

## Alloy 20 (UNS N08020)

### Description

Alloy 20 is one of the so-called "Super" stainless steels that was designed for maximum resistance to acid attack. Its nickel, chromium, molybdenum and copper content contribute to its overall resistance to chloride stress corrosion cracking and general pitting attack. Although the alloy was designed for use in applications involving sulfuric acid, it also can be used for processing pharmaceuticals, food, gasoline, solvents, plastics, explosives, synthetic fibers and many more products.

### Specifications

ASTM: B729, B464, B366, B473, B462

ASME: SB729, SB464, SB366, SB473, SB462

### Chemical Composition%

C	Nb + Ta	Cr	Cu	Fe	Mn	Mo	Ni	P	S	Si
MAX	8x Carbon	–	–	–	MAX	–	–	MAX	MAX	MAX
0.07	1.00	19.0 - 21.0	3.0 - 4.0	BAL	2.00	2.0 - 3.0	32.0 - 38.0	0.045	0.035	1.00

### Tensile Requirements

Tensile Strength: (KSI) = 80

Yield Strength: (KSI) = 35

(KSI converts to MPA {Megapascals} by multiplying by 6.895)

### Typical Application

- Chemical and allied industries
- Food and dye production
- Heat exchangers
- SO2 scrubbers and other severe environments
- Tanks
- Pickling racks
- Valves