1/2 in. Monel NiCu Union Nut. 6000 lb Rating, Threaded Connection. CPV Manufacturing 50N-3-M

Item No.	M114885	UOM	EA
Brand	CPV Manufacturing		
Mfg Part Number	50N-3-M		

View Product Online to Request Quote

Specifications

Type	Union Nut
Size	1/2 in.
Material	Nickel Copper
Material Grade	Monel NiCu
Pressure Class	6000 lb
Connection	Threaded
Specification	
Market	Commercial

Product URL: https://torksystems.com/M114885

QA PROGRAM

MIL-I-45208A / MIL-STD-45662A

ASTM A193/A194/F593/F594/F467/F468

ANSI, ASME, ASTM, SAE, FEDERAL, IFI, MIL-SPEC

DOD/QSLD CLASS 2+3

MATERIALS

STAINLESS

XM-7	316
302	316L
305HQ	317
303	321
304	330
304L	347
305	410
309	416
310	430
B8	B8M

A193/A194/A276/A479

F593/F594/F879, QQ-S-763

NICKEL ALLOYS

200	405	660
201	500	690
205	501	718
270	600	725
290	601	783
400	625	783

QQ-N-281, QQ-N-286, ASTMB164

CARBON STEEL

GRADES 2, 5, & 8, 2H

A325/A354/A490/A563, B7, B16

AL6XN	HASTELLOY B	NITRONIC
ALLOY 20	HASTELLOY C	PVC/NYLON
ALUMINUM	INCONEL	SILICON BRONZE
AVESTA™2055	INCOLOY	STAINLESS
BRASS	K-MONEL	STEEL

COPPER	MONEL	TITANIUM
17-4 PH	NAVAL BRASS	WASPALOY

ASTM B21, B98, B164, B348, B473,
ASME SB127, 163, 164, 165

QA PROGRAMS

MIL-I-45208A / MIL-STD-45662A

ASTM A193/A194/F593/F594/F467/F468

ANSI, ASME, ASTM, SAE, FEDERAL, IFI, MIL-SPEC

DOD/QSLD CLASS 2 + 3

MONEL alloy 400

A nickel-copper alloy with high strength and excellent corrosion resistance in a range of media including seawater, hydrofluoric acid, sulfuric acid, and alkalies. Used for marine engineering, chemical and hydrocarbon processing equipment, valves, pumps, shafts, fittings, fasteners, and heat exchangers. Standard product forms are round, hexagon, flats, forging stock, pipe, tube, plate, sheet, strip, and wire.

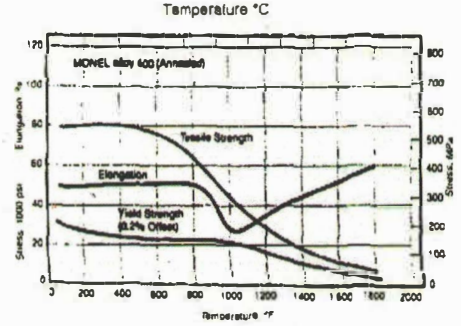
Limiting Chemical Composition, %

Ni[a] ..... 63.0 min.	Mn..... 2.0 max.	Si ..... 0.5 max.
Cu 28.0-34.0	C ..... 0.3 max.	
Fe ..... 2.5 max.	S..... 0.024 max.	

[a]Plus Co.

Typical Mechanical Properties (Annealed)

Tensile Strength, psi	80,000
MPa	500
Yield Strength (0.2% Offset), psi	35,000
Mpa	240
Elongation, %	40



Physical Constants and Thermal Properties

Density, lb/in^3	0.318
Mg/m^3	8.80
Melting Range, °F	2370-2460
°C	1300-1350
Specific Heat, Btu/lb·°F	0.102
J/kg·°C	427
Curie Temperature, °F	70-120
°C	20-50
Coefficient of Expansion, 70-200°F, 10^{-6} in/in·°F	7.7
21-93°C, µm/m·°C	13.9
Thermal Conductivity, Btu·in/ft^2·h·°F	151
W/m·°C	21.8
Electrical Resistivity, ohm·circ mil/ft	329
µΩ·m	0.547

Specifications and Designations

UNS N04400 SAE AMS 4544, 4574, 4575,

MONEL alloy R-405

The free-machine version of MONEL alloy 400. A controlled amount of sulfur is added to the alloy to provide sulfide inclusions that act as chip breakers during machining. Other characteristics are essentially the same as those of MONEL alloy 400. Used for meter and valve parts, fasteners, and screw-machine products. Standard product forms are round, hexagon, flats, and wire.

Limiting Chemical Composition, %

Ni[a] .....63.0 min.	S 0.025-0.060	Si.....0.5 max.
Cu 28.0-34.0	Mn ..... 2.0 max.	
Fe .....2.5 max.	C. .....0.3 max.	

[a]Plus co.

Typical Mechanical Properties (Annealed)

Tensile Strength, psi	80,000
Mpa	550
Yield Strength (0.2% Offset), psi	35,000
Mpa	240
Elongation, %	40

Physical Constants and Thermal Properties

Density, lb/in^3	0.318
Mg/m^3	8.80
Melting Range, °F	2370-2460
°C	1300-1350
Specific Heat, Btu/lb·°F	0.102
J/kg·°C	427
Curie Temperature, °F	70-120
°C	20-50
Coefficient of Expansion, 70-200°F, 10^{-6} in/in·°F	7.6
21-93°C, µm/m·°C	13.7
Thermal Conductivity, Btu·in/ft^2·h·°F	151
W/m·°C	21.8
Electrical Resistivity, ohm·circ mil/ft	307
µΩ·m	0.510

Specifications and Designations

UNS N04405 ASTM B 164 ASME SB-164, Boiler Code Sections III,VIII
SAE AMS 4674, 7234 QQ-N-281 NACE MR-01-75

MONEL WAS INVENTED IN 1905 WITH APPROXIMATELY TWO THIRDS NICKEL AND ONE THIRD COPPER. MONEL ALLOYS RESIST CORROSION IN A WIDE VARIETY OF ENVIRONMENTS AND ARE USED IN SULFURIC ACID AND HYDROFLUORIC ACID, AND IN VARIOUS MARINE/NAVAL APPLICATIONS INVOLVING CONTACT WITH SEA AND FRESH WATER. MONEL ALLOYS ARE FREQUENTLY UTILIZED IN HEAT EXCHANGERS DUE TO GOOD THERMAL CONDUCTIVITY AND CORROSION RESISTANCE.

MONEL APPLICATIONS INCLUDE: MARINE,

MONEL alloy K-500

A precipitation-hardenable nickel-copper alloy that combines the corrosion resistance of MONEL alloy 400 with greater strength and hardness. It also has low permeability and is nonmagnetic to under -150°F(-101°C). Used for pump shafts, oil-well tools and instruments, doctor blades and scrapers, springs, valve trim, fasteners, and marine propeller shafts. Standard product forms are round, hexagon, flats, forging stock, pipe, tube, plate, sheet, strip, and wire.

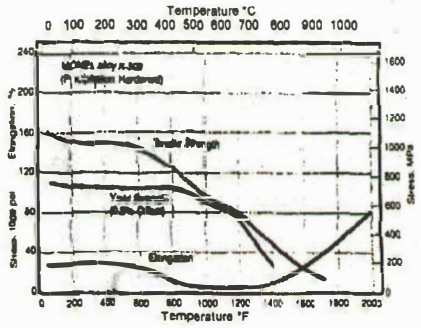
Limiting Chemical Composition, %

Ni[a] .....63.0 min.	Ti 0.35-0.85	Mn.....1.5 max.
Cu.....27.0-33.0	Fe .....2.0 max.	S..... 0.01 max.
Al 2.30-3.15	C.....0.25 max.	Si..... 0.5 max.

[a]Plus Co.

Typical Mechanical Properties (Precipitation Hardened)

Tensile Strength, psi	160,000
MPa	1100
Yield Strength (0.2% Offset), psi	115,000
Mpa	790
Elongation, %	20



Physical Constants and Thermal Properties

Density, lb/in^3	0.305
Mg/m^3	8.44
Melting Range, °F	2400-2460
°C	1315-1350
Specific Heat, Btu/lb·°F	0.100
J/kg·°C	419
Curie Temperature, °F	-150
°C	-65
Permeability at 200 oersted (15.9 kA/m)	1.002
Coefficient of Expansion, 70-200°F, 10^{-6} in/in.·°F	7.6
21-93°C µm/m °C	13.7
Thermal Conductivity, Btu·in/ft^2·h·°F	121
W/m·°C	17.5
Electrical Resistivity, ohm·circ mil/ft	370
µΩ·m	0.615

BS 3072-3076 (NA 13)
ASTM B 127, B163-B165, B564
ASME SB-127, SB-163-SB-165. SB-564. Boiler Code Sections III. IV. VIII IX
AECMA Pr EN 2305
AFNOR NU30

4675, 4730, 4731, 7233
DIN 17743, 17750-17754
Werkstoff Nr 2.4360, 2.4361
VdTUV 263
MIL-T-1368, MIL-T-23520. MIL-N-24106
QQ-N-281 NACE MR-01-75

VALVES, PUMPS, SHIPBUILDING, CHEMICAL AND OIL PROCESSING, HEAT EXCHANGERS, ELECTRICAL.

Specifications and Designations

UNS N05500
BS 3072-3076 (NA18)
ASME Boiler Code Section VIII
SAE AMS 4676
MIL-N-24549

DIN 17743, 17752, 17754
Werkstoff Nr 2.4375
QQ-N-286
NACE MR-01-75

ASTM B98/B127	FF-W-82	QQ-B-637	MIL-S-1222G3
ASTM B164/B473	FF-W-84	QQ-C-591E	MIL-S-1222H3
ASTM A193/A194	FF-S-86E4	QQ-S-763E	MIL-DTL-1222J
ASTM F467/F468	FF-S-92B	QQ-N-281D2	MS17828/MS17830
ASTM F593/F594	FF-W-92	QQ-N-286F+G	MS35311/MS35307