



Grade	Code	AISI	Austenitic Stainless Steel
1.4401	X5CrNiMo17-12-2	316	

Steel Properties

AISI 316 is an austenitic stainless chromium-nickel-molybdenum steel. Due to the addition of 2 to 2.5% molybdenum, the corrosion resistance of AISI 316 compared to standard austenitic grades [1.4301](#) and [1.4307](#) is much better. AISI 316 is well suited for machining. Due to the molybdenum content AISI 316 has a good resistance in chloride-containing media and non-oxidizing acids.

Chemical Composition (1.4401)

C %	P 5	Si %	Mn %	S %	Cr %	Mo %	Ni %	Cu %	W %
0,07 max.	0,045 max.	1,00 max.	2,00 max.	0,015 max.	16,50 – 18,50	2,00 – 2,50	10,00 – 13,00	-	-

Mechanical Properties

Rp0.2, Mpa	Rm, Mpa	Elongation [%]	Hardness [HB]
≥ 200	500 – 700	≥ 30	< 215

Suitable For

AISI 316 is widely used in the oil, nitrogen, shipbuilding, chemical, construction, refinery, medical, cellulose, cryogenic, automotive, as well as food processing industries in the form of plates, tapes, pipes, sleeves, fittings, forgings, bars, for parts of gas installations, heat exchangers, railings, ship equipment and public transport vehicles, valves, tanks, pumps, radiators, food processing machines in dairy, catering, meat plants, vegetable and fruit processing plants, distillers, chimneys, steam systems, pipelines, pressure equipment, crystallizers, cisterns, silos, swimming pools, boiler parts, condensers, autoclaves, reactors or condensing equipment.

Remarks

Specification

AISI 316, 1.4401, X5CrNiMo17-12-2