

Application**brief**

Eclipse Product: BoostPak

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Application: Boost natural gas pressure at Bloomberg World Headquarters

Description: With the Series HB Hermetic Gas Booster, Eclipse has developed a reliable, cost effective packaged solution for pumping low natural gas supply pressures up to meet the requirements of high performance combustion equipment in traditional and emerging markets.

With the help of Accardi Companies, the Eclipse distributor in the New York City metropolitan area, Eclipse has taken advantage of the hot New York City commercial construction market. Instead of supplying just the HB Series gas booster and a check valve for each application, Eclipse can now supply a completely packaged system with integrated controls for automatic operation. The mechanical contractors responsible for the gas appliance portion of the building construction are finding it advantageous to backward integrate the assembly portion of the gas booster system to Eclipse. In turn, Eclipse is now able to capture downstream profit margins.

One such job at the new Bloomberg World Headquarters, a 54 story building located in Manhattan, helped to develop many of the options that are now standard in the BoostPak design.



The BoostPak System supplied to Bloomberg World Headquarters is supplying increased natural gas pressure to kitchen cooking equipment and consists of the following components:

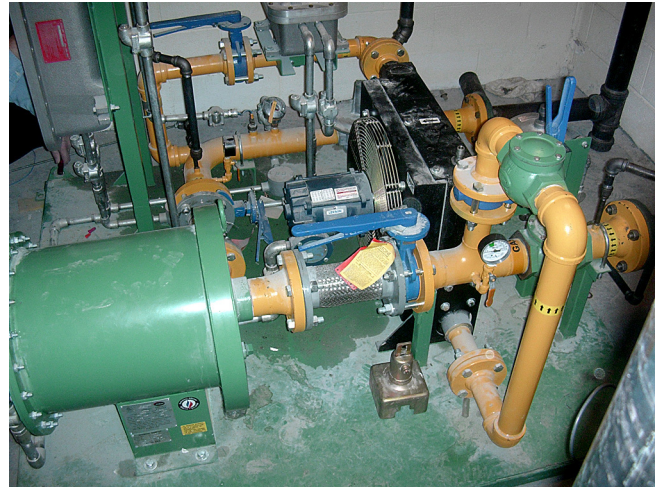
- a) HB 3314-1/2 Gas Booster
- b) Inlet Check Valve
- c) (4) Resilient Seated butterfly valves
- d) Heat Exchanger with explosion proof motor
- e) (2) NEMA 7 low gas pressure switches
- f) Eclipse Rotary Actuator in NEMA 7 enclosure
- g) NEMA 7 control panel including:
 - 1) Motor starters for booster and heat exchanger
 - 2) UDC 1200 temperature controller
 - 3) Flow control module
 - 4) Programmable Smart Relay
 - 5) Circuit breaker

In this application, the BoostPak system design allows for increased turndown of the gas flow through the gas booster by incorporating a heat exchanger and modulating butterfly valve in a recirculating line. Instead of hard wired equipment interlocking relays, an automatic flow control module and flow sensor located in the BoostPak outlet allows for the gas booster to run only when one of several appliances calls for gas. This limits needless booster runtime or short cycling which can shorten the life of the booster and waste energy.

The resilient seated butterfly valves act as shutoff valves in the BoostPak inlet and outlet and on either side of the heat exchanger in the recirculating line. An automatic low gas pressure switch on the outlet of the gas booster senses loss of pressure from gas booster motor failure and sounds an alarm. A manual reset low gas pressure switch detects loss of incoming supply pressure and sounds an alarm. All electrical components are of NEMA 7 construction.

Offering a packaged gas booster system has allowed Eclipse to integrate alternative brands of gas booster pumps when the application calls for gas flows or pressures outside the range of the Eclipse HB Series boosters. This ability to integrate alternative gas boosters has opened up emerging new markets to Eclipse other than the traditional commercial boiler market. New markets include school construction, commercial cooking equipment, rooftop heaters, domestic water heaters, emergency generators, and micro turbines.

Other options available with the BoostPak that are necessary to meet the needs of these new emerging markets include gas leak detection, uninterruptible power supply, weatherproof outdoor enclosure, and outlet gas regulator rack.



Accardi Companies have long been a loyal distributor of Eclipse Combustion products. Through their work on the front end with the specifying engineers, helping mechanical contractors through the installation process, and providing superior startup and warranty service, Eclipse is far and away the dominant gas booster supplier in the New York City metropolitan market. With the BoostPak product line, Accardi Companies has leveraged Eclipse's outstanding reputation in the natural gas supply market to find emerging new markets that take advantage of Eclipse's core competencies in innovative engineering and manufacturing.



Eclipse Combustion
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