

Product Name :
Submerged Arc Welding Machine

Product Code :
HANDM000A450003



Description :

Submerged Arc Welding Machine

Technical Specification :

Welding Type	Sub Merged Arc Welding Machine
Power Source	3 Phase 415 V AC
Output Current	>500 A
Automation Grade	Automatic
Current	20-1000
Technology	Inverter Based, IGBT Based, Thyristor Bases
Brand	APSL / Toshon / Niko
Capacity	1000 Amp
Phase	3Phase
Weight	250kg
Motor Type	AC Motor
Features	Made In India
Usage/Application	Railway Construction Contracts,high Production Rates

Submerged arc welding is a common arc welding process. Submerged-arc welding (SAW) involves the formation of an arc between a continuously fed electrode and the workpiece. A blanket of powdered flux, which generates a protective gas shield and a slag (and may also be used to add alloying elements to the weld pool), protects the weld zone thus preventing spatter and sparks as well as suppressing the intense ultraviolet radiation and fumes that are a part of the shielded metal arc welding process. A shielding gas is not required. The arc is

submerged beneath the flux blanket and is not normally visible during welding.

The electrode may be a solid or cored wire or a strip made from sheet or sintered material. The flux may be made by either fusing constituents to form a glassy slag (which is then crushed to form a powder) or by agglomerating the constituents using a binder and a corning process. The chemical nature and size distribution of the flux assists arc stability and determines the mechanical properties of the weld metal and the shape of the bead.

normally operated in the automatic or mechanized mode, The process is normally limited to the flat or horizontal-fillet welding positions (although horizontal groove position welds have been done with a special arrangement to support the flux). Deposition rates approaching 45 kg/h have been reported — this compares to ~5 kg/h (10 lb/h) (max) for shielded metal arc welding. Although currents ranging from 300 to 2000 A are commonly utilized. Constant voltage welding power supplies are most commonly used; however, constant current systems in combination with a voltage sensing wire-feeder are available

SAW is ideally suited to the longitudinal and circumferential butt welds required for the manufacture of line pipe and pressure vessels. Welding is normally carried out in the flat position because of the high fluidity of the weld pool and molten slag and the need to maintain a flux layer. Fillet joints may also be produced, welding in either the flat or horizontal-vertical (PB) positions



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