

## NITRONIC 50 (XM-19) STAINLESS

Nitronic 50 (XM-19) Stainless is a high strength and good corrosion resistant austenitic stainless steel. It has nearly double the yield strength of 304 and 316 stainless steel and has better corrosion resistance than 317L stainless steel. Nitronic 50 (XM-10) Stainless remains non-magnetic even after being severely cold worked. It maintains strength at high temperatures as well as sub-zero temperatures.

### SPECIFICATIONS

**UNS:** S20910; **W.Nr./EN:** 1.3964; **ASTM:** A276; **NACE:** MR0175; **ISO:** 15156-3

### CHEMICAL COMPOSITION %

	Ni	Cr	Mo	Mn	Si	C	N	S	P	Cb	V	Fe
<b>MIN</b>	11.5	20.5	1.5	4.0	--	--	0.2	--	--	0.1	0.1	--
<b>MAX</b>	13.5	23.5	3.0	6.0	1.0	0.06	0.4	0.03	0.045	0.3	0.3	balance

### FEATURES

- High strength austenitic alloy
- Good corrosion resistance

### APPLICATIONS

- Seawater pump shafts
- Heat exchangers
- Pressure vessels
- Marine hardware

### PHYSICAL PROPERTIES

**Density:** 0.285 lb/in<sup>3</sup> **Melting Range:** 2579-2642<sup>o</sup>F **Electrical Resistivity:** 492 ohm circ-mil/ft

Temperature, <sup>o</sup> F	70	200	300	400	600	800	900	1000	1200	1400
<b>Coefficient of Thermal Expansion* in/in<sup>o</sup>F x 10<sup>6</sup></b>	--	90	--	9.2	9.6	9.9	--	10.2	10.5	10.8
<b>Thermal Conductivity btu•ft/ft<sup>2</sup> •hr •<sup>o</sup>F</b>	108	--	108	--	124	--	141	--	160	--
<b>Modulus of Elasticity Dynamic, psi x 10<sup>6</sup></b>	28.9	27.8	27.0	26.1	24.6	--	--	--	--	--

