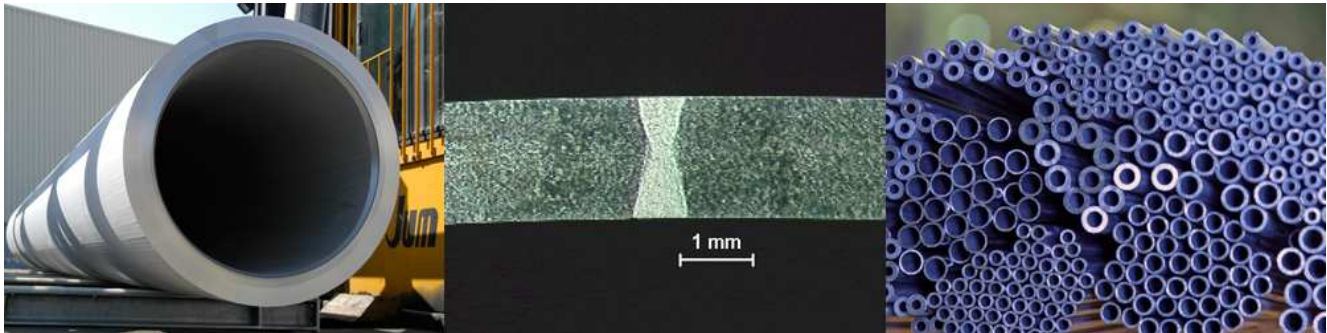


Seamless and welded pipes compared

Stainless steel pipes can be manufactured in either welded or seamless form. The decision as to which manufacturing process should be used for a particular purpose depends mainly on the wall thickness/diameter ratio required and on the specified pipe tolerances.

In many cases, the benefits of the welded pipe predominate, and so this method is now generally used in western European industry.



For outside diameters of up to DN 100 with a diameter/wall thickness ratio of 5:1 or less, however, seamless pipes are usually better value. But wall thicknesses of less than 3 mm are not available for heat-formed seamless pipes. For welded pipes, the minimum diameter/wall thickness ratio is a constant 10:1, thus offering a wide range of possibilities.

The individual production of longitudinally welded pipes also enables an order for precise wall thicknesses – that is cost-effective and saves resources.

Due to the manufacturing process, differences in wall thicknesses and thus deviations from symmetry (eccentricity) may arise in seamless pipes. It is different with longitudinally welded pipes: The regularity of the coil or plate thickness means that here the wall thickness tolerance is the same across the entire pipe surface – there can be no eccentricity.

The number of alloys available for each group of materials is limited in the case of heat-formed seamless pipes, whereas coils and plates for the production of welded pipes are available without any problems in a wide variety of materials.

When manufacturing seamless pipes, the length manufactured depends on the weight per metre or pipe. In welded form you have a choice of up to 12 m or 18 m without circumferential welds.

The pipes welded on the basis of the valid calculations (AD-form 2000 / ANSI B 31.3 / ASME VIII) are of the same quality as seamless pipes, providing a 100 % weld check has been performed. Corrosion resistance in the weld seam area is maintained at a constant level by the use of higher-alloyed welding additives.

Would you like more information and comparison criteria? Then click here to be taken to our flyer on the subject.

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