

Material type

**Metal**

Material name

**Stainless steel 316/316L | 1.4401/1.4404 | X5CrNiMo17-12-2/X2CrNiMo17-12-2**

Alternative names

**X2CrNiMo17-12-2, 1.4404**

Process compatibility

**CNC machining****Mechanical properties**

Ultimate tensile strength	480 - 600 MPa
Yield strength	170 - 230 MPa
Young's modulus (modulus of elasticity)	190 - 205 GPa
Elongation at break	38-55 %

**Thermal properties**

Maximum service temperature	750 - 925 °C
Thermal expansion coefficient	15 - 18 10 <sup>-6</sup> /°C
Thermal conductivity	13 - 17 W/(m·°C)

**Post treatments**

Post-Processing	Annealing & Cold working
Anodizing compatibility	Not suitable

**Physical properties**

Corrosion resistance	Excellent
Magnetism	Non-magnetic
UV resistance	Excellent
Weldability	Excellent

**Electrical properties**

Electrical resistivity	69 - 81 μΩ*cm
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**Common applications**

Chemical and petrochemical industry
Food processing
Pharmaceutical equipment
Medical devices

Potable water

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Wastewater treatment

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Marine applications

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