



## INFORMATIONAL BULLETIN

### *PARTS & SERVICE DEPARTMENT*

300 Maddox Simpson Pkwy  
Lebanon, Tennessee 37090  
615-889-8900 Fax: 615-547-1003  
www.Lochinvar.com

*Date:* 7/2/04

*Bulletin Number:* 2004-03I

**TO:** Manufacturers' Reps, Regional Managers, District Sales Managers, Technical Service, Service Agents, Customer Service

**SUBJECT:** **FAN FORCED COMBUSTION AIR REQUIREMENTS FOR GAS FIRED EQUIPMENT**

Any Lochinvar gas fired boiler, water heater or combination of units may be installed in a mechanical room and have the required combustion and ventilation air supplied by a mechanical fan. The total Btu/hr input of all gas appliances in the mechanical room must be considered to properly size a combustion air fan. Per the 2002 Edition of the National Fuel Gas Code, paragraph 8.3.6 Mechanical Combustion Air Supply, air supplied to the mechanical room must be sized to provide a minimum of 0.35 ft<sup>3</sup>/min per 1000 Btu/hr of the total gas input in the mechanical room.

### **Combustion Air Fan Sizing Example:**

Assume: A quantity of 2 - 1,260,000 Btu/hr natural gas-fired boilers are installed in a mechanical room.  
**A fan will be used to mechanically supply combustion air to the room**

2 - Lochinvar CHN 1261 boilers are installed in the mechanical room  
Input per boiler – 1,260,000 Btu/hr  
Total Btu/hr in Mechanical room – (2) (1,260,000) = 2,520,000 Btu/hr  
2,520,000 Btu/hr ÷ 1000 Btu/hr = 2,520 MBtu/hr  
(2,520 MBtu/hr) (0.35ft<sup>3</sup> per1000 Btu/hr) = 882 CFM air to operate both boilers

The fan or fans supplying combustion air to this mechanical room must supply a minimum of 882 cubic feet per minute of air to operate the combustion and venting system of all boilers. This calculation provides the basic minimum requirements for the mechanical supply of combustion air for gas-fired appliances in a single mechanical room.

**NOTE:** This calculates combustion air and dilution air required for a draft hood or barometric damper. **Any local code requirements for additional ventilation air or for a specified number of air changes per hour in the mechanical room must be added to this combustion air requirement.**