

ALLOY TYPE	SPECIFICATION	MINIMUM PROPERTIES				COMMENTS
		ULTIMATE TENSILE STRENGTH PSI	YIELD STRENGTH PSI	ELONGATION %	BHN	
Austenitic Stainless Steels						
303 CF-16Fa	A743-CF16Fa	70,000	30,000	52	143	Widely used for ambient and cryogenic temperature applications. Free machining. Available with controlled ferrite for strength.
304 CF-8	A351-CF8	70,000	30,000	55	143	Widely used for ambient and cryogenic temperature applications. Higher corrosion resistance than 303.
304L CF-3	A351-CF3	70,000	30,000	60	149	Widely used for ambient and cryogenic temperature applications. High corrosion resistance. Improved weld application.
316 CF-8M	A351-CF8M	70,000	30,000	50	163	Widely used for ambient and cryogenic temperature applications. Increased resistance to acids and salt solutions.
316L CF-3M	A351-CF3M	70,000	30,000	55	156	Widely used for ambient and cryogenic temperature applications. Better corrosion resistance and improved weld application.
347 CF-8C	A351-CF8C	70,000	30,000	39	143	Widely used for ambient and cryogenic temperature applications. Columbium stabilized for weld application.
317 CG-8M	A296,A743	75,000	35,000	45	174	High molybdenum alloy. Improved resistance to acids and great resistance to pitting.
Martensitic Stainless Steels						
410 CA-15	A217-CA15	90,000	65,000	16	223	Hardenable and good erosion resistance. Widely used in mildly corrosive conditions; steam and high steam service applications.
(410) CA-6NM	A487-CA6NM	110,000	80,000	20	262	Similar to 410 with increased resistance to stress-corrosion cracking and better weldability.
17-4PH CB7CU-1	A747-CCB7CU-1	135,000	110,000	9	311	Outstanding alloy for high strength and corrosion resistance. Hardenable after solution annealing.
15-5PH CB7CU-2	A747-CCB7CU-2	135,000	110,000	9	302	Similar to 17-4PH. Superior combination of strength, toughness, and weldability. Moderate corrosion resistance.
Heat Resistant Stainless Steels						
309 CH-20	A297-HH	80,000	35,000	38	185	High strength and oxidation resistant to 2000 F. Superior to CF-8 in specialized chemical and paper applications.
310 CK-20	A297-HK	75,000	30,000	37	170	Comparable to 309. Higher nickel content and creep strength. Improved corrosion resistance.
330 HT	A297-HT	65,000	35,000	10	180	Widely used in thermal shock applications. Oxidation and carburization resistant to 1900 F.
Nickel Alloys						
N-12M HASTELLOY B	A494-N12M-1	76,000	46,000	6	201	Developed particularly for resistance to corrosion by hot concentrated hydrochloric acid solutions and wet hydrogen chloride.
N-12M-2 HASTELLOY B2	A494-N12M-2	76,000	46,000	20	201	Similar to N-12M. These alloys are excellent in resistance to other acids including nitric, phosphoric, and sulfuric.
CW-12M HASTELLOY C	A494-CW12M-1	72,000	46,000	4	212	Exceptional resistance to strong oxidizing agents, bleaching solutions, and boiling organic acids.
MONEL A NICU QQ-N-288	A494-M35-2	65,000	30,000	25	137	Used in handling sulfuric, hydrochloric and organic acids in the marine, chemical, sanitation, and food processing industries.
MONEL E NICU QQ-N-288	A494-M30C	65,000	30,000	25	137	Similar to Monel A, but columbium stabilized for improved weldability. Additional user industries include power and plastics.
CY-40 INCONEL	A296,A743,A494	70,000	28,000	30	143	For severe corrosive environments at elevated temperatures. Resists oxidation up to 2150 F.
CZ-100 PURE NICKEL	A296,A743,A494	50,000	18,000	10	121	Outstanding for maintaining the purity of a wide range of drugs, foods, and chemicals. Also used in the manufacture of caustics.
Bronzes						
C836 85-5-5-5	QQ-C-390 Alloy B5	30,000	14,000	20	60	Fair strength. Widely used in plumbing goods, pipe fittings, water pump impellers, ornamental fixtures, and small gears.
C861 423 Mang. Brz.	QQ-C-390 Alloy C5	90,000	45,000	18	180	Good strength and toughness for structural parts. Other typical uses include gears, bushings, marine castings and bearings.
C922 245 Navy M	QQ-C-390 Alloy D4	34,000	16,000	22	65	Medium strength bronze. Used for valves, fittings and pressure containing parts up to 550 F.
C954 415C Al. Brz.	QQ-C-390 Alloy G5	75,000	30,000	12	170	Higher strength and corrosion resistant bronze. Typical uses include bearings, gears, bushings, valve seats and guides
C964 70:30 CUNI	QQ-C-390 Alloy X9	60,000	32,000	20	140	High grade bronze for corrosion resistance. Uses include valves, pumps, flanges, and elbows in sea water applications.
C976 412 Ni. Silver.	MIL-C-17112	40,000	17,000	10	80	Medium strength bronze with silvery luster. Widely used in ornamental hardware, sanitary fittings, valves and pumps.