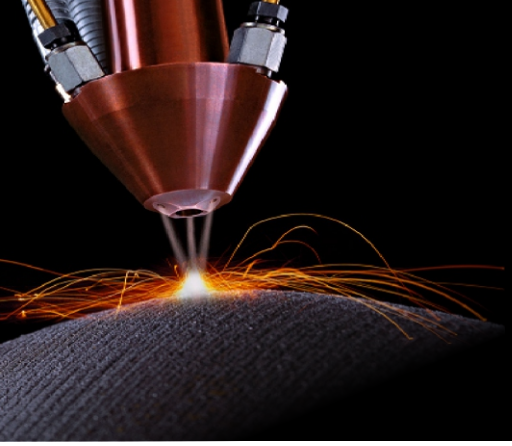


SURFACE ENGINEERING ALLOY COMPANY

SPECIALISTS IN WEAR RESISTANT PRODUCTS & SOLUTIONS

SE PTA 350

Plasma transfer arc (PTA) welding is a process, in which the joining of materials is produced by the heat of a constricted arc between an electrode and a base metal. In PTA welding, a shielded arc is struck between a non-consumable electrode (Tungsten) and the torch body, and this arc transforms an inert gas (Argon) into plasma by heating it to a high temperature. The PTA welding process uses this plasma to transfer an electric arc to a work piece. Metal po wder is metered, under a positive pressure of Argon flow, from the bottom of the torch into a pool of molten meta l on the workpiece surface.

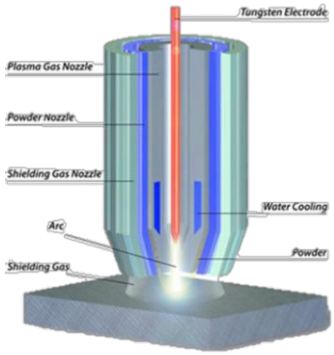
The torch is handheld or moved by a side -beam carriage over the workpiece, or the workpiece is rotated or moved under the torch, or a combination of both to produce a weld overlay deposit. The plasma arc deposit is fully dense and metallurgically bonded to the workpiece. One of the most important features of the PTA process is the control of dilution. PTA produces dilution as low as 5%, compared to 20-25% typically obtained when hardfacing by MIG and (TIG) processes. So it is possible to maintain the noble properties of deposit even in one single pass.

SE PTA-350 Power Supply allows for any input voltage hookup (208–575 V) with no manual linking, providing convenience in any job setting. Ideal solution for dirty or unreliable power.

Hight-Frequency arc starter for non-contact arc initiation. Provides more consistent arc starts and greater reliability compared to traditional HF arc starters.

Wind Tunnel Technology™ protects internal electrical components from airborne contaminates, extending the product life.

Fan-On-Demand™ power source cooling system operates only when needed , reducing noise, energy use and the amount of contaminates pulled tho ugh the machine.



SE PTA-350

Advantages:

Our cutting edge automation combined with PTA technology provides unsurpassed industry benefits compared with conventional welding processes and machines.

Ability to store 50 Weld Programs including Welding Voltage; Amperage; and Powder Feed Rate. All of which may be adjusted on the fly.Compatible with ANY manufacturers' PTA torches.Extreme efficiency with any metallic powder Handheld Pendant to easily make minor adjustments remotely. 350 AMP – 100% duty cycle. Capable of 20-300 AMP welding.

Lowest dilution, distortions and heat affected zone than any other arc welding process.
Maximum purity of the coating alloy.
Higher bond strength.
Less post-weld machining.
Thicker coatings capabilities.
Pore free coatings.
INCLUDES SE PTA-350 Power Source

SE 100P Torch

SE 100P Torch makes the smallest internal diameter torch in the PTA industry. The 1500ID torch is capable of depositing .100 inch of alloy within a 1.5 inch bore. This durable torch works with industry standard coolant chillers and when used properly will provide years of trouble free service.

Current Range. . . . . 100~200 amps
Nozzle sizes . . . . . 1/8" diameter
Electrode size . . . . . 5/32" (4mm) diameter
Deposition Rate . . . . . 2.0~4.5 lb/hr
Standard Length . . . . . 42 inches (33 inches usable)
Diameter . . . . . 1.65 inches

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