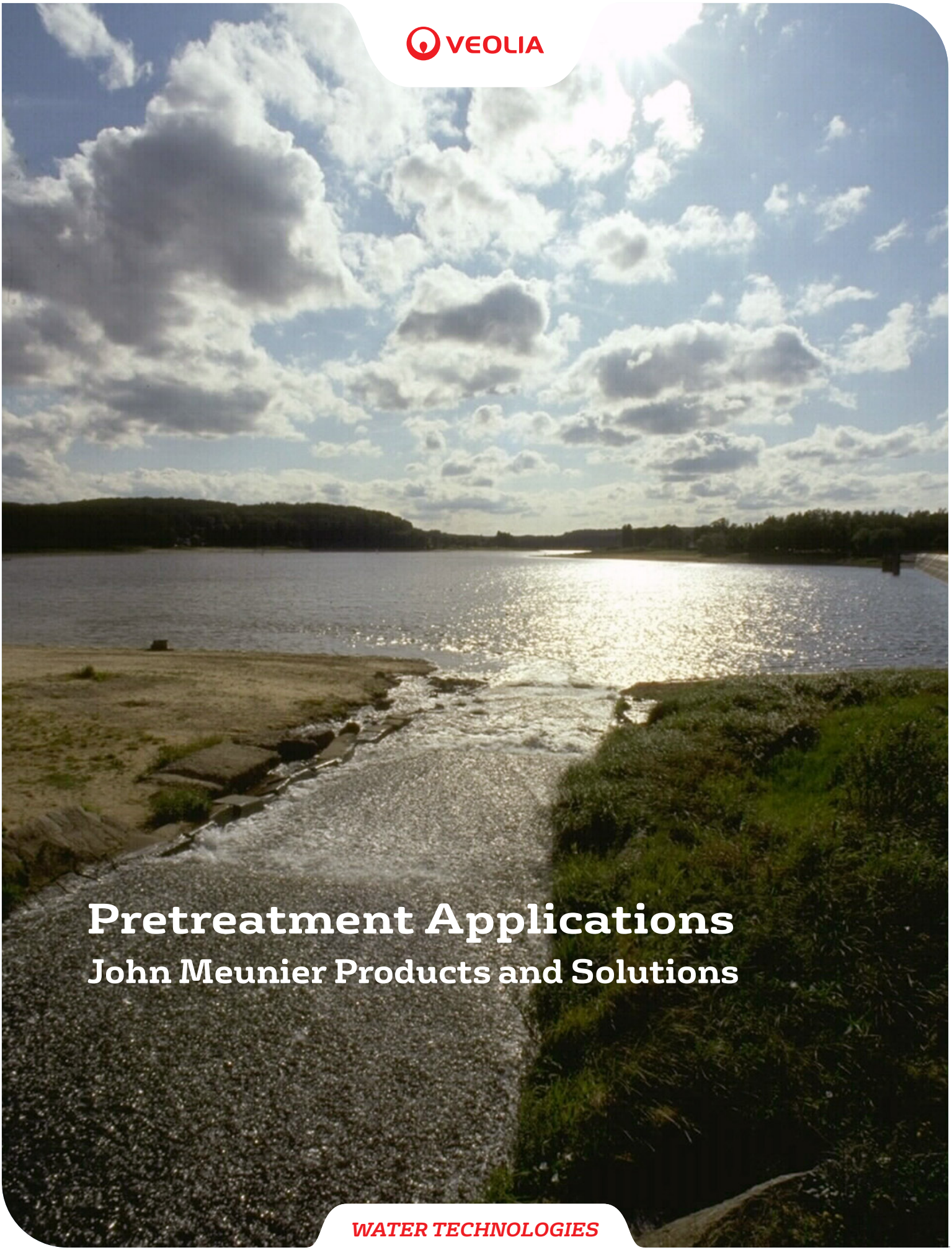


VEOLIA

Pretreatment Applications

John Meunier Products and Solutions

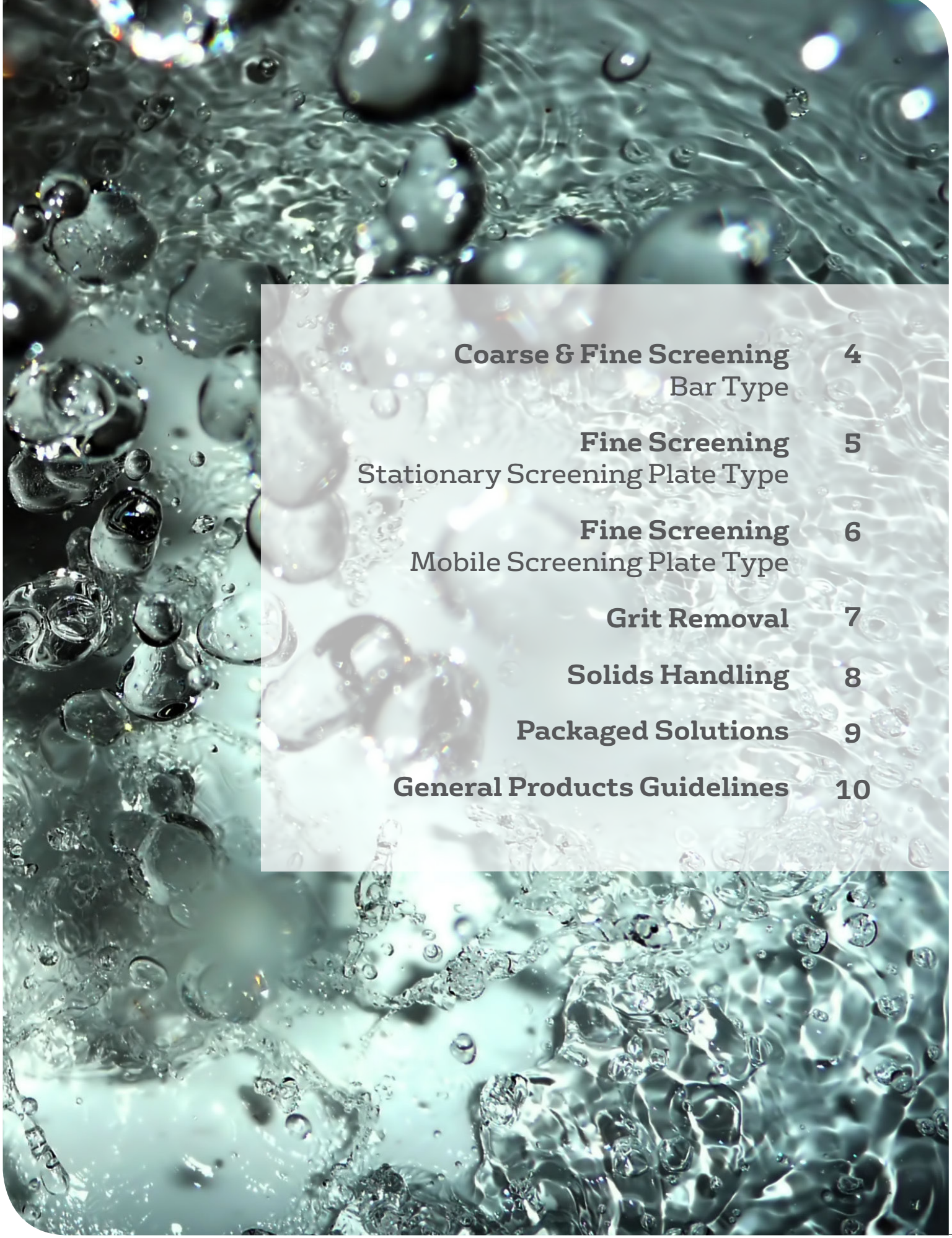
WATER TECHNOLOGIES

A long tradition in excellence

John Meunier products have been serving North American municipalities and industries since 1948.

With a wide range of technologies, we design, manufacture and service wastewater treatment plants, offering complete solutions with a wide range of highly efficient screening and grit removal equipment.

There are more than fifteen hundred units installed across North America.



Coarse & Fine Screening
Bar Type

Mechanisms to retain debris contained in flow streams in order to protect equipment or processes located downstream. Their versatility allows them to be used successfully in waste, storm and potable water applications.

CONT-FLO® Type CF
Vertical Bar Screen

The concept involves a reciprocal movement of the drive system to generate the raking motion of the single rake arm. The main feature of the screen is to be back clean front discharge. The screen mechanism is assembled prior to shipment within a monobloc type frame. The raking method allows the bars to be free at the top and consequently prevents jamming of solids within the bar spacings. This concept provides for higher capture rates.

CONT-FLO® Type ER
Inclined Bar Screen

The rake drive mechanism is of the travelling endless chain type. The main feature is the front cleaning of the screen. The multiple rakes laterally attached to heavy duty chains ensures the capability to rapidly remove high volumes of solids. The screen mechanism is assembled prior to shipment within a monobloc type frame. A back clean design version of this screen is also available.

CONT-FLO® Type SSR
Inclined Step Screen

The design of this screen is based on the use of two sets of thin flat bars shaped like a staircase from where the name «Step-Screen» originates. One set is stationary and the other one, driven by a cam system, is mobile. Its oscillatory movement provides back cleaning of the stationary steps. All mechanical components are assembled prior to shipment within a monobloc frame. The installation requires little clearance above the operating floor.

Fine Screening
Stationary Screening Plate

Mechanisms that provide continuous fine screening with superior efficiency to slotted and bar type screens. Their versatility allows them to be used successfully in waste, storm and potable water applications.

ROTARC® Type SB
Basket & Spiral Fine Screen

The technology relies on the use of a slow rotating shaftless inclined spiral, pre-assembled prior to shipment. The unit consists of a stationary screen to retain the debris from the ongoing flow, brushes mounted on the first few screw flights for basket cleaning and a transport zone to convey them up to the discharge point where it can include washing and compaction. The basket seal design ensures reliability of the solids capture threshold.

The unit can include a compaction screen. The screen is also supplied with replaceable bush sections, replaceable wear bars, pivoting device, spray wash system for flights and screenings washing and for filtrate flushing.

Concrete channel installation indoor or outdoor.

Self standing stainless steel tank with flanged inlet and outlet and removable access cover.

Vertical installation allowing to use very little floor space. It is suitable for applications such as in pumping station or in interceptor manholes.

Fine Screening
Mobile Screening Plate Type

Mechanisms that provide continuous fine screening with the highest efficiency compared to any other type of screen. Their versatility allows them to be used successfully in waste, storm and potable water applications as well as for pre-screening of Membrane Bio-Reactors (MBR).

ESCALATOR®
Perforated Plate Fine Screen

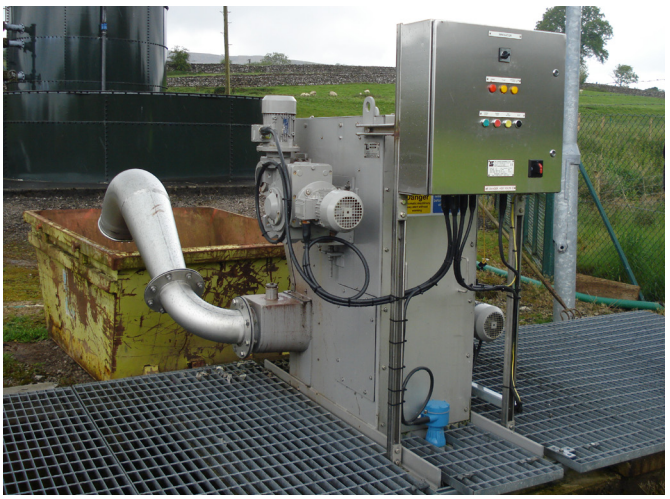
The pre-assembled unit's design is of the endless mobile belt type, using multiple panels with holes. It gives highly efficient fine screening in any direction. Structural shelf on perforated panels lifts larger «unmattable» solids. Panels are carried on heavy duty chains. The self-adjusting system of the rotating brush provides an annual average capture rate increase of at least 20% resulting in a reduction of plant workround costs.

ROTARC® Type SD
Perforated Rotary Drum Fine Screen

The design uses of a rotating screen shaped like a drum and a conveying spiral, all assembled prior to shipment. As the flow passes through the perforations the solids progressively accumulate. The rotation brings the solids to fall into the conveying section where they are transported to be discharged. The special drum screen seal arrangement ensures a very high capture performance even with the presence of fibers and hairs.

ELEVATOR®
Vertical Perforated Plate Fine Screen

The endless mobile belt type design using multiple panels with holes gives highly efficient fine screening in any direction. The mechanism is pre-assembled within a monobloc type frame. Panels are carried on heavy duty chains. Tines set at determined intervals lifts larger «unmattable» solids. With the high speed rotating brush it provides a high solids capture efficiency level.

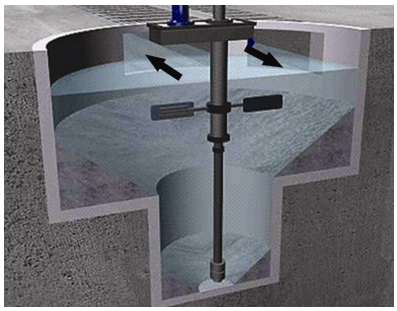


Grit Removal

Highly efficient degritter systems. Their versatility allows them to be used successfully in waste, storm and potable water applications.

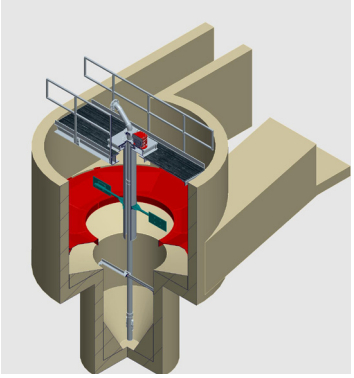
MECTAN® Classic
Grit Chamber

The Classic (270) type Induced Vortex Grit Chamber takes full advantage of the tangential inflow velocity along the periphery of the chamber to initiate the grit removal process. The circular design uses only a fraction of the footprint of conventional aerated degritters. The reliable system operates efficiently over a wide range of daily flow rates with low head loss. The sloped transition along with the rotating motion eliminates accumulation of grit in the separation chamber under all conditions and maintains grit removal performances even during a power failure.



MECTAN V®
Variangle Grit Chamber

The Variangle type Induced Vortex Grit Chamber unit is an innovative re-engineering of the Classic Mectan technology. The concept capitalizes on the classic tank shape to enhance the effective conical transition between chamber sections to obtain a dynamic and revolutionary configuration. The use of a separation disc ensures process stability and reliability at any flow rate with a 20% overall increase in grit removal efficiency, mainly in fine particles. With its multi-directional outlet channel positioning capability, the Variangle unit provides wastewater treatment plant design flexibility.



SAM® Type GDS
Grit Dewatering Screw

The concept is based on the use of an inclined spiral inserted into a specially shaped trough to separate the grit from a grit/water mixture. The mixture is fed to the inlet hopper where grit classification and settling is achieved. The excess water overflows back to the influent channel. The slow rotation of the screw causes the grit to dewater as it moves toward the discharge point. The unit is supplied with an air separator or cyclone separator according to the feed mean used. This pre-assembled unit can eliminate problems associated with foul odor and unsanitary handling.

SAM® Type GFW
Grit Washer

The concept uses a conical hopper set on top of an inclined shaftless screw to separate, wash and dewater the grit from a grit/water mixture. The mixture is fed to the inlet hopper where a slow rotational movement is induced to achieve grit particle settling. The combination of wash water injection and the central stirring motion provides grit scouring. The excess water and organic matter overflow back to the influent channel. The conveying screw dewaters the grit as it moves toward the discharge point. It can be supplied with air or cyclone separator according to the method used. This pre-assembled unit can eliminate problems associated with foul odor and unsanitary handling.

Solids Handling

Highly versatile devices that can provide conveyance, dewatering and compaction of solids retained from wastewater, stormwater or potable water flow stream applications.

ROTOPAC® Type RPW
Screw Washer Compactor

The single stage design is based on the use of a slow rotating spiral inserted into a perforated tube suitable for filtrate drainage. The screw receives solids from the screen, conveys them through dewatering, washing and compaction zones to finally expel them in a non-dripping dry state. The addition of wash water increases the rate of return of washable organics with the filtrate to the main flow stream through a common drainage point. This pre-assembled unit eliminates problems associated with foul odor and unsanitary handling.

ROTOPAC® Type RDW
Shaftless Screw Compactor

The single stage design is based on the use of a slow rotating shaftless spiral inserted into a trough provided with perforated area suitable for filtrate drainage. The screw receives solids from the screen, conveys through dewatering, washing and compaction zones to finally expel them in a non-dripping dry state. The addition of wash water increases the rate of return of washable organics with the filtrate to the main flow stream through the common drainage point. This pre-assembled unit eliminates problems associated with foul odor and unsanitary handling.

ROTOPAC® Type RCW
Batch Washer Compactor

The dual stage design is based on the use of a slow rotating spiral inserted into a perforated tube suitable for filtrate drainage. The screw receives solids from the screen, conveys them through dewatering, washing and compaction zones to finally expel them in a non-dripping dry state. The forward-reverse motion of the screw plus the addition of water into the feed hopper increases the rate of return of washable organics with the filtrate to the main flow stream. This pre-assembled unit eliminates problems associated with foul odor and unsanitary handling.

ROTOPAC® Type RLK
Shaftless Screw Conveyor

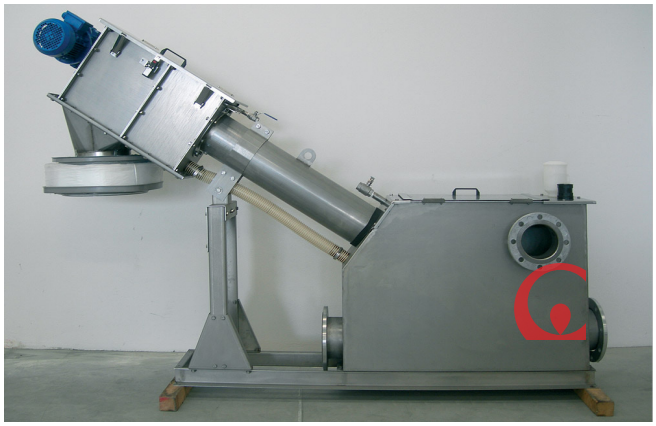
The design is based on the use of a slow rotating spiral inserted into a “U” shaped trough. The screw receives the material and transports it along stainless steel trough to ensure a discharge in the original state. This pre-assembled unit can eliminate problems associated with foul odor and unsanitary handling.

Packaged Solutions

Combined treatment systems, including screening, grit removal, fat, oil and grease (FOG), instrumentation and control panels, allow them to be used successfully in small waste water treatment works for Municipal, Industrial and Septage receiving applications.

SEPRAPAC® Type SRS
Septage Applications

- Influent type: From sludge reception centers or from cesspool or septic tanks.
- Flow characteristic: 2 to 3% solids concentration.
- Aperture: 6 mm perforations recommended for septage screening, Other sizes in perforated holes or wedge wire are available.
- The shaftless spiral fine screen maintains a small footprint, low operating costs and performance reliability. The system is ideal for small septage receiving applications.



Optional Features

- PLC panel with access key reader
- Billing Station
- In-line grinder
- Instrumentation

SEPRAPAC® Type PCS
Combined Pretreatment System

- The concept integrates two or three devices for screenings removal, grit separation and FOG removal.
- The wastewater mixture passes first through a screenings removal, washing and compaction process stage. The flow then crosses the second stage chamber for grit separation. The settled matter is conveyed horizontally to a grit hopper where an inclined extraction screw achieves washing and dewatering or particles along the transit path to the ejection point.
- The optional third process step is performed in an adjacent lateral compartment where air is injected to achieve FOG removal.
- The small footprint of this all-in-one pre-assembled package system makes it quick and easy to install.

General John Meunier Product Guidelines

COARSE & FINE SCREENING	CONT-FLO® Type CF	CONT-FLO® Type ER	CONT-FLO® Type SSR
BAR TYPE			
Channel Lift Capability	Shallow to deep	Shallow to very deep	Shallow
Solids Handling Capability	Medium & light loading	Medium & high loading	Medium & high loading
Setting Angle	Vertical	75° preferably	50° preferably
Channel Width	Up to 8 ft / 2,4 m	Up to 10 ft / 3 m	Up to 6 ft / 1.8 m
Channel Depth	Up to 90 ft / 27 m	Suggested max. 35 ft / 11 m	Suggested max. 7 ft / 2.1 m
Bar Spacings	From ½" / 12 mm	From 1/4" / 6 mm	From 1/8" / 3 mm

FINE SCREENS	ROTARC® Type SB	ROTARC® Type SB	ROTAR® Type SB
STATIONARY PLATE TYPE			
Installation Type	Channel	Tank	Vertical
Channel Lift Capability	Shallow	Shallow	Shallow to deep
Solids Handling Capability	Light & medium loading	Light & medium loading	Light & medium loading
Setting Angle	45° Vertical	35° preferably	Vertical
Channel Width	Up to 3 ft / 0.9 m	Up to 3 ft / 0.9 m	From 2 ft / 0.6 m
Channel Depth	Suggested max. 5ft / 1.5m	Suggested max. 5ft / 1.5m	Suggested max. 65ft / 20m
Perforations (Diameter)	From 0.08" / 2 mm	From 0.08" / 2 mm	From 0.08" / 2 mm

FINE SCREENING	ESCALATOR®	ROTARC® Type SD	ELEVATOR®
MOBILE PLATE TYPE			
Channel Lift Capability	Shallow to deep	Shallow	Shallow to medium
Solids Handling Capability	Light & high loading	Light & medium loading	Light & medium loading
Setting Angle	60° preferably	35°	Vertical
Channel Width	Up to 10 ft / 3.0 m	Up to 8.5 ft / 2.6 m	2.6 ft / 0.8 m min.
Channel Depth	Up to 30 ft / 9.2 m	Suggested max. 10 ft / 3.1m	Up to 2.5 ft / 8.2 m
Perforations (Diameter)	From 0.08" / 2 mm	From 0.04" / 1 mm	1/4" / 6 mm

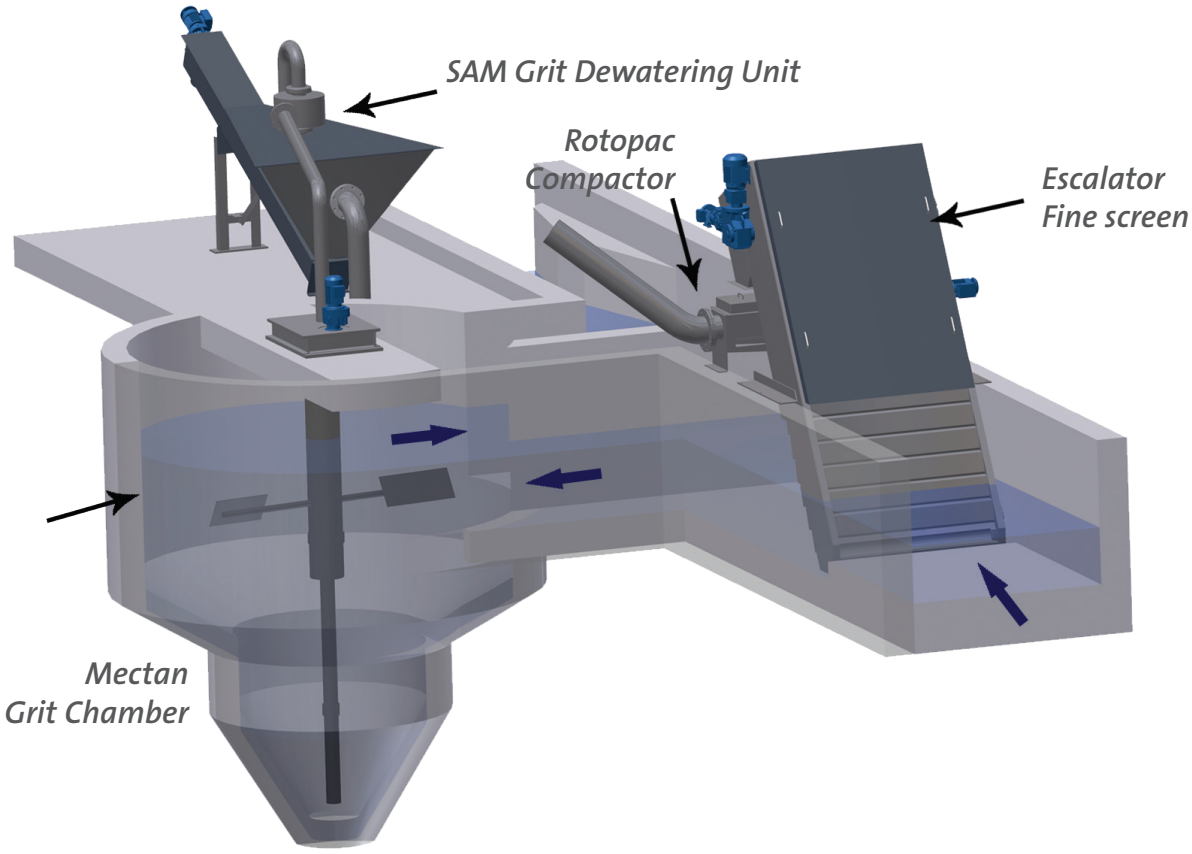
GRIT REMOVAL	MECTAN® Classic	MECTAN V®	SAM® Type GDS	SAM® Type GFW
Rating or Type	Up to 78 MGD / 295 MLD	Up to 78 MGD / 295 MLD	Wear items not required	With replaceable wear items
Size	24 ft / 7.3 m (Dia.)	24 ft / 7.3 m (Dia.)	10 or 14" / 230 or 350 mm	10 or 12" / 250 or 300 mm
Setting	Concrete or metallic tank	Concrete or metallic tank		
Conveyance			16 or 18 feet / 5 or 5.5 m	16 or 18 ft / 5 or 5.5 m
Configuration	270° (Inlet vs Outlet)	0°- 360° (Inlet vs Outlet)	25°	35°
Mode	Batch mode extraction via Air lift or Motor-pump	Batch mode extraction via Air lift or Motor-pump	Batch mode suggested Pumped or gravity feed	Batch mode suggested Pumped or gravity feed

SOLIDS HANDLING	ROTOPAC® Type RPW	ROTOPAC® Type RDW	ROTOPAC® Type RCW	ROTOPAC® Type RLK
Operation Type	Continuous	Continuous	Continuous or batch	Continuous or batch
Feed accepted	Wet Screenings	Wet screenings	Laundered wet screenings	Screenings & sludge
Model Size	Up to 14" / 350 mm	Up to 16" / 400 mm	16" / 400 mm	Up to 24" / 600 mm
Conveyance	Suggested max. 15ft / 4.5m	Suggested max. 50ft / 16m	Suggested max. 10ft / 3m	Suggested max. 130ft / 40m
Setting	0 to 30° max. suggested	0 to 25-Degree	5 degrees	0°-30° suggested or vertical
Support type (Screw)	Cantilever	Replaceable wear liner	Replaceable wear bars	Replaceable wear item

GRIT AND F. O. G. REMOVAL	SEPRAPAC Type PCS		SEPTAGE	SEPRAPAC Type SRS
Operation Type	Continuous or batch		Screen Type	Basket with shaftless screw
Feed Accepted	Pumped or by gravity		Operation Type	Continuous or batch
Retention of FOG	Available		Feed Accepted	Pumped or by gravity
Footprint	35 to 270 ft² / 3.3 to 25 m²		Model Size	220 GPM / 440 GPM
Setting	Horizontal		Options	Inlet piping, rock trap, knife gate, grinder, magnetic flowmeter
Support Type (Screws)	Replaceable wear item			

For design parameters outside these listed, please contact Veolia Water Technologies Canada

Complete
John Meunier Headworks Set-up



Veolia Water Technologies Canada is the final choice for the design, manufacture and servicing of wastewater pretreatment works. We target excellence and innovation. We also invest in R&D to meet growing environmental regulations and market needs.

Offices

Quebec:
4105 Sartelon
St-Laurent, Quebec
H4S 2B3 - Canada
T : 514 334 7230
F : 514 334 5070

Ontario:
2000 Argentia Road
Plaza IV, suite 430
Mississauga, ON
L5N 1W1 - Canada
T : 905 286 4846
F : 905 286 0488

Resourcing the world

Veolia Water Technologies

4105 Sartelon • St-Laurent, Quebec • H4S 2B3 Canada

tel: 514-334-7230 • fax: 514-334-5070

sales@veolia.com • www.veoliawatertechnologies.ca