

# AMPCO-TRODE® 10

Aluminium-Bronze

## Classifications

AWS A5.7 Class ER CuAl-A2

ABS Certified: ER CuAl-A2

ASME SFA 5.7 Class ER CuAl-A2

\*MIL-E-23765/3A Type MIL-CuAl-A2

\*Note: A weld test is required on each Heat/lot of material to conform to MIL-E23765/3A

## Description

- AMPCO-TRODE® 10 aluminum bronze is the most versatile welding electrode in AMPCO's family of alloys.
- AMPCO-TRODE® 10 contains an additive to inhibit inter- granular stress corrosion cracking. This is particularly important when welding on C61300 and C61400 base metal.
- AMPCO-TRODE® 10 will weld and join many ferrous and nonferrous metals and combinations of dissimilar metals. These metals include the more weld-able grades of cast iron, high and low carbon steels, copper, bronzes and copper-nickel alloys.
- Applications for AMPCO-TRODE® 10 include: building up bearing surfaces, joining and fabricating copper alloys, overlaying for resistance to corrosion and erosion and general maintenance and repair welding.



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

| Cu*  | Al       | Fe        | Si      | Others  |
|------|----------|-----------|---------|---------|
| Rem. | 8.5-11.0 | 0.50-1.50 | 0.1 max | 0.5 max |

\*Including silver

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

|         | Y.S.<br>(MPa) | T.S.<br>(MPa) | El.<br>(% in 51mm) | Area Reduction<br>% | BHN (3000 kg)<br>(6.4 mm deposit) |
|---------|---------------|---------------|--------------------|---------------------|-----------------------------------|
| Example | 241           | 545           | 28                 | 28                  | 140                               |

## Sizes available

| Diameter   | (mm) | 0.9         | 1.2         | 1.6  |
|------------|------|-------------|-------------|------|
| Spool size | (kg) | 0.68 & 13.6 | 0.68 & 13.6 | 13.6 |

## Typical Applications

Cast iron, malleable iron, cast iron to steel, cast iron to bronze, steel to bronze, aluminium bronze, silicon bronze, manganese bronze, cupro-nickel, tool steel, copper to steel, bearings, bushings, pump housings, condenser boxes, hydraulic pistons, brake drums, tractor gear housings, idler pulleys, pickling hooks, paper mill rolls, motor bases, tin plate mill rolls, impellers, valve seats, gears, mixer arms, press rams, ship propellers, lance heads, turbine runners adjusting and spindles.

Refer to AMPCO® welding products brochure or website for recommended welding parameters.