



**Johnson
Screens**

Food and Beverage Processing

Comprehensive solutions for Bio-Fuels, Brewing, Corn Wet Milling, Ethanol, Malting, Starch, Sugar Treatment and Wine Production





Innovative Design

Johnson Screens produces the stainless steel Vee-Wire® filter elements for liquid/solid and gas/solid separation that is known for great strength, a long service life and a high level of adaptability.

Vee-Wire screens are made by welding our patented vee-shaped wire onto various sizes and shapes of support rods. This process creates a slot that enlarges inwardly, creating a large open area and clog-resistant surface. Our continuous welding method meets the most demanding standards for ruggedness, durability, resistance to abrasion, consistency and slot openings.

Vee-Wire are used in industries such as:

- Bio-fuels
- Brewing
- Corn wet milling
- Ethanol
- Malting
- Starch
- Sugar processing
- Wine production

Quality

Johnson Screens has been delivering reliable screens to various industries for more than a century; and though technology has changed, our commitment to quality products and services has not.

As a ISO-certified company, each product is subject to a procedure of self-inspection by each operator throughout the manufacturing process. A final inspection guarantees delivery of a product that fully meets the user's technical specifications.

Johnson Screens can provide the following documents upon request:

- Quality plan
- Manufacturing plan
- Production schedule
- Welder performance qualification
- Welding procedure specification (WPS)
- Procedure qualification record (PQR)
- In-house inspection reports
- Chemical and/or mechanical analysis certificates



Centrifuge Baskets

Starch Processing

Johnson Screens' starch basket is designed to fit into any existing or new centrifuge application. Vee-Wire Centrifuge Baskets improve starch refining by providing accurate and customized slot sizes that are specific to your needs.

Features

- Increased fiber dewatering compared to nickel screens
- Extended wear life
- Designed and manufactured to each centrifuge design
- Variable slot openings from 20 μm and up
- Fine Vee-Wire construction prevents clogging
- Capable of withstanding high backwash pressures

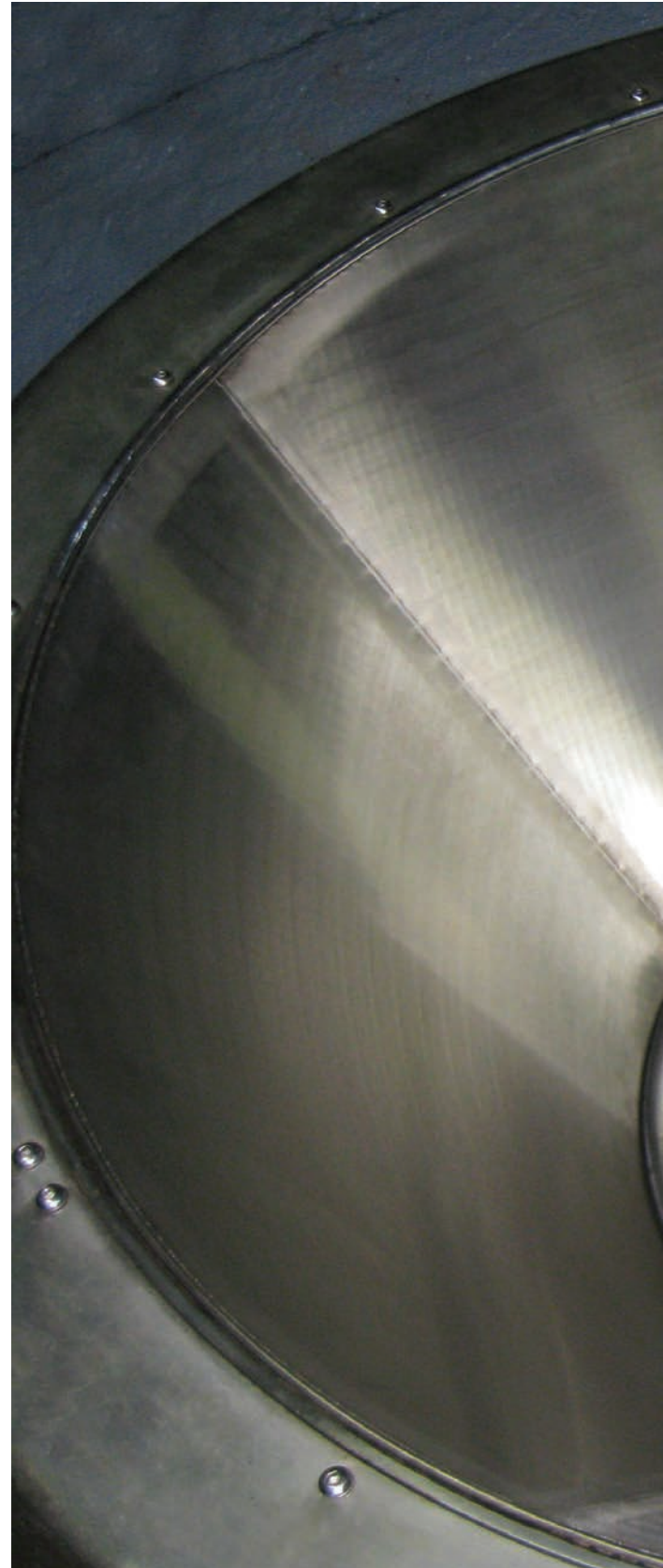
Sugar Processing

Johnson Screens' patented fine Vee-Wire Continuous Centrifuge Basket has increased mechanical strength, a precise slot opening and a larger percentage of open area, increasing the amount of sugar crystal recovery.

The self-supporting structure of the basket is designed and engineered to withstand the high stresses and load conditions of the sugar industry.

Features

- Variable slot openings from 20 μm and up
- Long lasting, fewer change-outs
- High resistance to abrasion
- Fast and easy installation
- Low maintenance, easy to clean
- Replaces electroformed and laser screens





Malting and Brewing Screens

Flat Screens, Kilning Screens and Germination Beds

Johnson Screens offers a variety of flat screens for the malting and brewing industries. Vee-Wire screens are ideal for:

- Launder tubs
- Germination
- Kilning
- Ultra filtration
- Steeping
- Malt extraction

Used in the kilning, germination and drying phases of the malting process, Johnson Screens' malting bed screens are the ideal choice for malting floors and other screening needs in the malting process.

These screen panels can be designed to minimize "dead spots" in the malting floor over supports or other structures, to further improve the overall process. In between malting batches, the screens are very easy to clean, reducing contamination of the process.



Candle Filters

The filtration capacity can be modified easily by varying the number of candle filters to obtain the required filter area.

Vee-Wire candle filters are used widely in the brewing industry for filtration. Housed inside a cylindrical vessel, the filtration capacity can be modified easily by varying the number of candle filters to obtain the required filter area.

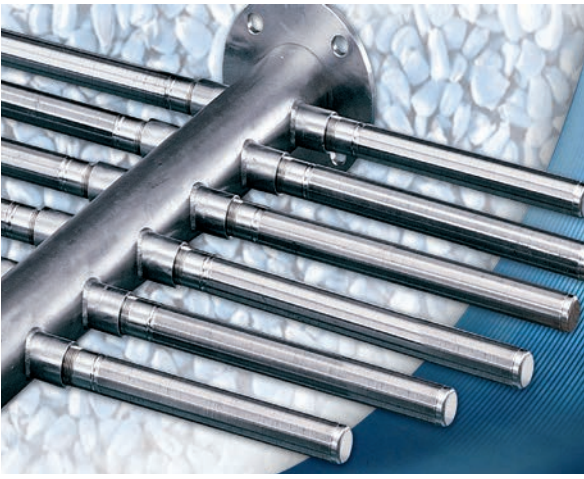
Features

- Small diameter usually less than 1.97 in. (50 mm)
- Substantial length usually greater than 39.37 in. (1,000 mm)
- Very fine openings: 25 to 150 microns, according to the application
- Direct filtration
- Medium support (diatoms in filters)

The filtration capacity can be easily modified by varying the number of candle filters to obtain the required filter area



Collectors and Distributors Systems



Screen Lateral Systems

Assemblies consist of a series of screen laterals that are connected to either a central header pipe or a hub and are designed for effective media retention in a wide range of applications.

Features

- Uniform collection or distribution flow
- Designed to accommodate flow in any direction
- Slot sizes from 0.002 in. (0.05 mm) and up
- Diameters from 0.787 in. (20 mm) and up
- Typically made from 300 series stainless steel
- Connections of the laterals can be threaded fittings, couplings or flanges



Outlet Baskets

Outlet baskets are used to prevent treatment media from migrating out of the vessel. These baskets can be built as a single unit or segmented for installation through a manway.

Features

- Exceptional resistance to collapsing
- Typically made from 300 series stainless steel
- Slot size as narrow as 0.01 in. (0.25 mm)
- Larger open area when compared to wire mesh and perforated plate
- Increased process efficiency

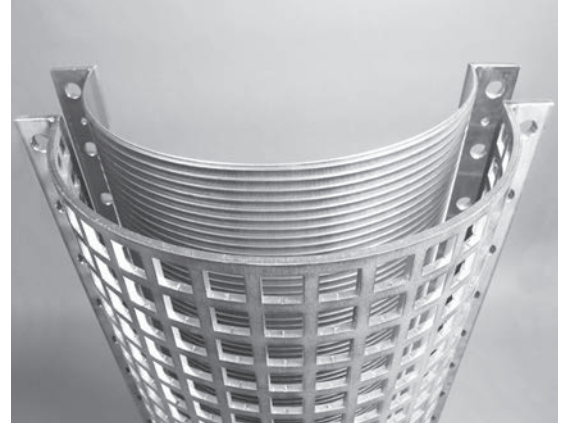
Process Screens

Paddle Screens

Used traditionally in the corn wet milling industry for fine fiber removal, Johnson Screens' paddle screen is custom engineered to fit any centrifugal design.

Benefits

- Custom, consistent slot size
- Fine particle screening
- Long lasting, durable
- Made from 304 and 316 stainless steel (other materials available on request)

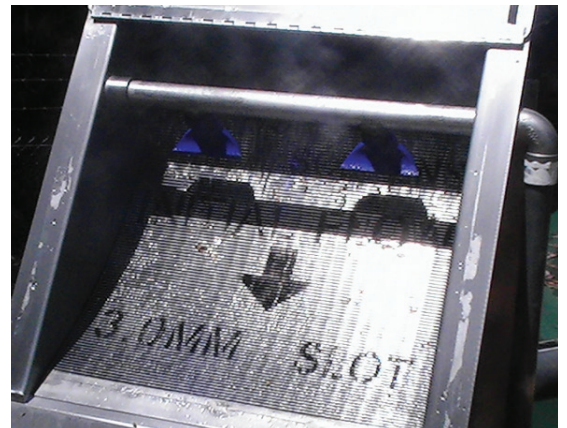


Gravity Screens

Johnson Screens' gravity screen is used for coarse separations ahead of additional processing systems.

Gravity screens use a Vee-Wire dewatering screen to retain the solids while allowing effluent to run through the system. The slurry is gravity fed to the head box and then flows to the screen. The solids retained from the screen are gathered for disposal or reuse.

The easy-to-install gravity screen features low operating and maintenance costs and can be designed according to client specifications.

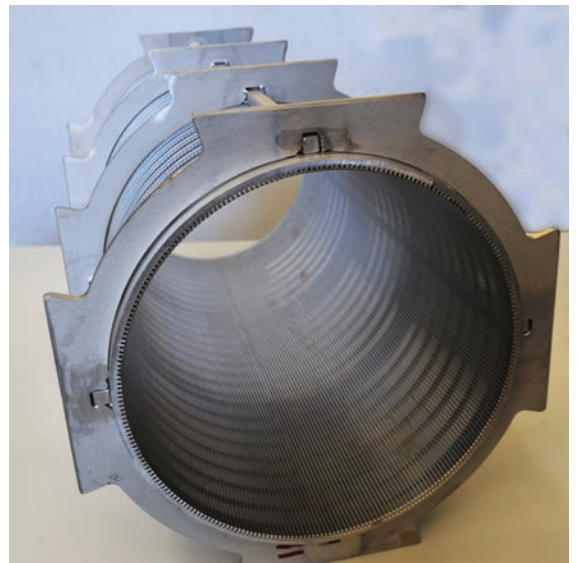


Screw Presses and Screw Press Baskets

Johnson Screens' gravity screen is used for coarse separations ahead of additional processing systems.

Gravity screens use a Vee-Wire dewatering screen to retain the solids while allowing effluent to run through the system. The slurry is gravity fed to the head box and then flows to the screen. The solids retained from the screen are gathered for disposal or reuse.

The easy-to-install gravity screen features low operating and maintenance costs and can be designed according to client specifications.





120° Sieve Bend Screen

Johnson Screens' 120° Sieve Bend Screen is used in static sieves for either dewatering or classification.

As the slurry flows over the inclined screen surface, the perpendicular layout of the wires to the flow, allows for solids to be retained while liquid passes through the screen.

Made from Vee-Wire screens, the 120° Sieve Bend Screen can provide up to 50 percent more open area with a narrower wire profile.

With a number of manual handling restrictions, Johnson Screens has developed an innovative split-sieve design. This design offers a simple, economical benefit by reducing the physical size and the weight of the screen.

Features

- Reduced equipment and installation costs
- Low maintenance costs
- Better flow rate and finer fiber removal
- Wide range of applications
- Longer screen life
- Slot sizes range from 25 μm to 0.394 in. (10 mm)
- Made with 300 series stainless steel

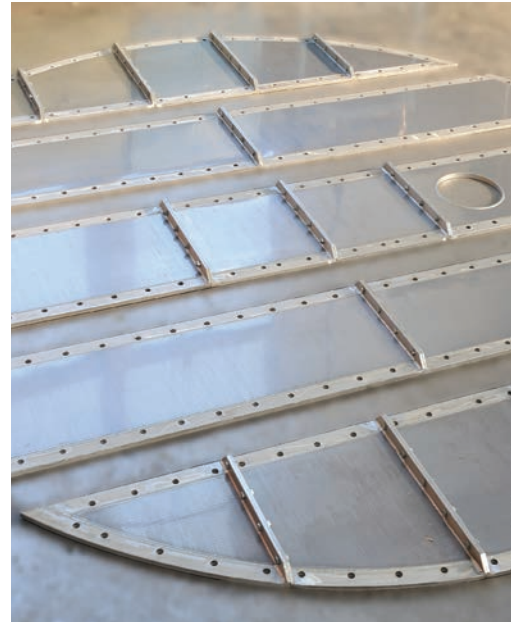
Vessel Internals and Equipment

Support Grids

Johnson Screens' support grid system is available in an assortment of framing options and designs; as one-piece construction or in multiple sections for on-site assembly.

Features

- Self-supporting structure
- Engineered to meet design load requirements
- Larger open area, compared to wire mesh and perforated plate
- Smooth surface, reducing abrasion of media
- Variable slot size depending on media retention needs
- Grids can be supplied with support beams, rope packing, bolting and all necessary accessories
- Hold down bolts



Conical Screens

In media retention applications, the media is frequently removed for regeneration or reactivation. Johnson Screens' Conical Screen, with its angled sides and clear center outlet, facilitates easy media removal from the vessel.

Johnson Screens' Conical Screen for centrifuges are widely used for dewatering processes. This self-supporting structure is especially designed and engineered to withstand the high stresses and load conditions of these processes.

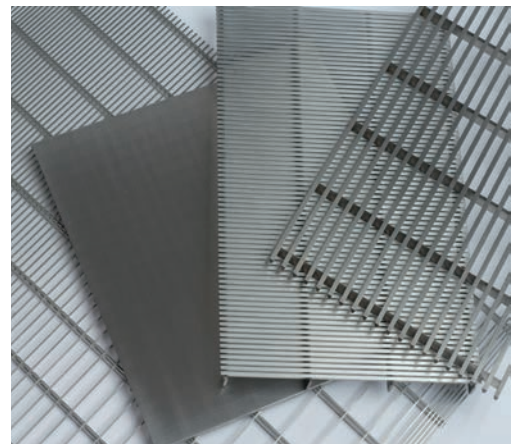
A precise slot opening and larger percentage of open area increase the screens' capacity and high resistance to abrasion, corrosion and damage by foreign objects, leading to lower maintenance.



Sugar Beet Tower Screens

Ideal for use in cossette mixers and extraction towers, these screens are typically constructed out of looped wire construction, though Vee-Wire construction is also available.

- High open area lends resistance to clogging
- Strong resistance against abrasion
- Customized slot sizes
- Fine wires available





Rotary Sieves and Screens

Johnson Screens' Rotary Sieve allows for large flows to be pumped over the Vee-Wire sieve screen inside, which separates the liquids and solids as the system rotates. The slurry is pumped into the rotary sieve, and the liquid and smaller solids pass through the slots in the screen. Larger solids travel down the length of the screen to the discharge end.

Rotary Sieves can be manufactured in either 304 or 316 stainless steel, and come in any size diameter and length. The screens inside the rotary sieve are especially designed to fit the specifications of each rotary sieve and are available separately from the rotary sieve itself. They are ideal for replacing worn out screens in existing applications. Based on the screening needs, the slot and wire sizes can be individualized to each process.



Nozzles

The Johnson Screens nozzle line enables more effective use of the treatment media.

Features include:

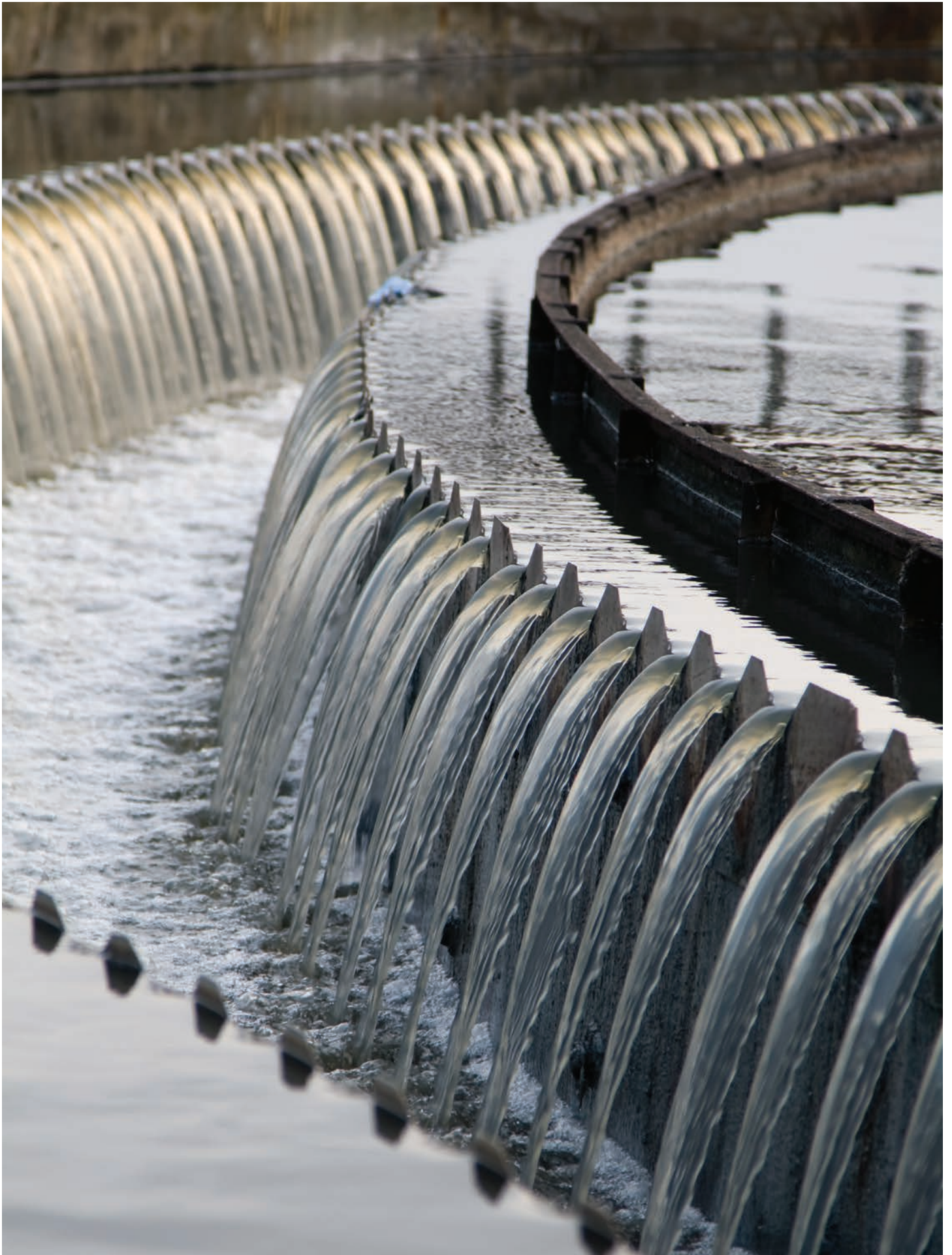
- Increased strength and corrosion resistance
- Available in stainless steel, ABS and Kynar®
- Standard diameter of 1.97 in. (50 mm) standard slot opening of 0.007 in. (0.18 mm) for stainless steel
- Standard slot opening of 0.008 in. (0.2 mm) for ABS and Kynar nozzles
- Threaded end fittings or hold down bolts

Steep Tank Screens

Johnson Screens cylindrical collector screens for Steep Tank systems can be customized for multiple configurations, and meet high flow rate and heavy loading needs. Screens are typically connected to an external tank pipe manifold.

Features include:

- Uniform collection
- Strong resistance against abrasion
- Made from various stainless steel, including 304 and 316
- Customized slot sizes



Water Treatment and Processing



Passive Intake Screens

Johnson Screens' Passive Intake Screens are designed to protect the natural surroundings and aquatic life near the intake.

Available with a Hydroburst® cleaning system, the passive intake screen is designed to reduce slot entrance velocity to 0.5 ft/s (0.135 m/s). This lower velocity helps to prevent debris clogging.

Johnson Screens' intake system offers many benefits including:

- Low cost
- Limited maintenance
- Environmentally friendly
- Easy cleaning
- No disposal of debris



Triton Underdrain System

Johnson Screens' Triton underdrains utilizes Vee-Wire technology, creating a low profile underdrain system with direct media retention, while maintaining a high open area with non-plugging characteristics.

Available in stainless steel and PVC, Triton underdrains are easily adapted to existing systems, increasing the efficiency of older systems.



Other Water Equipment and Solutions

Aqseptence Group offers a full range of equipment for multiple water process applications which require the separation, removal and treatment of the solids from the liquid flows.

Please visit www.aqseptence.com to learn more about our brands, capabilities and to contact our staff to find how we can assist you.

Exceptional Products, Ex

Field Service

Johnson Screens offers a complete field service team of specialized and experienced members that are available for various projects including:

- Full installation
- On-site repairs
- Technical assistance or expertise
- Work supervision
- Inspection

Flexibility and expertise allow us to propose this extended scope of services under tailor-made contract conditions in order to better serve our clients' requirements.

Our experienced welder/fabricators team is available for onsite installation, repairs and screen replacement, and can be available within 24 hours for emergency situations or scheduled as needed.

The ability to evaluate the condition of screens and make recommendations as to the best course of action, our field service team will be there to allow the screens to operate at maximum capacity.

Whether cleaning, making minor or major repairs, or completely replacing screens, our technicians are equipped with all the tools, equipment and experience needed to provide the best field service available.

Our experienced technicians are also available for supervision of installations and on-site repairs.



Exceptional Service



Aqseptence Group, Inc.

General Industrial Business Unit

Australia - Asia Pacific

Phone +61 7 3867 5555

Fax +61 7 3867 5566

asiapacific.water@aqseptence.com

Europe

Phone +33 5 49021600

Fax +33 5 49021616

europe.water@aqseptence.com

India

Phone +91 2764 281007 / 281220 / 281221

Fax +91 2764 281028

india.water@aqseptence.com

Japan

Phone +81 45 661 3575

Fax +81 45 661 1921

japan.water@aqseptence.com

North & South America

Phone +1 651 636 3900

Fax +1 651 638 3171

usa.water@aqseptence.com

www.aqseptence.com