

# PIONEER™

## Pipe-based, wire-wrapped sand control screen

The Pioneer pipe-based, wire-wrapped, all-welded screen provides an economical, reliable and effective method of allowing production fluid to flow into the well while preventing gravel-pack sand from entering. It has been used successfully in deep, high pressure, high temperature and highly deviated wells. The screen can be modified to meet a wide variety of well applications including steam, water flood, water source, injection and waste disposal.

Worldwide, almost 50% of all oil and gas well sand screens run are the wire-wrapped, continuous slot design. Our screens feature an all-welded continuous gauge wedge or V-shaped wire that produces a self-cleaning action for greater flow and less chance of plugging. The Pioneer sand screen is manufactured by a sophisticated, electronically controlled fusion-welding process. These screens are custom-built to exact specifications and expected well conditions using a wide range of wrap wire and base pipe alloys. They

provide maximum flow area, high well efficiencies and superior tensile strength for dependability and long well life.

The Pioneer's wire-wrapped design produces an inflow area almost ten times greater than slotted pipe of the same opening size. This greatly enhances well life and filtration capacity. Pioneer screens come in a full range of sizes with base pipe ODs from 1.9 in. to 18.0 in.



### Applications

- Used most often in gravel-packed completions
- Economical and effective in wide range of applications from HP/HT wells to water wells
- Effective in wells with extreme lengths, severe doglegs and the tortuous environment of open-hole completions.

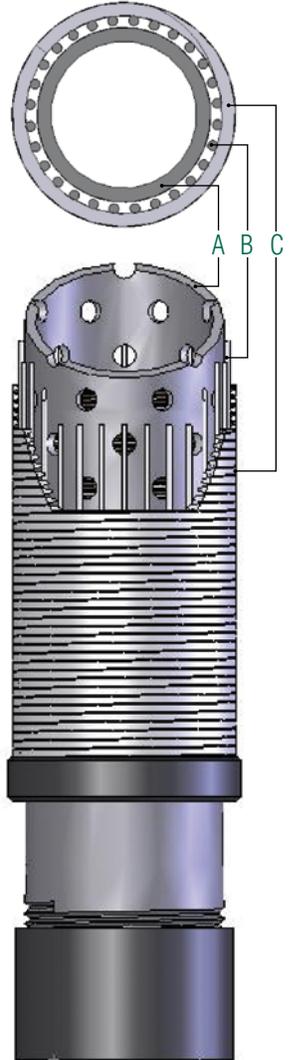
## ALLOY SCREEN WORKS

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## Advantages

- High number of ribs for greater collapse resistance, reduced “necking” at the weld to ensure consistent slot size and a round wear-resistant outer profile
- Self-cleaning design provides consistent, clog-free performance
- Choice of wrap wire and base pipe alloys allows for custom engineering to match specific production environments
- Purpose built for oil, gas or water producing wells and injectors, as well as waterflood, steamflood and disposal wells
- Designed not to separate when pulled or “nest” when milled, provides a more field-friendly screen
- More effective than slotted liners by up to ten times.

- A. Base pipe (alloy and hole size/pattern per customer specs)
- B. Rib wire (to specs)
- C. Screen wrap wire +/- 0.016 (alloy and dimensions per customer specs)



Base Pipe			Perforations				Screen	
OD (in.)	Weight (lb/ft)	Coupling (API-NU/in.)	Size (in.)	Holes/ft	Open Area (sq in./ft)	Area of Pipe (sq in./ft)	OD (in.)	Cylinder Area (sq in./ft)
1.900	2.75	2.200	3/8	84	9.28	71.63	2.392	90.13
2.063	3.25	IJ	3/8	84	9.28	77.77	2.555	96.27
2.378	4.60	2.875	3/8	96	10.60	89.54	2.867	108.03
2.875	6.40	3.500	3/8	108	11.93	108.39	3.367	126.87
3.500	9.20	4.250	3/8	132	14.58	131.95	3.992	150.42
4.000	9.50	4.750	3/8	144	15.90	150.88	4.492	169.26
4.500	11.60	5.000	3/8	156	17.23	169.65	4.992	188.10
5.000	15.00	5.563	3/8	168	18.56	188.50	5.492	206.94
5.500	15.50	6.050	3/8	180	19.88	207.35	5.992	225.78
6.625	24.00	7.390	3/8	216	23.86	249.76	7.102	268.17
7.000	23.00	7.656	3/8	228	25.18	263.89	7.492	282.30
8.625	32.00	9.625	3/8	240	26.51	325.16	9.099	342.85
9.625	36.00	10.625	3/8	260	28.72	362.85	10.099	380.53
13.375	54.50	14.375	3/8	300	33.13	504.23	13.849	514.29

Gap (in.)	Slot Factor	
	.090 Wrap	.060 Wrap
0.006	0.063	0.091
0.008	0.082	0.118
0.010	0.100	0.143
0.012	0.118	0.171
0.016	0.151	0.211
0.020	0.182	0.250