**AVAILABILITY**

- Seamless Pipe 1/4" – 8"
- Weld Pipe 1/2" – 24"
- Butt-Weld Fittings 1/2" – 24"
- Flanges 1/2" – 24"
- Pressure Fittings 1/4" – 2"
- 150# Fittings 1/4" – 2"
- Tubing 1/4” – 1”
- Valves 1/2” – 12”
- Bar 1/8” – 11”
- Plate 1/8" - 3"

**DESCRIPTION**

Alloy 20 is one of the so-called “Super” stainless steels that was designed for maximum resistance to acid attack. It’s nickel, chromium, molybdenum and copper content contribute to its overall resistance to chloroiron stress corrosion cracking and general pitting attack. The alloy is stabilized with columbium to minimize carbide precipitation during welding. It has good mechanical properties and can be fabricated with comparative ease.

Although the alloy was designed for use in sulfuric acid related industries, it finds wide usage throughout the chemical processing industry. It also is used for processing pharmaceuticals, food, gasoline, solvents, plastics, explosives, synthetic fibers and many other products.

**DESIGN FEATURES**

- Superior resistance to stress-corrosion cracking in boiling 20 to 40% sulfuric acid.
- Excellent general corrosion resistance to sulfuric acid.
- Excellent resistance to chloride stress corrosion cracking.
- Excellent mechanical properties and fabricability.
- Minimal carbide precipitation during welding.

**TYPICAL APPLICATIONS**

- Chemical and allied industries
- Food and dye production
- Heat exchangers
- SO 2 scrubbers and other severe environments
- Tanks
- Pickling racks
- Valves

**SPECIFICATIONS**

- ASTM B729, B464, B366, B473, B462
- ASME SB729, SB464, SB366, SB473, SB462

**CHEMICAL COMPOSITION %**

<table>
<thead>
<tr>
<th>C</th>
<th>Cb</th>
<th>Cr</th>
<th>Cu</th>
<th>Mn</th>
<th>Mo</th>
<th>Ni</th>
<th>P</th>
<th>S</th>
<th>Si</th>
<th>Ta</th>
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<tbody>
<tr>
<td>Max</td>
<td>8 times</td>
<td>Max</td>
<td>Max</td>
<td>Max</td>
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<td>Max</td>
<td>Max</td>
<td>Max</td>
<td>Max</td>
<td>8 times</td>
</tr>
<tr>
<td>0.07</td>
<td>Carbon-1.00</td>
<td>19.0-21.0</td>
<td>3.30-4.0</td>
<td>2.0</td>
<td>2.0-3.0</td>
<td>32.0-38.0</td>
<td>0.045</td>
<td>0.035</td>
<td>1.0</td>
<td>Carbon-1.00</td>
</tr>
</tbody>
</table>

**TENSILE REQUIREMENTS**

- Tensile Strength (KSI) 80
- Yield Strength (KSI) 35

KSI can be converted to MPA (Megapascals) by multiplying by 6.895.