



# ACL

**Manufacturing**

A Division of ClearRushCo.

## Installation Manual for ACL 4000 Flare Stack Ignitor

### **WARNING**

**This manual must be read in its entirety before installation of this burner. Installation must be performed by a qualified technician and must adhere to the standards set by the local regulatory authorities.**

**ACL is not responsible for the misuse or incorrect application of this product.**

**[www.clearrushco.com](http://www.clearrushco.com)**

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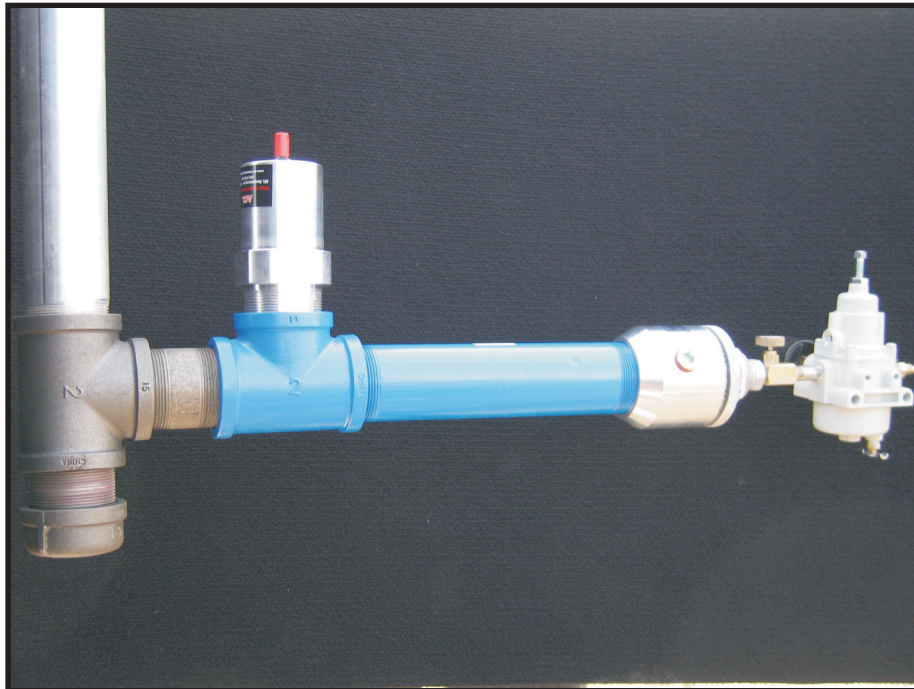


### APPLICATION

The ACL Model 4000 flare stack ignitor is a safe and cost effective means of lighting off all types of flare stacks. It does not require any source of power. The ignitor consists of a piezo ignitor, spark rod, a fuel/air mixer and flame arrestor. To light the stack, simply open the fuel gas valve and allow shot tube to fill with air/fuel mixture then press the ignition button. The flame ignites at the bottom and travels up the stack through a 2" line. Ideal for flare systems with a continuous pilot or manually operated flare stacks.

### FEATURES

- Aluminum construction eliminates rusting and corrosion
- High pressure atmospheric injector
- Piezo ignition
- A removable high temperature spark plug
- Flame arrestor protects operator from flashbacks



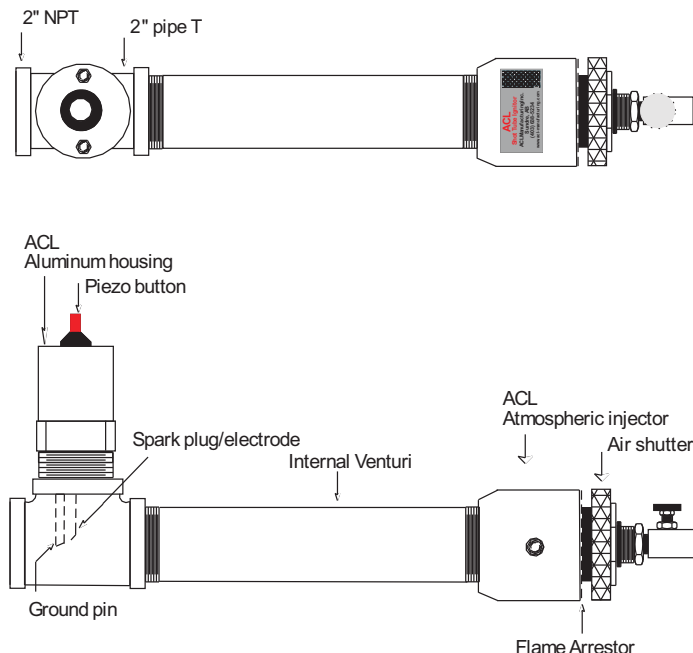
## THEORY OF OPERATION

ACL 4000 incorporates the use of an ACL high pressure atmospheric injector (Mixer head). The mixer head is designed to entrain all the air required for combustion, which is ignited by the piezo ignitor mounted in the aluminum housing via a spark rod. Gas flow is adjusted by a needle valve. The air required, is adjusted by the air shutter mounted on the end of the mixer head. The ACL 4000 has a flame arrestor mounted between the air shutter and mixer head. This prevents any flame from escaping the ignitor upon ignition. The arrestor is achieved by using 2 layers of stainless steel mesh and one perforated galvanized backing plate.

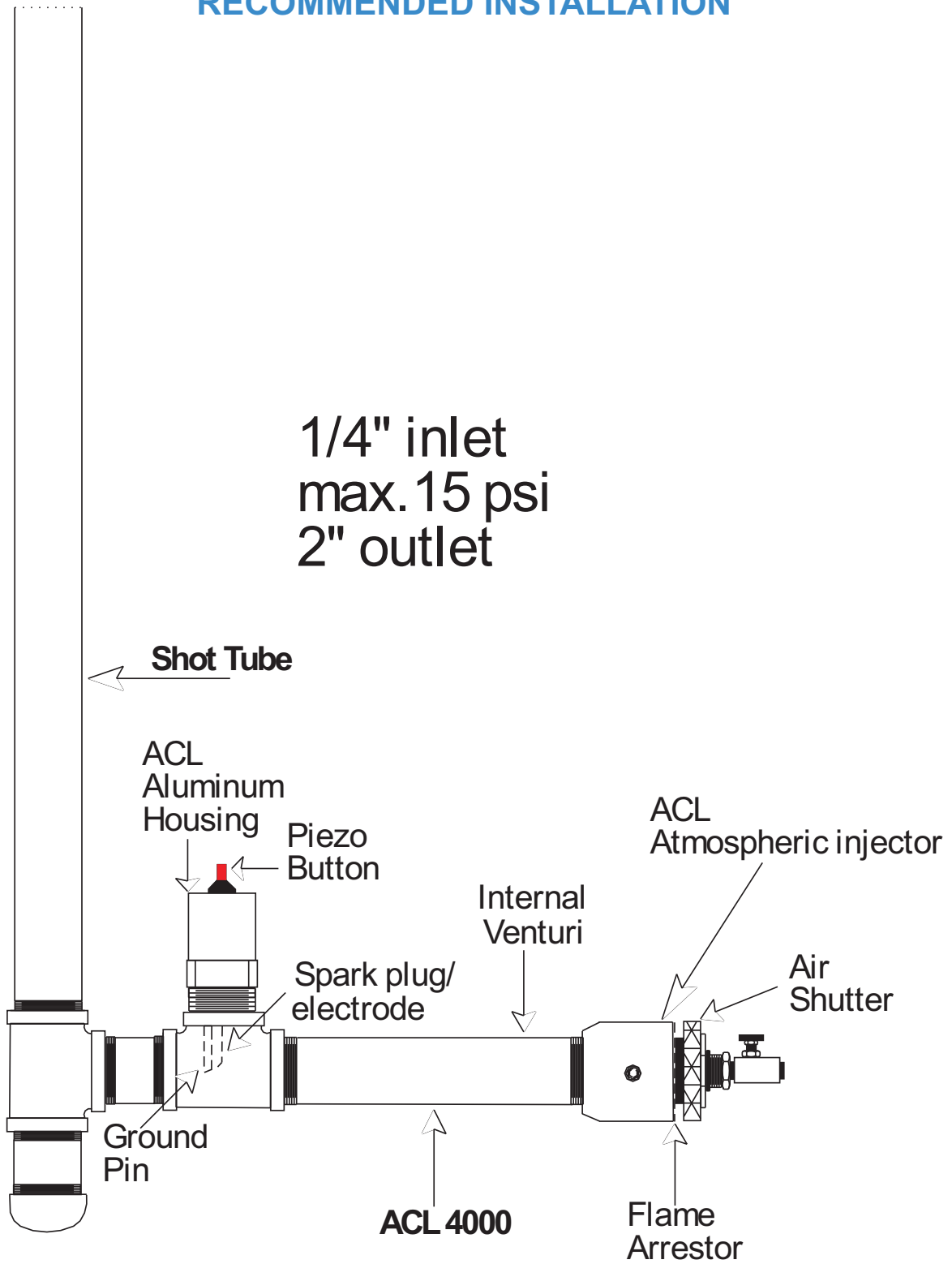
Ignition occurs when the external needle valve is opened and the shot tube is flooded with fuel/air mixture. Then the ignitor button is pushed. A flame is then carried up through the 2" shot tube to the top of the flare stack, which in turn lights the pilot gas at the tip of the stack. The needle valve is then closed. **Note: Shot tube may require additional time to flood for tall stacks. Air shutter may also require adjustment for desired results.**

## INSTALLATION

The ACL 4000 is designed to mount at right angles to the bottom of a 2" ignitor shot tube mounted on the side of the flare stack at ground level. The shot tube requires a 2" NPT male thread to accept the ACL 4000. Once mounted, the ignitor requires fuel gas supplied via a Fisher 67 regulator or similar pressure reducing regulator to provide a maximum of 14.9 psi to the needle valve mounted on the ACL ignitor.



## RECOMMENDED INSTALLATION



## NOTES

[illegible]

## NOTES

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# ACL

## Manufacturing

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**Website: [www.aclmfg.com](http://www.aclmfg.com)**

### **Limited Warranty**

Seller warrants that the product hereby purchased is, upon delivery, free from defects in material and workmanship and that any product which is found to be defective in such workmanship or material will be repaired or replaced by Seller for a period of one year from purchase date. Warranty of such items do not include shipping, installation or set-up.

### **Liability Statement**

ACL Manufacturing Inc. Shall not be liable for any special, indirect, consequential or other damages of a like general nature, including, without limitation, loss of profits or production, or loss of expenses of any nature incurred by the buyer or any third party.

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