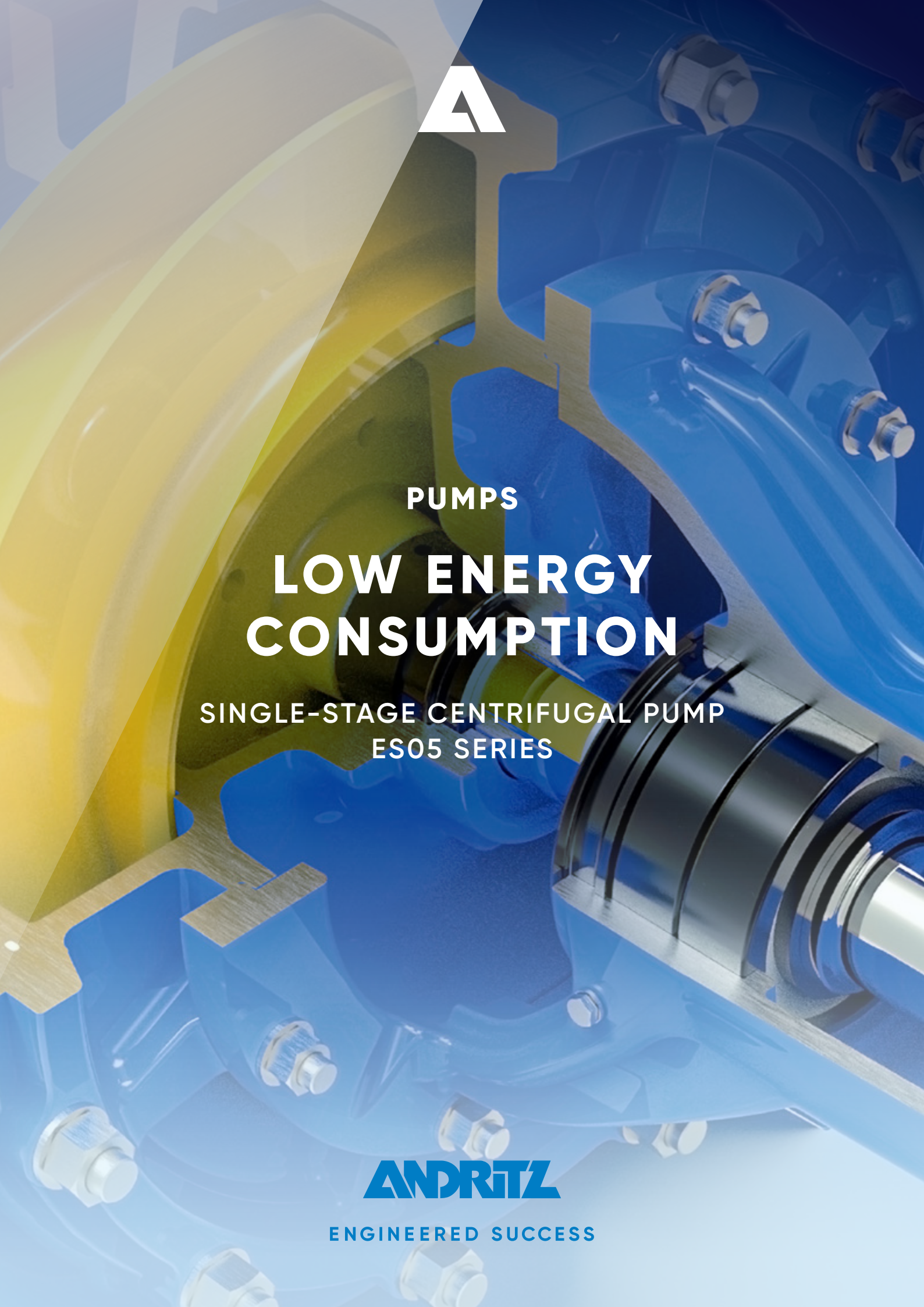


PUMPS

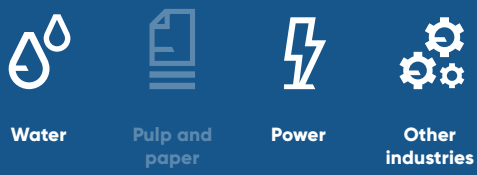
LOW ENERGY CONSUMPTION

SINGLE-STAGE CENTRIFUGAL PUMP
ES05 SERIES

ANDRITZ

ENGINEERED SUCCESS

ANDRITZ Pumps for your industry



ANDRITZ specializes in the development and manufacturing of high-quality pumps, offering a comprehensive range from standardized products to tailor-made solutions across various industries. Our pumps have achieved global success in diverse applications, including municipal drinking water supply, wastewater disposal, industrial water distribution, and significant infrastructure projects such as irrigation, seawater desalination, and water transmission.

In flood control, irrigation, and water transport, ANDRITZ not only provides the largest and most powerful pumps but also complete systems and pumping stations. As a prominent supplier to the pulp and paper industry, we leverage strong process expertise to deliver pump solutions that enhance process stability and energy efficiency. Our product portfolio encompasses a full range of robust process pumps and innovative medium consistency pumps with advanced fiber separation systems. Notably, our double-suction headbox pumps boast efficiencies of up to 93% and low-pulsation impellers, crafted with innovative methods to seamlessly integrate with your approach flow system.

In line with our commitment to sustainability, ANDRITZ offers reliable small hydroelectric power plants and pumps utilized as turbines for private, municipal, industrial, and commercial applications. Our diverse range ensures economically and ecologically sustainable energy production. Specializing in hydroelectric storage, our pumps cover a wide range from high heads to high flows, showcasing our engineering competence.

Our pump series, distinguished by modern and robust designs, high efficiencies, and sustainability features, find applications in various industries, including sugar and starch, lysine, bioethanol, hydrogen, fertilizer, mining, offshore, and general process industries.

Additionally, ANDRITZ provides IIOT-enabled premium pump technology for enhanced process monitoring, reflecting our commitment to cutting-edge solutions.

Premium pumping technology

For over 170 years, ANDRITZ has been a byword for competence and innovation in designing centrifugal pumps. Our end-suction centrifugal pumps are operating in various industrial applications successfully all over the world. They offer robustness and wear resistance, and fulfill highest customer expectations in terms of efficiency, life cycle, maintenance friendliness, and economic efficiency. The high standard of ANDRITZ centrifugal pumps is based on decades of experience in designing hydraulic machines and on extensive know-how. Our goals at ANDRITZ are to provide first-class products and service to secure sustained customer satisfaction.

SINGLE-STAGE CENTRIFUGAL PUMPS FROM THE ES 05 SERIES

are characterized by their low energy consumption, resulting in significantly lower operating costs. All pump parts are manufactured according to the highest quality standards in our ISO-certified workshops. Available in our proven, closed impeller design, these pumps reach efficiencies of up to 88% and flow rates up to 750 m^3/h at 50 Hz. ANDRITZ centrifugal pumps from the ES05 series convey clean water without any particles or solids. Thus, they are the ideal pump solutions for water supply, transport, and distribution in various industries, from wells or springs for example, as well as for drinking water supply. Regardless of the industrial application, ANDRITZ pumps can be delivered with and for an Industrial Internet of Things upward integrable base. A modular system ensures high availability, enables the use of proven components and reduces the number of spare parts to be held in stock.

FIELDS OF APPLICATION

- Water supply
- Water distribution
- Drinking water supply
- Air Conditioning (HVAC) & Refrigeration
- Heating system
- Irrigation
- Cooling water supply
- Industrial washing systems & solvents

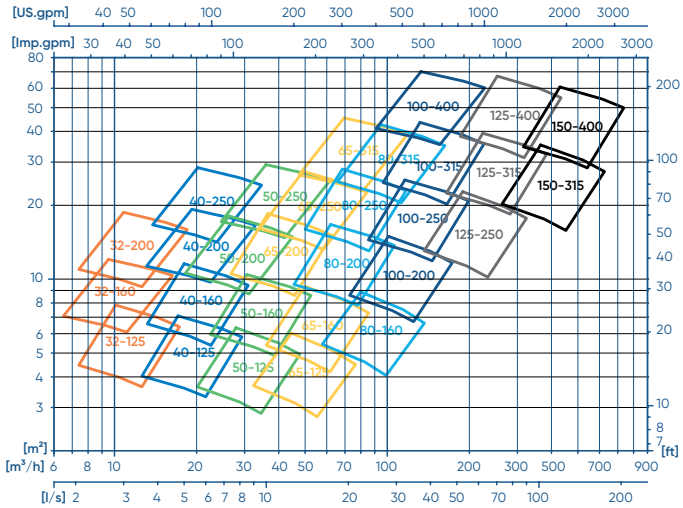
PRODUCT FACTS*:

- **Reference diameter (DN) 32 to 150**
- **DIN EN733 standard**
- **Flow rates up to 750 m^3/h at 50 Hz**
- **Heads up to 120 m**
- **Efficiency up to 88%**
- **Temperatures up to 110 °C**

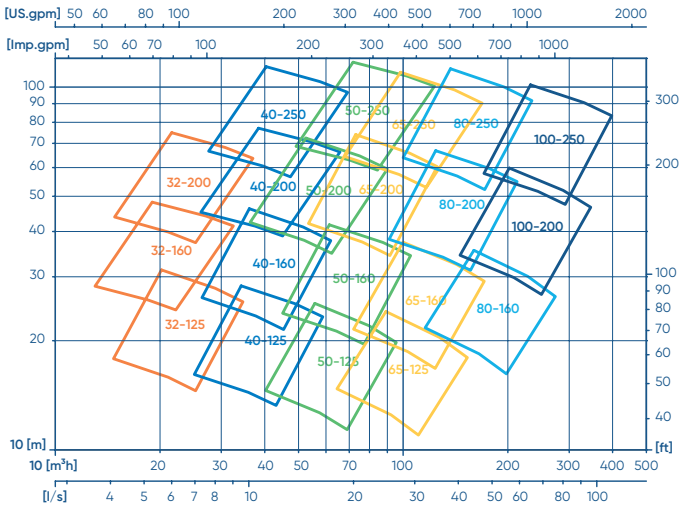
*These values are guidelines and may differ depending on project requirements

Single-stage centrifugal pump, ES05 series characteristics

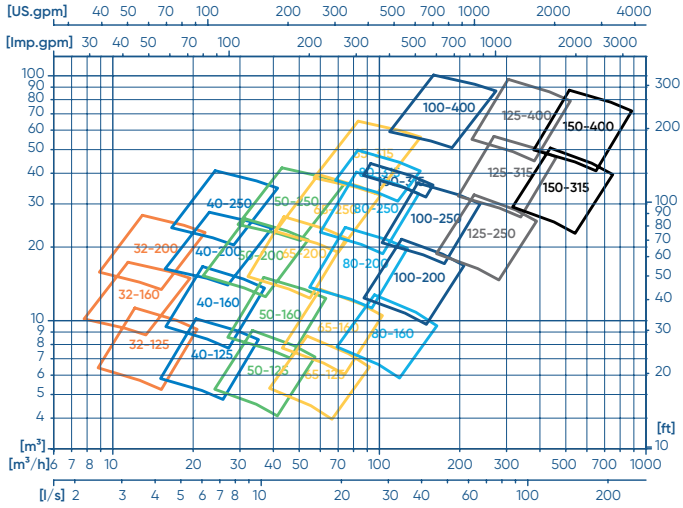
50HZ / 1500 RPM



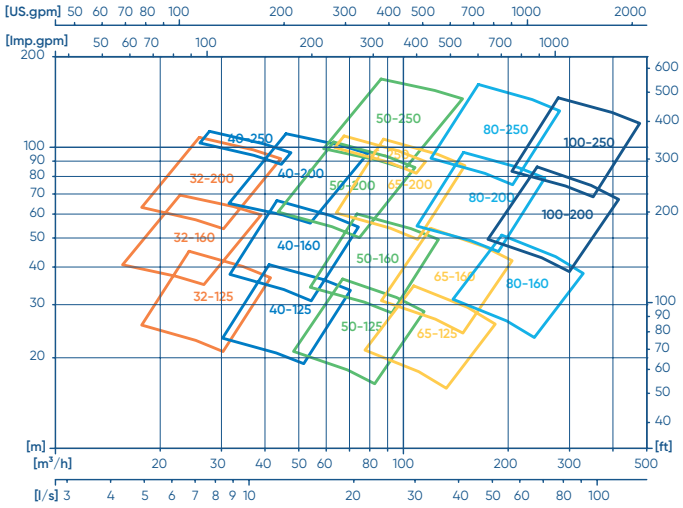
50HZ / 3000 RPM



60HZ / 1800 RPM



60HZ / 3600 RPM



PRODUCT BENEFITS

- Complete modularity for the entire series
- Optional IoT enabled base
- Proven hydraulic design
- Low energy consumption
- Easy maintenance due to modular design
- Optimized service life
- Multiple options of sealing like STB, SMS & DMS available
- Efficiency above industrial standard

ES05/A: Standard arrangement

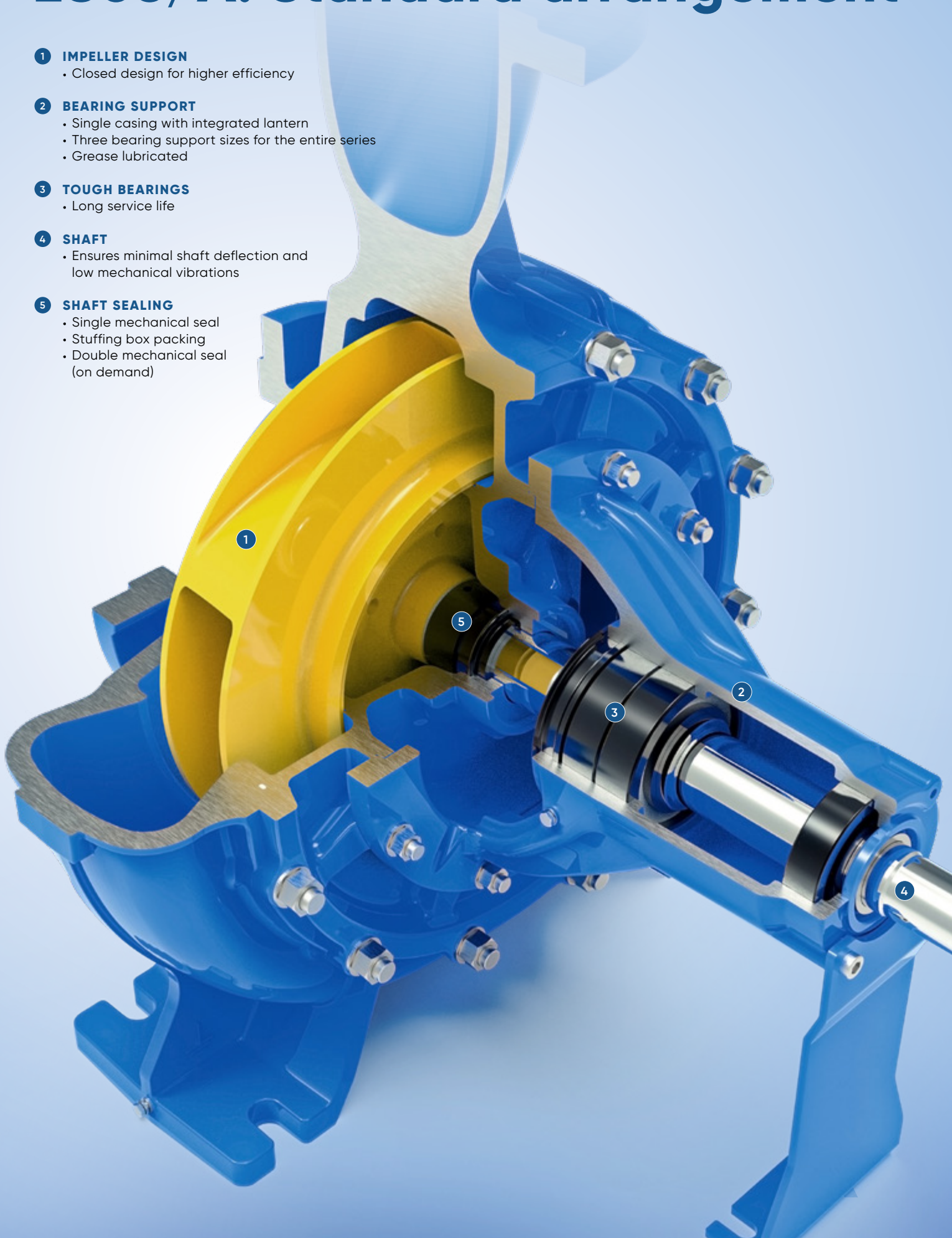
1 IMPELLER DESIGN
- Closed design for higher efficiency

2 BEARING SUPPORT
- Single casing with integrated lantern
- Three bearing support sizes for the entire series
- Grease lubricated

3 TOUGH BEARINGS
- Long service life

4 SHAFT
- Ensures minimal shaft deflection and low mechanical vibrations

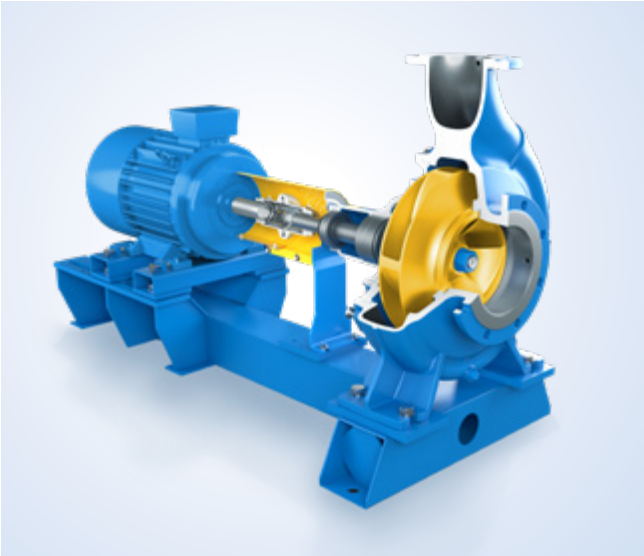
5 SHAFT SEALING
- Single mechanical seal
- Stuffing box packing
- Double mechanical seal (on demand)



Optimized arrangement

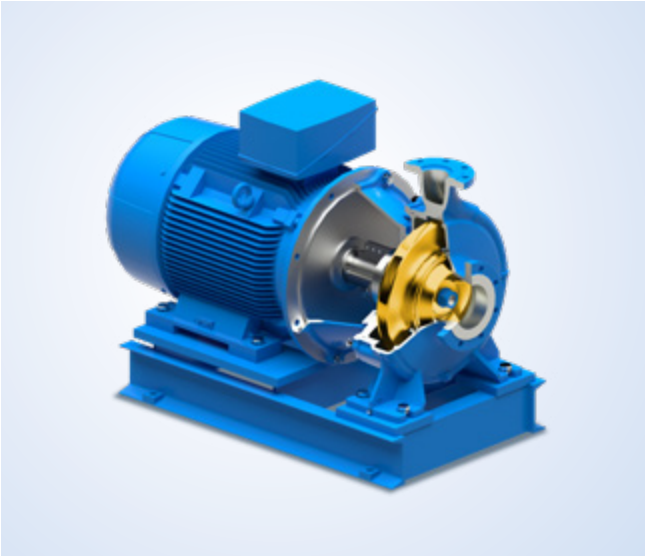
ES05/A: STANDARD ARRANGEMENT

We can maintain the pump without disassembling the motor and the volute casing.



ES05/B: CLOSE COUPLED ARRANGEMENT

The advantage of arrangement B is the smaller installation dimensions, which requires limited space.



MATERIAL COMBINATIONS

ES05	GREY CAST IRON	DUCTILE CAST IRON	STAINLESS STEEL	PPE
Casing	■	■		
Shaft			■	
Impeller	■		■	
Bearing housing	■			
Lantern	■			
Wear ring			■	■

	European standard		US standard	
Material	**Number**	**Name**	**Grade**	**UNS**
Grey cast iron	5.1301	EN-GJL-250	Class 40B	F1007
Grey cast iron	EN-JL 1030	EN-GJL-200	A278 Class 30	F10006
Ductile cast iron	5.3106	EN-GJS-400-15	A395	F32800
Stainless steel	1.4404	X2CrNiMo17-12-2	A182	S31603
Stainless steel	1.4021	X20Cr13	420	S42000
Stainless steel	1.4408	GX5CrNiMo19-11-2	A351	J92900
PPE	Noyrl			

Greater efficiency for a competitive edge

RESEARCH AND DEVELOPMENT

Continuously increasing demands by customers in our operating industries emphasize the significance of R&D in the constant optimization of products and services. Today, efficiency, flexibility, and reliability over an extended lifetime are the major challenges of the market. Our commitment to research and development forms the basis for our advances in hydraulic machine manufacturing. With Pump Technology Center (PTC) ASTROE, center for hydraulic engineering and laboratory, we have an internationally renowned institute for hydraulic development work at our disposal. We are developing and testing our pumps at different locations worldwide. Our test stands are among the most accurate in the world. By networking these research and development centers, we provide a continuous transfer of know-how within the ANDRITZ GROUP for the benefit of our customers. The main tools for R&D are numerical simulation methods as well as experimental measurements in the laboratory and on site. State-of-the-art equipment, highly precise measuring instruments as well as the latest simulation technologies, and powerful software form the basis of the high technical quality of the pumps and turbines from ANDRITZ.

AN OVERVIEW OF OUR SERVICES

- Supply of original spare parts
- Deployment of trained personnel
- Installation and start-up
- Inspection
- Repairs, overhauls, maintenance
- Machine assessment by an expert for early fault detection
- Consulting and modernization
- Performance and vibration measurement
- Fault and damage analyses
- Feasibility studies
- Energy consulting for pumps and systems
- Preparation of maintenance schedules
- Service and maintenance agreements
- Automation and Electrical Power Systems
- Electronic equipment
- Training

INNOVATION SINCE 1852

The internationally renowned ANDRITZ GROUP has been building pumps for almost 170 years. We offer innovative and targeted solutions with pumps and complete pumping stations. Our longstanding experience in hydraulic machine manufacturing and complete process know-how form the basis of the high standard of ANDRITZ pump engineering. Our quality and high-efficiency products as well as our understanding of customer requirements have made us a preferred partner for pumping solutions worldwide. ANDRITZ offers everything from a single source – from development work, model tests, engineering design, manufacture and project management, to after-sales service and training. We also perform complete start-up on site and guarantee our customers the best support. Our declared goal is your complete satisfaction. See for yourself!

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