

ANDRITZ Pumps Products, systems, applications



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ANDRITZ Pumps Performance based on experience, competence and quality







Vertical line shaft pumpe.g. for an irrigation pumping station

▲ **Double suction split case pump** for conveying water and suspensions

Many years of experience and comprehensive know-how are the solid footing for the high performance standards met by our pumps.

Specialized know-how and understanding the customers' requirements make us a preferred partner. Our innovative and targeted solutions – from single pumps to large pumping stations – are convincing arguments. We act as single-source supplier: from development to the model test, from design to manufacture, to project management, site installation, service and training.

This is why customers from all corners of the globe rely on us and our long-term experience over the entire value-added chain.

for conveying water and suspensions in different industries such as pulp and paper

Process pumps

Product portfolio and applications

| Products | Water | Energy | Pulp and paper | Other industries* | Product groups |
|---|-------|--------|----------------|----------------------|-------------------|
| Vertical Line Shaft Pump | • | | | | Large Pumps |
| Vertical Volute Pump | • | • | | | Large Pumps |
| Double Suction Split Case Pump | • | • | | | Large Pumps |
| Horizontal Bulp Pump | • | | | | Large Pumps |
| Main Coolant Pump PWR for the primary loop | | • | | | Reactor Pumps |
| Main Coolant Pump BWR for the primary loop | | • | | | Reactor Pumps |
| Shutdown Cooling Pump PWR | | • | | | Reactor Pumps |
| Moderator Pump – CANDU reactor | | | | | Reactor Pumps |
| Centrifugal Pump – S and ACP Series | | | - - | | Standard Pumps |
| Centrifugal Pump – ISO Series | • | • | | | Standard Pumps |
| Vertical Submerged Pump – SAT Series | | | - - | | Standard Pumps |
| Self-Priming Pump – AD Series | | | | | Standard Pumps |
| Free-Flow Pump – VP and CP Series | | | | | Standard Pumps |
| High-Pressure Pump – MP Series | | | | | Standard Pumps |
| Double Suction Split Case Pump – FP Series | | | 1.1 | | Standard Pumps |
| Medium Consistency Pump – MC Series | | | | | Standard Pumps |
| Steam Heating Systems – DSHM, DSHL, DSHD and DSHP Series | | • | | 1.1 | Standard Pumps |

* examples: bioethanol (second generation), chemical, food

Technical data

Vertical Line Shaft Pump

| Model | pull-out or non pull-out |
|-----------|--|
| Impeller | radial, mixed flow or axial, adjustable or fixed |
| Head | up to 100 m |
| Flow rate | up to 70,000 m³/h |
| Power | up to 10,000 kW |

Vertical Volute Pump

| Model | metal or concrete volute, with or without guide vanes |
|-----------|---|
| Impeller | radial or mixed flow |
| | |
| Head | single-stage up to 250 m |
| | |
| Flow rate | up to 180,000 m ³ /h |

Double Suction Split Case Pump

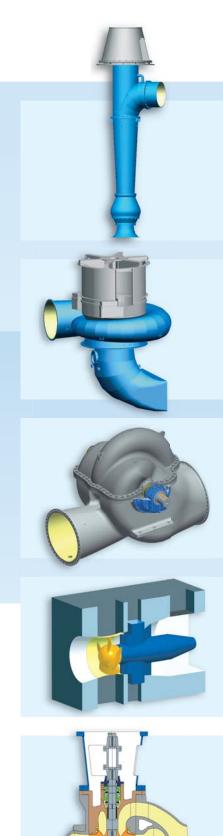
| Model | horizontal or vertical, axially or radially split |
|-----------|---|
| Impeller | radial |
| Head | up to 100 m |
| Flow rate | up to 55,000 m³/h |
| Power | up to 10,000 kW |

Horizontal Bulb Pump

| Model | horizontal, direct drive |
|-----------|----------------------------|
| Impeller | axial, adjustable or fixed |
| Head | up to 20 m |
| Flow rate | up to 250,000 m³/h |
| Power | up to 10,000 kW |

Reactor Pump

| Model | shutdown cooling pump PWR, moderator pump CANDU reactor |
|-----------|--|
| Impeller | radial |
| Head | 50-70 m |
| Flow rate | 800-4,000 m³/h |
| Power | 250-750 kW |



Reactor Pump – Primary Loop

| Model | main coolant pump PWR, main coolant pump BWR |
|-----------|---|
| Impeller | axial or semi-axial |
| Head | 60-135 m |
| Flow rate | 6,000-24,000 m³/h |
| Power | 650-13,000 kW |

Centrifugal Pump – S and ACP Series

| Model | single-stage; single-flow, open impeller |
|-------------|--|
| Consistency | up to 6% |
| Head | 10-160 m |
| Flow rate | up to 6,000 m³/h |
| Pressure | up to 25 bar |
| Temperature | up to 200 °C |

Centrifugal Pump – ISO Series

| Model | single-stage; single-flow, closed impeller |
|-------------|--|
| Consistency | up to 1% |
| Head | up to 160 m |
| Flow rate | up to 300 m³/h |
| Pressure | up to 16 bar |
| Temperature | up to 140 °C |

Vertical Submerged Pump – SAT Series

| Model | single-stage; single-flow, open impeller |
|-------------|--|
| Head | up to 35 m |
| Flow rate | up to 800 m³/h |
| Pressure | up to 10 bar |
| Temperature | up to 60 °C |

Self-Priming Pump – AD Series

| Model | single-stage; single-flow, semi-open impeller |
|-------------|---|
| Head | up to 75 m |
| Flow rate | up to 2,000 m³/h |
| Pressure | up to 16 bar |
| Temperature | up to 140 °C |









Free-Flow Pump – VP and CP Series

| Model | single-stage; single-flow, semi-open channel impeller |
|--------------|---|
| Consistency | up to 4% |
| Head | up to 75 m |
| Free passage | up to 140 mm |
| Flow rate | up to 1,000 m³/h |
| Pressure | up to 16 bar |
| Temperature | up to 120 °C |

High-Pressure Pump – MP Series

| Model | multi-stage; single-flow, closed impeller |
|-------------|---|
| Head | up to 800 m |
| Flow rate | up to 400 m³/h |
| Pressure | up to 100 bar |
| Temperature | up to 160 °C |

Double Suction Split Case Pump – FP Series

| Model | single-stage; double suction, closed impeller |
|-------------|---|
| Consistency | up to 2% |
| Head | up to 160 m |
| Flow rate | up to 20,000 m³/h |
| Pressure | up to 15 bar – depending on pump size |

Medium Consistency Pump – MC Series

| Model | single-stage; single-flow, |
|-------------|----------------------------|
| | semi-open impeller |
| Consistency | up to 14% |
| Head | up to 195 m |
| Flow rate | up to 4,000 admt/d |
| Pressure | up to 25 bar |
| Temperature | up to 140 °C |

Steam Heating Systems – DSHM, DSHL, DSHD and DSHP Series

| System components | steam heater, direct driven |
|-------------------|--------------------------------------|
| Consistency | water, for DSHM up to 9% |
| Heat capacity | up to 50,000 kW |
| Head | up to 140 m |
| Temperature | Heating per cycle: 20 °C |
| Steam parameters/ | Heating wiht saturated steam: |
| Pressure | 2-7 bar (above atmospheric) possible |

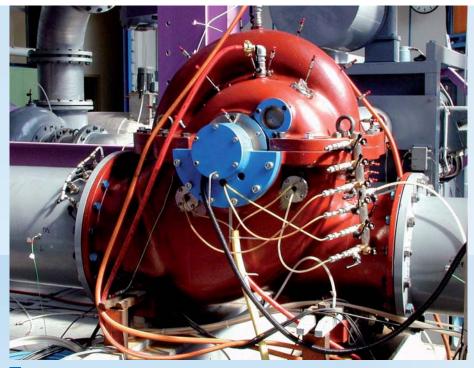












1 Focus on research and development



2 Global quality management



3 Close to our customers

1 The top position that we hold in the supply of hydraulic machines is based on our strong commitment to research and development.

At present we run four test loops in Austria and Switzerland, where we develop our pumps and turbines and "put them to the test".

These R&D centres work together closely, creating a network within the ANDRITZ GROUP with continuous know-how transfer, to the benefit of our customers.

2 The high technical quality of our pumps derives from our stringent manufacturing standards, targeted organisation, clearly defined processes and well-trained staff.

Quality assurance, process requirements and the quality standards that our pumps have to meet are defined on a globally uniform level. 3 Providing service and maintenance support has a long tradition at ANDRITZ and has been an important part of the company's philosophy from its very beginnings.

The goal still is to offer top-class service to secure sustained customer satisfaction and product reliability.

Our most valuable capital is the experience and expertise of our service staff, as well as the service and production sites around the globe.



Close to our customers



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