

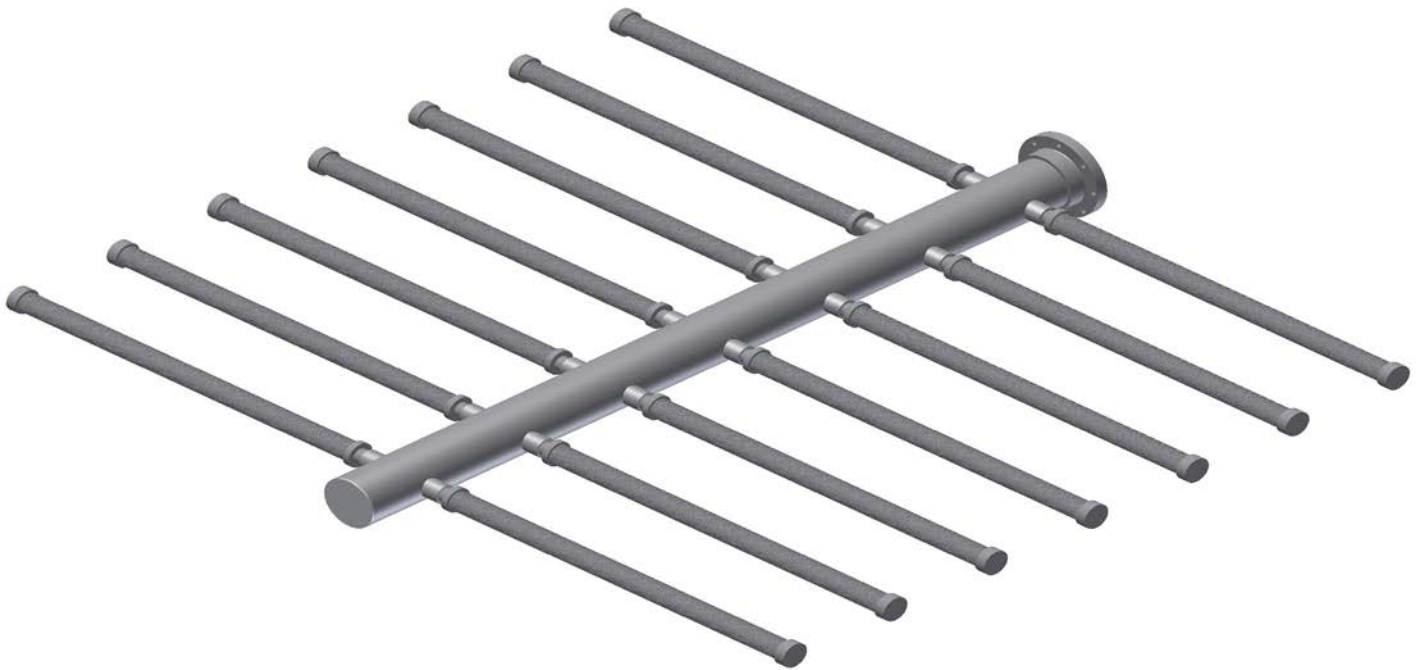


**Johnson
Screens**

A brand of
Aqseptence Group

Header Lateral Screens

Header lateral systems provide even, effective distribution and collection



Header lateral systems consist of a series of screen laterals attached to either a central header or hub. The assemblies allow process engineers to design for uniform flow through the treatment media at a wider range of rates and for a variety of vessel sizes and shapes.

A common vessel arrangement would use a header lateral assembly at the top of the vessel to distribute inlet flow evenly across the bed surface. A second assembly, located at the bottom of the vessel, collects the treated flow ensuring uniform fluid distribution across the entire length and cross section of the vessel.

For counter-current flow, flow with an inlet at the bottom of the vessel, the arrangement is inversed with the distributor at the bottom of the vessel and the collector at the top of the vessel.

Header lateral system can be designed to accommodate a variety of process conditions and requirements, while maintaining their characteristics of high distribution efficiency. Several design options can be chosen to achieve the uniform distribution and collection.

Lateral spacing, length diameter and slot opening size are based on

individual system needs. Slot sizes can be any width from 0.002 inches and up in 0.001 inch increments. Laterals can be as small as 0.75 inches in diameter or larger. The number and spacing of the laterals can also be varied.

Laterals attach to headers or hubs with either threaded fittings, couplings or flanges.

A perforated pipe-base can be used inside the screen laterals for increased collapse resistance and enhanced flow distribution.

Features



Header lateral design provides most effective distribution for vertical vessels and can be either side mounted or centrally mounted.

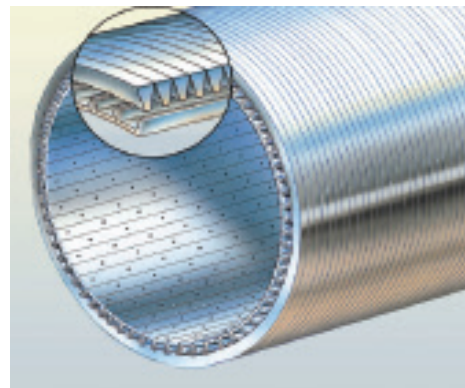


Header lateral design for horizontal vessels is also used for square or rectangular underdrains.

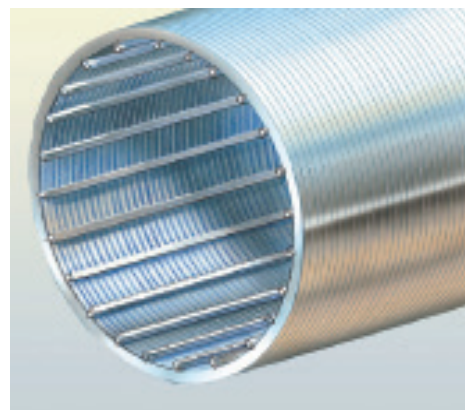


Hub lateral design is an economical possibility for smaller vertical vessels.

- Assemblies are typically made from 304 stainless steel, but other grades of stainless steel or exotic alloys can be used
- Laterals can be any diameter from 0.5 in. and greater
- Laterals can attach to headers or hubs by many design methods, including threaded fittings, couplings or flanges
- Lateral spacing, length, diameter and slot opening size are based on individual system requirements
- Perforated pipe liners can be used inside screen laterals for increased collapse resistance and enhanced flow distribution
- Slots are as small as 0.002 in. and up to 0.001 in. increments
- Quality documentation are available, including mill certificates, welding procedure specifications and various other reports and certifications
- Treatment before and after fabrication is available, including passivation, pickling, stress relieving, polishing and chrome plating
- Custom solutions are available upon request



Screen laterals can be fabricated with channel rods instead of conventional support rods to facilitate flow distribution.



Screen laterals are made by wrapping a wire spirally around an array of rods. Resistance welding is performed at each intersection of wire and rod. The result is a very strong cage-like structure with close-tolerance.

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