ADDITIONAL REQUIREMENTS & INFORMATION

THERMO-CYCLER® GTR-9600

Additional items which are <u>not</u> included as a part of the quotation but which may be required are:

<u>A) INSTALLATION</u> - Labor and equipment will be needed for unloading and assembly of equipment. Upon receipt, carefully examine the equipment for any damage which may have occurred during transportation. If damage has occurred, notify the transportation company immediately and file any necessary damage claims within the required time limit.

The standard unit will be shipped on three pallets and protected with a clear plastic stretch wrap covering. The base fan section, center heat exchanger section and top discharge section will each be shipped on a separate pallet. Any additional accessories such as an extension section will be shipped on separate pallets. The top discharge section will be bolted to the fan base section for shipping purposes. The center heat exchanger section is shipped with the burner mounted in place. The total shipping weight is approximately 3700 lbs and the heaviest piece is approximately 1900 lbs.

The normal setting time would be 4-6 man-hours, although the actual time will vary with job conditions, available equipment, and labor crew skill. All nuts, bolts, and washers required for assembly are provided. The unit must be set on a level floor which is structurally capable of supporting the unit.

<u>B) ELECTRICAL POWER WIRING</u> - An electrical power circuit, with overcurrent protection must be provided to unit and connected to the wiring leads at the control panel. Circuit must be properly sized and grounded in accordance with ANSI/NFPA-70 and applicable code requirements. The transformer and operating controls are factory mounted. Reconnection of color coded wiring in the flexible conduit from the control panel to the junction box will be required. Available voltages, minimum circuit ampacity, and maximum protective device sizes for the GTR-9600 are:

Model GTR9600E4	460V/3Ø	FLA: 10.5A	MCA: 12.0 Amps	MPD: 18 Amp

<u>C) NATURAL GAS PIPING</u> - The Thermo-Cycler GTR-9600 requires natural gas with piping adequately sized to provide **6"w.c. to 14"w.c.** at the burner inlet. Burner gas consumption of **GTR-9600 is up to 1800 CFH**. For gas line pressure exceeding 14" w.c., an approved gas pressure regulator must be provided to reduce the outlet gas pressure to less than 14" w.c. at the unit. A manual shutoff valve should be provided at the unit as shown on the gas piping diagram provided with the unit or in accordance with local codes.

(OVER)

D) FLUE GAS VENTING - An approved flue gas vent system must be provided in accordance with all applicable codes and regulations. A UL Listed Building Heating Appliance Chimney rated for 1000ºF continuous operation would be acceptable for the GTR-9600. The Thermo-Cycler GTR-9600 has an 10" diameter flue collar located approximately 9' 10" above floor level. A capped tee should be installed at the bottom of the stack for access and inspection. Maintain clearance to combustible material as required by the flue venting system selected and terminate vent in accordance with vent system manufacturer's recommendation.

E) COMBUSTION AIR INTAKE - Combustion air for the burner is delivered through the intake screen above the burner enclosure access door. The intake screen must remain clear and unobstructed. Outside combustion air may be ducted to the unit if the building is operating under a slight negative pressure condition, if the air is dirty or contaminated, or if required by local codes or regulations. Contact your Thermo-Cycler representative for information about additional requirements that may be required for combustion air.

F) FRESH AIR VENTILATION - Additional exhaust or makeup air may be required by local codes or regulations to maintain acceptable indoor air quality.

G) CODE COMPLIANCE & REGULATIONS - The specifier and/or purchaser has the final responsibility for determination of suitability for the fitness of purpose, acceptance by the local authorities having jurisdiction, and/or the approval of the fire insurance carrier regarding the application of the Thermo-Cycler system for this building and the intended occupancy.

H) EMERGENCY SHUTDOWN - The Thermo-Cycler GTR-9600 has an air distribution capacity greater than 10,000 cubic feet per minute (cfm). Local codes may require the unit to be shutdown in the event of a fire. Unit shutdown may be controlled by the building fire protection system or by a separate smoke detection system. The specifier and/or purchaser has responsibility to verify code requirements with the local authority having jurisdiction and to provide the appropriate controls required.

I) STARTUP & TESTING - The Thermo-Cycler GTR-9600 has been test fired and adjusted for burner operation efficiency under factory conditions. The inspection, startup, and final adjustment after installation is required by a qualified heating service technician for verification of proper system performance under actual jobsite operating conditions. Use of a combustion analyzer for startup and maintenance is strongly recommended.

J) ADDITIONAL INFORMATION - Additional information on installation and maintenance for the Thermo-Cycler GTR-9600 is available in the operation and maintenance manual. The manual is shipped in the control cabinet of each Thermo-Cycler.