

Johnson screens™

A Weatherford Company

World Leader through Talent and Technology

PRECISE
PERFORMANCE
IN FINE SLOT
SCREENING.



Using wire shapes with very narrow face width and extremely sharp edges produces a screen with better slot control, more open area and more effective dewatering. Various wire shapes can be used depending upon application.

End bars are either L-shaped or rectangular. Rack angle are available as needed.

JOHNSON 120" SIEVE BENDS SET NEW PERFORMANCE STANDARDS

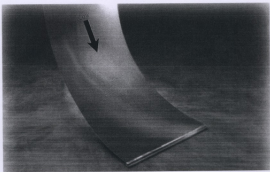
Conventional methods of dewatering fine-particle slurries have several serious shortcomings. Screen openings plug easily, feed rates tend to be very slow and abrasion or mechanical damage quickly shortens screen life. We have solved all these problems with our 120" sieve bends. Check the many performance advantages that make these the world's most effective, cost-efficient screens.

- Better dewatering. We use extremely narrow wires – as small as 500 microns – which increases the number of edges over which the slurry passes. The wires can also be tipped to any degree specified to increase dewatering action.
- Longer useful life. We use 316L stainless steel for its high resistance to corrosion and abrasion. In some cases, screen life can be extended by

reversing it when the wire edges begin to show wear.

- Higher capacity. Using narrower wires increases the number of slots on the screen creating high total open area even with very fine individual slots. This, combined with intrinsically superior dewatering action, allows higher rate operation. For example, one of our screens 385mm wide with a 50 micron slot can typically dewater 40m³ per hour.
- Design flexibility. Our 120" sieve bends are available in standard configurations but custom designs are also available including optional slot sizes, screen widths, wire shapes, support angles and end bar profiles. These options make it possible to accommodate a wide range of slurry compositions and operating conditions.

SIEVE BENDS



JOHNSON SCREENS TAKES PRECISION TO NEW LEVELS.

Function

The sieve bend is one of the most compact and effective static separation & dewatering screens yet devised.



When Enquiring

Provide following information

- R - Radius
- Ø - Angle
- L - Arc Length
- W - Width
- A - Aperture
- Profile Type
- End Bar Size
- Material



Sieve Bend Function

Johnson Sieve Bends are extremely effective for solids separation and/or dewatering, and are used extensively in a multitude of industries. The unique design Vee-Wire® allows static, non clogging operation since only particles about half the aperture width pass through the screen, which in most applications prevents blinding by material near to aperture size.

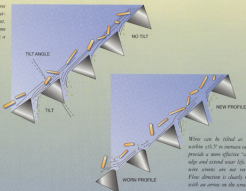
Available Sizes and Material

Johnson Sieve Bend assemblies are manufactured as standard units with an angle of 45° and a radius of 1018mm or 2032mm. Other screens of varying angles can be produced on request.

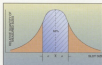
Slot sizes range from 25 fine micron, to coarse screening at 10mm.

Screen material is constructed of 304/316 stainless steel with end bars of carbon steel or stainless steel. Other materials are available on request.

As the leading edge of the wires wears, capacity decreases and cutting action becomes less efficient. Reversing the screen restores some of the performance by providing a "new" leading edge.



QUALITY CONTROL TURNS POTENTIAL
INTO PERFORMANCE



The mean slot size (\bar{X}) corresponds to the peak of the curve. We can achieve measured mean size within ± 4 microns of the slot size specified. The standard deviation (σ) measures the uniformity. Of all slots, 68% will be within $\pm 1\sigma$ and 95% within $\pm 2\sigma$.

Not only have we designed the world's most efficient screen, we also manufacture it under industry's most stringent quality control standards, a practice that has let us achieve ISO 9001 certification.

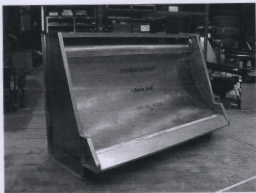
Slot sizes, for example, are held to a 4 micron – the industry's closest tolerances. This means when you specify one of the accepted industry slot sizes of 50, 75, 100 or 150 microns, no more than 15% of the slots will be larger than the nominal size. To insure compliance, we use sophisticated laser optics to inspect every screen surface. We then supply a certified statistical analysis summary for that screen, giving the actual measured slot size and the standard deviation.

Unlike some manufacturers, we do not routinely polish the screens since this can blunt the wire edges, partially plug the slots with fibres from the polishing wheel and create an uneven screen surface because of the variable polishing pressures.

We're confident that our designs and fabricating practices are the world's best but you are the ultimate judge. That's why we attach a customer feedback form to every delivery. With your input, we'll continue our nearly 100-year tradition of developing the best possible technologies for liquid-solid separation, sizing, dewatering and other screening applications.

SPECIFICATIONS

	STANDARD	AVAILABLE ON REQUEST
Width (mm)	585 ⁺⁰ ₃	1800 MAX
Radius (mm)	760	-
Arc Length (mm)	1592 ⁺⁰ ₃	-
Wire Profile #	30	20, 47, 63
Nominal Slot (Microns)	50, 75, 100	Any Size >40
Slot Control (Microns)	±4	-
Slot Standard Deviation (Microns)	7	-
Wire Tilt (Deg)	Yes	Zero
Back Fixing Angles	No	Yes
End Bars	L Type	Rectangular Section
Surface Polish	No	Available, But not recommended



Run down screens provide an efficient method of separation of solids from process liquor or effluent and allow both recovery of solids and re-cycling of screened water.

Available in stainless steel construction with removable stainless steel curved wedge wire screen. Actual dimensions are chosen to suit the hydraulic and solids removal requirements of the proposed installation. Aperture size varies from 0.125mm up to 4mm depending upon application. Larger apertures are available on request.



TYPICAL APPLICATIONS

Can be used as primary or secondary screening elements in the following applications:

Food Processing

Vegetable canning and packing, fish processing, chicken processing, protein recovery and leather dewatering, creameries.

General Industrial

Tanneries, abattoirs, piggeries, textile plants, paper industry, chemical industry, mineral processing, intensive farming, carpet production and laundries.

Effluent Treatment

Primary screening of domestic sewage, screening of stormwater overflows, dewatering of sludges and shales, post screening following B.O.D. reduction towers, dewatering of industrial wastes, intensive farming.

Johnson screens™
A Weatherford Company

