

Spencer® UL Listed (GL Series) Hermetic Natural Gas Boosters



General Instructions

Please Do Not Destroy

Post in a conspicuous place and follow instructions carefully. Additional copies furnished upon request.

Caution: Do not operate machine in "Surge" or in unstable flow range for extended periods.

Spencer service

Spencer service begins upon receipt of your request for equipment purchase. Our engineers welcome the opportunity to discuss your installation problems and will assist in determining specification requirements if so desired. To serve you promptly, we maintain an inventory of electric motors and machine parts for the various types of equipment. Also, by combining under one roof, the constantly supervised manufacturing, assembly, and test procedures, Spencer can assure you of a unit capable of optimum performance under the most severe service conditions. All Spencer gas boosters are factory tested for load capacities, noise, vibration and leakage. This guarantees long, trouble-free operation.

Warranty

We warrant that this product will be free from defects in material and workmanship for a period of 18 months from date of shipment or 12 months from date of start-up, whichever comes first. Within the warranty period, Spencer shall repair or replace such products that are determined by us to be defective. This warranty will not apply to any product which has been subjected to misuse, negligence, or accident or misapplied or modified or repaired by unauthorized persons or improperly installed.

The guarantee of the motor and control manufacturers will govern the extent of our guarantee on such equipment. Warranty work on motors and controls must be authorized by Spencer and must be performed in an authorized shop as designated by the motor and control manufacturers.

Handling

This machine has been carefully balanced and tested at our factory. It is essential, therefore, that it be handled with care during installation in order that you may be assured satisfactory performance.

If the machine is to be stored for some time before being permanently installed, it must be carefully protected from dampness and dirt.

Location

Install the machine in a cool, dry place free from dirt and dust. After placing the machine in its operating position, be sure that the blower and motor are readily accessible for servicing by allowing several feet of clear space around the machine. Inaccessibility can prove costly in both time and labor.

Caution: Do not locate unit in excessively hot area (above 100°F).

Foundation

No special foundation is necessary for the equipment. A level concrete floor or block is recommended, although any other substantial floor will prove satisfactory. The machine and its base should be placed on the insulation pads normally furnished with it.

Caution: Gas Boosters should not be bolted down or anchored in any way.

Piping

Spencer GL Gas Boosters are UL Listed as being suitable for installation in accordance with the provisions of the National Electric Code, NFPA No. 70, and the National Fuel Gas Code, NFPA No. 54, for natural gas only.

All piping should be of ample size to minimize frictional loss. It is absolutely essential that all joints be gastight and that there be no leaks in the system. Piping should be properly supported without producing any stress and strain on the machine casing. It is further recommended that a suitable flexible connection be used to connect it to the piping.

Caution: If the piping system is to be leak-tested using high pressure air, be sure to either bypass or disconnect the gas booster. High pressure air will seriously damage the gas booster.

Electrical

Be sure that the motor furnished with this machine is wound for the same type of current available at the installation. Follow the wiring instructions furnished. Wire and fuses should comply with NEC and/or local codes.

It is important that proper equipment be used. All A.C. machines should be equipped with a magnetic contactor or a manual or automatic compensator depending on the machine size and the installation regulations of the local power company. The starters should have thermal overload protection as well as true low-voltage protection.

Ball Bearings

The motor ball bearings in this machine have been designed specifically for the function they must perform. Impeller loads, both radial and thrust, are carried by the motor bearings.

Motors

GL Series Gas Boosters incorporate an explosion proof motor suitable for Class 1, Group D environments. The motors are also equipped with thermal overload protection (thermostats).

Lubrication

The motor bearings are factory lubricated. The machine must be disassembled if both front and back motor bearings are to be replaced. Consult factory for repair procedure.

Rotation

Caution: It is very important that the direction of rotation of the gas booster be the same as that indicated by the arrow plate. Correction rotation will result in rated discharge pressure. Incorrect rotation will result in less than rated discharge pressure.

To check rotation, turn off the gas, unthread the plug on the 1" NPT half-coupling and verify that the rotation of the motor shaft is the same as what is shown on the Rotation Arrow Plate. Be sure to reseal the plug with UL Listed thread sealant, and leak check prior to putting into operation.

For additional information see Form AA.

Customers must not disassemble UL Listed Hermetic Gas Boosters. In case of difficulty contact Spencer.

Trouble Shooting

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

1. Correct and reversed rotation will produce two different delivery pressures, the higher pressure indicating correct rotation.
2. Interior parts clogged with dirt.
3. Piping too small and causing high frictional loss (only applies where pressure is checked at end of piping).
4. Lower specific gravity of gas than shown on nameplate.
5. High inlet gas temperature.

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

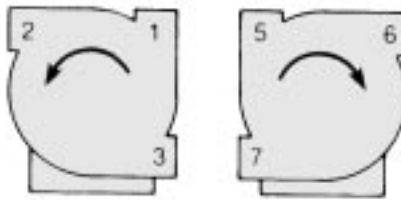
1. Wrong voltage connections.
2. Unit handling more than rated volume because of:
 - a. Leaks in piping.
 - b. Orifices too large.
 - c. Too many orifices.
3. Higher specific gravity than on nameplate.
4. Intake gas temperature too low.

For additional Trouble Shooting Information see Form AA.

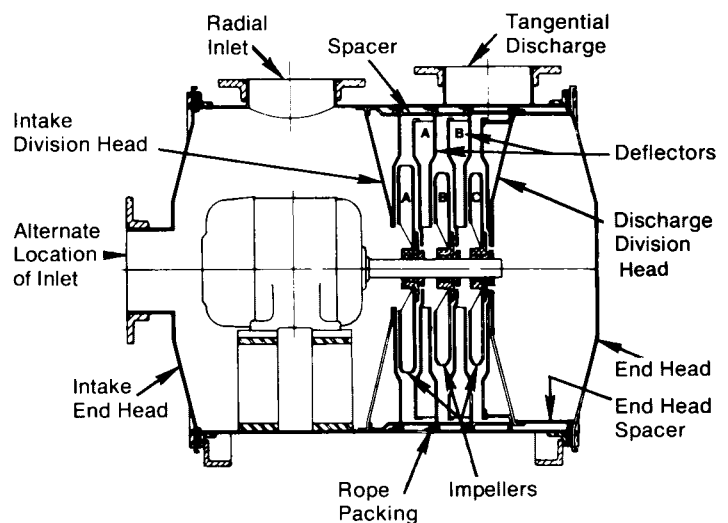
When ordering service be sure to mention serial number as shown on machine nameplate.



Available Discharge Positions



Outlet position 1 furnished unless specified otherwise. Radial inlet furnished unless specified otherwise. Outlet positions are as viewed from end opposite motor



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