

C-Press

Screw press for efficient sludge dewatering





The C-Press is the latest result of more than 20 years of experience in designing and manufacturing screw presses. By combining multiple ANDRITZ SEPARATION dewatering technologies, its uniquely compact design and purpose-developed features enable easy, operator-free sludge dewatering operations together with low energy and maintenance costs.

High-performance system

Maximizing the open area of the basket, the C-Press offers a high specific capacity and capture rate compared to equivalent technologies. The screw velocity is adjusted automatically according to feed fluctuation to ensure a constant feed flow while delivering optimal performance in terms of dryness and capture rate, even during washing sequences.

Operating principle

The flocculated product is fed into the screw press, where it is thickened and compressed gradually along the length of the machine. A screw conveys the product through the machine at low speed (0.1 to 1 rpm), and the conical screw shaft makes it possible to increase pressure gradually. A pneumatic counter-pressure device prevents the product from moving too quickly, squeezing the product and achieving maximum possible dryness.

The screw speed is adjusted continuously and automatically to maintain a constant feed pressure, while a dual cleaning device cleans the thickening and squeezing zones separately from time to time to ensure constant dewatering efficiency while reducing water consumption by up to 50%.

Main benefits

- Fully automatic machine with continuous control of performance, screw speed, counter-pressure, and washing
 - Enclosed system to minimize odor emissions and ensure cleanliness
 - Very low noise emissions <60 dB(A)
 - Highest capacity on the market achieved by multi-stage dewatering zones, providing the largest open area in the thickening zone
 - Consistent performance with very low power consumption compared to other dewatering technologies
 - Dual cleaning to optimize and decrease water consumption by up to 50%, as well as continuous dewatering, even during cleaning phases
 - High capture rate thanks to basket design that is optimized with the experience of ANDRITZ SEPARATION in designing screw presses
- Optimized flocculation mixing device to minimize consumption of polymer and energy
 - Easy maintenance:
 - Minimum of operator attendance and of maintenance work
 - Easy-access “strip design” (optional split basket design for maintenance in place, fiberglass cover, etc.)
 - Easy dismantling for fast maintenance without removing screw and basket from frame
 - Basket constructed of two perforated plates (screen and support cage); inner screen can be changed when necessary without having to replace the complete basket



C-Press

Technical data and range



Applications

- Wastewater treatment plants
- Industrial treatment plants
- Food applications

Characteristics

- Conical shaft
- Multi-stage basket
- Direct drive by planetary gear box with flange-mounted motor
- Low-speed screw (0.1 to 1 rpm)
- Standard and customized control packages
- Wetted parts in stainless steel (frame with cladding)
- Dual shower rings for separate cleaning and optimized water consumption

Size	Inlet capacity* (m ³ /hr)	Outlet capacity (kg DS/hr)	Drive power (kW)
40-20	2-10	50-125	1.5
70-35	9-26	125-450	2.2
100-50	18-50	300-890	3

* Higher flow rate for specific products and low concentration

Range

- Single machine, with an outlet capacity from 50 to 890 kg DS/h
- Turnkey installation and mobile unit
- Unit suitable for on-site or lab tests



ANDRITZ

C-Press automation systems

Automation solution for enhanced performance

Automation for screw press functionality

With ANDRITZ being one of the world's major suppliers of dewatering equipment, it stands to reason that the automation of such equipment would also be an in-house specialty.

ANDRITZ AUTOMATION has two categories of screw press control. The single-machine solutions, providing the most basic controls with the addition of different performance levels as well as the plant solutions for complete screw press line control.

Single-machine solutions

The ANDRITZ C-Press Auto solutions include a touch panel with log-in and access control for extra security. It can be integrated easily into the dewatering process.

The machine control solutions always come with the **C-Press Auto Core** including the following features:

- Touch Panel with modern HMI concept for easy operation
- Adjustable cleaning control for up to 50% less water consumption
- Trending and alarm functions

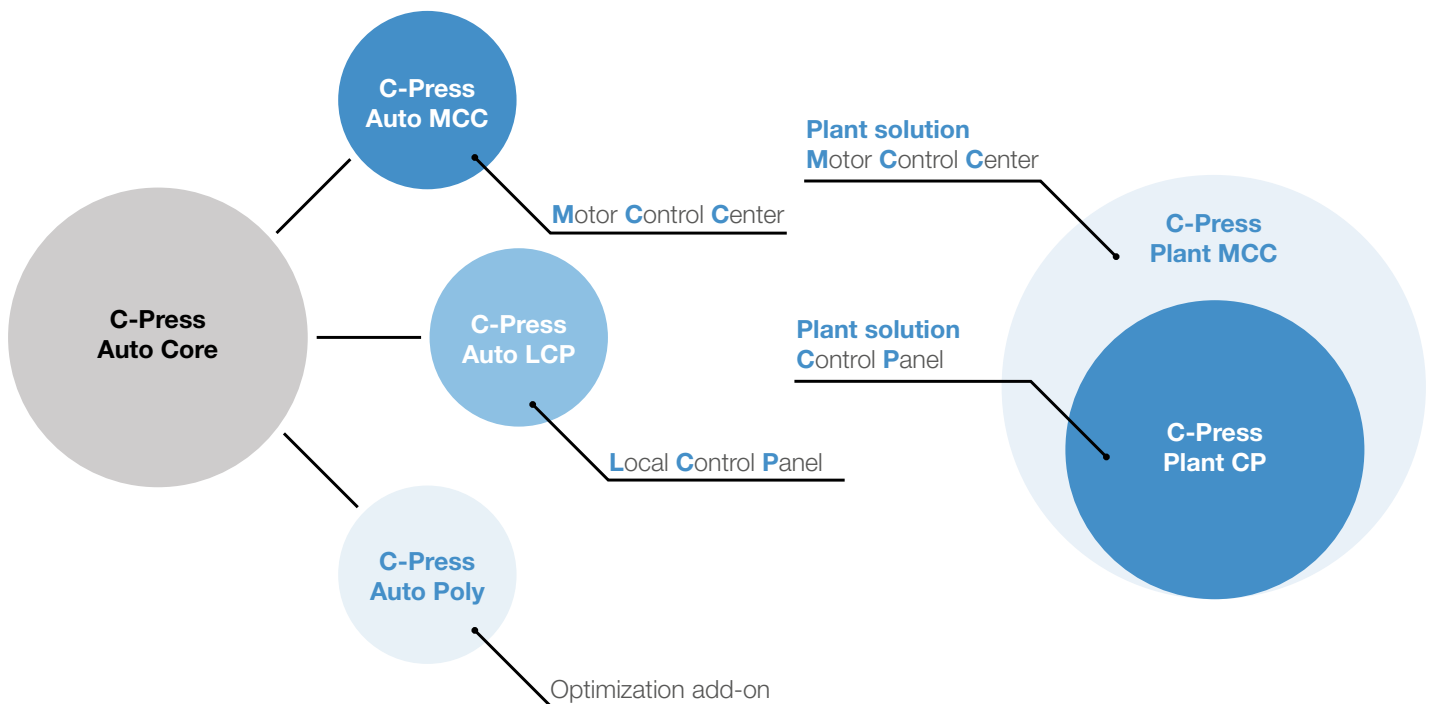
To include further functionality, the core solution can easily be expanded to include **C-Press Auto Poly**, **C-Press Auto LCP**, or **C-Press Auto MCC**.

The **C-Press Auto Poly** add-on optimizes polymer dosing continuously according to actual material feed conditions and operating mode in order to reduce operating costs and increase process stability.

The **C-Press Auto Core** or **Poly** package could be installed inside the **C-Press Auto LCP** or **MCC**. The **C-Press Auto LCP** includes additionally the emergency stop switch. With the **C-Press Auto MCC**, the cabinet also includes a VFD and motor starter for the screw press.

Plant solutions

The ANDRITZ plant control solutions for screw presses serve the entire dewatering process in your plant. The **C-Press Plant CP** comes with a control touch panel, which can also be integrated into a plant-wide system, including all process-related data and control facilities. As a further package, the **C-Press Plant MCC** includes all necessary power components for the entire dewatering line.



A world of service

Put our 150 years of OEM experience to work for you

With ANDRITZ SEPARATION, you gain access to one of the world's largest OEM manufacturers for solid/liquid separation systems, including such well-known names as Bird, KHD, Guinard and more. From initial consulting through to service agreements, plant optimization, automation, and training programs, we are always looking for ways to minimize downtime and increase predictability in operations while raising your overall production efficiency. Wherever you operate, our network of 550 service specialists and global service centers ensures that we are always there to support you for many life cycles to come. Let's sit down and see how we could take your operations to the next level.



Local support

Responsive local service centers and field service technicians



OEM spare parts

Wear and spare parts from OEMs or in OEM quality in local inventories



Repairs & upgrades

Optimization of machine and process performance, repair work, retrofitting, and modernization



Service agreements

Preventive maintenance, from contracts for spare parts, maintenance, inspections, and repairs to upgrades and operation



Second-hand and rentals

Certified second-hand and rental machines



Process optimization

Automation tools and process expertise to boost your profit



Training

Operator training and tailored seminars for operating and maintenance personnel



Every imaginable separation solution on the planet

ANDRITZ SEPARATION is the world's leading separation specialist with the broadest technology portfolio and more than 2,000 specialists in 40 countries. For more than 150 years we have been a

driving force in the evolution of separation solutions and services for industries ranging from environment to food, chemicals, and mining and minerals.

As the OEM for many of the world's leading brands, we have the solutions and services to transform your business to meet tomorrow's changing demands – wherever you are and whatever your separation challenge.

Leading brands and products

- 3Sys Technologies
- Bird
- Escher Wyss
- Frautech
- Guinard Centrifugation
- KHD Humboldt Wedag
- Krauss-Maffei centrifuges, dryers, filters
- Lenser
- Netzsch Filtration
- Rittershaus & Blecher
- Royal GMF Gouda
- Sprout Bauer
- Vandenbroeck

Unmatched solid/ liquid separation technologies

Mechanical

- Screens
- Filters
- Thickener
- Presses
- Centrifuges

Thermal

- Dryers
- Coolers

Industries



ENVIRONMENT



FOOD



CHEMICALS



MINING & MINERALS



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