greenbooster™

The "green" solution to boosting gas pressure

The greenbooster from action blower & equipment is a turnkey gas boost system that includes all piping, valves, controls, and instrumentation to meet your gas boosting needs. The greenbooster utilizes a variable frequency drive along with a NEMA Premium Efficient inverter rated motor to ensure energy is not wasted in boosting the available gas pressure to meet the required demand. The greenbooster is available in a variety of configurations in order to provide the most effective and efficient solution for every application.

At the heart of the greenbooster is the action blower & equipment GT1400 hermetic gas booster which has the following features:

- Hermetically sealed for use with air, natural gas, manufactured gas, and other non-corrosive air/ gas mixtures
- UL listed gas booster
- Non-sparking aluminum construction
- Single-stage centrifugal design
- TEFC motor suitable for VFD use, UL listed. Motor is not in contact with gas, therefore eliminating the need for an explosion proof motor.
- Motor is easily accessible for wiring and inspection
- Motor is magnetically coupled to blower with a gas tight barrier in between.
- Virtually maintenance free design. No dynamic seals that will wear.
- Blower is entirely sealed hermetically with static seals.
- 3" ANSI 150 lb. flange inlet and discharge connections
- Maximum pressure boost 12.6" WC

Advantages

- Complete turnkey solution. Simply connect gas to inlet and discharge and connect electrical input power.
- Low maintenance - blower lubrication not required.
- Low energy consumption - blower only runs as required to meet demand.
- Motor is not exposed to gas.
- Motor does not rely on gas flow for cooling so a heat exchanger is not required for low flow scenarios.
- Seals are all static so they will not wear over time.
- greenbooster is often eligible for efficiency incentives / rebates as well as LEEDS points

action blower & equipment

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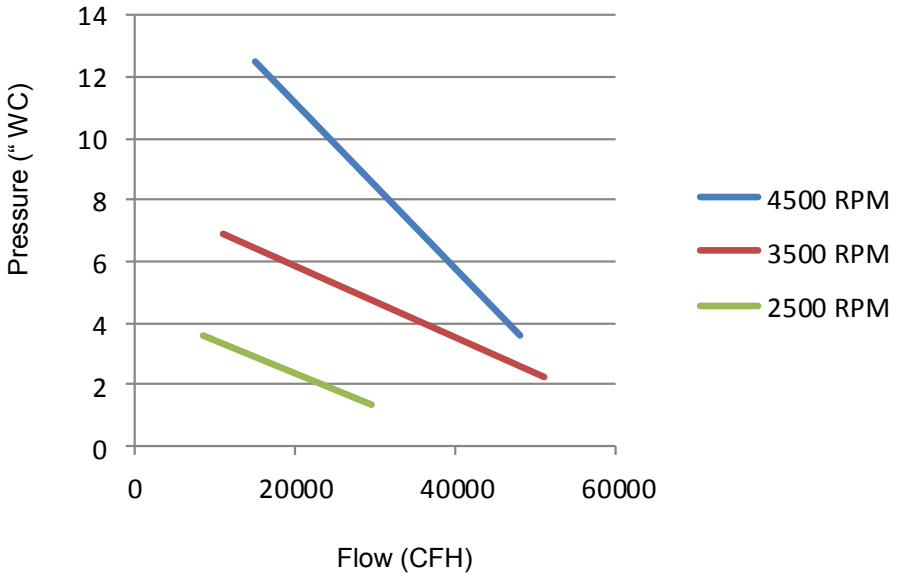
UL® LISTED

Performance



Notes:
Performance is based on natural gas at 0.6 specific gravity, inlet pressure of 14.7 PSIA and inlet temperature of 70° Fahrenheit.

Standard motor is a 1.5HP 3500 RPM 208-230/460V 3 phase 60 Hz NEMA Premium Efficient rated for Class I, Div 2, Groups A, B, C & D, Class II, Div 2, Groups F & G, inverter rated for 20:1 constant torque, 1000:1 variable torque.

Features and Options

The greenbooster is available in three standard system configurations. The greenbooster may also be ordered in many custom configurations with a number of different options. The standard configurations include the following:

Package A

Package A offers the most efficient solution for applications in which the demand on boosted gas pressure is variable and/or the supply pressure varies. This configuration utilizes PID control to maintain a constant discharge pressure at all times. The Package A configuration includes the following:

- GT1400 hermetic gas booster
- Isolation plug valves at the inlet and discharge of the gas booster
- Check valve at inlet of system
- Bypass line with isolation plug valve
- Intrinsically safe pressure transmitter at system discharge used for pressure feedback to control panel to maintain constant pressure
- XP temperature switch at discharge of blower used to shutdown system upon over temperature condition
- Control panel in specified enclosure type to include the following:
    - Main disconnect and fuses
    - VFD
    - PID controller; controls for operation
    - Designed for specified input power
- System assembled, piped, and wired as turnkey unit on painted steel frame
- System programmed to run by PID control to maintain a constant discharge pressure.
- 3" 150 lb ANSI Flange system inlet and discharge connections

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Package B

Package B offers a more economical solution for applications in which the demand on boosted gas pressure and the supply pressure are both relatively constant. This configuration is programmed to run by a remote start signal and run at a constant speed. Speed may be adjusted manually by use of the VFD. The Package B configuration includes the following:

- GT1400 hermetic gas booster
- Isolation plug valves at the inlet and discharge of the gas booster
- Check valve at inlet of system
- Bypass line with isolation plug valve
- XP temperature switch at discharge of blower used to shutdown system upon over temperature condition
- Control panel in specified enclosure type to include the following:
    - Main disconnect and fuses
    - VFD
    - Controls for operation
    - Designed for specified input power
- System assembled, piped, and wired as turnkey unit on painted steel frame
- System programmed to run by a remote start signal and run at a constant speed. Speed may be adjusted manually by use of the VFD.
- 3" 150 lb ANSI Flange system inlet and discharge connections

Package C

Package C offers the most economical solution for applications in which the demand on boosted gas pressure and the supply pressure are relatively constant. This configuration is programmed to run by a remote start signal and run at a constant speed. Speed may be adjusted manually by use of the VFD. The Package C configuration includes the following:
GT1400 hermetic gas booster

- Control panel in specified enclosure type to include the following:
    - Main disconnect and fuses
    - VFD
    - Controls for operation
    - Designed for specified input power
- System assembled, piped, and wired as turnkey unit on painted steel frame
- System programmed to run by a remote start signal and run at a constant speed. Speed may be adjusted manually by use of the VFD.

Additional Options

In addition to the standard configurations, additional options may be added to systems. Depending on the option, they may be included in the system or shipped along with the system. Some of these options include:

- Low pressure shutdown switch
- Check valve
- Intrinsically safe pressure transmitter
- Flex connectors
- Touchscreen HMI for control panel
- Additional inputs for remote pressure transmitters
- Uninterruptible power supply

The greenbooster is also available in duplex system configurations. Duplex systems may be configured as desired for each application. Typical duplex systems are configured for redundancy, as a lead-lag type of system to address wide variability in demand, or both.

Please consult action blower & equipment or an authorized representative to determine the most effective system configura-