

# Venus<sup>®</sup> A

## Shielded Metal Arc Welding (SMAW – Stick)

Bronze, brass & steel. For overlays, joining and dissimilar metals.

### Features

- High Strength 50,000psi
- Excellent Wear Surface
- Good Color Match On Bronze
- Low Surface Friction
- Hardness (BHN 75)
- High Corrosion Strength

### Characteristics

**Venus A** has been designed for difficult to accomplish repair procedures. Excellent results are obtained when joining steel to copper or brass. **Venus** produces long-wearing, low friction easily machined deposits.

Use **Venus** on marine parts, gears, bearings, impellers, valve bodies, turbines, pumps and to repair flaws in new castings. Deposits are long wearing with low friction and resistant to attack by chemicals or salt water.

### Technical

Size and Amps AC/DC  $\pm$ 20%

Inches	1/8	5/32
(mm)	(3.2)	(4.0)
Amps	100	150

With DC use reverse polarity. (DCEP)

### Application

- Bevel edges to a 45° vee.
- Use medium arc length.
- Preheat, if necessary, only on very heavy parts.
- Allow to cool partially before slag removal.

# Venus<sup>®</sup> B

## Shielded Metal Arc Welding (SMAW – Stick)

Bronze, brass & steel. For overlays, joining and dissimilar metals.

### Features

- Strength 63,000psi
- Good Salt Water and Chemical Corrosion Resistance
- Ductile Deposit – 35% Elongation
- Excellent Wear Resistance

### Characteristics

**Venus B** is a very ductile bronze electrode specially developed for joining and overlaying bronze, brass, steel & dissimilar combinations. Unlike other bronze electrodes, **Venus B** may be used on AC or DC equipment. It produces very little spatter and an easy to remove slag. It is ideal for installing bronze wear pads on forklifts, and similar applications.

Use **Venus B** on marine parts, gears, bearings, impellers, valve bodies, turbines, pumps and to repair flaws in new castings. Deposits are long wearing with low friction and resistant to attack by chemicals or salt water.

### Technical

Size and Amps AC/DC  $\pm 20\%$

Inches	1/8	5/32
(mm)	(3.2)	(4.0)
Amps	100	150

### Application

- Bevel edges to a 45° vee.
- Use medium arc length.
- Preheat, if necessary, only on very heavy parts.
- Allow to cool partially before slag removal.

With AC or DC use reverse polarity. (DCEP)

# Venus<sup>®</sup> C

## Shielded Metal Arc Welding (SMAW – Stick)

For joining or overlays on bronze, brass and steels as well as dissimilar combinations.

### Features

- Superior strength 106,000psi
- Wide Range Of Applications
- Excellent Corrosion Resistance to Chemical and Salt Water
- Machinable – Deposit 200 Brinell
- Low Coefficient Of Friction
- Welds Dissimilar Metals
- Work Hardens

### Characteristics

**Venus C** is a highly alloyed aluminum bronze electrode. The addition of nickel and manganese gives it great versatility in joining and overlays on silicon bronzes, copper alloys, ferrous alloys and cast irons. It is also suitable for joining dissimilar combinations and deposits requiring machinability, such as guides and bearings.

**Venus C** is an electrode of choice for applications such as a valves, pumps, mixing blades, propellers and turbines.

### Technical

Size and Amps AC/DC ±20%

Inches	3/32	1/8	5/32
(mm)	(2.4)	(3.2)	(4.0)
Amps	60	100	130

Reverse Polarity (DCEP)

### Application

- Preheat copper alloys 400°F (204°C).
- Use lowest amperage possible with short arc and electrode near vertical.
- Apply thin deposits and remove all slag on multi-pass welds.