

# ASW/CT™

## Shrouded, diffusion bonded sand control screen for thru-tubing applications

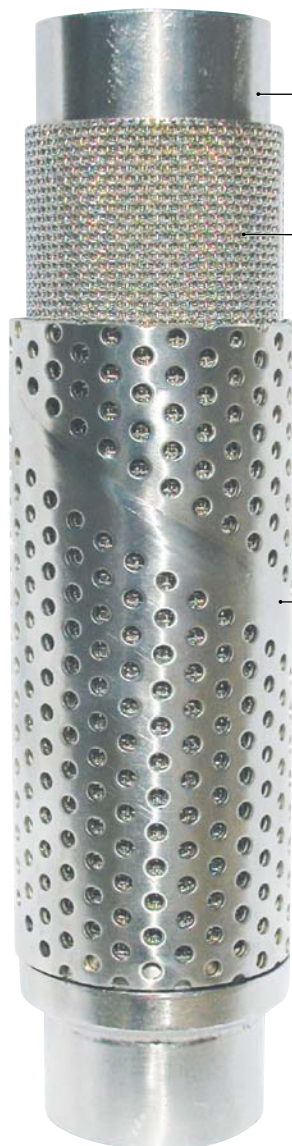
The ASW/CT is a premium, damage-tolerant screen featuring enhanced flow technology and a robust construction designed especially for thru-tubing or close tolerance (CT) applications. It is capable of handling the most demanding well completion designs and adverse downhole conditions. The ASW/CT is designed to minimize plugging and head loss. It features an erosion-resistant outer shroud and provides highly efficient flow distributions. It is available in several sizes for thru-tubing applications.

In well service, its damage-tolerant design protects it under formation compaction. Every detail is designed for long-term sand control integrity.

This new ASW/CT design involves the use of diffusion-bonded sintered-laminate woven wire mesh combined with a robust outer perforated protective shroud over a perforated base tube. Diffusion-bonded laminate mesh is well recognized as a superior downhole sand control media. Alloy Screen Works has developed a process to weld the media “flush-on” directly to the inner perforated tube of the screen assembly. This integrated process greatly enhances the screen's

strength and reduces the overall OD when coupled to the close tolerance outer shroud. These two attributes are crucial when considering the downhole restrictions encountered by thru-tubing well screens.

This Innovative new manufacturing technology has resulted in a close tolerance (CT) method of construction that produces a slim hole screen, which surpasses the specifications of other thru-tubing screens currently available.



**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.*

**Protective 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

- Used in close tolerance sand control applications where screen durability is critical
- Ideal for installation in short-radius, horizontal or highly deviated wells that have tight spots or doglegs
- Often employed in re-entry, workover and HP/HT wells
- Stand-alone applications in well-sorted reservoir sands.

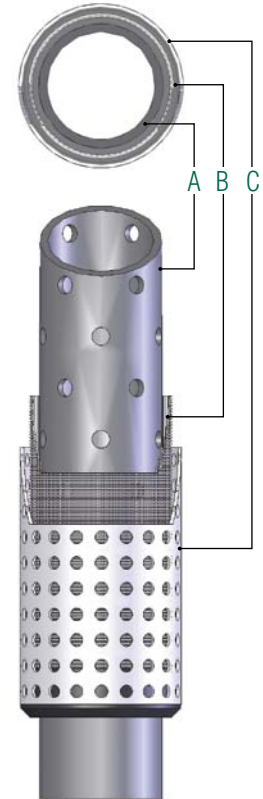
## ALLOY SCREEN WORKS

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## Advantages

- Slim profile makes it easy to run in close tolerance applications
- 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
- Innovative manufacturing technology results in superior slim hole characteristics
- Exceptional strength
- Greater resistance to failure from mechanical, thermal and pressure influences.

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



Dimensional data for 125 micron diffusion bonded laminate mesh screen and a perforated outer protective shroud.

Base Pipe				Perforations				Screen				
OD (in.)	ID (in.)	Weight (lb/ft)	Coupling OD (in.)	Holes/ft	Hole Size (in.)	Open Area (sq in./ft)	Open Area (% of pipe)	OD with Shroud*	Cylinder Area (sq in./ft)	Laminate Open Area (%)	Nominal Diameter (in.)	
1.315	1.049	1.70	1.66	60	3/8	6.66	13	1.69	64.77	56	1.00	
1.660	1.380	2.30	2.05	72	3/8	7.95	13	2.04	77.77	56	1.25	
1.900	1.610	2.75	2.20	84	3/8	9.28	13	2.29	94.01	56	1.50	

\*+/- .020 in.