
Ducting Considerations



NuEra

14409 NE 79th St, Vancouver, WA 98682

www.nueraheat.com

1-(800) 347-9575

Purpose

The purpose of this application summary is to describe the acceptable means of ducting the EnergyLogic (EL) furnace.

Description

Each EL furnace is equipped with a squirrel cage blower to force air across the heat exchanger and deliver heat into the space. If the blower does not deliver enough air across the heat exchanger, two negative consequences may occur. First, the furnace efficiency will be diminished. Secondly, the heat exchanger temperature may exceed the high limit, causing the fan & limit control to short cycle the furnace. Each blower can deliver the desired flow rate pushing against external static pressure of 0.28 in. WC.

Problem Avoidance

EL offers DuctLogic™. DuctLogic™ is a fabric duct system entailing lightweight components compared to typical metal duct and is extremely simple to install. DuctLogic™ kits are available to operate specifically with each EL furnace, keeping static pressure in check. Refer to Table 1 below for DuctLogic™ specifications. For kits and parts, refer to a DuctLogic™ Parts & Price Catalog or contact Technical Services at 1-800-351-0643.

Table 1:

Furnace Model	CFM	Diameter of Duct	Max Length of Total System
EL-140H	1000	12 in.	(2) 5 ft. sections with High-Throw Air Dispersion Orifices May be extended up to 20 ft. max by adding 5 ft. sections of inactive duct
EL-200H	1500	16 in.	(2) 10 ft. sections with High-Throw Air Dispersion Orifices May be extended up to 35 ft. max by adding 5 ft. sections of inactive duct
EL-340H	2800	20 in.	(3) 10 ft. sections with High-Throw Air Dispersion Orifices May be extended up to 50 ft. max by adding 5 ft. sections of inactive duct

Potential Work-A-Rounds

When longer ducting is necessary, it is possible to install an *in-line* booster fan. The goal should be to reduce the static pressure to a level below 0.28 in. WC. Two metal square to round transitions may be required for fans with square transitions. The DuctLogic™ inlet collars (optional accessories) would slide over the end of the round transitions and zipper to the fabric duct. Contact suppliers of booster fans (not provided – example: Vortex) to determine what size fan is necessary for the given application. Contact EL Technical Services for any additional assistance and parts.

