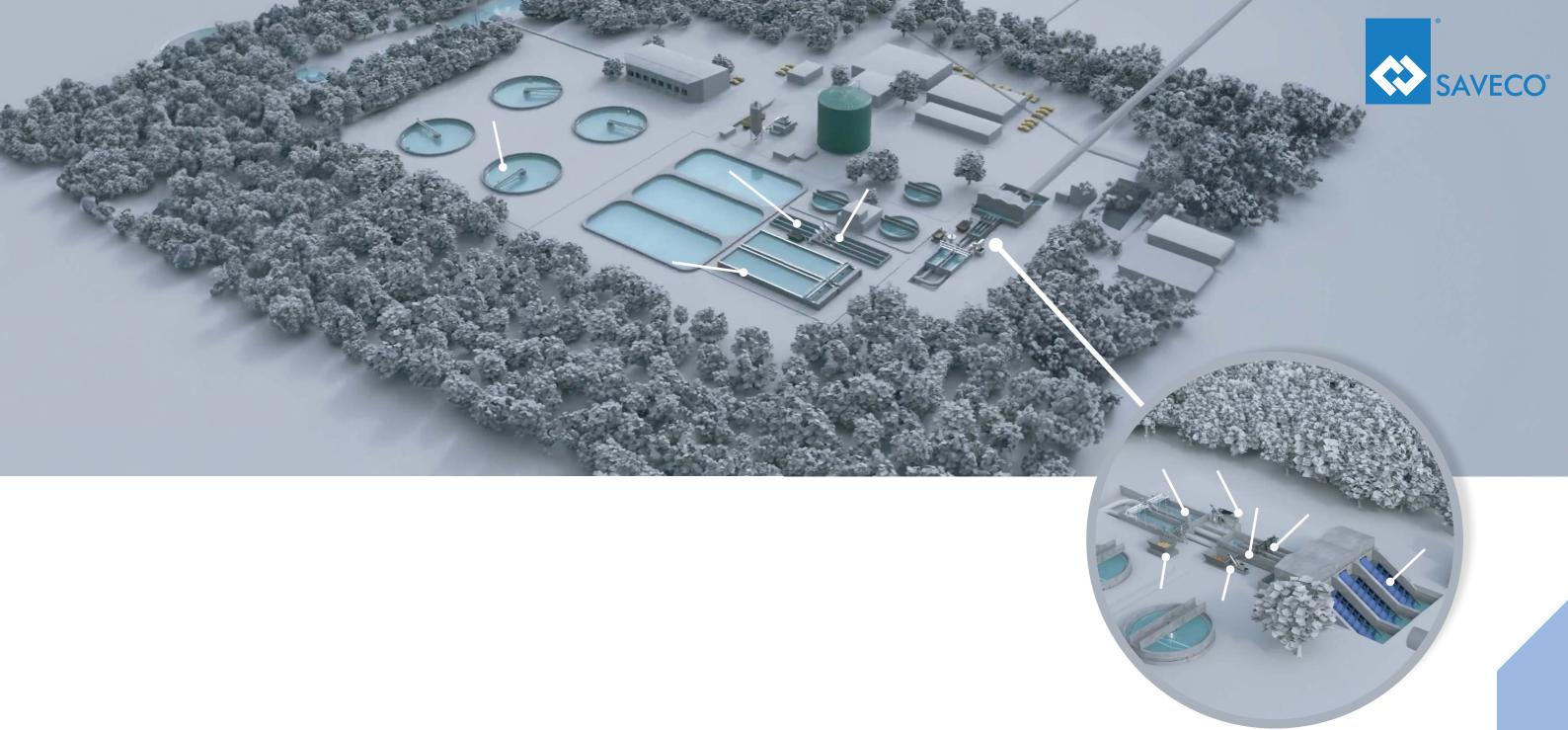


TECHNOLOGIES & EQUIPMENT



SAVECO® provides state-of-the-art solutions through a comprehensive product range of machines and equipment for effluent pre-treatment and sludge treatment both in municipal and industrial wastewater purification plants.

SAVECO® offers innovative, market-oriented, industrially manufactured products distributed through its own global network.

SAVECO® is committed to provide the most comprehensive range of equipment to offer its customers a one-stop-solution.

SAVECO® ensures the highest possible product and service quality at a fair price for customers anywhere in the world.



# Archimedean Screw Pumps PA / PA-CC

Since the late 1970s, more than 1,500 Archimedean Water Screw Pumps with diameters ranging from 0.5 to 4 metres and flow rates of up to 4,500 litres per second have been successfully operating worldwide.

- Double and triple flight
- Drive power installed up to 500 kW
- Constant efficiency over time











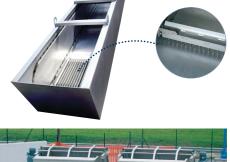


GVB Sub-vertical Mechanical Bar Screens are used for coarse screening in municipal and industrial wastewater treatment plants.

- 10 ~ 40 mm screen spacing (other spacing on request)
  2 or more cleaning rakes ensuring quick, efficient solids removal
- Channel width: 400 ~ 2,000 mm
- 75-90 degree incline angle







**MULTIRAKES** 



### **WASTEMASTER® GVL** Sub-vertical Mechanical Bar Screens

GVL screens are used for coarse screening in municipal and industrial wastewater treatment. Developed with the aim of obtaining a highly industrialised product with new standards, GVL combines well-known reliability through thousands of bar screen installations during the last four decades with low purchase, management and maintenance costs.

- 10 ~ 40 mm spacing
- 2 or more cleaning rakes ensuring quick, efficient soldis removal
  Channel width: 400 ~ 1,200 mm
- 75 degree incline angle





### **WASTEMASTER® GVF** Sub-vertical Mechanical Fine Bar Screens

GVF Sub-vertical Mechanical Bar Screens are used for medium-fine screening in municipal and industrial wastewater treatment plants.

- 6 and 8 mm spacing
- 4 or more cleaning rakes depending on screen height
- Channel width: 400 ~ 2,000 mm
- 75 ~ 90 degree incline angle





### **WASTEMASTER® GVS Sub-vertical Mechanical Perforated Screens**

GVS Sub-vertical Mechanical Bar Screens, provided with neoprene brushes and wipers, are used for fine screening in municipal and industrial wastewater treatment plants. They are applied in particular for screening process water in industrial processing plants.

- 3 ~ 6 mm perforation 4 or more cleaning blades and wipers depending on screen height
- Channel width: 400 ~ 2,000 mm
- 75 ~ 90 degree incline angle



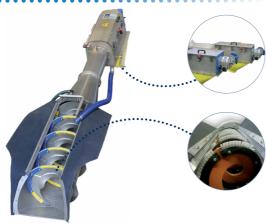




### **WASTEMASTER® GCP-GCE** Screw Screens

GCP and GCE-type Screw Screens ensure efficient solids-liquid separation in the primary treatment section of civil wastewater treatment plants, as well as in various industrial applications.

- Flow rates of up to 1,000 m<sup>3</sup>/h
- Solids removal of up to 0.33 dm<sup>3</sup>/s
- Solids volume reduction of up to 40% (GCP only)









### WASTEMASTER® GCPC-GCEC In-tank Screw Screens

Installed in a self-supporting tank, GCPC / GCEC Screw Screens can be easily installed and connected to the pipework both in civil and industrial effluent treatment plants.

- Sturdy metal framework (completely enclosed structure in compliance with safety regulations and preventing odours) manufactured entirely from 304 L / 316 L stainless steel
- Flow rates up to 1,000 m<sup>3</sup>/h
- Solids extraction capacity up to 0.33 dm<sup>3</sup>/h
- Solids volume reduction of up to 40% (GCPC only)





### WASTEMASTER® TSF 1 Mechanical **Effluent Pre-treatment Systems**

The WASTEMASTER® TSF 1 Compact System combines separation of solids present in effluents with compacting and dewatering of the recovered solids. The special design of the machine combined with a specific functional control results in a complete mechanical pre-treatment of wastewater for small effluent treatment plants.

- Flow rates of up to 500 m³/h
   Solids extraction of up to 0.18 dm³/s
- Solids volume reduction of up to 40%





### **WASTEMASTER® GCV Vertical Screw Screens**

WASTEMASTER® GCV Vertical Screw Screens enable efficient removal of suspended solids in installations with limited space. Moreover, the GCV is the ideal protection system for pumping stations with submersible pumps.

- Throughput rates of up to 320 m<sup>3</sup>/h
- Solids extraction of up to 0.35 dm<sup>3</sup>/s
- Solids volume reduction of up to 40%





### **WASTEMASTER® GCEV** In-channel Vertical Screw Screens

WASTEMASTER® GCEV Vertical Screw Screens enable efficient removal of suspended solids from deep channels.

- Throughput rates of up to 180 m<sup>3</sup>/h
- Fabricated parts and screws manufactured from 304L / 316L stainless steel or high-strength steel - Variable degree of screening (2, 3, 5, 6, or 10 mm)





### WASTEMASTER® CT / CTC Mini-Screw Screens

Due to its lightweight design the WASTEMASTER® CT / CTC Mini-Screw Screens are the ideal choice for applications with low flow rates.

- Lightweight design
- 2 sizes available
  Anti-wear SINT™ engineering polymer screw for high extraction efficiency
- Screens with 2 or 5 mm mesh size
- Available as CTC in-tank stand-alone version





# **WASTEMASTER® VSE** Overflow Spillways

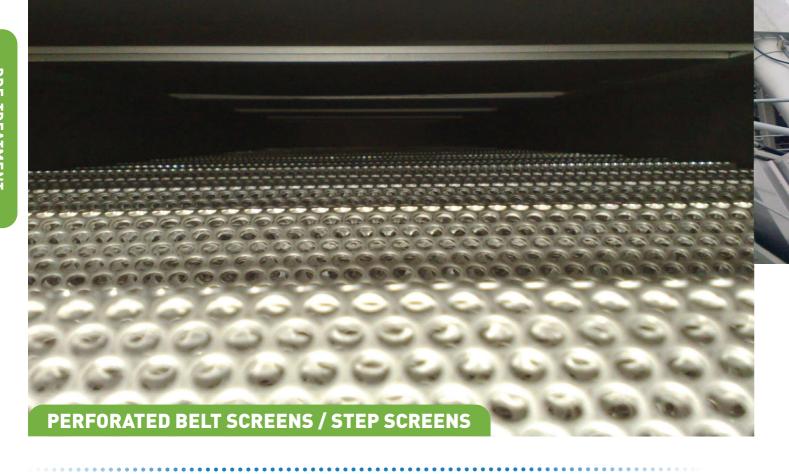
VSE Overflow Spillways are used to handle overflows.

They consist of a semicircular filter installed on the edge of the spillway.

- 3 sizes available (300 / 500 / 700 mm)
- 3 opening sizes
- (3 / 6 / 8 mm perforated plate)
- Lengths from 1 to 12 m







### **WASTEMASTER® VFR** Fine Belt Screens

VFR Fine Belt Screens are used for fine screening in municipal and industrial wastewater treatment plants.

- 6 sizes up to a width of 2,000 mm
- 65-degree incline angle
- Perforated media openings from 3 to 6 mm
- Chain drive recessed into side rails
- Double cleaning system





# **WASTEMASTER® VTR Step Screens**

VTR Step Screens are another option for fine screening in municipal and industrial wastewater treatment plants.

- Different sizes up to 1,200 mm wide
- Discharge height up to 3,000 mm
- 3, 5 and 6 mm spacing
- 55-degree incline angle





### **WASTEMASTER® VSA** Fine Drum Screens

WASTEMASTER® VSA Fine Drum Screens screen, wash, convey, and dewater screenings all in one unit, thus eliminating the need for multiple pieces of equipment. They are used in both municipal and industrial applications, as well as for pre-treatment in MBR plants.

- Filter mesh sizes for MBR pre-treatment: 1.0 1.5 2.0 3.0 mm round punch holes
- Filter mesh sizes (other than MBR use): 5.0 - 6.0 mm round holes or 0.5 - 6.0 mm wedge wire 0.25 - 1 mm square mesh
- Channel width: 650 ~ 3,000 mm
- 30 ~ 35-degree incline angle
- In-tank installation up to VSA 1800



**DRUM SCREENS** 

# **WASTEMASTER® RTV** Internally Fed Rotating Drum Screens

RTV Internally Fed Rotating Drum Screens are suitable for pre-treatment of municipal and industrial wastewater, as well as for MBR plants.

- 11 different sizes available
- Standard media spacing: 1 ~ 6 mm perforated or 0.25 ~ 2.5 mm wedge wire or 0.25 ~ 1 mm
- Recommended spacing for MBR application: 1 ~ 3 mm round holes

### **WASTEMASTER® SGR** Externally Fed Drum Screens

SGR Externally Fed Drum Screens are used for fine screening of sewage in civil wastewater treatment plants or for process water from industrial processing plants.

- Slot width: 0.25 ~ 2.5 mm
- Wedge wire filter
- 304 L / 316 L stainless-steel screen





# **WASTEMASTER® FTR Rotary Drum Screens**

WASTEMASTER® FTR is a rotating Drum Screen designed to combine the separation of solids present in the effluents with compacting and dewatering of the screenings thus obtained. It consists of a rotating drum screen bascket, a conveyor screw (with SINT™ self-cleaning drainage liner).

- Size: 800 ~ 1,000 mm
- Screen openings: 3 ~ 6 mm punch holes Channel width: 800 ~ 1,000 mm
- Installation angle: 35 degrees
- Application: wastewater treatment (no MBR)





### **WASTECOM® CPS** Screw Compactors

The WASTECOM® CPS is a dewatering Screw Compactor for screened solids in civil and industrial wastewater treatment plants.

- Trough liner manufactured from high-density, low-friction HDPE polymer
   Shaftless screw without end bearing
- Up to 8 m<sup>3</sup>/h of screenings
- Outlet diaphragm ensuring high compaction efficiency







# **WASTECOM® VWP** Screenings Screw Wash Press

VWP Shafted Washer Compactors are used to compact screenings and simultaneously remove organic particles in municipal and industrial wastewater treatment plants.

- 3 sizes available From 1.5 up to 6 m³/h of screenings
- Washing system for removal of organic matter







# WASTECOM® VWP WM High-Efficiency Screenings Screw Wash Presses

VWP WM Shafted Washer Compactors are used to remove organic particles through special washing while compacting the solids.

- 3 sizes available From 1.5 up to 6  $\,\mathrm{m}^3/\mathrm{h}$  of screenings
- High performance washing system with special hopper and impeller
- Volume reduction of up to 70%





# **WASTECOM® CHP** Hydraulic **Screenings Compactors**

CHP Compactors are used to compact screenings by means of a hydraulic ram.

- 3 sizes available Screenings throughput from 1.5 up to
- Volume reduction of up to 60%





# WASTECOM® CLE **Shafted Compactors**

WASTECOM® CLE is a shafted compactor for volume reduction of effluent screenings, as well as a variety of other wet waste materials including fibres.

- 3 sizes available
- Screenings throughput from 1.5 up to 4.5 m³/h
- Volume reduction of up to 60%







# **GRITSEP™ DSF** Areated Grit Chambers

GRITSEP™ DSF combines a typical aerated grit chamber including sedimentation and fat removal with a built-in grit classifier.

- Flow rates of up to 300 litres per second
- Grit separation: 95% particle size ≥ 200 mm
- Floating screw for grease removal (option)





### Travelling Bridges for Grease and Grit Removal PVD / PVA

PVD / PVA Travelling Bridges are used to remove grease and grit from effluents in municipal and industrial wastewater treatment plants.

- Quick installation
- High efficiency grit and grease removal
- Easy installation even in existing tanks





# **GRITSEP™ DSP** Circular Grit Traps

DSP Grit Traps are designed to remove grit from sewage in wastewater treatment plants.

- Available for tanks up to 6 metres in diameter
- Central bearing
- Carbon steel hot dip-galvanised or 304 L / 316 L stainless steel





### **GRITSEP™ FGC Fluid-Dynamic Grit Classifiers**

GRITSEP™ FGC is an innovative Sand and Grit Classifier designed to achieve the highest sand removal rate available on the market today.

- Flow rates up to 36 l/s Sand separation with particle size  $\geq$  200 mm and specific gravity ranging from 2.60 to 2.65 t/m<sup>3</sup>
- Low drive power installed
- Small footprint

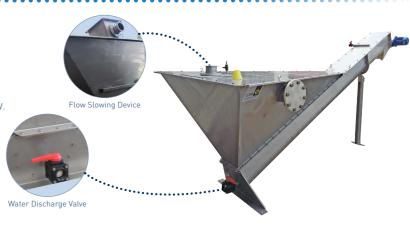




### **GRITSEP™ DS** Grit Classifiers

The GRITSEP™ DS Grit Cassifier ensures efficient separation of grit or sand from wastewater through decantation and removal by means of a conveyor screw.

- 6 sizes available
- Liquid throughput: up to 36 l/s
   Solids throughput: up to 1.3 m³/h
- 90% sand sedimentation
- Welded hopper









### **GRITSEP™ CLSW** Grit Washing Classifiers

CLSW Sand Washers are used to separate sand from water and to wash the grit at the same time in order to remove organic particles.

- 3 sizes available Flow rates of up to 30 l/s
- High washing performance with organic residue < 3%





### **GRITSEP™ LCS** Grit Washers

GRITSEP™ LCS is a Grit Washer with high performance achieved thanks to SINT™ engineering polymer components with excellent anti-wear features.

- Solids troughput: from 0.1 m³/h up to 0.4 m³/h
- High washing performance with organic residue < 2%
- Minimum footprint







The WASTEMASTER® TSF 2 and TSF 3 Compact Pre-treatment Plants efficiently combine two, respectively three functions of pre-treatment of sewage from civil or industrial installations: solids screening, sand dewatering and grease removal.

- Flow rates of up to 300 litres per second
   Sand separation: 95% particle size ≥ 200 mm
   Grease removal floating screw (TSF 2 / 3 only)
- Up to 40% solids volume reduction







# **WASTEMASTER® MIT** Mini-Treatment Plants

The WASTEMASTER® MIT Mini-Treatment Plant carries out up to three different processes with the smallest overall dimensions: Screening, De-gritting and De-greasing.

- 90% separation of grain size ≥ 0.2 mm
   Variable screening (2 and 5 mm)
- Floating screw for removal of floating matter





# WASTEMASTER® TSD 2 / 3 Municipal and Industrial Wastewater Compact Plants with Rotary Drum

WASTEMASTER TSD consists of a rotary drum screen, a sedimentation tank, a sand extracting screw and a floating screw.

- Sizes: up to 80 l/s
- Screen round punch holes: hole 3 mm ~ 6 mm
- Application: Wastewater treatment (no MBR)



VFA DM "THE BEAST" Septage-FOG-Sludge Screening Systems are also used for FOG and digester/sludge cleaning. The system screens, washes, conveys, and dewaters screenings all in one unit, thus eliminating the need for multiple pieces of equipment.



- 3 sizes available
   Flow rates up to 200 m³/h at 4% solids concentration
   Dual motor drive system
   Drum screen round 6mm punch holes
   Drum screen incline angle: 25 degrees













# **SEDIMENTATION**

# **WASTEMASTER® TSB 1 Septage Receiving Stations**

For pre-treatment of septage from cesspool tanks or industrial plants collected by special purge tankers, the WASTEMASTER® TSB 1 carries out two different processes: separation of solids present in the septage, as well as de-watering and compacting of the extracted solids.

- Sturdy metal framework (completely enclosed structure in compliance with safety regulations and preventing odours) manufactured entirely from 304 L / 316 L stainless steel
- Shaftless conveyor screw manufactured from 304 L / 316 L stainless steel or special high-resistance steel





# WASTEMASTER® TSB 2 / 3 **Septage Receiving Stations**

The WASTEMASTER® TSB 2 and TSB 3 Septage Receiving Stations carry out up to two, respectively three different processes: de-watering and compacting of screened solid waste, separation of sand and - TSB 3 only - removal of floating greasy

- Flow rates of up to 30 l/s
- Inlet screen mesh: 5, 6, 10 mm
- Grease removal floating screw





### **WASTEMASTER® RTV SEPTIC Internally Fed Rotating Drum Screens**

RTV SEPTIC Internally Fed Rotating Drum Screens are suitable for septage receiving stations.

- Flow rates of up to 120 m<sup>3</sup>/h at 4% solids concentration
- Perforated screen: 5 6 10 mm







### Travelling Bridges for Settlement Tanks PVS / PVV

PVS / PVV Travelling Bridges installed in settling tanks in effluent treatment plants are used to remove sludge and scum from the bottom of the tank.

- Available for tanks up to 13 m wide and 50+ m long
- Sludge and scum removal devices included







### **Peripheral Traction Clarifiers** PTP / PTA

PTP / PTA Peripheral Traction Clarifiers are used to remove biological sludge and floating particles in circular primary and secondary settling tanks.

- Available for tanks of up to 60 m in diameter - Scum removal device included
- Hot dip-galvanised carbon steel or 304 L / 316 L

stainless steel





### Central Traction Clarifiers PTC

PTC Central Traction Bridge Clarifiers are used to remove biological sludge in circular primary and secondary settling tanks in municipal and industrial wastewater treatment plants.

- Available for tanks of up to 18 m in diameter
- Central bearing for units larger than 14 m in diameter
- Electric torque limit switch, scum removal device, and walkway on request







### Sludge Thickeners ISP

ISP Sludge Thickeners are used to thicken sludge in municipal and industrial effluent treatment plants.

- For up to 18 m-diameter tanks Central bearing for units larger than 12 m in
- Hot dip-galvanised carbon steel or 304 L / 316 L stainless steel





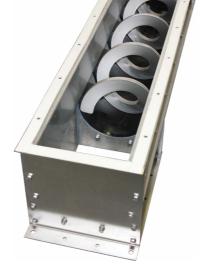
# Shaftless Screw Conveyors SSC / SSX

SSC Shaftless Screw Conveyors offer large volume capacity and the possibility of handling screenings and floating matter, as well as de-watered, thickened, or conditioned sludge.

- Throughput rates: up to 45 m³/h for sludge; up to 13 m³/h for screenings
- Drive power: 0.55 kW ~ 9.2 kW
- Trough and screw manufactured from carbon steel or 304 L / 316 L stainless steel
- Trough liner: wear bars, HDPE or UHMWP







### Side Valves VL

VL Slides Valves are the ideal equipment for intercepting the flow of powdery or granular materials, as well as screenings and sludge in gravity or conveying applications.





### Live Bin Bottoms MU

For discharging difficult materials such as municipal or industrial sludge from polygonal hoppers or silos, MU Live Bin Bottoms (Multiple Screw Feeders) are the ideal equipment.

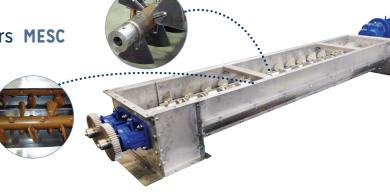
- Screw diameter: 150 ~ 600 mm
- Up to six screws in one trough
- Open trough length ranging from 1,500 to 4,000 mm





### Continuous Twin Shaft Paddle Mixers MESC

The MESC-type Twin Shaft Paddle Mixer is among the most efficient and economical mixer types for the inertisation of sludge.









# Continuous Single Shaft Mixers WAH

The WAH Continuous Single Shaft Mixer is the ideal machine to obtain highest quality mixtures. Mixing with WAH is quick, gentle and efficient.





# **POLYLESS™** Dynamic Sludge Thickening System

POLYLESS™ is a dynamic sludge thickening system. Sludge thickening is necessary to improve the efficiency of centrifuges in wastewater treatment plants. Furthermore, it decreases the use of polyelectrolyte and

- FLOLOGIC® control panel for an integrated 4.0 industry system
- Micro-filter for advanced high efficiency solids-liquid separation





as used in wastewater treatment.

### Bin Activator BA

The BA is the ultimate Bin Activator. Industrially manufactured in large series, the BA excels by its seamless cone and its double-flanged, seamless gasket. Its unique design features ensure perfectly safe operation over time.

- Gasket with integrated upper and lower flange ensuring safe dustproof connection
- No welding seams on cone and seal
- Easy to fit





### Tubular Screw Feeder TU

The TU Tubular Screw Feeder is designed to accurately feed lime from a storage silo into a micro-batch feeder or directly into a lime dissolver or a sludge conditioning mixer.

- Accurate feed rates
- High efficiency
- Enhanced reliability





### Micro-batch Feeder MBF

The MBF Micro-batch Feeder is particularly suitable for feeding quicklime or hydrated lime with high accuracy into a lime milk dissolver or a sludge conditioning mixer.

- High feeding accuracy
- Easy and quick maintenance due to small number of components
- Minimum material residue





### **Butterfly Valve VFS**

With way over a million units operating worldwide, VFS Butterfly Valves for powdery and granular materials are amongst WAMGROUP®'s most industrialised products.



- Ex-stock delivery from subsidiaries' warehouses worldwide
- ATEX versions available





# Drop-through Rotary Valve RV / RVR

RV / RVR Rotary Valves are the ideal solution for controlled discharging and feeding of powdery or granular materials from silos, hoppers, pneumatic conveying systems, bag filter houses, or cyclones.

- Accurate feed rateHigh efficiency
- Enhanced reliability





## **WAMFLO®** Silo Venting Filter

The WAMFLO® Dust Collector range reflects decades of experience in dust filtration technology. Since going into production, tens of thousands of units have left the Group's manufacturing plants all over the world in diverse configurations.

- Advanced dust filtration technology
- Low dust emission
- Industrial design
- ATEX versions available





### Membrane Pressure Relief Valve VHS-C

Pressure Relief Valves are the last safety net when abnormal pressure conditions endanger the silo structure. Even though, ideally a Pressure Relief Valve should never have to be called into service, it must be efficient and reliable when needed.

- High safety level thanks to channeled flow and reduced emissions
- Lightweight, corrosion-free







Silo Safety System KCS



**EXTRABEND™** Anti-wear Pipe Elbow



**Spring-loaded Pressure** Relief Valve VCP-D



Pinch Valve VM



Rotary Level Indicator ILT



Pressure Switch / Meter IPM / IPE



### Penstocks PAR

PAR Penstocks are used in municipal and industrial wastewater treatment plants to isolate a piece of equipment or parts of a plant.

### Purposes:

- Isolating a piece of equipment
- Shutting off a whole part of a plantControlling water level and/or flow rates



# FIBC Dischargers SBB-HFF

SBB-HFF-type FIBC Dischargers ensure economical, dust-free discharging of bulk solids from bulk bags.





# Manual Bag Openers RSM

Produced in large series, the RSM Manual Bag Opener shows an industrial design as a result of in-depth assessment of user requirements in a number of industries.

- Compact overall dimensions and particularly user-friendly design
- Easy and quick access to internal partsBuilt-in fan-operated, air jet-cleaned, maintenance-friendly dust collector





# Automatic Bag Splitters RSA

The RSA Automatic Bag Splitter provides the best value for money. The machine offers cutting edge technology with few moving components and a simple operating principle.

- Simple operating principleEasy and quick access to internal parts for cleaning
- Unique price-performance ratio









**SAVECO France** 

**SAVECO Ibérica (Spain)** 

**SAVECO Italia (Italy)** 

**SAVECO GmbH (Germany)** 

**SAVECO Mexico** 

**SAVECO Middle East (UAE)** 

**SAVECO North America (USA)** 

**SAVECO Environmental (UK)** 

