

# **ENFIELD™ ELECTROFUSION**

ENFIELD



# Improvements to the **Enfield™ Electrofusion Acid Waste Piping System**

In a continued effort to improve our product and installation practices, IPEX has implemented a number of changes to our Enfield Electrofusion Acid Waste System. These changes will:

- improve the quality and consistency of joints made in the field;
- · reduce installation time; and
- simplify the fusion process.

Below is a brief overview of the upcoming changes:

# 1. New Wire Geometry:

On 1.5" and 2" fittings only, IPEX has transitioned to a new wire geometry. The new geometry is shorter in overall height which increases the non-melt region at the top and bottom of the socket. This design has proven to be more forgiving when the pipe is not bottomed out in the socket or the pipe is not



cut square. Despite this design change, it is still imperative that the pipe be cut square and bottomed out in the fitting.

2. Increased Fusion Time for 1.5" and 2": IPEX has increased the fusion cycle times on 1.5" and 2" (Group 1) fittings to match that of 3" to 12" (Group 2). This change will then allow installers to fuse fittings from Groups 1 and 2 at the same time. For example, a 4" x 2" Wye can be fused in one cycle as opposed to two, because every size will have the same fusion time.

This change will also simplify the size range selection. As all sizes will have the same fusion cycle time, installers will no longer need to select a size range; they may simply push start. This change to the machine will require reprogramming which will be done free of charge during the machine's annual calibration.

Until your machine can be reprogrammed with the new welding time, we recommend using the 3" - 12" size range selection for all sizes, including 1.5" and 2". Please refer to the current Acid Waste Piping System Industrial Technical Manual for further instructions at ipexinc.com

3. Fusion Machine Labels: IPEX has developed and distributed new labels that will appear on new machines, and any machine that comes in for calibration. The label details the most common installation errors. Being aware of these potential pit falls can save a great deal of time

and effort. Should you like a label ahead of your machine's annual calibration, please contact IPEX and we will happily mail one to you directly.



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Below are a few of the recent updates to the Acid Waste Piping Systems Technical Manual for your review.

# Installation

### With software UPDATE V1.19 (2014)

Once the leads are connected and you are ready to begin the fusion process press SELECT. The machine will automatically check to ensure a connection is present and measure the ambient air temperature to set the fusion time.

#### Without software UPDATE

Machines that have NOT been updated will require you to "SELECT SIZE". IPEX recommends the use of the 3" to 12" size range for all fittings regardless of size (example: 1.5" fittings should use the 3" to 12" selection).

# **Enfield Fusion Times**

With the update to the fusion machine software (V1.19, 2014), fusion times are now standard across all sizes. Fusion times will however vary based on the ambient air temperature. As the temperature goes up the fusion time will go down, conversely, as the temperature goes down the time will go up. As a reference: at 73°F (23°C) the fusion time is 125 seconds.

# **Multiple Joints Across Different Sizes**

With the update to the fusion machine software (V1.19, 2014), fusion times are now standard across all sizes, as such the combination of different size fittings that can be fused at the same time is much less restricted.

Any number of fittings or combination of sizes is now possible, provided that when you add the joint diameter sizes up – the total does not exceed 12.

### Example A

 $1 \times 8$ " and  $1 \times 4$ " = 12.

Therefore one 8" fusion joint and one 4" fusion joint **could** be done at the same time.

# Example B

 $1 \times 8$ " and  $2 \times 3$ " = 14.

Therefore one 8" fusion joint and two 3" fusion joints could not be done at the same time.

# Example C

 $2 \times 1.5$ " and  $2 \times 4$ " = 11.

Therefore two 1.5" fusion joints and two 4" fusion joints could be done at the same time.

#### Example D

 $1 \times 2$ " and  $2 \times 6$ " = 14.



Therefore one 2" fusion joint and two 6" fusion joints could not be done at the same time.