

316 Austenitic stainless steel

Typical Analysis (Ave. values %)	C	Si	Mn	Cr	Ni	Mo	S	P
	0.03	0.5	1.4	17.0	11.5	2.2	0.03	0.04
NEAREST STANDARD	AS		DIN		SIS		AISI	
	316L		1.4404 X2CrNiMo17-12-2		2348		316/316L	

DESCRIPTION	<p>316 is dual certificated (316/316L) Austenitic chromium nickel molybdenum steel and is produced in many sections including Hollow bar. 316 is resistant to intergranular corrosion in the temperature range up to 300°C in bar up to 40mm diameter. Owing to its molybdenum content, this steel offers better resistance to acids, having a reducing effect such as diluted sulphuric acid and hydrochloric acid, and to media causing pitting, crevice corrosion and stress corrosion cracking.</p>
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APPLICATIONS	<p>Textile, paper, cellulose and synthetic fibre industries, film and photographic industry, dyeing industry, medical and hospital equipment, fruit juice and liqueur production, distillery equipment, meat and fish processing equipment, press plates for the plastics processing industry Hollow bar is most economical where cylindrical parts are required.</p>
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MECHANICAL PROPERTIES ≤ 160 mm	Tensile Strength MPa	Yield Strength MPa	Elong %	Impact strength J
	500-700	200	40	100

HEAT TREATMENT	Quench temperature (Annealing)	1000-1100 water, Air
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PHYSICAL PROPERTIES	Density (kg/dm ³)	8.00
	Modulus of elasticity 10 ⁵ N/mm ²	200
	Thermal conductivity W/(m.K)	15
	Electric resistivity Ohm.mm ² /m	0.75
	Specific heat capacity J/(kg.K)	500
	Thermal expansion 10 ⁶ m/(m.K)	15

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WELDING	Use Bohler Welding Australia
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Round Drawn h9										
SIZE RANGE	4.76	6.35	8	10	12	15.88	17	20		
	6	7.94	9.53	11.11	12.7	16	19.05			
Round Peeled & Polished h10										
SIZE RANGE	20	25	30	38.1	50	57.2	69.85	88.9		
	22.23	25.4	31.75	40	50.8	60	76.2	95.25		
	24	28.57	34.92	44.45	57.15	63.5	82.55			
Centreless Ground h9										
SIZE RANGE	31.75	38.1	44.45	50.8	57.15	63.5	69.85	101.6		
Round Machined k12										
SIZE RANGE	101.6	127	152.4	177.8	190.5	215.9	254			
	114.3	139.7	165.1	180	203.5	228.6	304.8			
Hollow Bar Black										
SIZE RANGE	32x16	63x36	100x56	125x100	180x140					
	36x20	63x40	100x71	132x71	180x150					
	36x25	63x50	100x80	132x90	190x132					
	40x20	71x36	106x56	132x106	190x160					
	40x25	71x45	106x71	140x80	200x140					
	40x28	71x56	106x80	140x100	200x160					
	45x20	75x40	112x63	140x112	212x130					
	45x28	80x40	112x80	150x80	212x170					
	50x25	80x50	112x90	150x106	224x140					
	50x32	80x63	118x63	150x125	224x180					
	50x36	85x45	118x80	160x112	236x150					
	56x28	90x50	118x90	160x132	236x190					
	56x36	90x63	125x71	170x118	250x200					
	56x40	90x71	125x80	170x140						
	63x32	95x50	125x90	180x125						

Sizes normally stocked in Australia. Some branches may not hold the entire range.

Other sizes available on request.

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