

Versatile Electrode for Welding Carbon and Manganese Steels

Xuper[®] 646 XHD



WELDING

- High impact and crack resistance
- High deposition rates
- Excellent choice for joining and hardfacing carbon and manganese combinations
- Slag is easily removed



DESCRIPTION

Xuper 646 XHD electrodes produce weld deposits capable of withstanding high impact that are highly resistant to cracking. These unusual properties give Xuper 646 XHD the versatility to serve as a joining electrode as well as an electrode for wear protection or cushion layer applications.

Xuper 646 XHD deposits work-harden in service and produce excellent results on carbon, manganese or dissimilar combinations of these steels.

TECHNICAL DATA

Current: AC/DCEP (+)

Typical Tensile Strength: 88,000 psi

Typical Hardness: HRB 95 as deposited
HRC 30 work hardened

WELDING PARAMETERS

A Range Thick sections, heavy build-up (multi-pass)

Diameter	1/8" (3.2)	5/32" (4.0mm)
Amperage	140-180	180-250

B Range Moderate sections

Diameter	1/8" (3.2)	5/32" (4.0mm)
Amperage	90-130	120-160

WELDING PROCEDURE & TECHNIQUE

Preparation: Clean weld area. Remove all damaged and fatigued metal, cracks and sharp corners. (Xuper Exotrode[®] is recommended).

Technique: When joining heavy sections, bevel and pre-heat according to carbon content and hardenability.

Use AC/DCEP (+) with "A" range for highest deposition rate. Maintain medium arc. Tilt electrode in direction of travel. Weaving should be limited to 1 1/2x the electrode diameter. Back whip and fill craters.

DO NOT HEAT 12% MANGANESE STEEL OVER 400°F.

Post-Welding: Slow cool after welding using insulating material such as vermiculite or heat-retardant blankets.

TYPICAL APPLICATIONS

Bucket Lips & Sides, Manganese Filler bars, Conveyor Buckets, Ripper Shanks, Dozer Cutting Edges, Screw Conveyor Flights, Loader Scoops, Wheel Flanges

BUILD-UP AND CLADDING APPLICATIONS

Augers, Impactors, Buckets, Pump Casings, Bucket Teeth, Scraper Blades, Crusher Rollers & Jaws, Sprockets, Gear Teeth, Trencher Teeth, Hammers, Undercarriage Components



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