

SUPERALLOY 1770

Superalloy 1770 is a specially formulated electrode which yields an Inconel type deposit that does not require any special post-weld heat treatment to develop its optimum properties. The weld deposit possesses an excellent ability to resist corrosion and oxidation at high temperatures in applications such as furnace components and reactor vessels. Its high strength coupled with high ductility, good creep and heat resistance at high temperatures (550 – 1100 °C) and excellent low temperature toughness makes it the automatic choice for high as well as low temperature applications. Thermal stability of structure of the weld deposit is a key feature that makes it able to withstand stresses developed due to thermal shock and thermal cycling.

Applications:

Joining of various types of stainless steels, Ni-base alloys, dissimilar joints, especially austenitic to ferritic steel, welding of weld cladding on low alloy steels, reactor vessels, welding of joints in nuclear engineering, welding of cryogenic steels, anti-wear and anti-corrosion surfacing of furnace components, heat treatment furnaces and fixtures, making transition joints, gate valves in freon gas plants and similar applications.

Procedure:

Superalloy 1770 is an all position weld electrode (except vertical down). For surfacing applications, flat position is recommended. Remove fatigued metal. Preheating is recommended for heavy sections and crack sensitive base metal. Use short arc to medium. Remove slag at every pass and peen the deposit.

<u>Technical Data</u>	:	SUPERALLOY 1770		
Size (mm)	:	2.5	3.15	4.0
Recommended Welding Current (Amps)	:	80 - 120	100 – 130	150 - 175
Tensile Strength	:	65 kgf/ mm ²		
Coating colour	:	Grey		

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