

OPERATING INSTRUCTIONS FOR

Top loading Clamps

Strap types

- 1. Machine to be operated by trained personnel.**
- 2. Instructions to be read before use.**

This unit is design and manufactured to meet the requirements of National Grid Gas Industry Standards GIS/PL2-5:2006 Part 5: Electrofusion ancillary tooling.

Hy-Ram Engineering Co Ltd has a policy of continuous improvement in product quality and design. Hy-Ram Engineering Co Ltd therefore reserves the right to change the specification of its models at any time, without prior notice.

Important!

This manual outlines the operation of the electrofusion tooling.

This manual forms a part of the product to which it relates. It should be kept for the life of the product. Any amendments issued by Hy-Ram Engineering Co Ltd should be incorporated in the text. The manual should be passed to any subsequent holder or user of this product.

General Description.

Hy-Ram's top loading clamps are designed for welding Tapping Tee / Branch Saddle fittings to varying types and diameters of plastic pipe.

These clamps are for tapping tees/branch saddles that are designed to be held in position during installation/welding/cooling, by means of a downward force applied to the top of the 'stack'. They come in two forms, pillar and strap

A force of between 1.4 kN to 1.5kN is created by the Loading Cell and this is indicated by turning the handle clockwise until the top of the indicator cap is level with the tightening handle top face. An adapter foot is available to permit the clamps to fit onto Branch Saddles with outlets that are greater than 32mm, fitting sizes 63 - 90mm O/D.

Note : *Welding of Tapping Tee / Branch Saddle Fittings: Each different installation of pipe type, diameter and composition requires different welding times. Check the manufacturers specifications for further in-depth technical specifications*

Maintenance Procedure and Calibration

- (a) The condition of the webbing straps should be inspected thoroughly prior to use, worn or frayed straps must be replaced immediately.
- (b) Correct safety clothing including gloves and eye protection should be worn when operating this tool.
- (c) The unit should be periodically re-calibrated at least once every year. Please fill-in and date the warranty card and return for our records. You (the owner/user) are responsible for returning the unit for re-calibration at the specified date (from two years of purchase, or if the unit is damaged, suspected damaged, or fails to give consistent weld's due to normal wear and tear)



Method of Operation

NOTE: It is important that the electrofusion service fittings are stored at all times in their protective plastic bags.

IMPORTANT: If the pipe has been coiled then it may be oval. If this is the case, a rerounding tool will have to be used first, to make the pipe circular prior to welding the saddle.

1. Unscrew the pressure hand wheel by rotating in an anticlockwise direction.
2. Remove the looped end of the webbing straps from their locating lugs on the body block.
3. Depress a cam buckle and pull down on the associated webbing strap but **do not** pull it through the cam buckle, do this with both straps.
4. Taking care not to touch the fusion surface of the fitting or the pipe, push the interface foot into the hexagonal hole in the tapping saddle cutter.
5. Place the clamp and tapping saddle onto the pipe, passing both webbing tapes under the pipe, and fixing the looped ends onto the lugs on the body block.
6. Depressing each cam buckle in turn, pull down on the free end of the appropriate webbing tape so that the clamp and branch fitting are held loosely onto the pipe.
7. Rotate the pressure hand wheel in a clockwise direction until the tapes are tightened and the load spring becomes compressed.
8. Observe the load indicator in the middle of the hand wheel, as the spring becomes more compressed the load indicator pin will come level with the top of the hand wheel.
9. When the load indicator pin is level with the top of the hand wheel, the branch fitting has the correct load applied. The electro-fusion process can now proceed.
10. As the power is applied to the fitting, the load indicator pin may sink back into its hole, this is acceptable as plastic is being displaced at the fusion surfaces.
11. On completion of the fusion and cooling cycle, the clamp can be removed by counter clockwise rotation of the pressure hand wheel, so that remaining spring pressure is released.
12. The clamp can be removed from the tapping saddle by depressing the cam buckles sufficiently to allow the webbing straps to be removed from their locating lugs.