

# STABILITE™

## *Pilot Burner*



The STABILITE pilot burner is one of the most dependable pilot burners on the market today. The innovative, compact, and rugged design was created with ignition reliability in mind to ensure the burner will light even in the harshest industrial environments. The easily accessible adjustment screws make setup a snap, and the innovative mixing nozzle ensures the flame will remain stable even during wide variations in process conditions.

## OPERATIONAL REQUIREMENTS:

FUEL	Natural Gas or Propane
FUEL/AIR RATIO	Ranges from 60% excess fuel to 500% excess air
BURNER BACKPRESSURE	Should be added to the pilot gas and air pressures for best operation. Consult with an ERTL representative for extremely high velocity burners that generate a sudden increase in backpressure.

---

CAPACITY = up to 25,000 BTU/h

FLAME LENGTH = 3 to 24 inches

MIN GAS PRESSURE = 5" w.c.

MIN AIR PRESSURE = 5" w.c.

AIR CONNECTION = 1/2" NPT

GAS CONNECTION = 1/4" NPT

OUTLET CONNECTION = 3/4" NPT

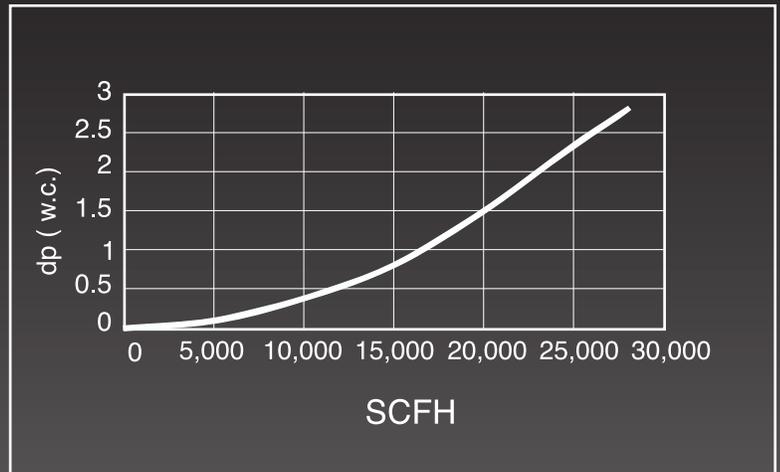
---

## INSTALLATION:

- 1) Coat all the threads with a high temperature anti-seize compound prior to attaching the pilot to the burner
- 2) Screw the pilot into the burner or chamber. Orient so the spark plug is at the top or on either side of the pilot. Since condensation can form within the pilot burner over time, positioning the plug on the bottom can lead to ignition failure.
- 3) Connect the gas and air lines to the pilot.
- 4) Connect the ignition cable to the spark plug. Make sure that the cable is secure and not in contact with any other metal object.

## SETUP:

1. Turn the gas valve to the fully closed position. Open cap on the regulator and turn the adjustment screw fully clockwise.
2. Turn on the main burner combustion air to its normal flow at startup conditions.
3. Install one 1/8" NPT hose barb to the Air Pressure Tap. Remove the spark plug and install another 1/8" NPT hose barb to the spark plug hole. Connect a manometer between these two barbs. Remove the cap to the adjustable air valve and turn the adjustment screw until the desired firing rate is set.
4. Replace the spark plug and connect the ignition wire.
5. Remove the cap from the gas regulator.
6. Energize the spark plug. Open the gas valve slowly until it is fully open. Turn the gas regulator adjustment screw counterclockwise until the pilot lights.
7. Continue to adjust the gas regulator screw until the flame detection device is activated and the pilot ignites the main burner reliably.
8. Shut the system down and restart the pilot without making adjustments. If the pilot lights and ignites the main burner, no further adjustments are necessary. If not, repeat steps 6 and 7.



## TROUBLESHOOTING:

### 1. If the pilot does not ignite:

- a) Turn off the gas, remove the spark plug, and check to verify spark.
- b) Check the tip of the spark plug for fouling, condensation, or carbon buildup.
- c) Check the gas lube:
  - i. Remove the ignition wire and spark plug.
  - ii. Remove the pilot from the main burner or chamber.
  - iii. Remove the gas and air line.
  - iv. Remove the nozzle set screw and slide the nozzle out of the pilot body. Run a wire or drill bit through the gas tube and all of the staging holes to ensure they are clear
  - v. Replace the gas tube into the pilot body and reconnect the gas and air line. Insert spark plug and reattach the ignition wire.
- d) Reinstall the pilot onto the main burner or chamber.

### Special Note:

Unlike many other pilots on the market, the spark plug used in the Stabilite Pilot Burner is a common 10mm spark plug. In an emergency, these can be found in most auto parts or small engine stores. This especially important if trying to replace during an emergency.

