



**Johnson  
Screens**

A brand of  
Aqseptence Group

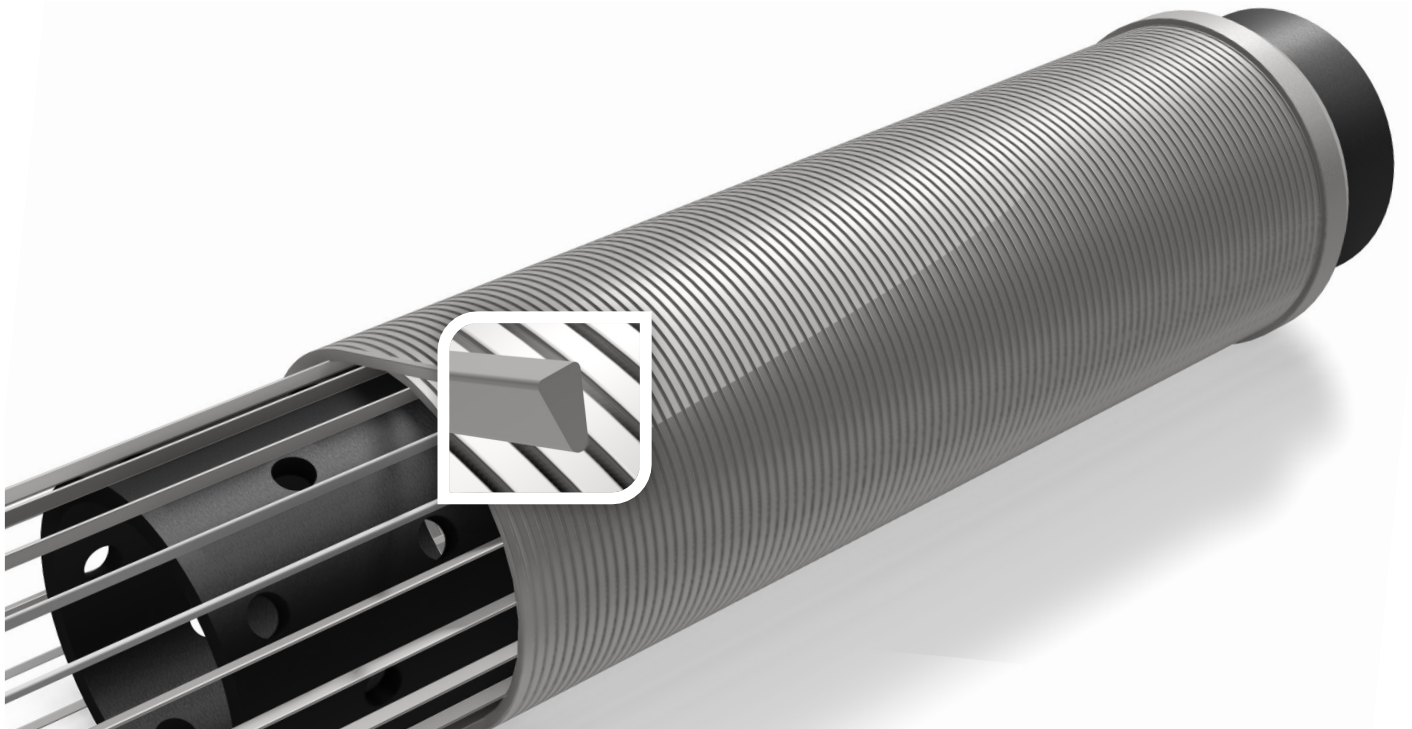
# Oil and Gas Well Screens

**Under Ground  
Under Pressure  
Under Control**

# Our Technology

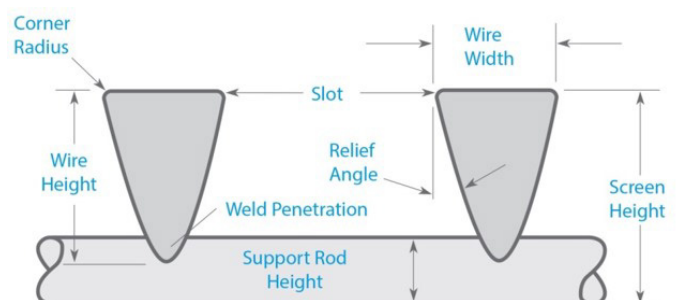
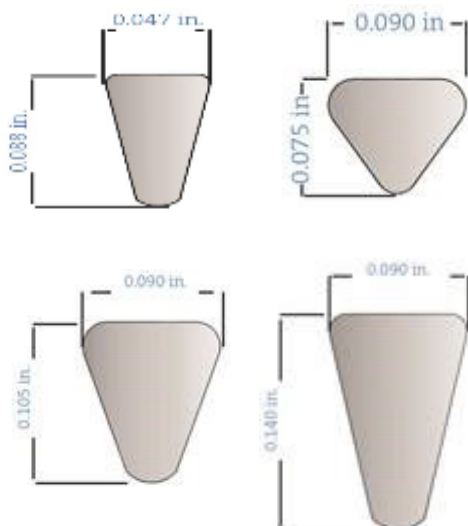
As the inventor of wire-wrap screen, Johnson Screens® has continuously improved sand control features to highest standards for 120 years.

Our sand control expertise provides optimal solutions for cased or open holes, delivering highly durable products and superior performances to meet the most demanding client's specifications.



## Vee-Wire / Support Rod Specifications

Name	Width mm	Height mm	Section area mm <sup>2</sup>	Wire angle °
47	1.19	2.24	1.89	10°
90 x 75	2.29	1.91	2.97	72°
90 x 105	2.29	2.67	4.25	40°
90 x 140	2.29	3.56	5.62	26°

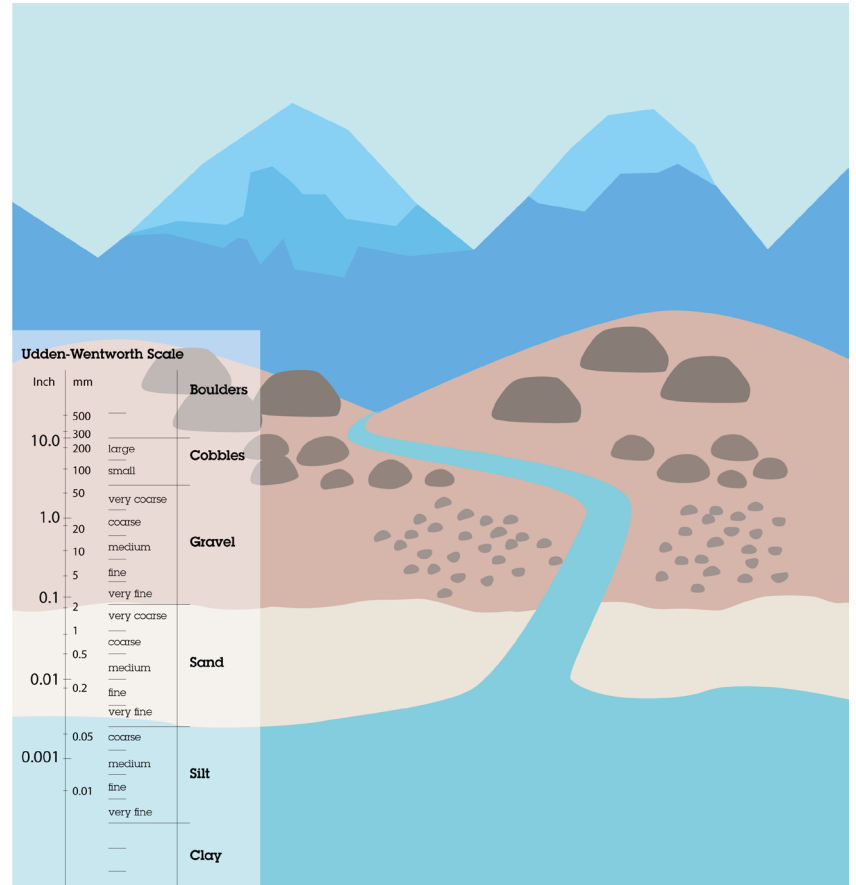
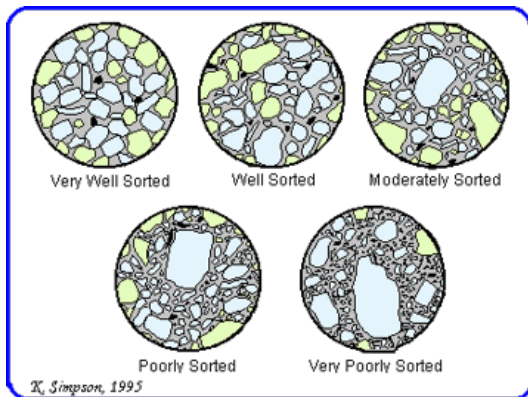


# Sand Control

## General selection criteria

### Reservoir characteristics :

- Formation uniformity
- Grain size
- Produced fluids (H<sub>2</sub>S, CO<sub>2</sub>)
- Completion design
- Wellbore configuration
- Type of hydrocarbon produced
- Surface production facilities
- Expected production lifetime



## Formation analysis

### Uc = Uniformity Coefficient (d<sub>40</sub>/d<sub>90</sub>)

d<sub>40</sub> = Grain Diameter @ 40% Cumulative Weight

d<sub>90</sub> = Grain Diameter @ 90% Cumulative Weight

Uc < 3 = Highly Uniform Sand

3 < Uc < 5 = Uniform Sand

5 < Uc < 10 = Non-Uniform Sand

Uc > 10 = Highly Non-Uniform Sand

### Sc = Sorting Coefficient (d<sub>10</sub>/d<sub>95</sub>)

d<sub>10</sub> = Grain Diameter @ 10% Cumulative Weight

d<sub>95</sub> = Grain Diameter @ 95% Cumulative Weight

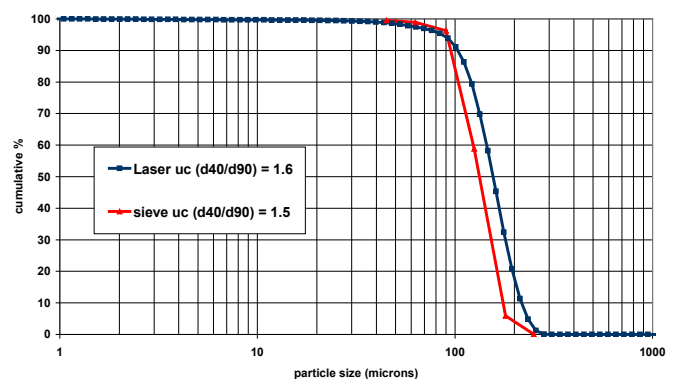
Sc < 3 = Well Sorted

3 < Sc < 5 = Sorted

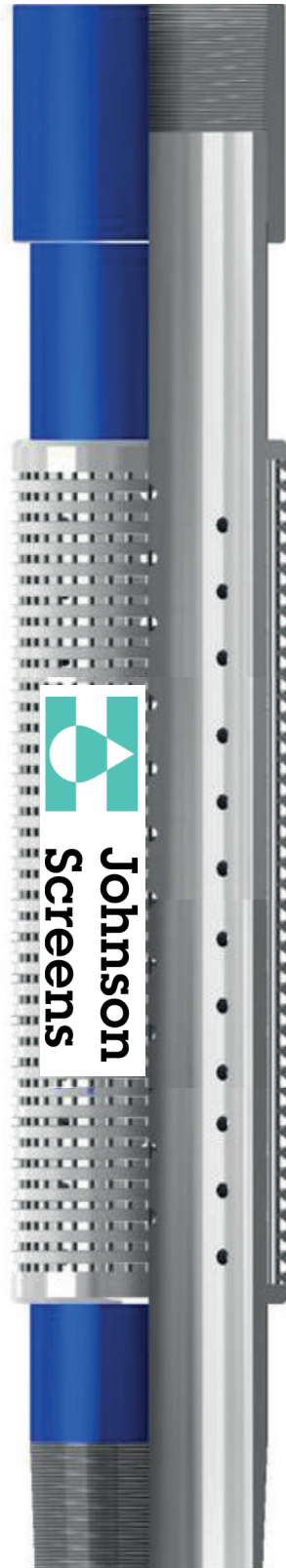
5 < Sc < 10 = Low to Medium Sorted

Sc > 10 = Poorly Sorted

**Fines = Sand Particles < 44μ**



# Johnson SuperGuard™ Screen

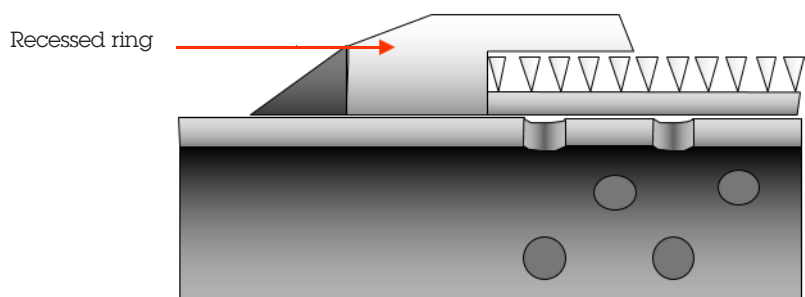


## Applications

- Open hole or cased hole stand-alone completions in well sorted homogeneous reservoirs up to fine sand.
- Gravel pack completions with medium to relatively high pumping rates and pressure.
- Multilateral, extended horizontal completions.

## Special features & benefits

- Direct wrap technology to provide the **most robust** and reliable “wrap-on-pipe” assembly for sand control performance versus slip-on-pipe screens.
- Pipe based screens can be customized with a wide selection of stainless steel and high-nickel alloys.
- Johnson Screens proprietary wires with high precision slot tolerances are designed for top gauge control under harshest well conditions.
- Large open area to maximize production of hydrocarbons and reduce flow velocity.
- With **additional support ribs**, the tensile strength is increased and the roundness of the jacket is improved providing excellent slot control for better sand retention and preventing filter cake build-up.
- **End rings:** Standard and recessed, alternatively welded directly to the base.



# Johnson SuperWeld™ Screen



## Applications

- Openhole completion in homogeneous reservoirs.
- Cased hole gravel pack completions.
- Vertical completions only without too high friction, nor pumping rate.

## Special features & benefits

- Advanced Slip-On-Pipe screen technology for superior weld strength and best in class slot control.
- Pipe based screens can be customized with a wide selection of stainless steel and high-nickel alloys.
- Johnson Screens proprietary wires with high precision slot tolerances are designed for top gauge control under harshest conditions.
- Large open area to maximize production of hydrocarbons and reduce velocity.
- With additional support ribs, the tensile strength is increased and the roundness of the jacket is improved providing excellent slot control for better sand retention and preventing filter cake build-up.
- **End rings:** Standard and recessed, alternatively welded directly to the base.

# Johnson SuperFlo™ Screen



## Applications

- Open hole stand-alone completions in homogeneous reservoirs or cased hole Gravel Pack with short intervals.
- Capable of handling finer, less uniform sands with uniformity coefficient up to 5 with direct retention.
- Vertical, multilateral, extended horizontal completions.

## Special features & benefits

- Advanced Slip-On-Pipe screen which utilizes a very fine jacket construction increasing the screen open area with a very narrow slot size distribution.
- Improved sand retention properties of the screen and resistance to erosion by reducing fluid velocity through the screen.
- Large open area and lower entrance velocities allow a stable natural pack to form. Capable of handling finer, less uniform sands.
- Costs effective alternative to premium screens in uniform sands.
- Protective cover (shroud) to protect screen surface against run-in damage.
- With additional support ribs, the tensile strength is increased and the roundness of the jacket is improved providing excellent slot control for better sand retention and preventing filter cake build-up.

# Johnson SuperThru™ Screen

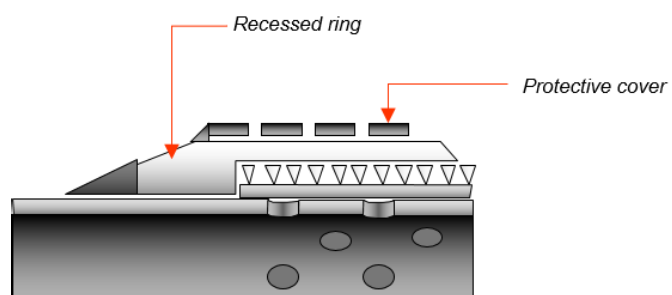


## Applications

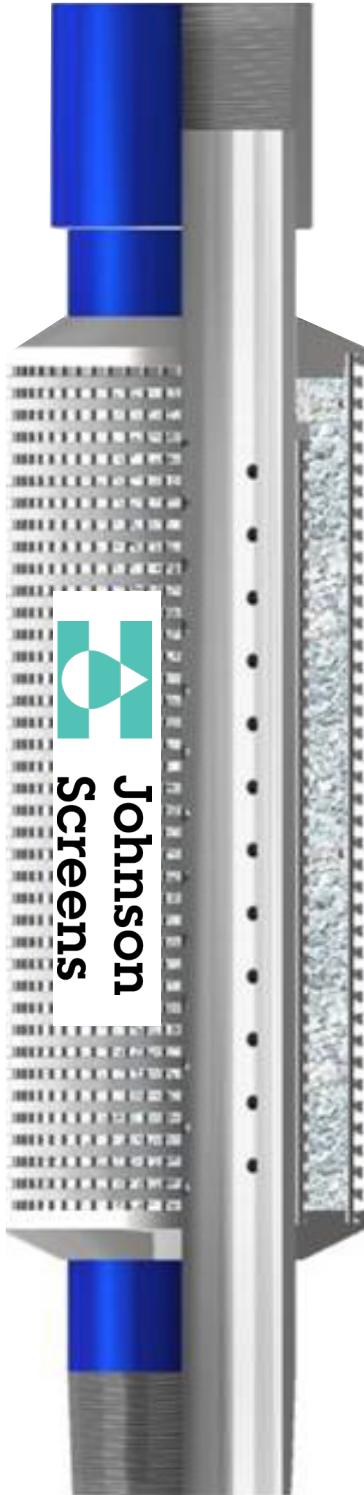
- The Johnson SuperThru is the cost **effective solution** for remedial completion to save your well during an intervention and have **a real sand control** that will allow you to keep producing over the long term.
- Despite complex flow path and space limitations, SuperThru screens will reduce recompletion and operating costs, improve well productivity and **extend well life**.
- Can be installed through production tubings, cased hole sections or even openhole sections of the wells.

## Special features & benefits

- Available in diameters : 1" - 1"1/4 - 1"1/2 and 2"1/16.
- The screen and the base pipe are both in a cost effective **austenitic stainless steel** which makes it corrosion proof.
- Jacket is made out of a fine wire to improve the open area **up to 20%** and thus maximizing production rate while reducing velocity.
- Jacket is protected **with a shroud**, flush with coupling OD to avoid any disturbance while running in the hole.
- For those small diameters, pipes will be threaded according to **API NU standards in short length** of 1.9m (6.25ft) for Full Flush version or 2.75m (9ft) for version with centralizers.



# Johnson D-Pak™ Screen

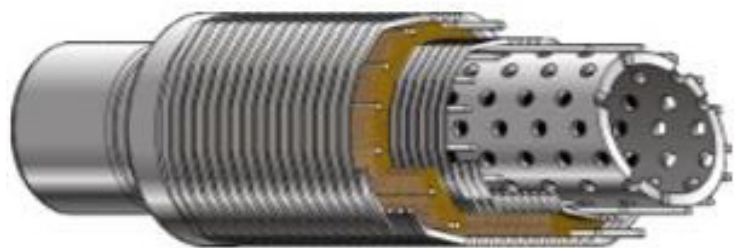


## Applications

- Cased-hole frac pack and high-rate water-pack completions.
- For completions requiring a reduced-OD, prepacked screen is the cost effective solution to avoid a complex and expensive gravel packing operation.
- Deep water, horizontal, direct retention for reasonably uniform (UC<3) coarse formations, gravel pack and work over applications.

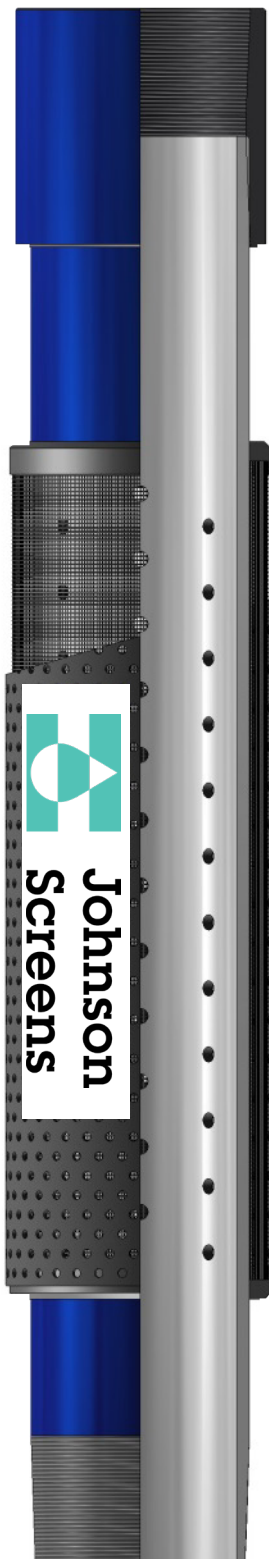
## Special features & benefits

- Johnson Screens® benefits : Dual Vee-Wire screens with high open area for a better well efficiency.
- Extra strong resistance : the thickness considered is the composite layer : screen + beads + screen.
- Silicate / ceramic proppant : the perfect gravel pack in shape, smoothness and permeability to optimize filtration and hydraulic performances.
- Slimfit design : with an improved filtration power, proppant thickness can be reduced to one quarter of an inch (0.25") only on the radius.





# Johnson ExcelFlo™ Screen



## Applications

- Stand-alone screens completion in well sorted reservoirs.
- Multi-lateral, short radius or other mechanically demanding applications.
- Horizontal completion in very fine to fine sands with some degrees of reservoir heterogeneity or in poorly characterized reservoirs.

## Special features & benefits

- **Multi-layer metal mesh.**
- Advanced mesh screen technology – **Plain Dutch Weave pattern** – to control a broad range of sand sizes with a very high open area.
- **Twilled Dutch Weave** and **Reverse Twilled Dutch Weave** are available
- Large media selection to provide effective sand control for a wide range of formation sand sizes. Johnson ExcelFlo™ screen range may be customized within a wide selection of stainless steel and high nickel.
- Johnson ExcelFlo™ allows an even flow distribution and reduced plugging rate.
- Protective cover (shroud) to give greater multi-layer protection during final installation against run damage.
- Damage tolerant design to withstand high collapse and high burst pressures.
- High drainage with improved construction to reduce rate of pressure build up and increase erosion resistance.
- Compliance to **API 19SS**.

# Quality Standards

- › Automatic welding machine
- › Factories under ASME Sect. IX specifications with WPQR/ WPQ according to EN 25817
- › All Plants accredited to ISO 9001:2015
- › Quality plans in addition to inspection and test plans are individually tailored to specific client requirements
- › Burst and Collapse Testing as per ISO-17824 first edition 2009-08-15
- › Global Manufacturing



With our new best-in-class **Photometric Inspection System**, we combine ultimate precision wire profile, cutting edge wrapping process with certified and documented gauge measurements across the full length of the jacket to guaranty sand control accuracy according to ISO 17824.



## Capabilities

- Best-in-class **Photometric Inspection System** for wire-wrap screens
- Sand control accuracy according to **Q1** – ISO 17824
- From 2" 3/8 to 9" 5/8
- Up to 46' long

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## Performance Results – Direct Wrap screens acc. to ISO 17824

### Internal Acceptance Parameters

- +/- .0010" – 75% Minimum
- +/- .0020" – 90% Minimum
- +/- .0030" – 100% Minimum

### Results 90 x 105 Wire

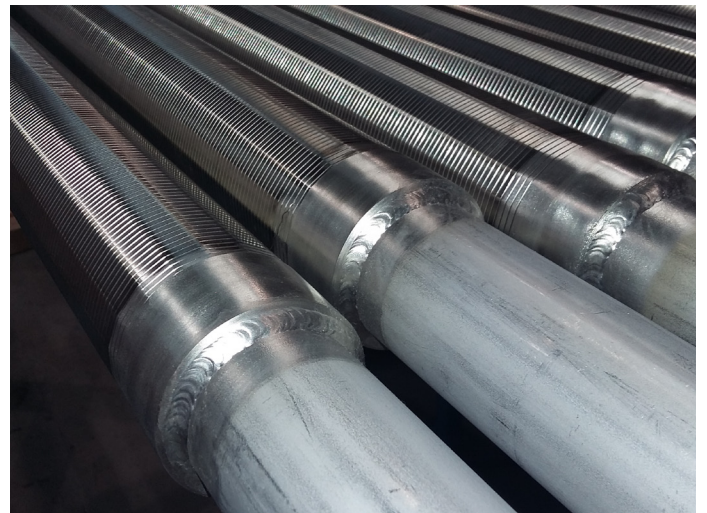
- +/- .0015" – 95% Average
- +/- .0020" – 99% Average
- +/- .0030" – 100% Average

### Results 90 x 140 Wire

- +/- .0015" – 89% Average
- +/- .0020" – 98% Average
- +/- .0030" – 100% Average



Automatic welding



Products in our workshop

**Johnson Screens**  
**Well Screens Product Line**

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