



PUMPS

LOW ENERGY CONSUMPTION

**SINGLE-STAGE CENTRIFUGAL PUMP
ES05 SERIES**

ANDRITZ

ENGINEERED SUCCESS

ANDRITZ Pumps for your industry



Water



Pulp and
paper



Food



Mining and
minerals



Power



Other
industries

ANDRITZ develops and manufactures high-quality custom tailored pumps for various industries. We supply pumps for different water and waste water applications. ANDRITZ pumps are operating successfully worldwide, for example in water resources management, waste water disposal, as well as large infrastructure projects for irrigation, desalination, and for drinking water and industrial water supplies.

Thousands of ANDRITZ submersible motors and pumps have been installed in mines around the world, working under severest conditions in water management and emergency drainage, including the largest submersible dewatering pumps in the world.

As plant and equipment supplier to the pulp and paper industry, ANDRITZ provides a complete pump program. Our product portfolio comprises medium-consistency pumps with an innovative fiber separation system, for example, as well as headbox pumps with efficiencies of over 90% and particularly low pulsation.

We also supply high-performance and reliable pumps for food applications such as proteins, dairy products, or beverages as well as a complete pump program for the entire sugar and starch industry. To round off the portfolio, ANDRITZ small hydropower plants and pumps used as turbines suitable for the private as well as the municipal sectors, and for industrial and commercial facilities ensure an economic and ecological independent power generation.

Premium pumping technology

For over 165 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 743 m³/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*:

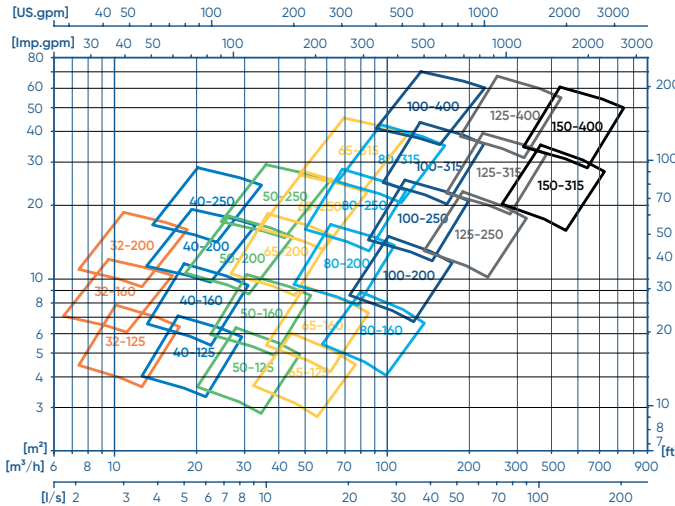
- Reference diameter (DN) 32 to 150
- DIN EN733 standard
- Flow rates up to 743 m³/h at 50 Hz
- Heads up to 117 m
- Efficiency up to 88%
- Temperatures up to 200 °C

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

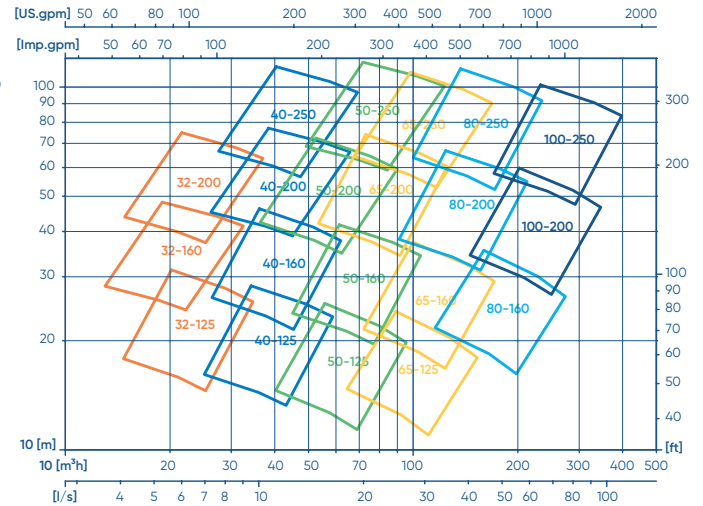


Single-stage centrifugal pump, ES05 series characteristics

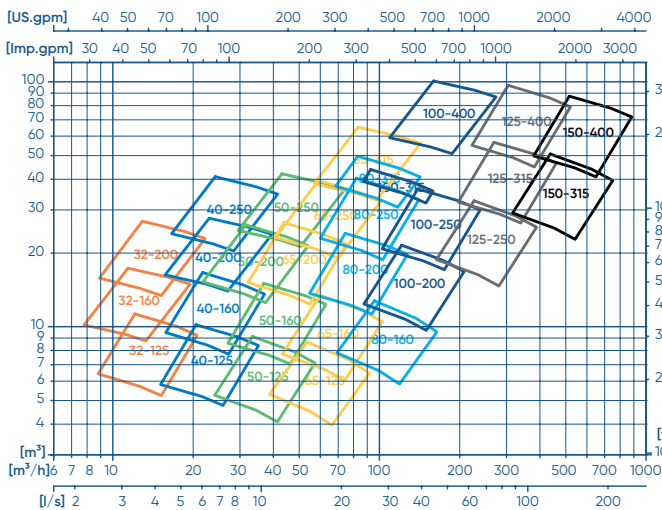
50HZ / 1500 RPM



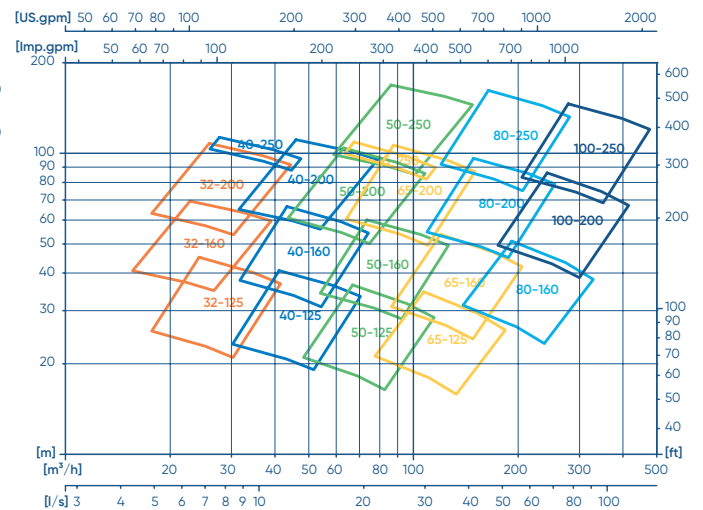
50HZ / 3000 RPM



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

Standard Material Version AC

Volute casing	EN-GJL-400-15
Casing cover	EN-GJL-250
Impeller	EN-GJL-250
Wear ring	Noryl (PPE)
Bearing housing	EN-GJL-250
Pump shaft	1.4021
Shaft protecting sleeve	1.4404

Standard Material Version AJ

Volute casing	EN-GJL-400-15
Casing cover	EN-GJL-250
Impeller	1.4408
Wear ring	Noryl (PPE)
Bearing housing	EN-GJL-250
Pump shaft	1.4021
Shaft protecting sleeve	1.4404



1 IMPELLER DESIGN

- Closed

2 BEARING SUPPORT

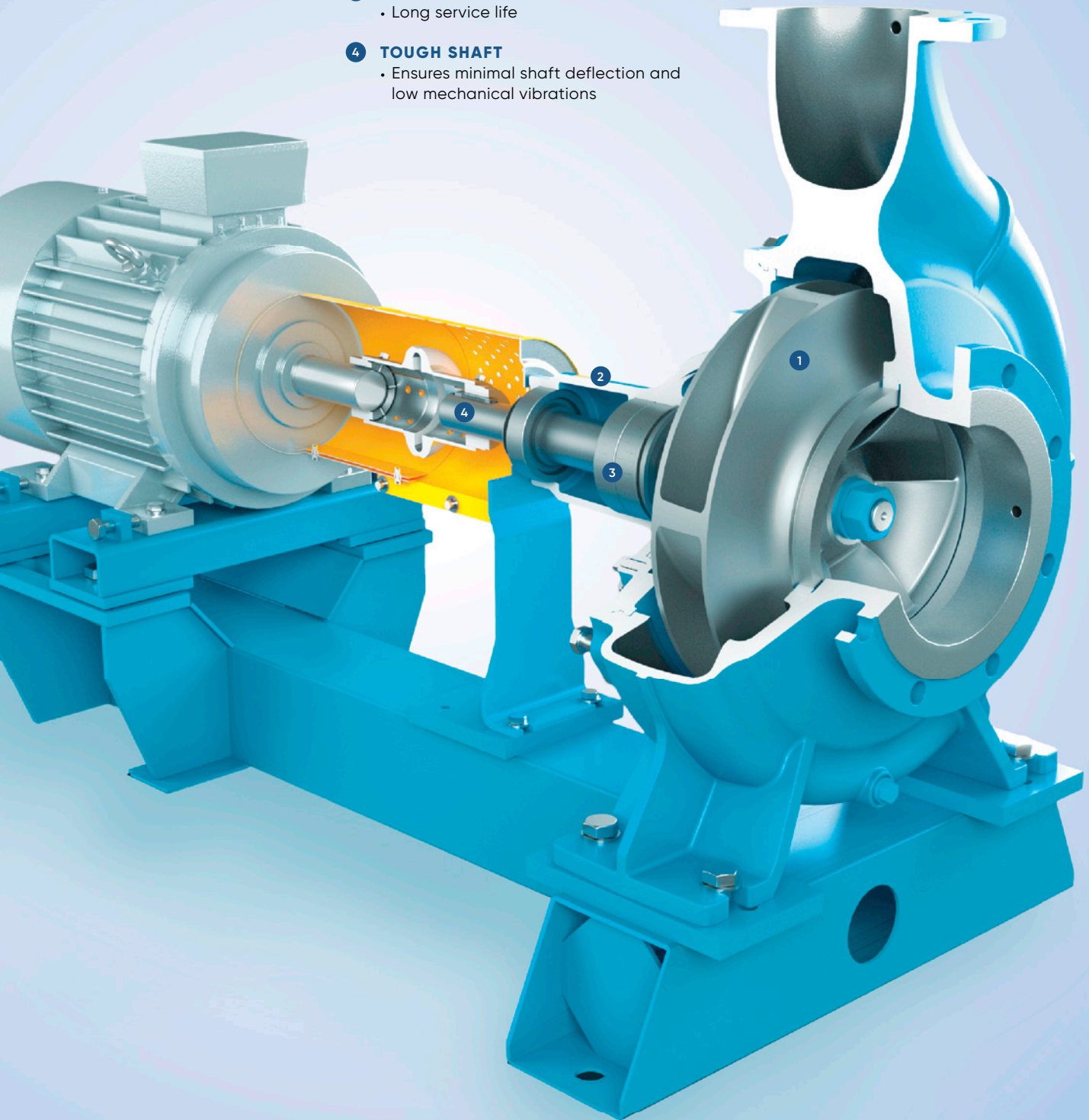
- Single casing with integrated lantern
- Three bearing support sizes for the entire series
- Grease lubricated

3 TOUGH BEARINGS

- Long service life

4 TOUGH SHAFT

- Ensures minimal shaft deflection and low mechanical vibrations



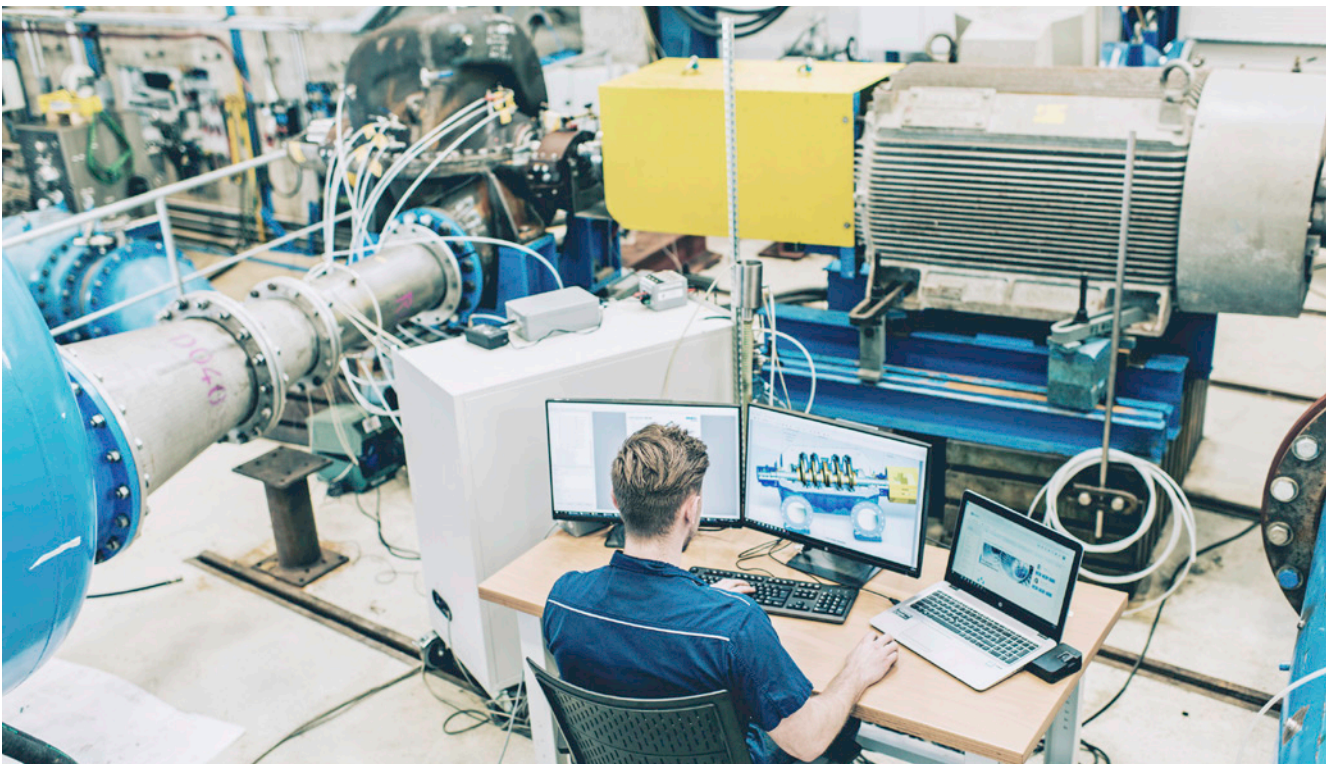
Always a flow ahead - Research and development

Our affiliate ASTROE enjoys an internationally renowned reputation for its hydraulic developments and investigations. The high efficiency of the ANDRITZ pump series is ensured by Computational Fluid Dynamic (CFD) calculations and extensive testing carried out in our company owned laboratory.

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 ASTROE, center for hydraulic engineering and laboratory, we have an internationally renowned institute for hydraulic development work at our disposal. We are currently developing and testing our pumps

and turbines at five locations in Austria, Germany, Switzerland, and China. 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.



Greater efficiency for a competitive edge - Pumps service

Optimization / Modernization / Operating reliability

The conditions of your plant have changed, but your pumps are still operating as previously and therefore, wasting energy? Would you like to optimize your system to reduce costs? With ANDRITZ, you will have a competent partner for these and numerous other services at your side.

Service and maintenance have a long tradition at ANDRITZ and complement the product portfolio. The century-long expertise is reflected not only in a service portfolio with innovative solutions and advanced products that can be optimally adapted to the respective customer needs, but also in a specially trained staff. ANDRITZ has specialized in the servicing of pumps to achieve improved efficiencies and adaptations to changed operating points of the installed pumps. A

large potential for savings can already be achieved by improving the efficiency of 20 percent of the installed pumps. Our service team provides prompt, professional, and reliable assistance – also for other manufacturers' products. Book our service package and you can be sure of the best operating reliability for your systems in the long term. We conduct an expert assessment together with you, thus creating transparency and making an optimum solution possible that is tailored to your needs. After examining your plant, we determine its savings potential and realize it by improving the efficiency of the pumps installed. Additionally, this individual solution lowers your maintenance costs. You do not have to think about personnel, nor about maintenance schedules or utilities. Assembly is conducted according to defined schedules and with assistance from our trained personnel.



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 more than 165 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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