

# SUNALLOY 317

Special austenitic manganese steel electrode



## DESCRIPTION

Special coated austenitic-manganese steel electrode for the welding of surface layers on worn-out components made of austenitic manganese steel which are mainly subjected to impact loads. Strain-hardening considerably improves the hardness and the resistance to wear of the alloy. Also suitable for joining of manganese steel to steel.

## ALLOY BASIS

Fe, Mn, Cr, Ni, C

## PROPERTIES

The deposit is work-hardening type and highly resistant to cracking and deformation during working. Excellent abrasion resistance in the work-hardened condition. Prolonged working life even when subjected simultaneously to impact and abrasion.

## APPLICATIONS

For joining manganese steel parts, hard facing of parts subject to heavy impact and stress. For use on big crushing equipment for rocks, jaws, cones, gyratory crushing mantles, excavator teeth, manganese rails, etc.

## PROCEDURE

Ensure proper cleaning of the area to be welded. Remove the fatigued area by gouging, using Sunalloy 109. Do not preheat manganese steel. Inter pass temperature should be kept below 150°C using staggered or skip welding. Hot peening helps reducing stresses. Cool slowly. For small components, immerse in water.

## TECHNICAL DATA

Hardness as welded : 10 - 17 HRC  
After work hardening : 40 - 45 HRC

## WELDING PARAMETERS

Size (diameter)/length (mm) :	2.50 x 350	3.15 x 350	4.00 x 350	5.00 x 350
Current (amps) :	70 - 90	90 - 140	140 - 185	180 - 230
Current :	DC (+)			