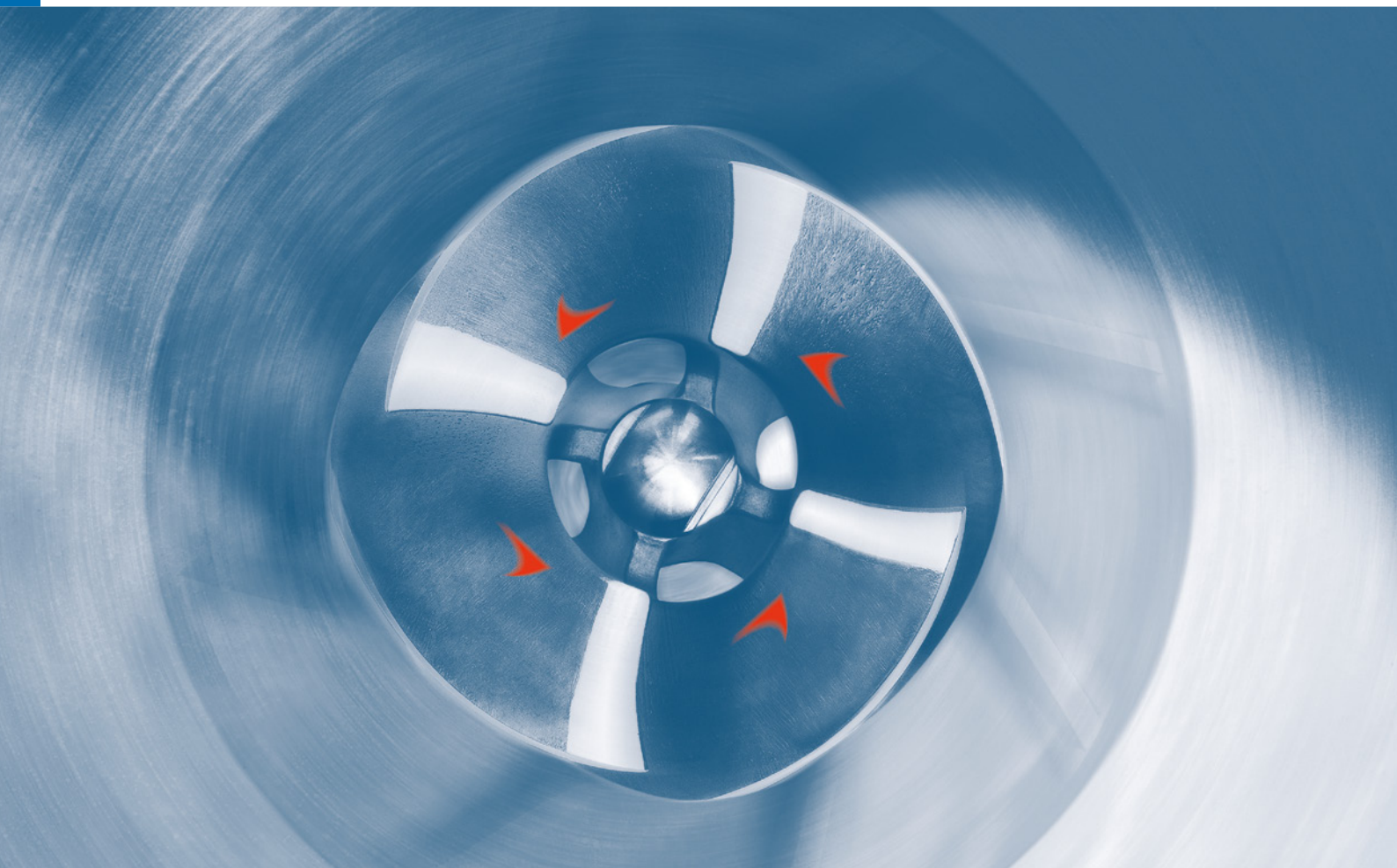


ANDRITZ medium-consistency pump

MC series



Highest efficiencies without vacuum pump

ANDRITZ has been a byword for competence and innovation in designing and building centrifugal pumps for over 100 years.

As suppliers of complete production systems for the pulp and paper industry, we have acquired broad expertise in the related process technologies. This forms the basis on which we develop successful components for conveying paper stock and pulp.

The newly developed ANDRITZ medium-consistency pump, MC series, sets new standards in conveying medium-consistency stock suspensions. It fulfils highest customer expectations regarding efficiency, life cycle, easy maintenance, economic efficiency, and reliability, thus ensuring stable production at all times.

The excellent economic efficiency has been proven many times, giving our customers energy cost savings of up to one third compared to other medium-consistency pumps.

Fields of application

Conveyance of (stock) suspensions of up to 16% bone dry in the pulp and paper industry, e.g.

- Chemical pulp
- Mechanical pulp
- Groundwood
- Waste paper
- Molasses

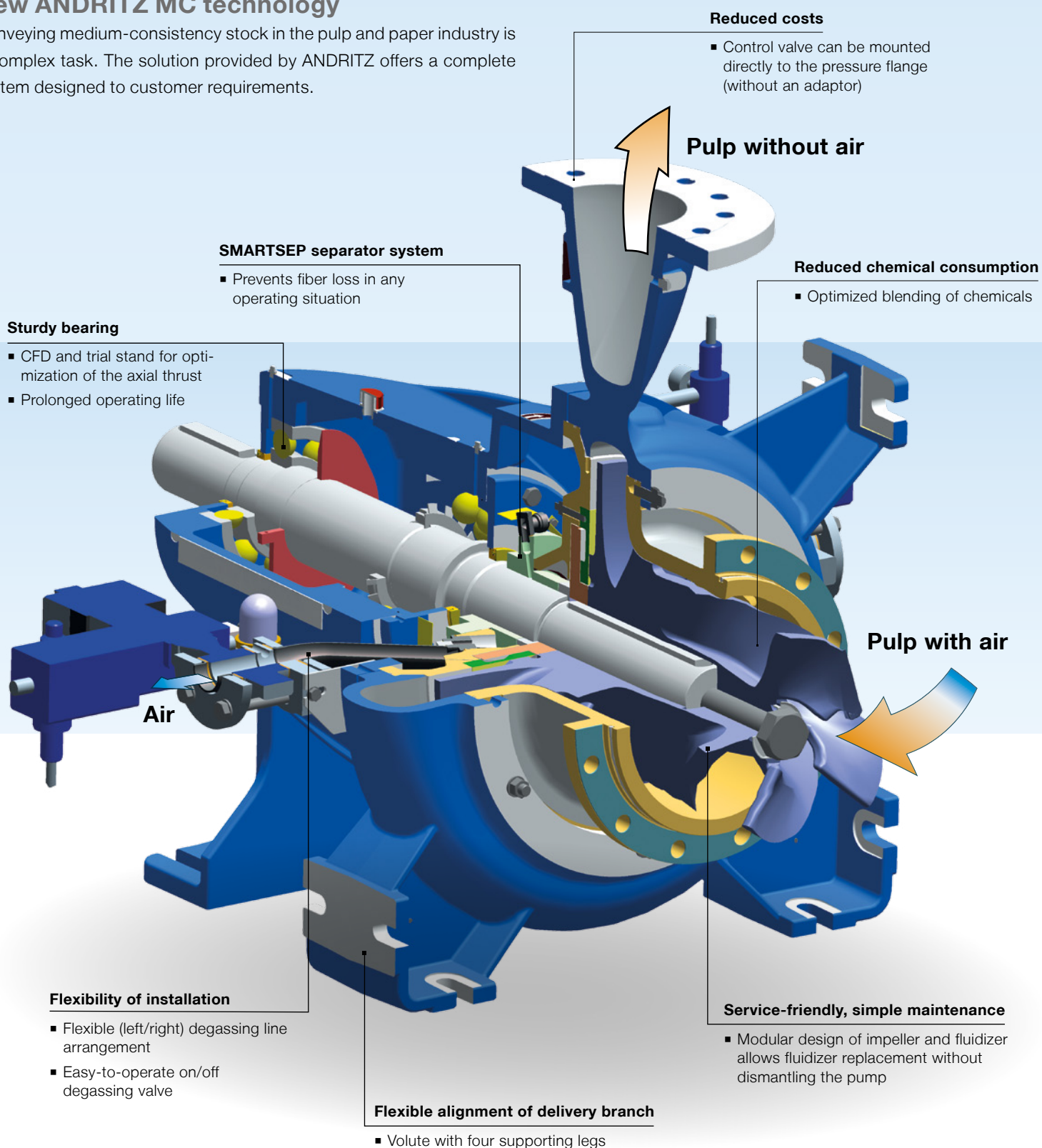
The facts

- Degassing without internal or external vacuum pump
- Production rate of up to 13,000 admt/d
- Heads up to 190 m
- Stock temperatures up to 93°C (with non-pressurized infeed), up to 140°C (with pressurized infeed)
- Stock consistencies up to 16% bone dry
- Pressure up to 25 bar, depending on pump size
- Highest efficiencies of over 70%



New ANDRITZ MC technology

Conveying medium-consistency stock in the pulp and paper industry is a complex task. The solution provided by ANDRITZ offers a complete system designed to customer requirements.



Reduced costs

- Control valve can be mounted directly to the pressure flange (without an adaptor)

Pulp without air

SMARTSEP separator system

- Prevents fiber loss in any operating situation

Reduced chemical consumption

- Optimized blending of chemicals

Sturdy bearing

- CFD and trial stand for optimization of the axial thrust
- Prolonged operating life

Pulp with air

Air

Flexibility of installation

- Flexible (left/right) degassing line arrangement
- Easy-to-operate on/off degassing valve

Service-friendly, simple maintenance

- Modular design of impeller and fluidizer allows fluidizer replacement without dismantling the pump

Flexible alignment of delivery branch

- Volute with four supporting legs

Highest reliability thanks to revolutionary design

Medium-consistency pumps operate in bleaching lines, pulp lines and recycled fiber lines and are highly process-critical as the entire production volume of a plant runs through them. ANDRITZ MC pumps have proven to be not only extremely reliable and robust due to their single-shaft design without the need for a vacuum pump (in the majority of applications), but also exceptionally easy to control (simple on/off logic).



SMARTSEP - new degassing system

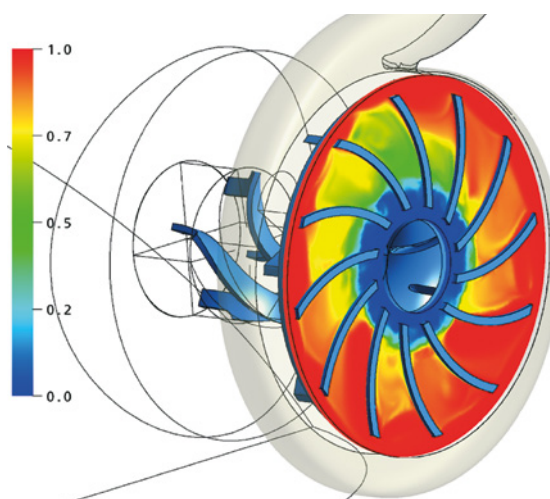
ANDRITZ offers the first practice-tested single-shaft solution for pumping MC stock. Due to the new degassing system, there is no need for pressure difference control in any operating situation. There is no fiber loss (not even during start-up at lower consistencies). Control of the degassing valve is very simple: pump running - valve open, pump not running - valve closed. Pressure difference control is only used in rare cases (booster positions). Main advantages at a glance:

- Excellent efficiency (>70%), which is significantly above industry average - thus low energy consumption
- Very easy control and absolutely no fiber loss during the degassing process (at any consistency)
- Good homogenization of the stock
- Simple and cost-efficient design without vacuum pump

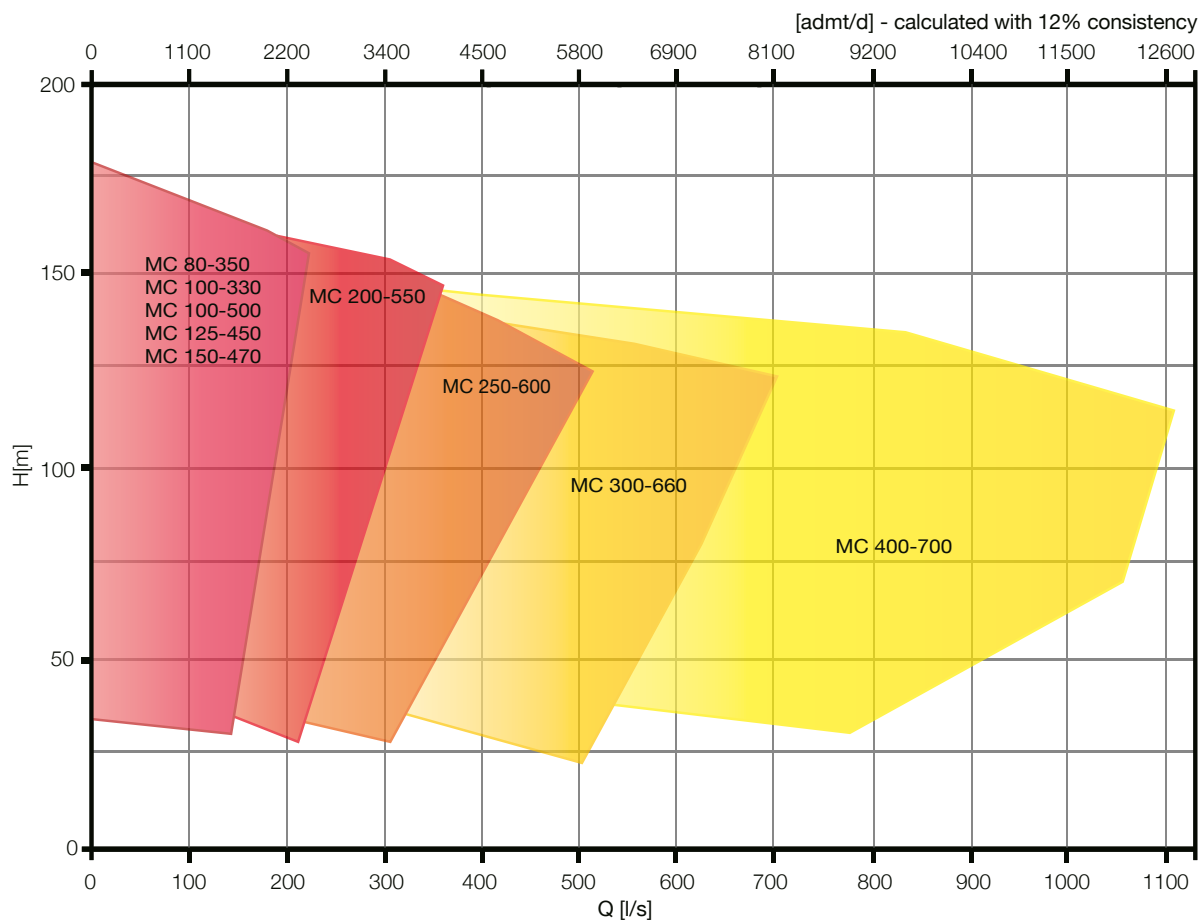
Excellent capabilities in research and development

Extensive test series carried out at the in-house test rigs have made a key contribution towards optimizing the degassing process and improving efficiency.

Efficiencies of over 70% and a minimum of components increase the effectiveness of our pump technology. Further strengths of our new design are a high degree of energy saving and short service times due to the modular set-up of the ANDRITZ MC Pump.



Characteristic curves



Material combinations

MC series	EN-GJL 250	1.4460/1.4474	1.4462	1.4469	2.4602 Hastelloy®
Impeller/separator		■		■	
Casing/casing cover		■		■	
Bearing housing	■				
Front lining		■		■	
Key on motor side			■		
Fluidisator		■		■	
Suction flange		■		■	
Shaft			■		
Suction flange lining					■

European standard		US standard	
Number	Name	Grade	UNS
EN-JL1040	EN-GJL 250	Class 40B	/
1.4460/1.4474	X3CrNiMoN27-5-2	Grade 3A	J93370
1.4462	X2CrNiMoN22-5-3	Grade 3A	S32205
1.4469	GX2CrNiMoN26-7-4	Grade 5A	S32615
2.4602 Hastelloy®	NiCr21Mo14W	Grade 5A	N06022

Close to our customers



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