ROCKMOUNT
Welding Alloys

Polaris® AAA

Shielded Metal Arc Welding (SMAW – Stick)

For high strength alloy and problem steels such as cast steel, Cor-Ten, nickel bearing and high grade structural steels.

Features

- Excellent Strength 98,000 psi
- Excellent AC Stability
- Welds Cast Steel
- Moisture Proof, Low Hydrogen
- Can Be Torch Cut
- All Positions
- Outstanding Ductility 34% Elongation
- Free Machining
- Excellent Sub-Zero Properties
- X-Ray Quality Welds
- No Undercutting
- Stable Arc

Characteristics

Polaris AAA produces sound, heat-treatable welds, even on contaminated metals. Welds have unusual strength and ductility, even at sub-zero temperatures. Welding is easy in all positions and deposits are free machining.

Applications include all construction equipment, boilers, tanks, piping, vehicle frames, and all crack sensitive steels. Its extraordinary ductility makes **Polaris AAA** a good hard-surfacing pad.

Technical

Size and Amps AC/DC ±20%

Inches	3/32	1/8	5/32	3/16
(mm)	(2.4)	(3.2)	(4.0)	(4.8)
Amps	85	120	160	220

With DC use reverse polarity. (DCEP)

Application

- Use close arc length.
- For vertical welds, lower amperage, weld from bottom up and weave.
- Do not whip.
- Overhead and horizontal, use stringer beads.
- Down hand, weave a maximum of 2-1/2 times rod diameter.
- Always preheat heavy sections.

ROCKMOUNT
Welding Alloys

Polaris® A

Shielded Metal Arc Welding (SMAW – Stick)

For high strength alloy and problem steels. Also for Cor-Ten wear resistant and nickel bearing steels.

Features

- Excellent Strength 95,000psi
- Moisture Proof, Low Hydrogen
- X-Ray Quality Welds
- Outstanding Ductility (33% Elongation)
- Excellent Sub-Zero Properties
- Highest Impact Resistance
- Crack-Free Results
- Easy To Use All Positions
- Welds "Tramp" Steels
- Charpy At -20°F 82ft/lbs

Characteristics

Polaris A avoids the moisture problems encountered with conventional low hydrogen electrodes. The exceptional elongation of **Polaris A** makes it ideal for applications involving impact or vibration. **Polaris A** produces sound, heat-treatable welds even on sulfur or caustic contaminated steels. Welds have extraordinary strength and ductility even at sub-zero temperatures. Deposits are easy to apply in all positions and are free machining.

Applications include all construction equipment, boilers, tanks, piping, truck and bus frames, and all crack sensitive steels. **Polaris A** provides a good pad for hard surfacing due to its extraordinary ductility

Technical

Size and Amps AC/DC ±20%

Inches	3/32	1/8	5/32	3/16
(mm)	(2.4)	(3.2)	(4.0)	(4.8)
Amps	85	120	160	220

With DC use reverse polarity. (DCEP)

Application

- Clean and bevel as required.
- Preheat heavy sections.
- Use a close arc length.
- For vertical welds, lower amperage, weld from bottom up and weave, do not whip.
- Overhead and horizontal use stringer beads.
- Down hand maximum weave: 2-1/2 times electrode diameter.

ROCKMOUNT
Welding Alloys

Polaris® 18

Shielded Metal Arc Welding (SMAW – Stick)

For maintenance and fabrication of construction grade steel.

Features

- Excellent Coating Stability
- Meets or Exceeds A.W.S. E-7018 Specifications
- Machinable Weld Deposits
- 82,000psi Tensile Strength
- 63,000psi Yield Strength
- Charpy At 82 ft/lbs

Characteristics

Polaris 18 was developed as a superior replacement for standard 7018. **Polaris 18** is ideal for the repair or joining of construction grade steel, or for fabrication/repair of angle iron, channel, I-beams, H-beams, pipe, cold rolled steel, mild steel, low alloy steel and hot, rolled steel.

Technical

Size and Amps AC/DC ±20%

Inches	3/32	1/8	5/32
(mm)	(2.4)	(3.2)	(4.0)
Amps	85	120	160

With DC use reverse polarity. (DCEP)

Application

- Clean and prepare base metal in accordance with the recommended welding practice.
- Maintain a lead angle of 15° to 20° with a medium arc length.
- Remove slag between passes.