

WELDING FIXTURES FOR LPG CYLINDER BY GMAW



CIRCUMFERENTIAL WELDING SPM WITH GMAW Process

The machine configuration is similar to that of a Headstock – Tailstock welding manipulator. The headstock is powered by a electric Motor through Reduction Gear Box. It's Shaft holds the fixture to receive one end of the cylinder and rotates the cylinder. The tailstock is pneumatically actuated and its idling shaft holds the fixture for receiving the other end of the cylinder, with or without foot-ring. The Headstock, Tailstock and Torch stand are all housed on the table. The sheet metal enclosure alongwith the sliding door is mounted on the table, in order to prevent ARC radiation. A viewing window fitted with DIN14 Dark Glasses is provided on the sliding door to enable visibility of the welding ARC. The Torch Stand holds the Micro Slides with provision for holding the MIG Torch / Head. The Slides can be manually adjusted (30 mm) in all X, Y, & Z axes, alongwith angular adjustment.

The Control Panel housed inside the Mechanical structure of the fixture, interfaces the mechanical welding fixture with the welding equipment in a pre-selected mode of operation, to complete the circumferential welding of LPG cylinder on a **Single Touch**. This eliminates constant monitoring of the weld ARC to control the start and finish points to achieve proper overlap, reduce crater formation at weld end and maintain uniform weld. A **Digital Timer** will complete the each welding cycle and STOP automatically at the pre-set time.



Bung Welding Fixture



The Bung welding fixture is an operation specific SPM which performs the last task of automatic welding of Gas Valve bases or BUNG's to LPG cylinder halves using Synergic MIG with WISE Fusion welding process.

The machine consists of a horizontal turn-table inclined at an angle to support H-V Fillet position and a pneumatically operated Torch Stand. The fixture locates and centres the sub assembly on to the turn table. With the press of Button the welding starts and the turntable starts rotating at the preset welding speed for the Set time and Stops automatically once the welding is completed.

The essential consists of Twin Head Stock – Tail Stock machine with chucks to suport Cylinder Halves on an horizontal plane. The TWO MIG Torches mounted on Pneumatic Stands locates at the Foot Ring – Cylinder Body joint for stitch welds. The MIG welding takes place at defined sequences as per user requirement. The complete cycle operates on automatic mode in ONE Touch. Foot Ring Welding Fixture



MIG Torch HEAD



MIG TORCH HEAD – The Liquid cooled Straight Neck Machine Mounted MIG Welding Torch Head is meant for automated welding applications which can endure high productivity and virtually maintenance free. The liquid cooled MIG Torch Head is suitable to be mounted on the Micro Slides and comes with EURO connection adaptor which makes it compatible to any MIG/MAG welding Power Source. The Torch head is virtually maintenance free. There's no need for changing internal cables.

The **MIG Torch Head** is rated at **500A** @ **100% duty cycle**. The Cable length is **3M**. The Torch Head accommodates standard Contact Tip, Adaptors, Gas Nozzles & Wire Conduit.

The MIG Torch Head is ideally suited for 'C' and Bung welding application of LPG Cylinders when fitted with the C or Bung welding fixtures..

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