ETTER engineering
Since 1940
E N G B
Patent Pending

ETTER ENGINEERING ENGB GAS BOOSTER INSTALLATION INSTRUCTIONS

Limited Warranty

ETTER Engineering warrants all new complete units manufactured by ETTER to be free from defects in material and workmanship for a period of 24 months from date of shipment.

Please consult the **ENGB Technical Manual** (ENGB-TM-1009 Rev 1_4) for full installation instructions.

The warranties of the Seller **DO NOT** cover:

a.) Failures not reported to seller within the warranty period specified above.
b.) Failure of damage due to misapplication, abuse, improper installation or abnormal conditions of temperature, dirt or other corrosive matter.
c.) Failure due to damage from operation, either intentional or otherwise, above rated capacity or in an otherwise improper manner.
d.) Products which have been tampered with or altered in any way by anyone other than an authorized representative of seller.
e.) Products damaged, in shipment or otherwise, without fault of seller.
f.) Expenses incurred by Buyer in an attempt to repair or rework any alleged defective product.
g.) Defects in material & workmanship which are attributable to drawings & specifications provided by Buyer.
h.) Components manufactured by others are warranted only in accordance with the warranty, if any, issued by such OEM manufacturers.
i.) Seller is not responsible for any repair costs unless the prior written consent of Seller has been obtained.
j.) If tamper-proof security label(s) have been broken or removed without prior written consent of Seller.*****

***NOTE: If maintenance, repairs or installation requires breaking or removing the tamper-proof security label, you MUST FIRST contact ETTER Engineering to request a new security label.**

Handling

All ETTER Gas Boosters have been tested at our factory before shipment. The booster is a balanced assembly of rotating parts, and extreme care should be taken so as not to disrupt this balance due to harsh handling.

Base

A special base is not required for booster installation. A level concrete floor or substantial mounting pad is all that is recommended. A concrete housekeeping pad may be preferred for long-term physical maintenance, but is not required. The booster should be lagged to the floor or framework using the mounting holes provided in the base. The base must not be flexed or stressed in any manner as this will create misalignment issues and cause damage to the unit.

NOTE: 1) All federal, state, and local gas, plumbing, and electrical codes should be followed and take precedence over these instructions. These requirements are location sensitive.

2) Local codes and regulations differ; therefore a licensed electrician and plumber should be used to make all required connections.

Location

Boosters should be installed in a cool, dry place free from dirt and other contaminants in accordance with local codes. When possible a location shall be selected to provide ample access to the booster from all directions. For more details on routine access, please see the **ENGB Technical Manual** (ENGB-TM-1009 Rev 1_4) for model-specific drawing documentation for indication of spatial requirements.

Piping

Utilize correct pipe size from booster to appliance to avoid excessive pressure losses. Often pipe size needs to be increased multiple sizes on the inlet and outlet of the booster to minimize frictional losses. All pipe connections should be gas tight with no system leaks. Do not use the booster to support piping. Use suitable brackets or hangers. Stress on booster connections is unacceptable. Flexible couplings should be used for connections to the booster's inlet and outlet connections to isolate the rotating equipment from the house piping. Leaks will decrease performance and increase power usage along with creating a hazardous condition.

Caution: Any pipe tests which involve using high pressure air, must either bypass the booster or totally disconnect the booster. The booster is rated to 7 PSIG MOP. Pressure in excess of 7 PSIG may cause

Failure to follow these service procedures and protocols can result in damage to the equipment, serious injury, or death.

Electrical

Before making any electrical connections, confirm motor info listed on booster nameplate and site electrical circuits are correct. Make sure the motor starter is correct for power requirements. Fan rotation should be confirmed by removing observation port pipe plug on booster end plate, bump motor power and observe fan rotation. Replace pipe plug after proper fan rotation is achieved and insure there is no leakage from remaking the joint.

Rotation

It is important that the rotation of the booster is the same as that posted on the rotation arrow plate mounted on the booster. Incorrect rotation will result in less than rated pressure performance. ***See above "electrical" note regarding checking rotation.***

Assembly / Disassembly

Any disassembly of boosters by anyone other than ETTER Factory authorized service representatives will void all warranties. Any alterations or repairs to this booster must be made by the manufacturer or their designated representative.

Lubrication

Motor bearings are lubricated for the life of the motor.

Balancing

All boosters are balanced before leaving our plant. However, rough handling - especially during transit and installation - can upset a booster's balance. If there is any excessive vibration due to an unbalanced condition, contact ETTER's Service Department.

CAUTION: Customers should NOT ATTEMPT to balance a hermetic gas booster. If balancing is required, contact ETTER's Service Department by calling 1-800-444-1962.

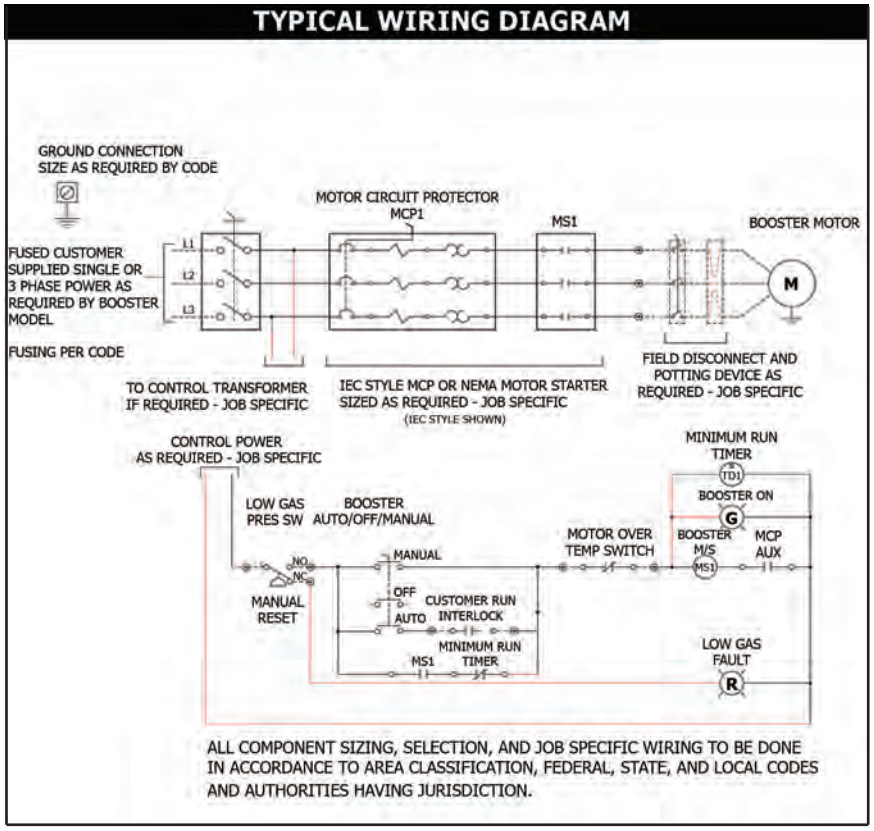
Troubleshooting

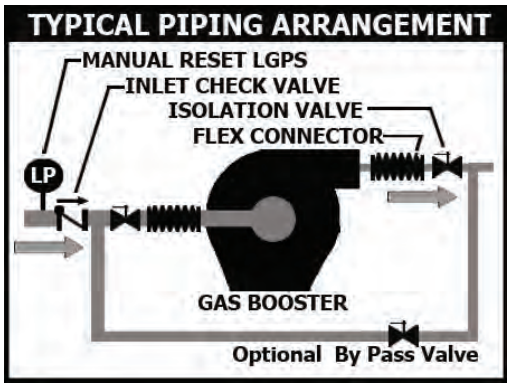
If gas booster is not delivering the rated pressure, but motor is **NOT** overloaded, check the following:

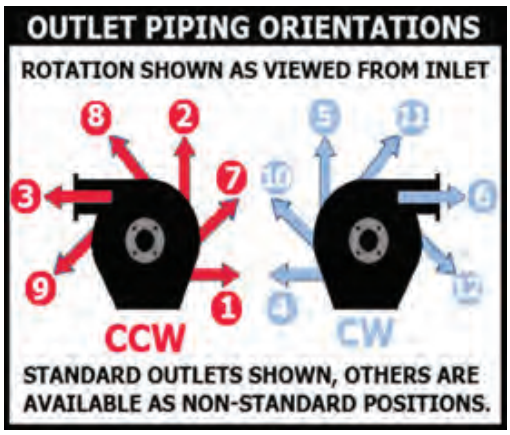
1. Correct or reversed rotation will produce two different pressures; the higher indicating proper rotation.
2. Interior parts clogged or partially blocked with dirt or debris.
3. Piping too small and causing high frictional loss on inlet to the booster.
4. Lower specific gravity than specified on nameplate.
5. High inlet gas temperature.

If gas booster is not delivering rated pressure and motor **IS** overloaded, check the following:

1. Wrong voltage connections.
2. Unit attempting to pump more than rated volume.
3. Higher specific gravity than specified on nameplate.
4. Intake gas temperature too low.
5. Check motor rotation.







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