

CentriTune centrifuge control system

Decades of experience in one box



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All our extensive operation, troubleshooting, and start-up experience combined in a tailored automation solution. You are already benefitting from leading separation equipment by choosing an ANDRITZ SEPARATION machine for your process. As we are proud to fulfil your requirements and want to support you further with more services and technologies, we have developed CentriTune, a unique automation product line. The nucleus of the CentriTune is a modular, PLC-based control system that supports you in making best use of your ANDRITZ equipment.

The basic module, which is the CentriTune Core, can interact in different operating modes, bringing undeniable advantages to your process:

- Relative speed control allowing the operator to enter the speed set points directly. If the feed product concentration is stable, this is the preferred and most efficient control mode.
- Torque control mode for constant dryness at cake discharge. The speed set point for the drives is calculated accordingly via a sophisticated control

algorithm. In this mode, the machine reacts automatically to any change in the feed concentration and ensures constant product quality on the output side, thus stabilizing operation throughout a vast operating window.

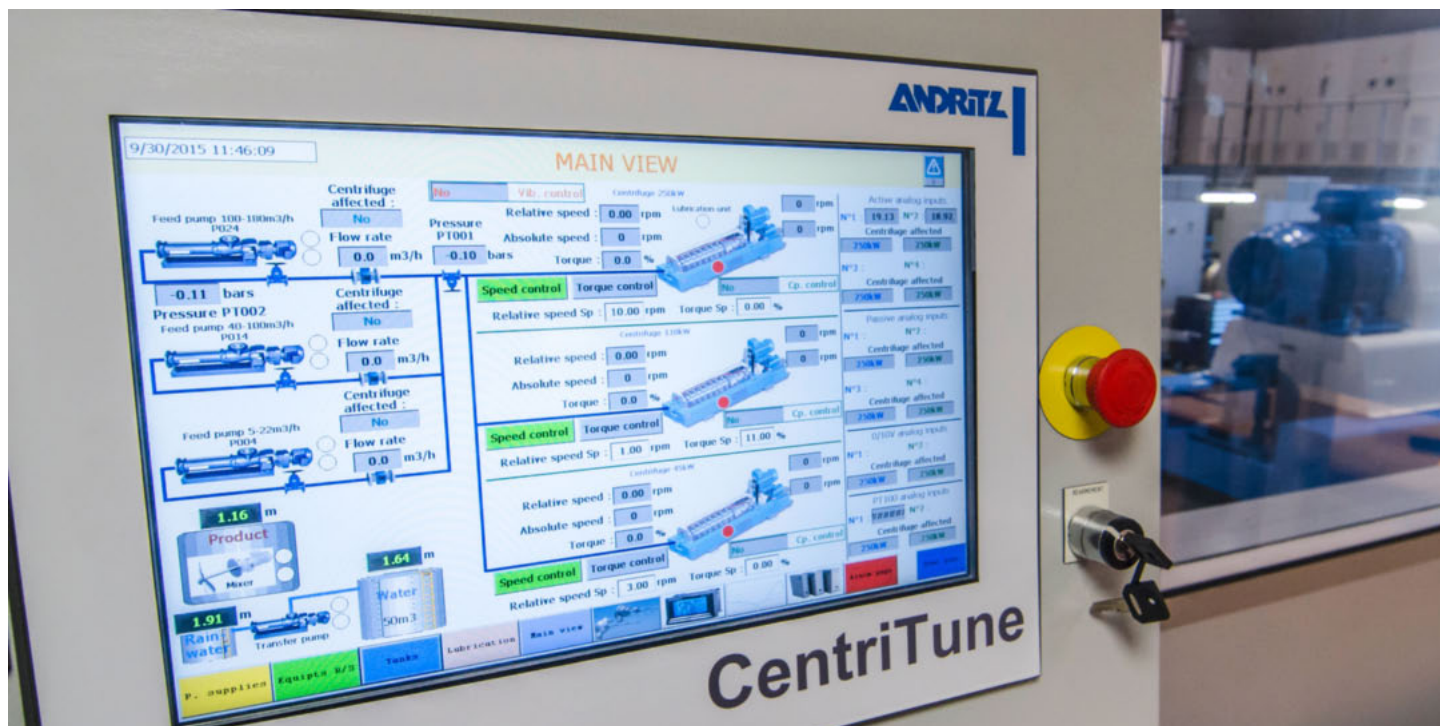
- Cleaning sequences preconfigured for best use and flexible to adapt to your plant and your product
- Maintenance and manual operation mode
- Alarms and support in troubleshooting

Customer benefits

- Easy integration into existing or new dewatering lines/plants, ensuring a short start-up time thanks to full factory pre-testing
- High availability and good performance in operation thanks to well proven and verified control package for all centrifuge-related functionalities
- Avoiding downtime due to preventive maintenance alarms — peace of mind thanks to machine automation
- Centuries of centrifuge and process experience packed into an intuitive machine interface
- Easy to adapt for future plant expansion due to modular PLC system design with long-term spare parts availability
- Can be installed as an upgrade for existing decanters, whether these are ANDRITZ machines or not
- Easy regional adaptation by pre-installed language selection
- Shortened fault tracing by using alarm listing as well as historical alarm memory
- Seamless combination with machine safety equipment just like the CentriTune SRS



▲ User-friendly and intuitive touch screen



▲ CentriTune control panel

CentriTune CIP add-on

CIP is, by definition, a method of cleaning equipment without disassembling it. The CentriTune CIP add-on is a hardware and software extension based on the well-proven CentriTune Core functions, recognized as a solution for any application where higher cleaning efficiency is required and where standard machine flushing is not sufficient. The CIP add-on system includes digital outputs to control up to eight automatic valves, which can be configured from the HMI. The operator can then define which valves are to be opened, the absolute speed, relative speed, and time. This provides a configuration exactly meeting the process needs and considering the biggest advantages of the ANDRITZ decanter centrifuge with all its outstanding features, without extra programming effort.

CentriTune Poly. Saving add-on

CentriTune Poly. Saving is a control extension to CentriTune Core, positioned

upstream of the centrifuge. It optimizes the polymer dosage continuously according to the actual condition of the feed material and the operation mode.

- Increased performance by optimal usage of machine capacities
- Optimal dosing of polymer over the complete range of feeding conditions
- Avoids polymer overdosing (reduced operation costs)
- Different operation modes to meet specific process requirements
- Increase in process stability downstream of the centrifuge

CentriTune Thickening add-on

For process reasons, the machine operates at a low torque value that is too low for precise torque regulation. A measurement loop with concentration measurements is therefore installed on the output side of the machine in order to achieve a constant output. The sensor feedback is then used

to regulate the relative speed to meet the operation set point. This specific regulation mode is provided by the CentriTune Thickening add-on.

Preventive maintenance

Besides standard functionalities like temperature and vibration alarms, CentriTune Core and its add-ons are equipped with preventive maintenance alarms. Based on machine utilization and operating hours, these alarms are generated in advance and allow scheduled intervention and resources planning, providing optimum protection for your investment.

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Range

CentriTune Core

- Core centrifuge control functions, including control of bowl and screw drive motor
- Speed/torque regulation
- Monitoring of basic centrifuge instrumentation (temperature, vibration, speed)
- Maintenance alarms

CentriTune CIP

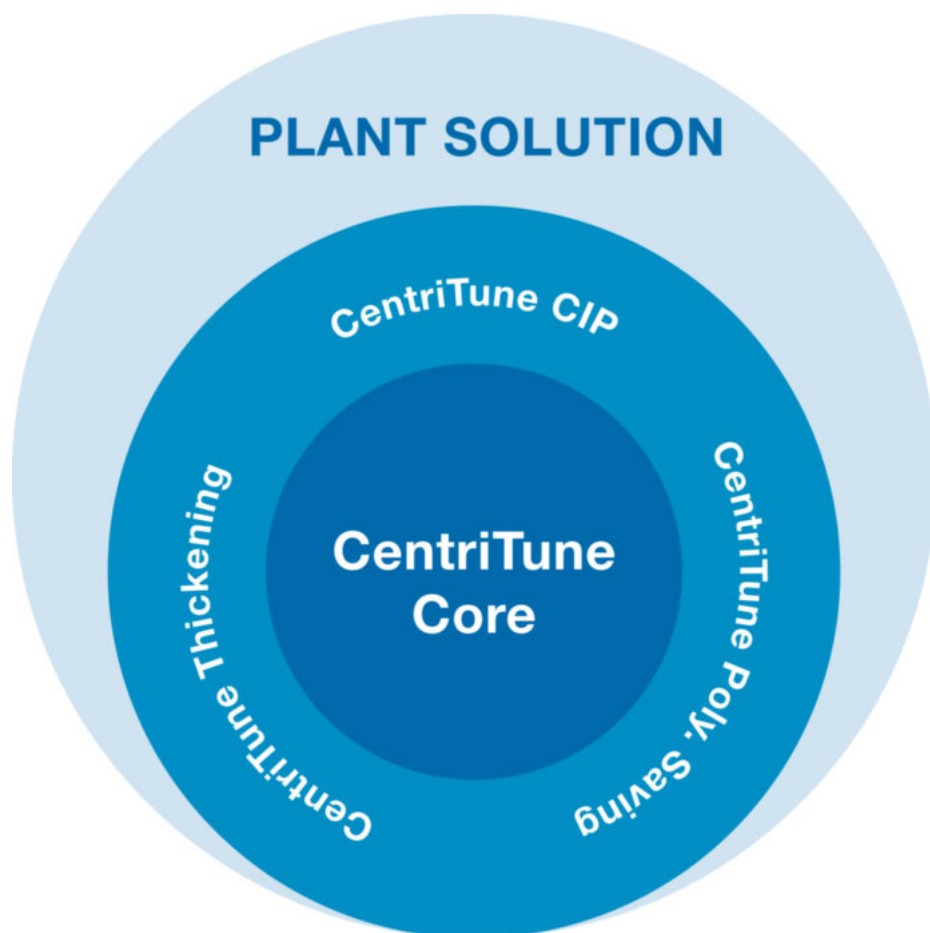
- CentriTune Core functions
- Control of up to eight cleaning valves
- Free configuration of the cleaning sequence in terms of speed, time, and valve selection
- No extra programming

CentriTune Poly. Saving

- CentriTune Core functions
- Regulating of feed pumps and polymer dosing
- Different regulation modes, including flow and concentration measurement

CentriTune Thickening

- CentriTune Core functions
- Regulating of relative speed according to DS measurement at machine outlet
- Control and regulating of sample loop instruments and actuators



What is your separation challenge?
ASK YOUR SEPARATION SPECIALIST!
 Our engineers are looking forward to showing you how this product can provide answer(s) to your specific questions.

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