



Effective Innovation
Superior Engineering & Design

Direct Fired Safety

Direct-fired heating refers to heating equipment that burns gas directly in the fresh air stream resulting in the most efficient method of heat transfer. Direct-fired heaters generate the lowest cost per BTU of heating when compared to indirect-fired and electric strip heaters. Every ThermoTek direct-fired heater is designed and tested to produce the highest level of efficiency, safety, and comfort for years of operation.

ThermoTek direct-fired units offer a lower up front capital expense in comparison to other heat sources, as well as a lower cost to install due to no exhaust flues as required on indirect-fired units. Direct-fired heaters are well suited and widely accepted for applications such as commercial kitchens, service garages, transit facilities, factories, warehouses and paint-booths.

Listed below are some major benefits of direct-fired heating:

1. Direct-fired heating is a 92% efficient heating process. This will result in a quick capital payback and energy savings for many years. This is in comparison to indirect-fired heating equipment which is typically 80% efficient.
2. Direct-fired heating is environmentally clean. All manufactures of listed direct-fired heating equipment are required to certify to the harmonized ANSI Z83.4a-2001/CSA 3.7a-2001 safety standard. This standard allows for a maximum of 5 ppm CO and .5 ppm NO₂ to be generated by the heating equipment.
3. Direct-fired burners can operate on either natural or LP gas while achieving very high temperature rises. In fact, the ThermoTek line of direct fired heaters can heat the incoming air 125°F on industrial series units and 146 °F on modular series units up to the maximum allowable discharge temperature of 160°F.
4. Every ThermoTek direct-fired heater incorporates intelligent flame monitoring sensors. These sensors ensure that the airflow through the burner and gas flow to the burner are optimized to produce the most efficient and clean combustion process.
5. ThermoTek direct-fired burners are fully modulating and constantly adjusting to changing outdoor air conditions. Gas flow is automatically adjusted to compensate for changes in outdoor air temperature. When the outdoor air is warm, there is a reduction in gas usage.
6. Direct-fired systems are a long lasting heat source unlike indirect-fired systems that use a heat exchanger that can break down and needs to be replaced over time. Direct-fired systems are easy to maintain for many years of operation.

Based on the facts provided above, we hope you understand the benefits of using direct-fired heating. Direct-fired heating offers you and your customers' a long term, safe and economical heating solution.