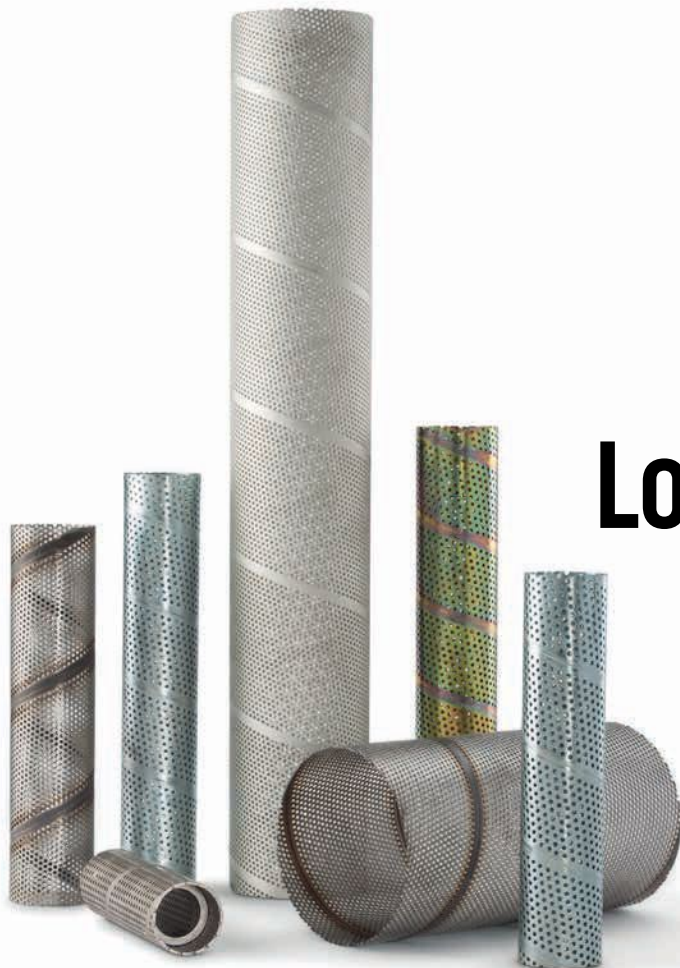


Look into the spiral

Beverlin Specialty Tube takes an in-depth look at the manufacturing process, benefits, and limitations of spiral weld tubes



In the world of specialty tubing, spiral weld tubes have gained significant attention due to their unique manufacturing process and intrinsic advantages. Beverlin Specialty Tube has witnessed a surge in demand for spiral weld tubes across a range of industries, including oil and gas, nuclear, and large-scale industrial applications. In this article, the company explores how the manufacturing process of spiral weld tubes creates several application-specific benefits – and a few noteworthy limitations – compared to traditional straight seam welds.

MANUFACTURING PROCESS

Spiral weld tubes are produced using a continuous welding process, which is similar to high volume straight seam tubes. This process involves coiling a strip of metal around a mandrel at an angle, forming a helical shape. As the strip is coiled, the edges are welded together, creating a spiral seamed tube.

Above: Spiral weld tubes in varying sizes manufactured by Beverlin Specialty Tube

KEY BENEFITS

One of the primary advantages of spiral weld tubes is their inherent roundness and straightness. The continuous welding process ensures a more uniform and consistent shape than straight seam tubes, reducing the likelihood of deformities or irregularities in the tube's structure.

In addition, spiral weld tubes offer excellent filtration capabilities. The spiral seam allows for a 360-degree filtration flow, ensuring even distribution and efficient filtering of fluids and gasses. This makes spiral weld tubes ideal for applications that require high levels of filtration performance.

Furthermore, spiral welding allows for the production of tubes with larger outer diameters and of varying lengths without the need for large-scale coil and coil-handling equipment. Instead of relying on large metal coils, manufacturers can use smaller strips of metal and create a die set to achieve the desired diameter. This flexibility in

production allows for more cost-effective manufacturing.

Additional benefits include increased crush-resistance; increased corrosion-resistance, strength and flexibility in high temperatures; and stronger, more consistent welds.

THE LIMITATIONS

The spiral weld seam occupies a larger surface area, resulting in a marginally smaller open area for filtration or flow. This reduction is often negligible, however, and can be mitigated through proper design and engineering.

In addition, depending on the specific application requirements, spiral weld tubes may, at times, run slower through the continuous welding process than straight seam tubes. This potential reduction in production speed should be considered when evaluating the suitability of spiral weld tubes for a particular project or manufacturing environment.

ABOUT THE AUTHOR

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