

Apollo® A

Shielded Metal Arc Welding (SMAW – Stick)

For joining, build-up and wear surfacing of all low alloy, manganese, medium and high carbon steels.

Features

- High Strength 135,000psi
- Shock and Abrasion Resistant
- Deposit 185 Brinell (11 RC)
- Work Hardens To 55 RC
- Cuts Easily With A Torch
- Excellent For Manganese Steels
- No Pre-Heat Or Peening
- Flux Coating Not Affected By Moisture
- Good Ductility
- Low Friction Surface

Characteristics

Apollo A has been developed to produce the most crack resistant welds for use on heavy equipment. Under impact, **Apollo A** work hardens considerably to resist wear. In addition, this alloy has extraordinary strength combined with excellent ductility (30% elongation). It is superior for metal-to-metal wear applications.

When equipment is exposed to stress, shock, impact or abrasion, **Apollo A** is an ideal welding material. Outstanding results are found on all critical joints and when impact is present as in rails, frogs and cross overs. Use for manganese wear plates, buckets, crushers, hammers, dragline chains and pins.

When even more wear resistance is required, final passes should be made with our **Olympia, Omega** or **Zeta** hard face alloys.

Technical

Size and Amps AC/DC ±20%

Inches	1/8	5/32	3/16
(mm)	(3.2)	(4.0)	(4.8)
Amps	120	160	200

With DC use reverse polarity. (DCEP)

Application

- Remove all cracks or work hardened areas with **Electra**, or grind.
- Skip weld to avoid localized heat buildup.
- Weave no more than 2 to 3 times rod diameter.

Apollo® B

Shielded Metal Arc Welding (SMAW – Stick)

For joining dissimilar steels. Also for build-up or hard surfacing.

Features

- High Strength 105,000psi
- Resistant To Severe Impact
- Superior Ductility (37% Elongation)
- For Joining and Build-Up
- Fast, Easy Deposition
- Tough, Yet Machinable
- Deposit Hardness 20 RC
- Work Hardens To 40–45 RC
- Good Corrosion Resistance and Hot Hardness To 1000°F (538°C)
- Alloy Content 34%

Characteristics

Apollo B produces sound welds that combine excellent strength, impact resistance, abrasion resistance and joining properties. It can join stainless to carbon steel, and other combinations of dissimilar and hard-to-weld steels. The special low-hydrogen coating gives spatter-free welds and ease of operation in all positions. Ideal for build-up situations requiring tough but machinable deposits.

Applications include joining wedge bars to dipper teeth, repairing cracked crusher rolls, surfacing valve seats, and welding alloy steel lips to manganese buckets. **Apollo B** is also effective for building up manganese and carbon steels before overlaying with a very high abrasion resistant material, such as our **Olympia, Omega** or **Zeta** products.

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	130	175	245

With DC use reverse polarity (DCEP)

Application

- Clean work surface and remove cracks.
- If welding over work hardened areas, use higher current on first pass.
- No preheat needed on most steels.
- Use stringer beads rather than weave.
- In joining, use heavy root pass.