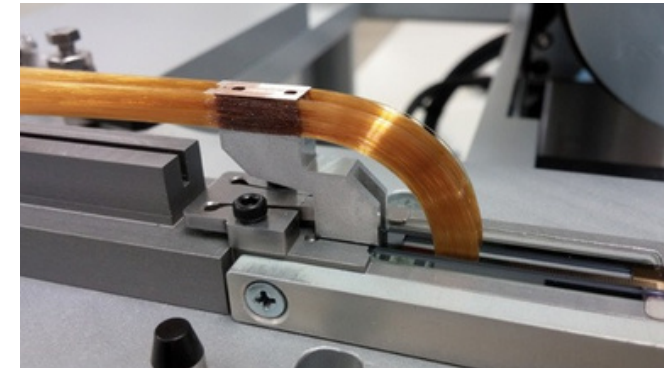
We've already developed and delivered a great number of our modular machine platforms. Here's what other companies typically use them for and what end-products are involved.

Inspection (confirming correct product assembly and functions), positioning (determining exact locations for adhesive application), active alignment (adhesive application, dispensing and easurement, and functional mounting components), traceability and classification (verifying zero defect results).

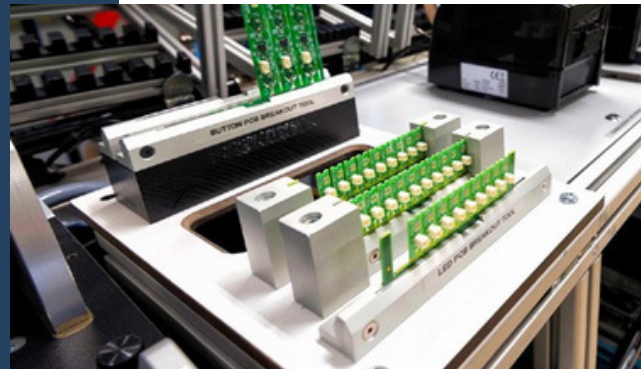
- Photonic devices
- Medical devices
- Sensors
- Connectors
- LIDAR
- Displays
- Micro lenses
- Camera modules
- Switches



semicon



photonics



electronics



medtech

Flexibility from the start

With our flexible software configurator

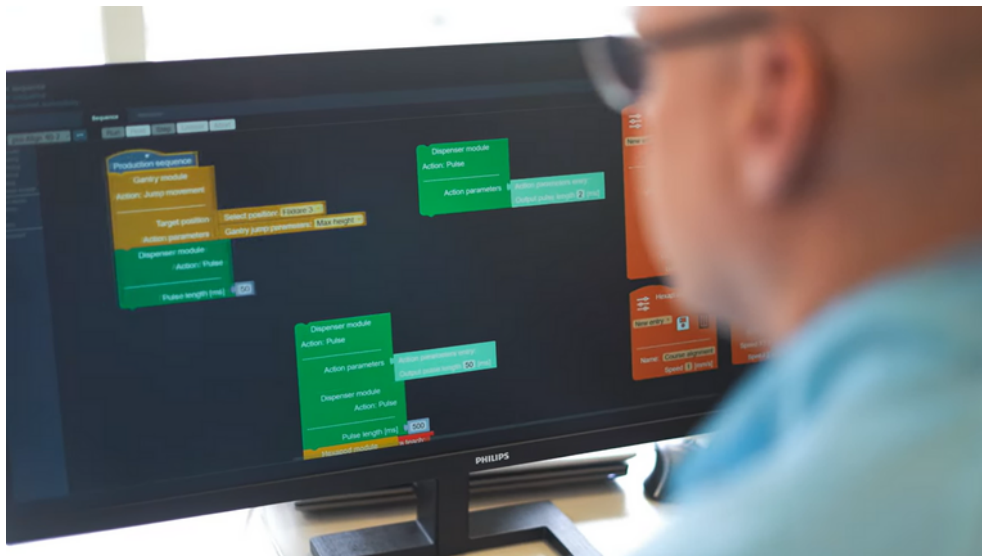
Programming of the machine platform can be done without coding. With software it is possible to program the machine with new instructions visually within minutes. Change instructions of modules to transport, dispense glue, align fibers, connect, cure materials etc. in no-time.

Shorter change-over time

To remove the need to bring in external programmers and accelerate your R&D process, we created a flexible production solution (FPS). FPS is our software controlling the PLC. With this software, you can visually program the process sequence and steps for your application(s) without effort. Our software can assist with short change-over times by quickly programming machines, from operator assisted prototyping all the way to automated production.

Key benefits

- Rapid change-over times
- Reduce dependency on machine supplier
- Spend time on your products, not the machine making them
- Visually programming without effort
- Visual documentation instead of PLC programming with separate documentation
- Re-use of programming possible on different machines
- Infinitely scalable



Etteplan is a Technology Service company that specializes in engineering solutions, software and embedded solutions, and technical documentation solutions. You can rely on the expertise of over 4,000 professionals in Finland, Sweden, the Netherlands, Germany, Poland, Denmark and China.

We deliver comprehensive Automation & Robotics solutions for machines, plants and production lines and maximizes your production performance in terms of efficiency and quality.

Learn more » www.etteplan.com/productionsolutions