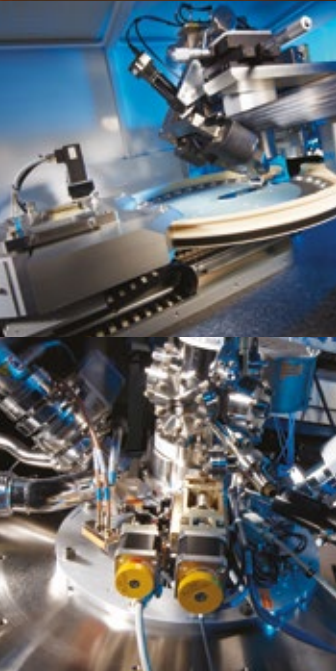


VDL ETG



Strength through cooperation





VDL ETG

VDL ENABLING TECHNOLOGIES GROUP IS A GLOBAL PROVIDER OF COMPLEX AND INNOVATIVE MECHATRONIC SYSTEMS. FOUNDED IN 1900 AS PHILIPS MACHINEFABRIEKEN, VDL ETG NOW HAS MORE THAN A HUNDRED YEARS OF EXPERIENCE IN THE DEVELOPMENT AND PRODUCTION OF HIGH-QUALITY MECHANICAL COMPONENTS, MODULES AND SUBMODULES FOR HIGH-TECH PRODUCTION EQUIPMENT, ANALYTICAL MACHINERY AND MEDICAL SYSTEMS. OUR STRENGTH LIES IN SYSTEMS THAT MAKE USE OF VACUUM APPLICATIONS, PRECISE POSITIONING AND HIGH SPEED HANDLING TECHNIQUES. THE PRODUCTION OF PRECISION WELDMENT PROCESS CHAMBERS AND FRAMES IS ONE OF OUR CORE ACTIVITIES. NUMEROUS CUSTOMERS FROM THE SEMICONDUCTOR, SOLAR, LED, MEDICAL, AEROSPACE & DEFENCE INDUSTRIES HAVE ALREADY DISCOVERED OUR IN-DEPTH KNOW-HOW AND EXPERTISE WITHIN THESE AREAS.





Our range of services includes engineering, prototyping, customer-specific process automation and series manufacturing of highly complex products with relatively low production quantities. We have consequently proven that we can convert innovative ideas into industrial solutions, for a wide range of applications. Our flexible approach and experience with complex system integration enables us to carry out projects with short lead times.

From our six production locations in Europe and Asia we are able to globally serve our customers in all phases of the Product Life Cycle. This includes product design, value engineering and supply chain management to component production, assembly (including clean room assembly) and even after sales support. Highly skilled professionals together with world-class equipment and machinery enable us to guarantee the quality of your product.

MANUFACTURING PROCESSES

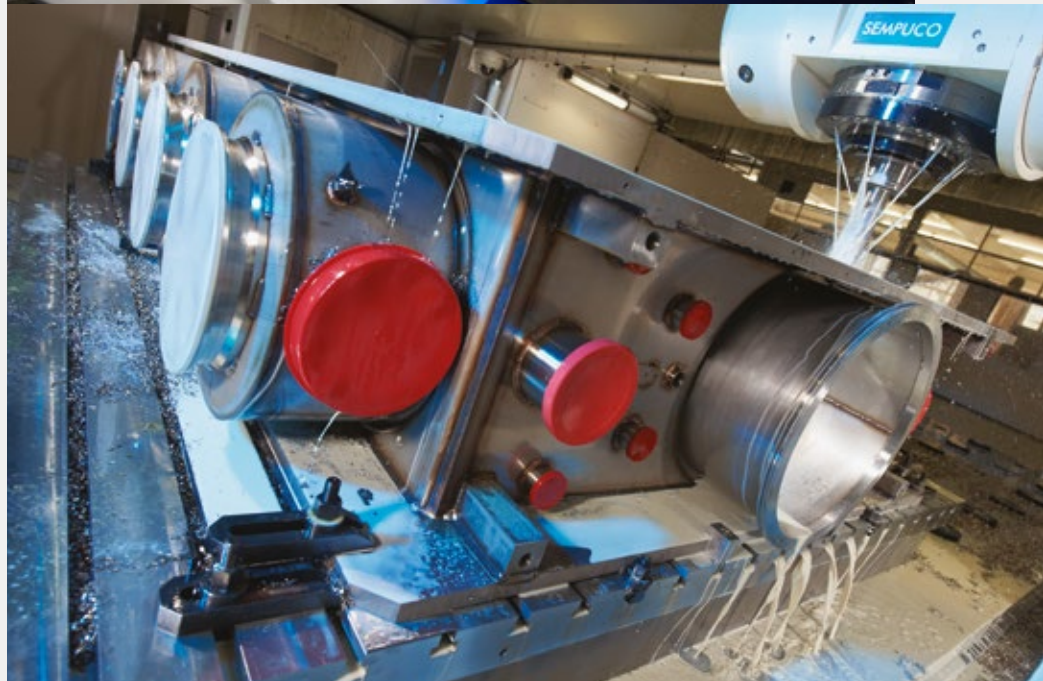
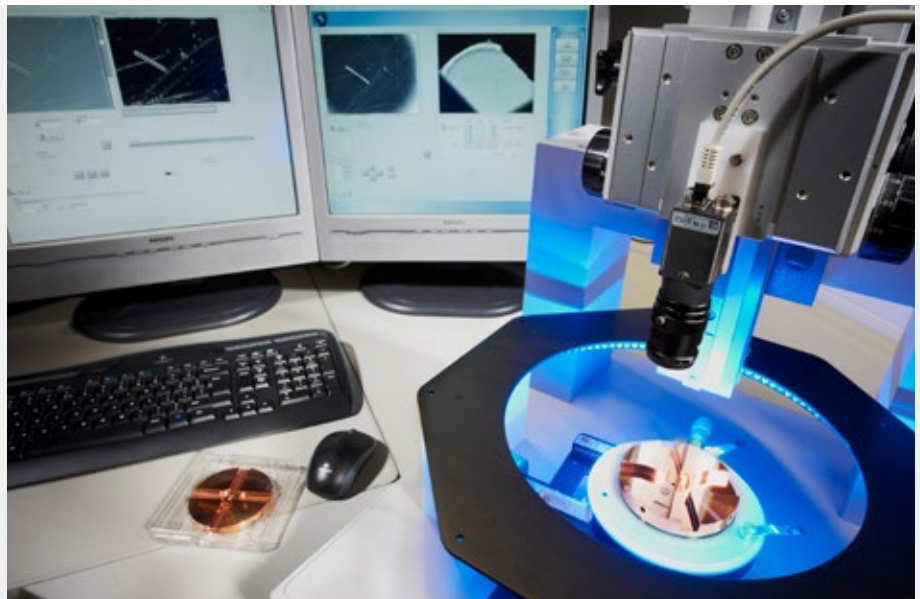
- Machining: high-speed milling, precision grinding, turning (including precision turning)
- Cut off / cut out machining: wire EDM and die sinking EDM
- Joining technologies: laser welding, robot welding, vacuum welding
- Measurement techniques (with micron and submicron accuracy)
- Advanced cleaning equipment
- Assembly (non-clean room and clean room; class 1000 & 10000)

ADDED VALUE

Our customer base includes OEM companies that play a prominent role in high-end technical modules and systems as well as users of advanced production lines. We believe that long-term relationship and strategic collaboration is the key to success and ultimately creates a win-win situation.

It is our job to improve your added value in the market, especially by continuously improving your products and services. The earlier we are involved in your product creation process, the greater the potential benefit you enjoy.

Beyond co-development and production, VDL ETG goes one step further. We monitor whether your product meets your expectations and those of your customer. Through continuous improvement processes, we optimise the quality, logistic performance, technology and cost price of your product and service. We understand the business and technical demands arising from shorter product lifecycles and faster time-to-market.



MARKETS

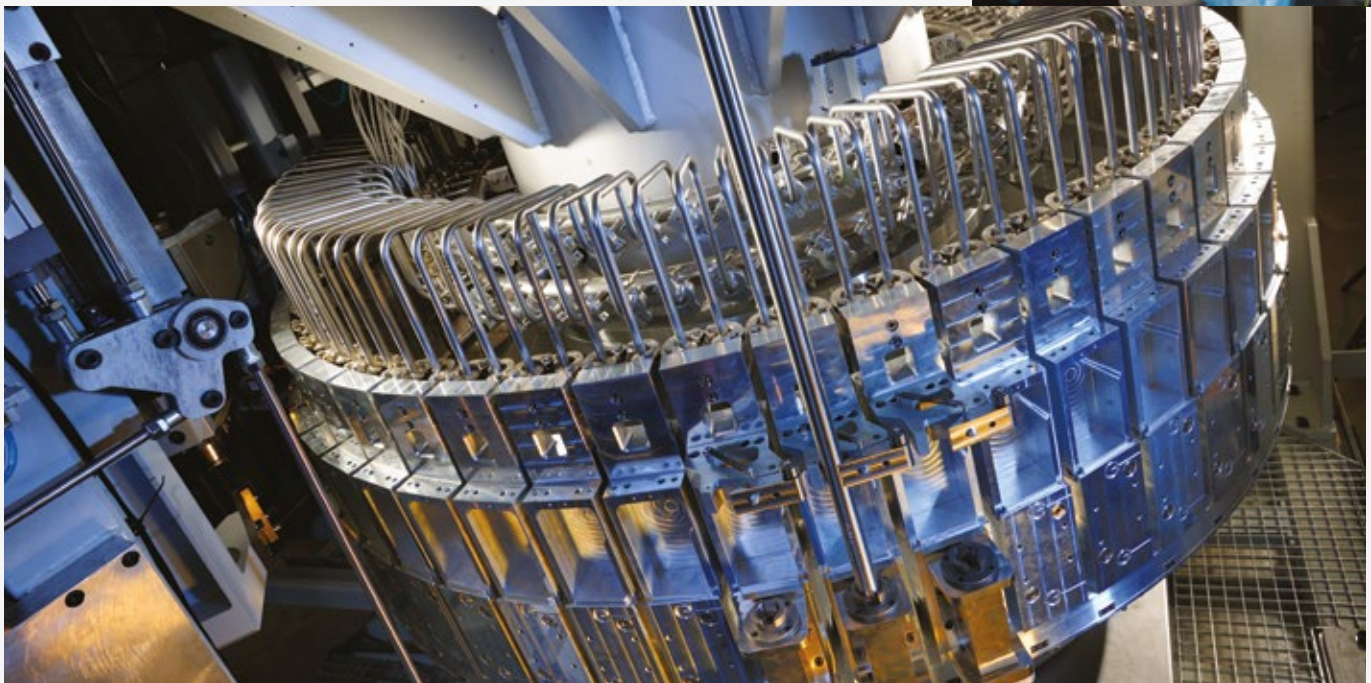
Components, modules, submodules and systems from VDL Enabling Technologies Group are used in various markets:

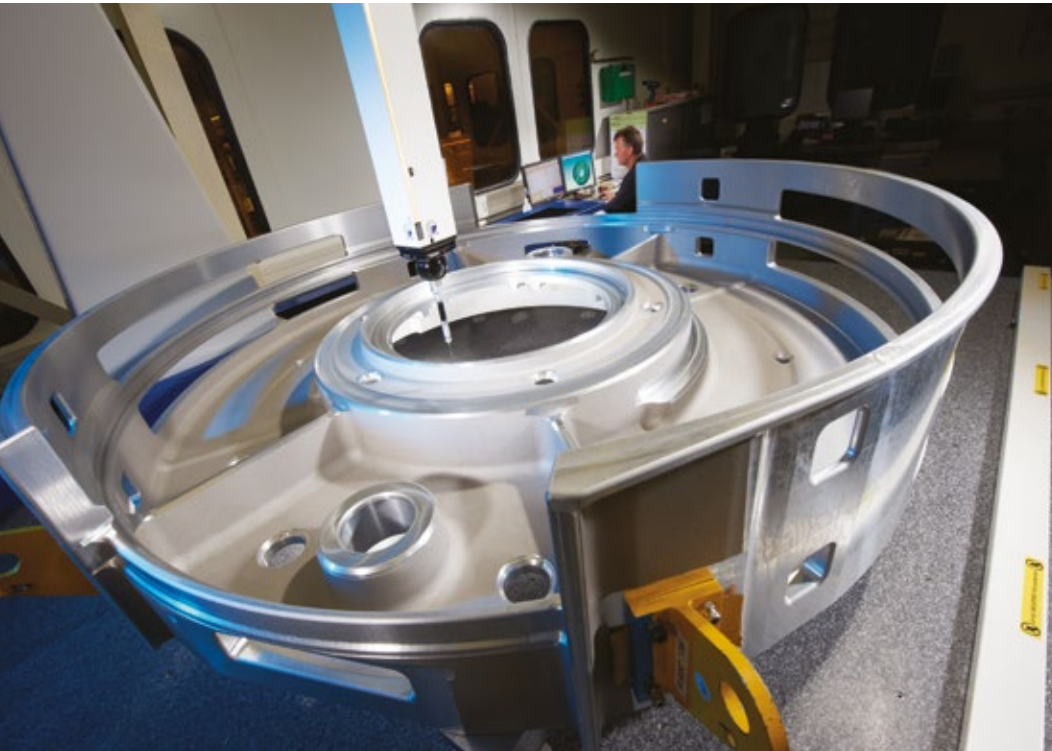
- **Semiconductor capital equipment** Critical components for equipment used in various processes within the semiconductor industry, such as wafer handlers, wafer stages and vacuum process chambers.
- **Analytical market** Building analytical equipment, such as electron microscopes, for the analysis of materials and gases as well as equipment for laboratory applications.
- **Solar** For the solar industry we manufacture vacuum deposition systems used in the production of photovoltaic cells. These are based on crystalline and thin-film technology.
- **Medical** Our experience in the area of mechatronics and precision engineering is often very valuable when it comes to Dfx phase within the medical industry. We deliver high-quality components and complete mechatronic systems, such as systems for the highly accurate positioning of X-ray equipment (relative to the patient).
- **Aerospace & defence** VDL ETG delivers precision components and complete systems to customers in the aviation, space and defence areas. Examples include flight simulators and parts for helicopters.



PRODUCTION AUTOMATION

The development and construction of production machines to automate your business process is pre-eminently our specialty. We deliver turnkey mass production lines, for which we take the responsibility of the mechanical, electrical and software design as well as the manufacture of components, assembly and on-site installation. The combination of our experience in machine construction and your process knowledge results in creative, innovative and affordable solutions for the end users.



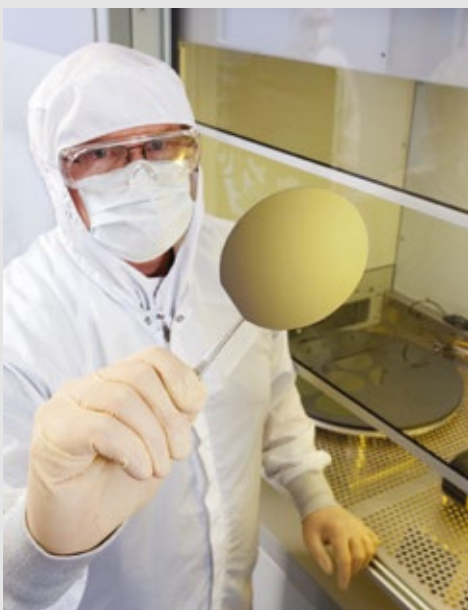


QUALITY: QLTC

Quality is imperative for having a strong and reliable production process. As a 'tier-one contract manufacturing partner', we constantly focus on maintaining high-level performance in four areas: Quality, Logistics, Technology and Costs, shortly QLTC. With our competencies and knowledge, we are capable of adding value to your activities throughout all phases of the Product Life Cycle. VDL ETG is ISO 9001 and ISO 14001 certified. We are also ISO 13485 certified for the medical market and AS 9100B certified for the aerospace industry. You can expect the same level of quality and the same focus on improvement of processes from all our production locations, worldwide.

RAPID UPSCALING AND DOWNSCALING

The market for capital intensive equipment is a very volatile one. When the market suddenly improves, our flexible organisation and experience allow us to shift gears quickly. Likewise, we can also shift gears backwards when market circumstances demand this. We can cut your fixed costs dramatically and increase your flexibility. In other words, we can help you reduce your 'break even' point. With VDL Groep as parent organisation, you can count on VDL ETG to be a reliable and flexible supplier.



VDL ETG BRIEFLY:

- Modules and systems
 - Production automation
 - From functional design to cost-down engineering
 - Prototypes and series production
 - Mechanical components
-
- Speed
 - Complex processes
 - Flexible
 - Precision
 - Creative and innovative
 - Short lead times
 - Supply chain management

TECHNOLOGICAL BACKBONE:

- Vacuum
- Handling
- Positioning

VDL Groep

VDL Enabling Technologies Group is part of VDL Groep, an international industrial family-owned company with 97 subsidiaries, spread over 20 countries and more than 17,000 employees. It is a conglomerate of flexible, independent companies, each with its own specialty. The strength of VDL Groep lies in the mutual cooperation between the companies.

VDL Enabling Technologies Group is a subcontracting company. In the subcontracting division, VDL specialises in metalworking, mechatronic systems and system supply, plastics processing and surface treatment.

The other divisions are car assembly, buses & coaches and finished products. The car assembly division includes the production of passenger cars for third parties. The bus & coach division includes chassis & chassis modules, coaches, public transport buses, mini & midi buses, special projects and second-hand buses. The finished products division comprises suspension systems for the automotive industry, heating, cooling and air-technical systems, production automation systems, systems for the oil, gas and petrochemical industry, systems for the agricultural sector, sunbeds, roof boxes, container handling equipment, waste collection systems, cigar-making and packaging machines, components for bulk handling and dust extraction installations and systems for explosion and fire protection.

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