DIFFUSALOY 6180

A newly formulated austenitic “Lo-Temp” Electrode for joining heavy sections of manganese steels to themselves or to other steels. Weld deposits have excellent resistance to impact and abrasion. Electrode exhibits exceptional all positional weldability, easy slag detachability and excellent crack resistivity, as it is highly ductile.

Applications:

For positional joining and repair of heavy sections of manganese steel parts used in construction, earthmoving and mining industry, such as shovel, excavators and dragline buckets, Joining of Hadfield steels, alloy steels, case hardened steels, cast steel and difficult to weld steels. Alloy has an excellent abrasion and impact resistance. Excellent for crack free joints in high alloy and difficult to weld steels including heavy armour plates.

Procedure:

Preheat electrodes before welding at 200º C for one hour. Degrease to remove oil & grease. Gouge out / Grind cracks, damaged and fatigued metal. Use AC/DC+ power source. Set lowest possible welding current in the range. Hold short arc and employ short stringer beads. Use skip and staggered welding sequence. Chip slag between passes. In Manganese Steel do not allow the base metal temperature to go beyond 250º C.

Technical Data:

- Size (mm), Ø: 3.15, 4.00, 5.00
- Recommended Welding Current (Amps): 75 - 120, 100 – 160, 140 - 190
- Tensile Strength: 70 kgf / mm²
- Elongation: 35 %
- CVN Impact Strength at + 20º C: 65 J