PHILIPS

Innovation Services

Manufacturing Systems & Industry 4.0

Customized manufacturing processes create **competitive edge**

Looking for expertise?

You're developing a new product, but do not have a clear idea how to produce it yet. How can you make sure the product is designed to be manufactured cost-effectively and reliably? And how can you introduce it into your factory?
Do you need a customized production line establishing a connected smart factory? Pleased to meet you!

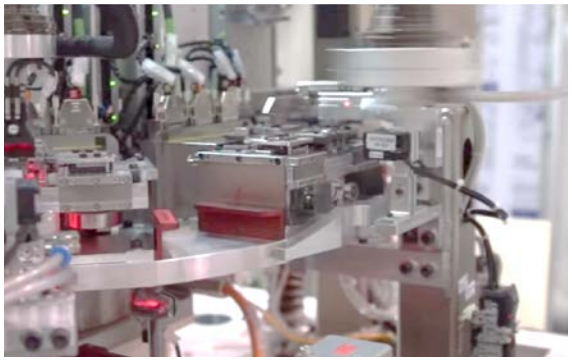
Our system architects and process engineers work closely together with your development and engineering teams. They are able to design the manufacturing process, line or machine you need, embedding the newest technologies of Industry 4.0 in intelligent robotics and Industrial IoT to create the connected smart factory. Our expertise is in building customized manufacturing and test solutions that are critical to quality; managing your equipment investment risks as volumes increase.

Being globally active in supporting innovation processes end-to-end, concurrent engineering is the way we work; hereby speeding-up your time to market and giving you an advantage over your competitors. Challenge us to show you we deliver!

concurrent engineering
is the way we work, speeding-up your time to market

Certified for
ISO 13485
ISO 9001
ISO 14001

NPS >50%
Customer satisfaction of 4.5/5



Manufacturing Processes
Ensure high quality and reliability in your manufacturing processes

We deliver your manufacturing processes

What are your needs for concept and process development for manufacturing? Our Manufacturing Processes service includes prototyping, pilot manufacturing and state-of-the-art equipment. Our main fields of expertise are: laser processing, ultrasonic welding, resistance welding, soldering, adhesives, dosing, fastening, micro-assembly and vacuum. These are enhanced by automatization, vision, and measurement expertise for the accurate positioning of parts. We can also support you in the area of quality improvement in manufacturing and in the best ways of improving productivity in manufacturing.

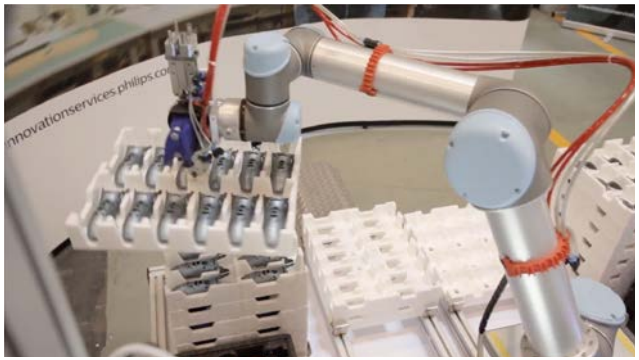
Methodologies:
6Sigma – DMAIC/DfSS, QMAP, V-model

Customized Manufacturing Equipment
Your turnkey manufacturing equipment developed & built into one manufacturing solution

We develop and built custom-built modules as well as total production lines

From a custom-built manufacturing module integrated into your production line up to full line integration; our manufacturing architects and engineers can make the seemingly impossible happen. We can build the manufacturing equipment you want, fitting seamlessly into one manufacturing solution. We start with the end in mind to ensure the maintainability of your equipment when developing & building your customized automation equipment. Everything is focused on the optimal solution by balancing cost, quality & lead-time for your production. For now and in the future. Where possible, we use standard components and modules. When needed, we develop & build customized equipment.

Methodologies:
Integral project management, manufacturing system architecture, Industrial sourcing & market intelligence, machine commissioning



Industry 4.0 Robotics & Data Analytics

Industrialization support towards robust and reality proven production and manufacturing system performance

We deliver the connected smart factory

Increasing productivity and reducing cost is achieved by Industry 4.0 technologies. This includes new manufacturing technologies like advanced industrial automation and robotics as well as strategic and in-depth use of data analytics. Our solutions will be integrated seamlessly into your existing manufacturing infrastructure.

They include:

- Data collection using the latest sensor technology
- Visual inspection systems
- Connection to MES system
- Industry 4.0 data analytics
- New manufacturing technologies such as 3D printed
- Collaborative smart robots

Methodologies:
I4.0 readiness assessment, Industrial IoT device connection, MES-SCADA implementation, Deep Learning for inspection

Customized Test Equipment

Controlled quality in your product development & manufacturing processes

We deliver a test strategy including test equipment solutions for both the product development and manufacturing phases. We do this by developing, building and maintaining stand-alone and inline customized high-end industrial measurement systems for product quality testing and process control. We deliver a measurement system to suit your product development and manufacturing needs; one, which supports the implementation of your control points strategy and product quality inspection processes.

Methodologies:
Design for testing, V-model, test architecture, remote control, MES connected stage configuration

Design for Manufacturing, Assembly & Testing

Turning a promising concept into a winning product

We deliver improved manufacturability of your products closing the gap between product development and operations. Our cross-discipline approach ensures that every relevant factor and parameter is taken into consideration from the start in identifying your perfect design solution. For new products, this results in an optimal, scale-ready design for smooth manufacturing at the lowest cost, highest quality and quickest speed possible. For existing manufacturing, it identifies the root-cause factors of issues with manufacturing cost, cost of non-quality and long lead-times.

Methodologies:
DFMAT trainings & workshops, 3P workshops, Manufacturing Maturity Assessment

Manufacturing Service & Support

Maintaining & improving your Overall Equipment Effectiveness (OEE)

We deliver you maintenance support as well as manufacturing process & production optimization that will enhance your Overall Equipment Effectiveness (OEE).

We distinct two flavors:

1. Corrective & preventive maintenance to keep your manufacturing equipment well maintained and reliable in the most cost-effective way.
2. Overall equipment effectiveness optimization.
   By improving the operational state, and the production process of your equipment we increase line performance, achieving your clearly defined targets.

Methodologies:
Maintenance support & trainings, spare parts management, machine performance scan

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