



# AMPCO-TRODE<sup>®</sup> 40

Manganese-Nickel-Aluminium-Bronze

## Classifications

|              |               |
|--------------|---------------|
| AWS A5.6     | : ER CuMnNiAl |
| ASME SFA 5.6 | : E CuMnNiAl  |

## Approvals

|               |              |
|---------------|--------------|
| ABS Certified | : ERCuMnNiAl |
|---------------|--------------|

## Description

- AMPCO-TRODE<sup>®</sup> 40 manganese-nickel-aluminium bronze is for welding cast ship propellers conforming to MIL-B-21230, Alloy 2 for high resistance to corrosion, erosion and cavitation
- AMPCO-TRODE<sup>®</sup> 40 also exhibits good ability to join dissimilar metals
- Typical applications include ship propellers, marine components, welding cast iron, joining dissimilar metals

## Typical Applications

Ship propellers, marine components, welding cast iron and joining dissimilar metals.

## Limiting chemical composition of all-weld metal (%)

| Cu*  | Al       | Fe      | Ni      | Mn        | Si      | Other   |
|------|----------|---------|---------|-----------|---------|---------|
| Rem. | 7.0-8.50 | 2.0-4.0 | 1.5-3.0 | 11.0-14.0 | 1.5 max | 0.5 max |

\*Including silver

## Mechanical properties (nominal all-weld metal values)

|         | Yield Strength | Tensile Strength | Elongation  | Area Reduction | BHN (3000 kg)  |
|---------|----------------|------------------|-------------|----------------|----------------|
|         | (MPa)          | (MPa)            | (% in 51mm) | %              | 6.4 mm deposit |
| Example | 386            | 655              | 27          | 38             | 185            |

## Sizes available

|          |      |     |     |
|----------|------|-----|-----|
| Diameter | (mm) | 3.2 | 4.0 |
| Length   | (mm) | 305 | 356 |

## Recommended welding parameters

Refer to AMPCO<sup>®</sup> welding products brochure or website for recommended welding parameters.