Lanair	Clean Burn

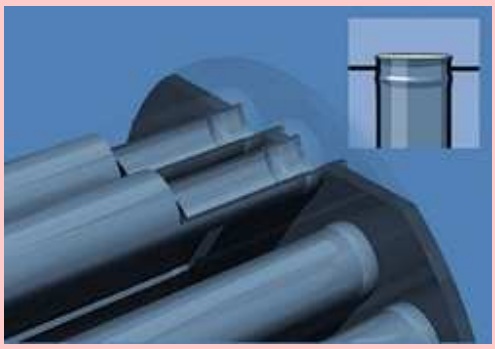
CABINET

	
Lanair's lightweight heat exchanger provides very little travel for the heat to be picked-up and ultimately be transferred to your shop. It uses a 2-pass design made up of 12 gauge steel.	The combustion chamber is made of heavier, thicker 12 ga. carbon steel resulting in extra durability and more efficient heat exchange. On average, our furnaces weigh up to 175 lbs. more than many competitive furnaces.
	
	Clean Burn furnace use several innovative multi-pass heat exchanger methods, depending on the size of the model, to ring out every last BTU of heat for your shop, while venting substantially cooler gases through the chimney than its competitors. A Clean Burn Heat Exchanger provides approximately 200% more surface area for capturing combustion heat. You get more heat from less oil.

The heat exchanger is diamond shaped and has a piece of insulated board bolted to the back of the combustion chamber acting as the target. This makes for difficult cleaning and inefficient heat transfer.

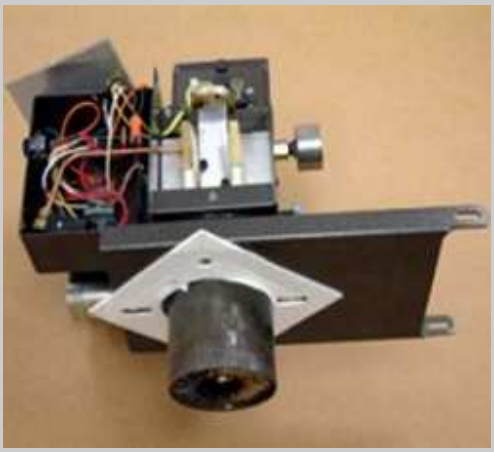
As it's furnace target Clean Burn uses an Energy Retention Plate made of innovative heat resistant material. It retains heat for better heat transfer, protects the furnace, and is easily replaced. This view is looking down the heat exchanger with the Energy Retention Plate removed and in the foreground. Arrows point out easy attachment points.

Lanair employs excessively large 4" diameter Flue Tubes that are welded. Tubes with such a large diameter do not allow for maximum heat transfer. Welded joints are susceptible to cracking and failing in a combustion chamber environment and are difficult to replace.



Clean Burn’s heat exchangers are swedged, not welded. A swedge is a way of joining metal parts without welding, which avoids the potential cracking and failing in a combustion chamber environment. A swedge allows the metal parts to expand and contract with minimum metal fatigue. This means added years of reliability and service life for your Clean Burn furnace.

BURNER



Custom Burner motor requires annual oiling and maintenance.

The Clean Burn burner is engineered from the ground up exclusively to burn used oils,and burns standard fuel oil for added versatility. A high quality on-board air compressor is optional, however most customers prefer to use their shop air.

The complicated design of the Lanair burner and pre-heater block may make serviceability difficult. The burner has an electric air solenoid valve that acts as a shut-off valve, but is located inside the burner's electrical box, making service difficult.

The pre-heater block heats oil and air to the same precise temperature for efficient combustion. Like its heat exchanger, it too uses a multi-pass heating approach.

Swing out burner design necessitates disconnection of oil and air lines.

Swing-away burner design provides quick, easy access to the combustion chamber. No

The Oil Flow Regulator (flame adjustment) is located at the tank, not at the burner. This design requires two people to make adjustments to the flame. When changing oils, adjustments do need to be made. For #1 and #2 fuel oils you must switch the pre-heaters off. For 10w through 50w motor oils the pre-heaters must be switched on.	need to disconnect oil, air and electrical lines. This unique modular design makes service faster and easier.

OIL PUMP

	
Pump limits oil tank to inside, above ground storage only. Adjustable, NOT factory set and needs to be adjusted on site.	The Clean Burn Pump features heavy-duty steel gears encased in an oil bath, and precision assembly to help ensure a long reliable service life. The oil flow rate is consistent because precise gear ratios and pump speeds are set for each individual furnace. A correct flow rate is maintained no matter what type of oil and viscosity is used, insuring optimum performance.
	
Electronic circuit board controls the pump motor. Its reliability may be an issue in shop working environment. Oil tank must be located inside , which negates the use and flexibility of an outdoor tank.	This brawny, reliable Clean Burn oil pump allows the furnace to be installed up to 300 ft. from the oil storage tank. It also permits the use of an outside storage tank where, in colder temperatures, many competitive pumps can't function. No competing waste oil furnace can provide such flexibility and convenience, from the initial installation to its day-to-day use.

SERVICEABILITY

No swing-out cabinet door.	 Clean Burn's swing-out cabinet door makes cleaning and service easy.

SERVICE

Lanair is a mail order product with no on-site service. When you have a problem you have to fix it yourself or ship components back to the factory in Washington state. Telephone support and factory are the only service availabe.	Clean Burn has the largest service and distributor network in the industry, providing dependable installation and after-sale service and parts support.

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