

SULZER

Nordic Water

Screenings solutions

MevaSpiral transport and dewater solutions



Main industries and applications

The MevaSpiral is designed for the transport and dewatering of challenging materials for a large number of industries.

MevaSpiral solutions are part of our range of wastewater processing equipment designed to optimize the performance of water treatment plants and other applications with challenging processes. Ideal for wastewater treatment plants, agriculture, pulp and paper as well as food processing and incineration facilities, MevaSpiral is the perfect modular solution that can be configured to handle varied processing volumes, create redundancy and transfer waste to elevated locations.

MevaSpiral is used together with:

- Screens
- Screw wash presses
- Centrifuges
- Sludge dewatering
- Grit classifiers



MevaSpiral conveyer XC

The MevaSpiral XC spiral conveyor is a flexible design that can be configured to transport challenging materials efficiently and reliably in almost any direction in applications involving:

- Screenings
- Biomass in power generation plants
- Dewatered sludge in wastewater applications
- Wood pulp in paper mills
- Refuse in slaughterhouses

How MevaSpiral conveyer works

Conveyor sections are designed for easy installation for horizontal, vertical and inclined operation with a very low inlet height.

The helical screw blade is the core component that moves materials through the conveyor. The sealed trough encloses the screw blade and the material being transported. The encapsulated design reduces the need for ventilation to prevent odor and helps provide a safe work environment at the same time.

The modular system is flexible, enabling points where materials enter and exit the conveyor to be designed exactly as the operator requires. The fully configurable system offers spiral diameters between 200 and 500 mm for optimized capacity. Numerous accessories enable full redundancy, ensuring continued waste processing during equipment maintenance periods.



Features and benefits

MevaSpiral convey XC

Robust design

- Heavy-duty construction with a choice of liners including polyethylene high-density (HDPE), and wear-resistant steel (Hardox) (without welding)
- Maintenance-friendly design – inspections and service hatches
- High-quality materials and finish for a long service life
- Sealed shaft and drainage section for inclined conveyors
- The optional rotating sensors ensure correct operation

Efficient operation

- Cost-effective – due to minimal maintenance requirements and reliable operation
- Flexible installation – can be installed horizontally, inclined and vertically to convey media in any direction
- Precise system control – obtained through synchronizing speed, direction, and discharge points, to ensure a redundant failsafe system
- Low-speed operation – extends the life expectancy of wear components and optimizes overall energy usage

Improved performance

- The octagonal shape is more rigid than traditional U-shape
- Replaceable HDPE and Hardox liners without site welding
- Sealed lids reduce odors and ensure better working conditions
- Low maintenance design



MevaSpiral dewater XP

MevaSpiral XP spiral presses are available in a variety of sizes, offering a compact solution for a variety of applications such as:

- Dewatering screenings
- Pressing of fibrous materials



How MevaSpiral XP works

The MevaSpiral XP spiral press delivers transport and dewatering in a compact and cost-effective package that provides high-capacity transport with low maintenance. A robust shaftless spiral conveys wet solids from the hopper to the compaction and dewatering zone where they are held by a pair of outlet doors. These are controlled by gas springs optimized for maximum dewatering. The liquid is squeezed through the wire barrel and directed to the drain. The dewatered plug of solids overcomes the doors' spring pressure and is ejected into a container for disposal.



Features and benefits

MevaSpiral dewater XP

Robust design

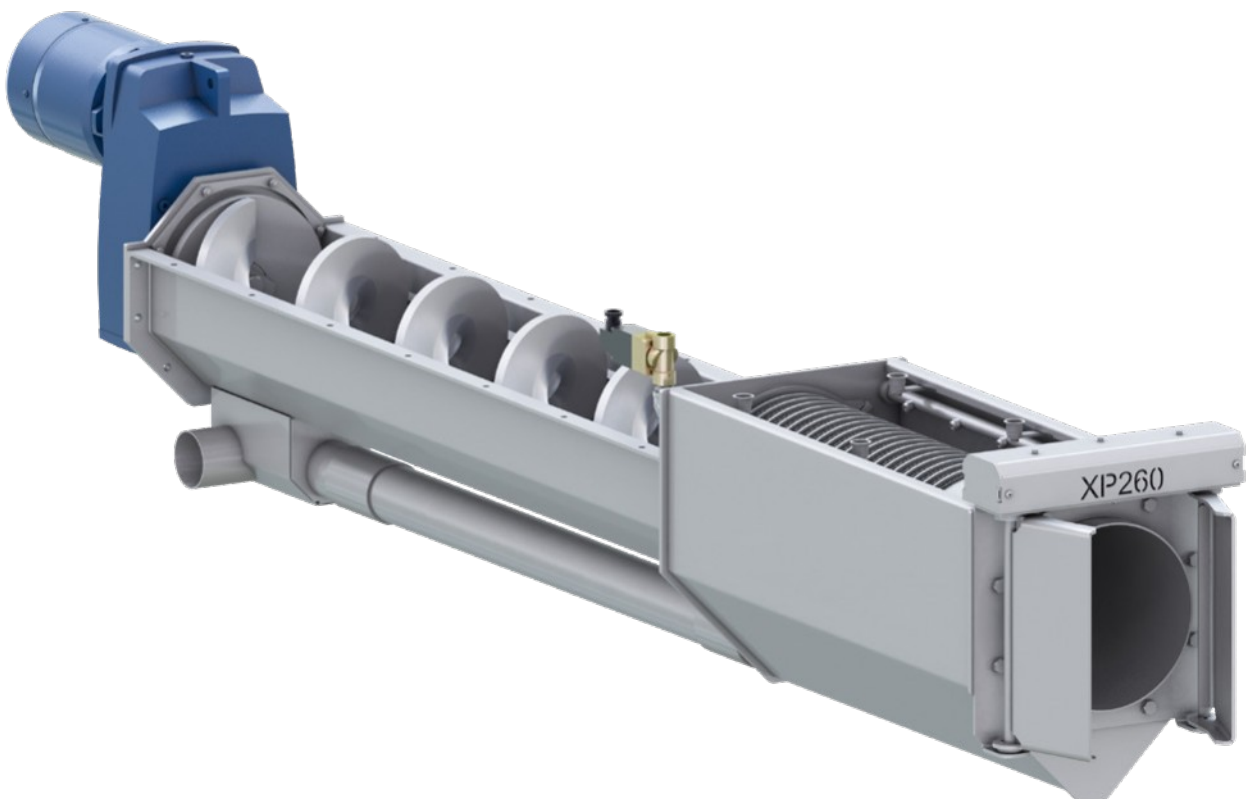
- Heavy-duty construction with a choice of liners including polyethylene high-density (HDPE), and wear-resistant steel (Hardox) (without welding)
- Maintenance-friendly design – no need of frequent care, inspection and service hatches for easy cleaning
- High-quality materials and finish for a long lifetime
- Bolt-on HDPE wear liners

Efficient operation

- Compact and cost-effective – effective compared to traditional screw press system
- Low running costs - utilizing the optimized drain and cleaning system
- Very tolerant of variable flows – the back pressure device removes the risk of bottleneck situations that normally occurs in high-pressure dewatering systems

Reliable performance

- Handles wet, stringy and sticky materials
- Extremely low inlet height
- Integrated flushing system washes out organic material



Additional equipment

1 Meva Diverter Hopper (MDH)

- Available in pneumatic, electric or manual operation
- Enables redundancy by connecting two conveyors or presses to one side of equipment
- Ideal for plants with good headroom

2 Meva knife gate

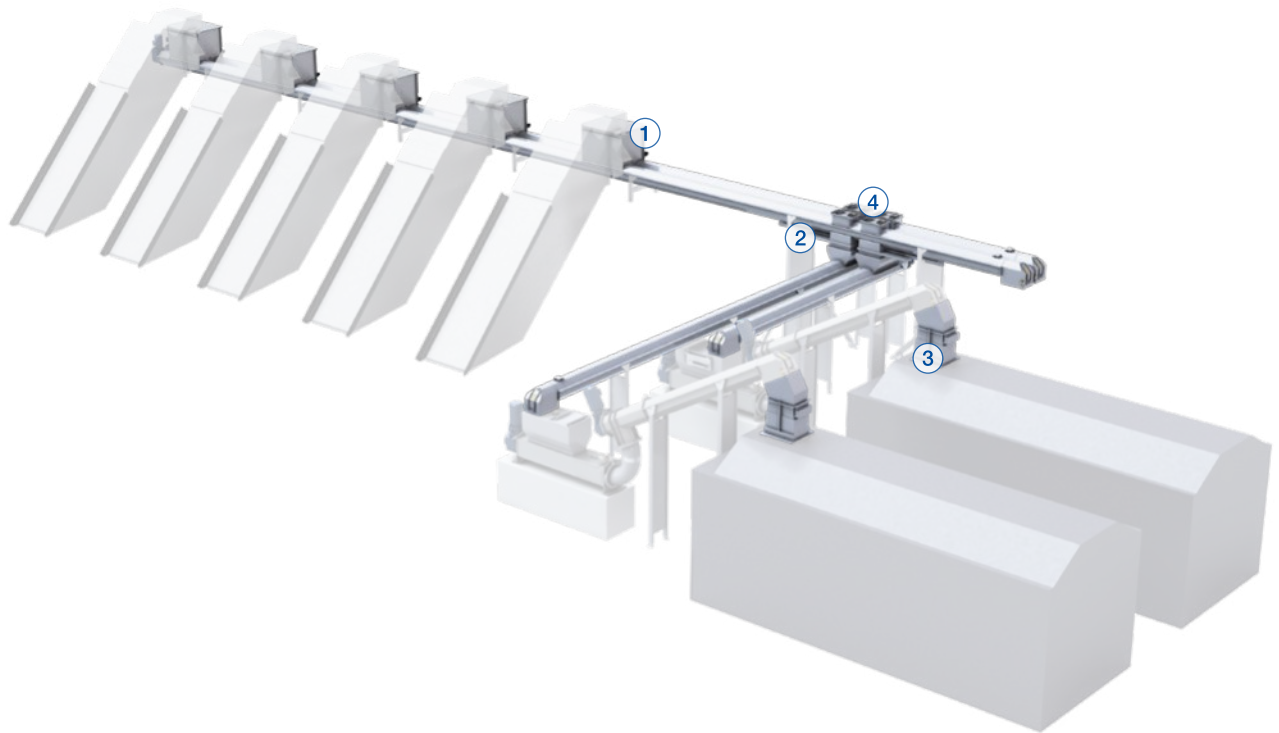
- Enabling redundancy in low headroom installations
- Available in pneumatic, electric or manual operation
- Discharge hood with optional inspection hatch

3 Meva Telescopic Chute (MTC)

- Sealed container filling point
- Prevents access to moving parts
- Seals odor within the system

4 Combined inspection and maintenance hatches

- Developed with operators for operators
- Allow inspection without affecting the process
- Approved safety switches
- No acrylic panels to fog up
- Available for all hoppers and funnels



Process control architecture

Sulzer can design and install a turnkey solution including controls and communications with existing SCADA systems. Field service teams work closely with operators to define process requirements, any site restrictions and communications protocols. Installation can usually be achieved with minimal disruption to the legacy equipment and phased projects are all carefully managed to retain operational performance.

The Sulzer Flow division keeps your processes flowing. Wherever fluids are treated, pumped, or mixed, we deliver highly innovative and reliable solutions for the most demanding applications.

The Flow division specializes in pumping solutions specifically engineered for the processes of our customers. We provide pumps, agitators, compressors, grinders, screens and filters developed through intensive research and development in fluid dynamics and advanced materials. We are a market leader in pumping solutions for water, oil and gas, power, chemicals and most industrial segments.

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