

PIPES FOR WATER CONDUITS UNI EN 10224

Non-alloy steel pipes and fittings for water and other fluids

USE Transport networks and water supply distribution for civil and industrial uses

STEEL GRADE L235 - L275 - L355

PROCESSING ➤ Seamless
➤ Welded

TOLERANCES **THICKNESS AND OUTSIDE DIAMETER FOR SEAMLESS MATERIAL**

Diameter (mm)	Tolerance at 100mm from the 2 ends	t tolerance for each t/D ratio (%)			
		≤2,5	>2,5 ≤5,0	>5,0 ≤10,0	>10,0
D ≤219,1	+/- 0,5mm or +/- 0,5% whichever is the larger	+/- 12,5 % or +/- 0,4mm whichever is the larger			
D >219,1	+/-1,6mm	+/-20%	+/-15%	+/-12,5%	+/-10%

THICKNESS OF ELECTRICALLY WELDED MATERIAL ERW

Thickness tolerance excluding the welding area

+/- 10% or +/- 0,3mm whichever is the larger; the thickness in the welding area must not be lower than the minimum thickness allowed on the pipe body

THICKNESS OF WELDED MATERIAL SAW

Thickness tolerance excluding the welding area +/- 7,5%; maximum height of the welding bead must fall between the following values:

- Thickness ≤ 12,5mm: 3,5mm
- Thickness > 12,5mm: 4,5mm

OUTSIDE DIAMETER

- Welded material ERW

Diameter (mm)	Tolerance
D ≤219,1	+/-1% (with min +/-0,5mm)
D >219,1	+/-0,75%

- Welded material SAW

- +/- 0,75% with a maximum of ± 6mm for diameters ≤ 2032mm
- D > 2032mm: the tolerance shall be agreed between customer and supplier

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OUT OF ROUNDNESS

For pipes with outside diameter/thickness ratio $D/t \leq 100$, the external out of roundness, calculated with the following equation, must not exceed 2%:

$$O = 100 \frac{(D \text{ max} - D \text{ min})}{D}$$

STRAIGHTNESS

- $\leq 0,2\%$ measured on the whole length

MARKING

Marking must be indelible or carried out by punching at a distance of 300mm from one end

Marking must include the following information:

- Manufacturer's name or trademark
- Number of current European standard
- Name of steel
- Initial S (seamless) or W (welded) according to the manufacturing process

Any additional requests shall be agreed during the order

CERTIFICATION UNI EN 10204

SIZE

RANGE UNI EN 10220