

burners, inc.

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INSTALLATION GUIDE

For FL series, FV series & TK series Burners

READ ALL INSTRUCTIONS BEFORE USING

**ONLY QUALIFIED MECHANICAL GAS CONTRACTORS
SHOULD BE ALLOWED TO INSTALL THIS EQUIPMENT**

A. GENERAL DESCRIPTION

Model designations of **FV** series burners are designed to be operated on *VAPOR PROPANE - ONLY* (Vapor LPG).

Model designations of **FL** series and **TK** series burners are designed to be operated on *LIQUID PROPANE - ONLY* (Liquid LPG).

All burners are designed to operate effectively between the pressure range of 5 psi through 30 psi. In order to maintain a constant working pressure, all burners must have the appropriate regulator for the designed fuel type and fuel consumption (btu/h).

B. INSTALLATION

Mounting - This burner must be secured to the appliance (machine) as intended by the manufacturer. The burner must be mounted in an area which will allow fresh air to circulate around the burner. The burner must be mounted away from all flammable objects. When firing into a flue or firing chamber, be certain the system design and burner are compatible. There should be sufficient flue volume and exhaust area for proper operation. The burner must not be mounted inside the fire chamber.

NOTE - All high temperature applications, including ceramic kiln firing, must use **STAINLESS STEEL** burners.

Gas Piping - Gas service and piping must supply the quantity and pressure of gas required by the burner. All piping must be in strict accordance with applicable codes, ordinances and regulations of the governing authority. In the absence of other codes, piping should be installed in accordance with the following standards:

"National Fuel Gas Code" NFPA No. 54, ANSI No. Z223.1.

The gas piping must be internally cleaned and free of foreign material. A leak test must be performed prior to using any gas piping, or burner system.

C. START & OPERATING

It is only recommended that this burner be used in an appliance or machine that has a Factory Mutual (FM) approved flame management control system. If burner testing is required, prior to the flame management control installation and when burner installation is complete and all fuel connections have been made, make certain all connections are tight and free from leaks.

- Turn the shut-off valve on the burner **OFF**.
- Make sure the regulator adjusting handle is turned completely *counter-clockwise*, no pressure should be allowed through the regulator.
- Open the fuel cylinder valve.
- Adjust the pressure regulator to allow **10 psi** of pressure through the system.
- Open the burner shut-off valve slightly.
- Ignite the burner at the front of the burner outlet.
- Adjust the regulator to establish the desired flame pattern or working pressure.

To discontinue use - **ALWAYS** turn the fuel cylinder valve **OFF** first. This will allow the excess fuel to burn out of the system.

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General Operating Instructions for FL, FV & TK series Burners

IMPORTANT - Please read all instructions before attempting to operate this burner. Failure to follow all instructions may result in bodily injury.

FOR YOUR SAFETY

If you smell gas:

- Shut off all gas supplies.
- Extinguish all open flames.
- Contact a qualified gas service technician for assistance.

This burner will produce extremely hot flames, and will cause severe burns to exposed skin.

You must always use hand and eye protection when using this burner. It is recommended that you use OSHA approved eye protection and leather gloves whenever using this burner.

Always have an ABC type fire extinguisher within 25ft of your work area.

DO NOT use this burner in any area containing flammable vapors such as gasoline, paint thinner, or degreaser.

DO NOT use this burner near flammable material such as dead & dry weeds, pine needles, sawdust, & paper.

This burner is intended for outdoor use only.

This burner is designed for use with LPG (propane) only. Refer to the section **A. GENERAL DESCRIPTION** for proper fuel type.

Only allow properly trained adults to operate this burner.

Do not allow children to operate this burner.

Before you begin ...

Inspect all material for damage.

Make sure all brass connectors are free from breaks or damage.

Make sure burner assembly is not bent or broken.

DO NOT USE THIS BURNER IF ANY PART IS DAMAGED OR BROKEN.

This burner requires LPG (propane) for proper operation. You must verify that the proper type of propane storage cylinder is used. This cylinder must be approved by either the US Department of Transportation (DOT) or the American Society of Mechanical Engineers (ASME) for propane service.

Always inspect any gas connection prior to installation. Make sure it is free from debris and there are no defects, or broken or missing parts.

Make sure the burner control valve is turned completely OFF (fully clockwise).

SLOWLY open the gas valve on the propane supply cylinder. Immediately check for any gas leaks on the burner control valve, the gas piping (or gas hose, if used), the LPG (propane) pressure regulator, and the tank connector fitting using a soapy water or suitable gas leak detection solution (available at your local LP Gas Retailer).

DO NOT USE A MATCH OR ANY OTHER OPEN FLAME TO DETECT FOR GAS LEAKS.

DO NOT ATTEMPT TO LIGHT OR OPERATE THIS BURNER IF THERE IS ANY EVIDENCE OF A GAS LEAK, OR YOU SMELL GAS.

If a leak is discovered, immediately turn OFF the gas valve on the propane supply cylinder.

OPERATING INSTRUCTIONS

Consult your owners manual for proper appliance (machine) operation.