Johnson Screens

A brand of
Aqseptence Group

Scallops for Radial Flow Vessels

Increasing efficiency with a complete offering of Scallops from Johnson Screens

Johnson Screens' products are used for various screening applications in the oil, gas, refining and petrochemical industries. Utilizing that engineering and manufacturing experience, Johnson Screens designs and manufactures a variety of scallops for media retention in radial flow applications.

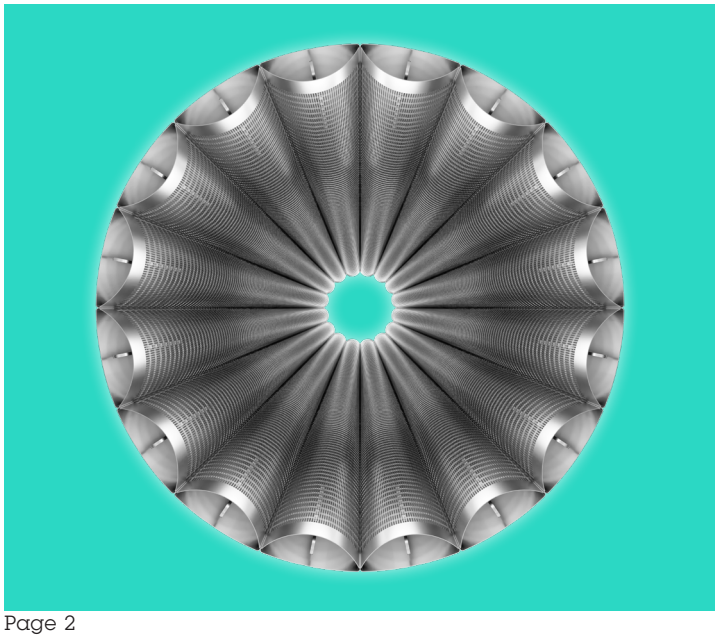
Johnson Screens offers a complete line of scallop screens, including Vee-Wire®, OptiMiser® and perforated sheet scallops to meet the needs of the most demanding radial flow applications.

Vee-Wire® Scallops

Vee-Wire® scallops are stronger, having a robust catalyst retention surface, making them ideally suited for tall radial flow applications

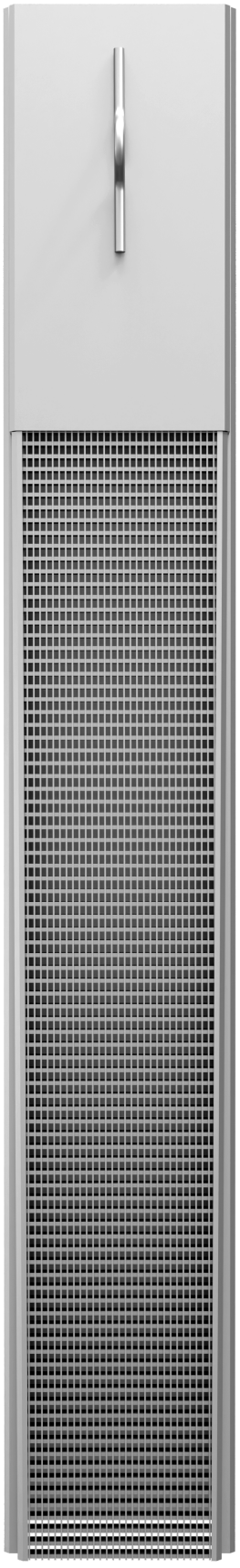
Features and Benefits

- Ideal for new applications or upgrading existing systems
- No modifications are required inside the reactor
- Increased open area
- Resistance to increase in pressure drop
- Significantly reduced catalyst damage from fewer expander rings
- Minimal catalyst fines generation and resistance to plugging
- Lower cleaning costs from unplugged retention surfaces
- The mechanical strength of the Vee-Wire scallops is designed to meet the specific needs of the unit
- The vertical strength of the scallop is increased while maintaining flexibility in the radial direction.
- Simple reinforcement of the centerpipe provides a matched strength set of internals for more reliable operation
- Reduced turnaround costs from fewer scallop repairs
- Easily switched out during a turnaround in the same time frame needed to clean and repair perforated scallops



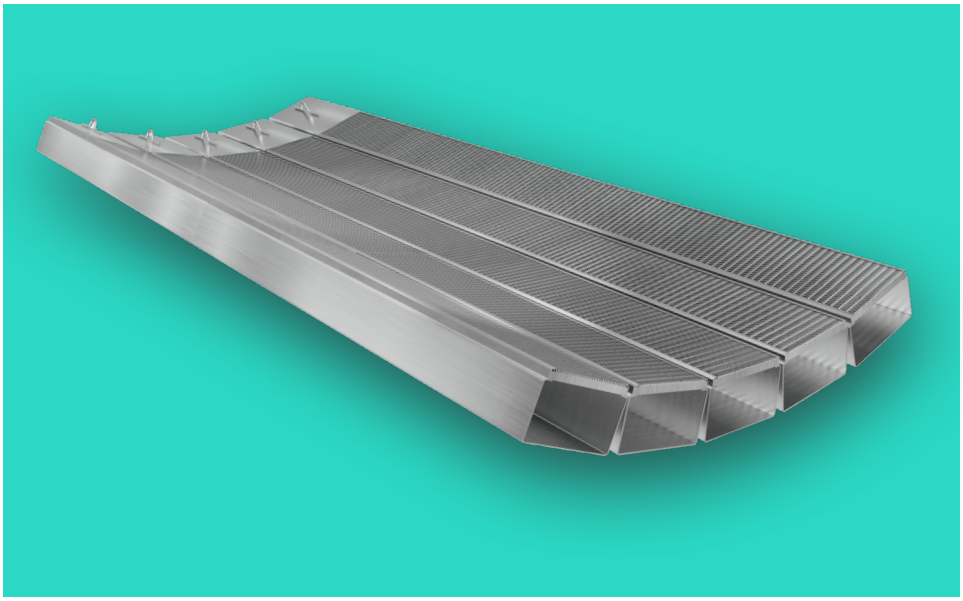
Optimiser® Scallops

OptiMiser® scallops combine the process efficiencies of an outer basket with the installation and maintenance advantages of standard scallops



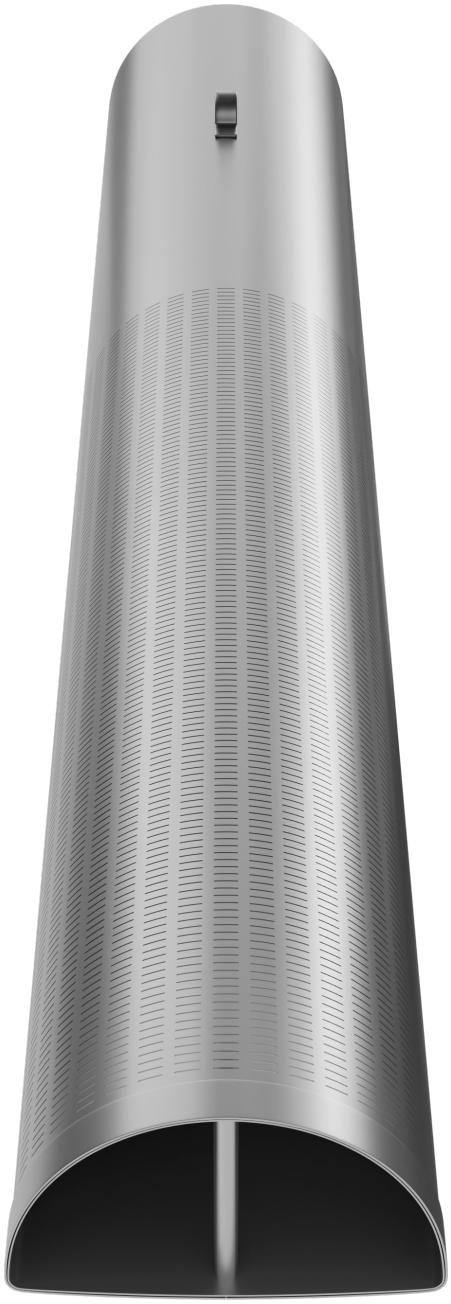
Features and Benefits:

- Easy installation
- Eliminates the need for expander rings
- Can be engineered to fit any size vessel
- Robust construction creates a high column strength
- Slots sizes start at 0.010 in. (0.25 mm) and increase in increments of 0.0004 in. (0.01 mm)
- More effective use of the catalyst than conventional arch-shaped scallops
- Eliminates the underutilized heel catalyst
- Greatly reduces the potential for coke formation
- Longitudinal and horizontal plates seal the spaces between screens
- Vee-Wire construction maintains a uniform bed thickness
- Vertical slots and a flat Vee-Wire face prevents the abrasion of catalyst beads as the bed moves vertically in operation
- Blank interval at the screen top which prevents "short-circuiting" of flow if the catalyst bed settles
- Uniform annular space for predictable process flow and pressure drop
- The evenly distributed gas flow eliminates stagnant areas, thus reducing coke formation



Perforated Plate Scallops

Johnson Screens' Perforated Plate Scallops are an economical approach for catalyst retention in radial flow units



Features and Benefits

- Lightweight
- Designed to install into a reforming unit easily
- Perforated scallops are designed to deform under extreme load, acting as a safety valve to protect the centerpipe and to reduce the chance for catalyst leakage into heaters or exchangers
- Fabricated to specific tolerances and uniform shape to ensure proper functioning as thermal expansion and contraction of the vessel occurs
- 18,16 or 14 gauge 321H stainless steel construction
- Engineered and built to specification

Johnson Screens
Energy and Processing Technologies

North and South America
Phone +1 651 636 3900
info.us@johnsonscreens.com

Europe, Middle East & Africa
Phone +3 3 23 75 05 42
info.fr@johnsonscreens.com

Asia Pacific
Phone +61 7 3867 5555
info.au@johnsonscreens.com

johnsonscreens.com

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