

# SAND-BAR™

## Shrouded, diffusion bonded sand control screen

The Sand-Bar is a premium, damage-tolerant screen featuring enhanced flow technology and a robust construction. It is capable of handling the most demanding well completion designs and adverse downhole conditions. The Sand-Bar is designed to increase flow rate, while minimizing plugging and head loss. It features an erosion-resistant outer shroud and provides highly efficient flow distributions. It is suitable for

extended reach, long horizontal open-hole, frac pack, deep water, high rate/high pressure gravel pack and multilateral completions. It is available in a wide range of sizes including sizes for thru-tubing applications.

In well service, the Sand-Bar's damage-tolerant design protects it under formation compaction. Neither inhibited acids nor organic solvents will affect it. Every detail is designed for long-term sand control integrity.

The Sand-Bar employs a perforated API tubular base pipe. Next to the base pipe is an enhanced diffusion bonded filtration media. This configuration distributes flow evenly to the base pipe perforations, maximizing strength and minimizing pressure drop. Finally, an outer shroud protects the filtration layers during installation and provides support in case of reverse pressurization.



**Perforated base pipe**  
*provides overall support and strength.*

**Diffusion bonded filtration media layers**  
*can meet the sand retention requirements of fine, medium or coarse sands (50 to 400 microns), and provides even flow distribution across the entire screen. Diffusion bonding ensures fixed pore geometry for effective performance under high operating pressures. High porosity leads to lower pressure drops and extended service life.*

**Outer shroud**  
*serves to protect the filtration media layers during installation, redirects flow to minimize erosion after installation, and provides support during reverse pressurization.*

### Applications

- Stand-alone applications in well-sorted reservoir sands
- Used in sand control applications where screen durability is critical
- Ideal for installation in short-radius, horizontal or highly deviated wells, and wells with extreme lengths, severe doglegs and tortuous environment
- Often employed in re-entry, workover and HP/HT wells
- Can be configured for surface sand control.

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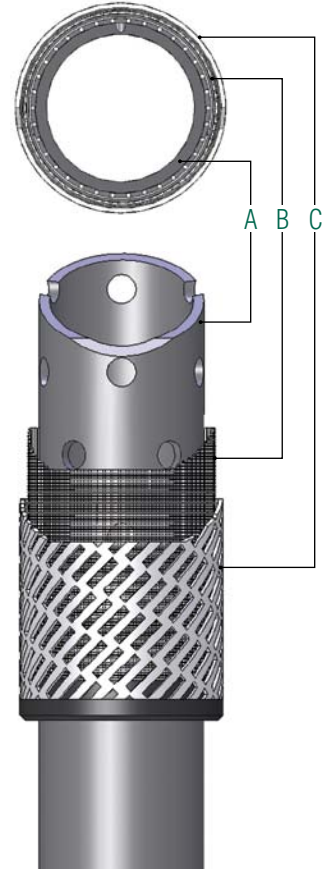
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## Advantages

- Increases fluid production and maximizes recovery over the life of the well
- Minimizes pressure drops
- Provides sand control across a broader range of particle sizes
- Effectively controls solids production associated with medium to fine reservoirs
- Resists plugging and erosion
- Uniform pore size for maximum filtration performance
- Greater resistance to failure from mechanical, thermal and pressure influences
- Lightweight and easy to handle
- More easily run in horizontal or highly deviated wells due to smooth, durable outer shroud.

- A. Perforated base pipe (alloy and hole size/pattern per customer specs)
- B. Multiple layers of diffusion bonded mesh filter media
- C. Spiral welded perforated or louvered metal outer protective shroud



Base Pipe			Perforations				Screen		
OD (in.)	Weight (lb/ft)	Coupling OD (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)	Open Area (%)
2.375	4.60	2.875	3/8	96	10.60	3.29	3.02	106.63	56
2.875	6.40	3.500	3/8	108	11.93	3.79	3.52	125.47	56
3.500	9.20	3.938	3/8	132	14.58	4.18	1.14	149.02	56
4.000	9.50	4.500	3/8	144	15.90	4.92	4.64	167.86	56
4.500	11.60	5.000	3/8	156	17.23	5.42	5.14	186.70	56
5.000	15.00	5.563	3/8	168	18.56	5.92	5.64	205.54	56
5.500	15.50	6.050	3/8	180	19.88	6.42	6.14	224.38	56
6.625	24.00	7.390	3/8	216	23.86	7.54	7.27	266.77	56
7.000	23.00	7.656	3/8	228	25.18	7.92	7.64	280.90	56

Sintered Laminate Screen Technical Specification Summary					
Filter Mesh Weave Pattern	Plain Square		Plain Dutch		
	Support Screen Weave Pattern	Plain Square	Plain Square		
Nominal Filter Rating (microns)	175	250	125	175	250
Number of Layers	4	4	3	3	3
Thickness (typical)	.072	.072	.072	.075	.080
Min. Pore (microns)	125	180	90	150	200
Max. Pore (microns)	225	320	150	250	300
Min. Porosity (% void)	58	58	53	54.8	52
Min. Tensile Strength (ksi Warp/Weft)	7.9/7.9	8.7/8.7	7.8/10	8.0/9.0	8.5/11

Material type: Diffusion Bonded Wire Mesh Laminate. Construction: Asymmetric. Material: AIFI type 316L Stainless Steel. Laminates also available in 304L Stainless Steel, Alloy 20Cb-3 and other materials.

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