

Gebr. Steimel GmbH & Co.

Industrial Pumps Centrifugal Separators

Today

our company is a well-established and reliable the world, supplying

> • Centrifugal Pumps • Gear Pumps • Lobe Pumps

Our Tradition

Established in 1878 by Johann Steimel, our company took up quarters in Hennef, at that time a rural area some 30 km from the city of Cologne.

We are, and have always been, a 100% family-owned business.

In the early years, Steimel developed and manufactured manually operated centrifuges for milk processing, as well as pumps for manure handling, for the local farms around Hennef.

> More than 140 years have passed since then. And while we continuously embraced permanent technical progress and innovation, we also uncompromisingly respected traditional values through all times: Long-Term Focus, Reliable Partnerships, and High-Quality Products only.

partner for renowned industrial customers around

• Processing Lines for Chips, Bulk Goods, and Parts • Centrifugal Separators and Chip Crushers • Equipment for Cooling Lubricant Recycling



 Project Development Product Engineering Customized Manufacturing Serial Production Product Servicing



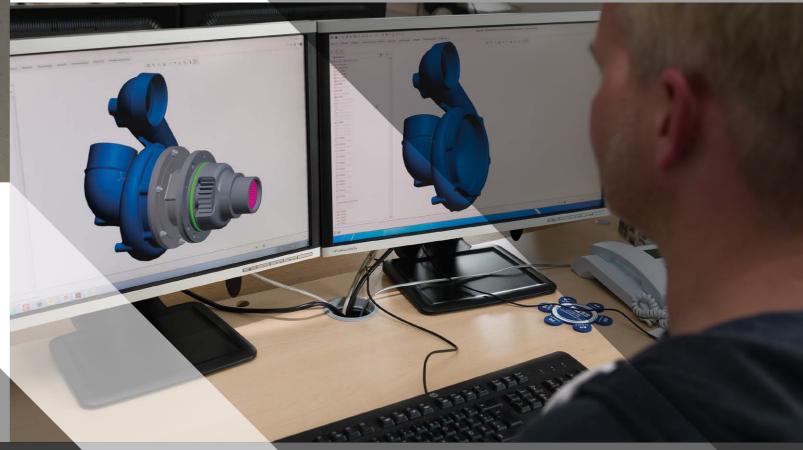
We specialize in engineering customized solutions in accordance with the specifications and requirements from our customers, thus helping them to create a competitive advantage in their business.

Our Steimel Development System is a guideline for the Project Management Process applied both in the pump and in the centrifuge business. SDS ensures that all relevant information is shared with all stakeholders, and that projects are completed in time, within budget, and fully compliant with the customer specifications.



• Fluid Mechanics + 3D-CAD • FEM Analysis • Prototyping + P-FMEA / D-FMEA

- QM Documentation • Partnerships with
 - Universities and Institutions



Engineering **Product Development**

Our Engineering Group focuses on the continuous evaluation of new materials and technologies in order to improve our products, both centrifuges and pumps. Key objectives in Engineering are performance enhancements, product lifetime, energetic efficiency, minimized cost-of-ownership, serviceability, and intrinsic product safety.

+ CFD • Ergonomics + CAM • Quality Assurance • Performance Testing • Fundamental Research

• Raw Materials • Peripherals • Cast Parts • Prototype Parts Seals and Gaskets
 Heat Treatment Warehousing

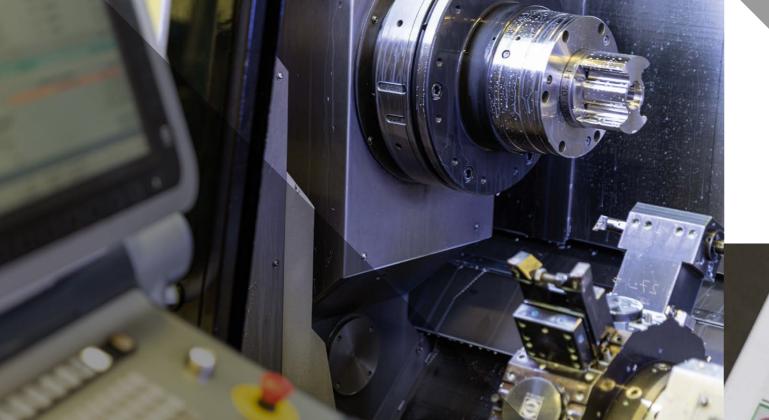
Procurement **Supply Chain Management** Scheduling

 Service Provider Management

 Pre-Manufacturing Surface Treatment • Accessories

Our Procurement Group manages a well-established international supplier base, featuring raw material and commodity suppliers as well as external manufacturing and service providers, based on a clearly defined set of specifications and requirements. Each of our qualified suppliers has passed a thorough approval process; key suppliers are reviewed and audited on a regular schedule by all relevant stakeholders.

> Our Production Scheduling Group works closely with Supply Chain Management to ensure on-time supply of all materials and services required to deliver a product to the customer. IT-based logistic processes ascertain on-time delivery.



• 5-axis CNC Milling / Turning • Conventional Milling / Turning • Gear Tooth Milling / Grinding

6.013

05

40.000

7.000

- Shaft Grinding / Polishing
 - Product Assembly

Manufacturing Assembly

0.000

+ SPC

• Welding Technologies

- Coating / Painting
 - PLC Programming
 - Electrical Cabinet Engineering



Our in-house manufacturing competencies particularly focus on those aspects that have a major impact on product quality and lifetime. Control Plans for products and components are derived from the FMEA, based on the Engineering specifications. Machining processes are constantly monitored using Control Plans. Operators undergo regular training and qualification on the process steps they are approved for. All manufacturing is compliant with the legal regulations for Safety, Health, and Environmental Hazards.

> Only the most experienced employees are entrusted with the final assembly process of both pumps and centrifuges, where rigorous Quality Gates have to be mastered. Our employees take personal pride in the quality of every single product that leaves our premises.

R&D Center - Centrifuges

• Basic Analysis and Characterization of Solid-Liquid Material Systems

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• Product Development and Innovation

- Application-Based Definition of Process Parameters
 - Customized Process Design

Optimum Process Parameters for each Application

When it comes to engineering an application for any new material system, pilot testing in our R&D Center is the best approach in order to give the customer the best solution for his process.

> Numerous test runs every year enable us not only to constantly improve our catalogue of best-practice guidelines, but also serve as the starting point for the continuous improvement of our hardware products.

R&D Center - Pumps

• Flow / Pressure Rise • Suction Lift Sound Level • Wear Analysis

NPSH

 Energetic Efficiency • Thermal Management • Tear Down Reports



Technical Innovation, Product Validation, Acceptance Testing

Our Pump R&D Center features state-of-the-art sensors and transducers, real-time data logging facilities, and computer-based analysis for all relevant parameters and characteristics of our pump, allowing for swift and thorough evaluation of technical innovations and new products in-house.

> For customer acceptance tests, product conformity with the specific scope of performance specs is verified on-site. Long-standing partnerships with universities and certified research institutions complete the scope of technological capabilities.



Inspection Technology

QM Documentation

- 3D-CMM-Measurement
 Laser Measurement
 - SLS Structured Light Scanning
 - Digital Imaging
 - Profile Gauging
 - Surface Inspection
 - Hardness Measurement

Quality Management Quality Assurance

Professional Quality Assurance, using state-of-the-art technologies and processes, is an important part of our Quality Management System, certified according to ISO 9001:2015. Our control plans are designed to ensure full conformity of the entire process from raw material inspection through manufacturing to shipment of the final product.

Incoming Goods Inspection
 ISIR - Initial Sample Inspection Report
 First Part sampling

 First Part sampling
 FMEA / Control Plan
 Serial Production Inspection Planning
 Customer Acceptance Testing
 Proof of Compliance using certified Institutions



All products and components are inspected throughout the manufacturing process according to their control plan. Upon customer request, control plans and Quality Gates for specific products can be invidualized in order to provide optimum customer value and service.



