

## HIGH TEMPERATURE / CORROSION RESISTANT ALLOYS

### **NICKEL 400**

High strength, good weldability, excellent corrosion resistance  
over wide range of temperatures and conditions.

Used on:

Valves, Pumps, Shafts, Marine Fixtures, Fasteners, Electrical and  
Electronic Components, Processing equipment, Petroleum  
Refining and production equipment, Feedwater heaters and other  
Heat Exchangers.

#### NICKEL 400 CHEMICAL COMPOSITION

CARBON (C)	0.30 MAX.
MANGANESE (MN)	2.00 MAX
SULFUR (S)	0.024 MAX.
SILICON (SI)	0.50 MAX
NICKEL (NI)	63/70
COPPER (CU)	BALANCE
IRON (FE)	2.50 MAX.
COBALT (CO)	1.0 MAX

#### NICKEL 400 TYPICAL APPLICATIONS

MARINE FASTENERS
CHEMICAL PROCESSING EQUIPMENT
SPRINGS
HEATERS
HEAT EXCHANGERS
GASOLINE AND FRESH WATER TANKS

#### PHYSICAL PROPERTIES (ANNEALED CONDITION)



Modulus of Elasticity, Tension 10(\*\*\*\*\*) psi – 26.0  
Magnetic permeability at 200H (At 70 F) –  
Electrical Resistivity, Microhm-cm (At 70 F) – 51  
Density, lb/cu.in. - .319

**COEFFICIENT OF THERMAL EXPANSION**

in./in./F x 10 (-\*\*\*\*\*)

70 – 200 F	7.7
70 – 400 F	8.6
70 – 800 F	8.9
70 – 1000 F	9.1