# MF 401

# **PROBLEM SOLVER FOR HASTELLOY ® MATERIALS**



- Excellent for elevated temperature applications
- Offers wear resistance but is entirely machinable
- Excellent corrosion resistant welding alloy
- Weld appearance are exceptional

Welds can withstand temperature extremes ranging from -140°F to 1900°F (-95°C to 1040°C).



MICROFUSION Maintenance Welding Alloys

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#### SPECIAL BENEFITS

- MF 401 Nickel-based Electrode for Hastelloy® Materials
- MF 401 for excellent hardness retention at elevated temperatures
- MF 401 gives excellent resistance to corrosion
- MF 401 is an ideal "Problem Solver"
- MF 401 Nickel-based Electrode for Hastelloy<sup>®</sup> Materials

#### OUTSTANDING PROPERTIES:

- Is especially good in applications like corrosion resisting, a particular pitting stress corrosion cracking too
- Can be forged
- Provides superb weld-ability

# **APPLICATIONS**

**MF 401** (AC & DC) is perfect for joining as well as overlaying high nickel alloys such as: Hastelloy<sup>®</sup> Alloys, Inconel<sup>®</sup>, Monel<sup>®</sup>, Dissimilar Nickel Alloys

MF 401 is the ideal solution for

- Steel Mill Billet Tongs
- Crane Tong Bits
- Sizing Punches & Rings Mill Guides
- Shafts

Rams

Hot Trimmer Dies

- Valves & Pipelines Acid & Chemical Tanks
  - Hot Shear Blades
  - Piercing Tools
  - Ladles

# **RECOMMENDED FOR:**

For joining and cladding most nickel alloys, stainless steels, and carbon steels. Excellent for oxidation and corrosion resistant applications.



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#### **MECHANICAL PROPERTIES:**

# Undiluted Weld Metal

Maximum Value Up to:

Tensile Strength	136,000 psi (950 N/mm²)		
Yield Strength	95,000 psi (660 N/mm²)		
Elongation	40%		
Impact Energy	65J: -320°F (-195°C)		
Hardness	Brinell 238, Rockwell C22		
Work Hardness	Brinell 428, Rockwell C45		

# **RECOMMENDED CURRENT: DC Reverse (+) or AC**

# **RECOMMENDED AMPERAGE SETTINGS:**

Diameter in (mm)	3/32 (2.5)	1/8 (3.25)	5/32 (4.0)
Minimum Amperage	70	100	130
Maximum Amperage	95	135	175

WELDING POSITIONS: Flat, Horizontal

# WELDING TECHNIQUES:

Weld with lowest amperage feasible using a very short arc gap. Welds can be deposited using the stringer good sound welds can be obtain can be achieve using the stringer beeds

