



TECHNICAL COMMUNICATIONS CENTER

BULLETIN #SR-230

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RHEEM AIR CONDITIONING DIVISION
5800 OLD GREENWOOD ROAD FORT SMITH, ARKANSAS 72908

NEWS & VIEWS

TO: ALL RHEEM AIR CONDITIONING DIVISION DISTRIBUTORS

SUBJECT: 80% MID-EFFICIENCY GAS FURNACE DRAFT INDUCER OPERATION

In a mid-efficiency furnace, the draft inducer removes combustion flue gases by creating a negative pressure (draft) environment within the furnace's heat exchanger. The draft inducer is energized upon a thermostat call for heat. Therefore, it actually begins to operate before the furnace combustion cycle begins. The furnace's negative vent pressure switch is connected to the draft inducer and monitors the draft inducer's operation. The switch serves to assure that an adequate negative pressure environment exists in the furnace so that combustion flue gases are properly evacuated by the draft inducer. The switch continues to monitor the induced draft blower function as well as the negative pressure within the heat exchanger during the furnace operating cycle. This switch, therefore, also acts as a safety sensor and ensures that a negative pressure environment is always maintained within the furnace during the heating cycle so as to eliminate any potential combustion flue gas leakage into the conditioned space.

In certain random cases micro-cracking may be evidenced in the inducer's injection molded housing. However, as long as the negative pressure switch senses adequate negative pressure, the inducer will continue to operate; and no risk of combustion flue gas leakage exists. If the micro-crack becomes sufficient in size, the resultant loss of negative pressure will open the points of the negative pressure switch; and therefore, the switch will not permit the normal ignition sequence. The furnace will cease operation, and the gas valve will be de-energized. Since the combustion process is therefore, stopped, no combustion gases will be emitted; and there will be no safety risk. This is typically evidenced by the furnace "tripping" and failing to progress through a normal ignition cycle.

It is not mandatory to arbitrarily replace an induced draft motor which exhibits a micro-crack, unless of course furnace operation is interrupted.

Please be assured that Rheem's mid-efficiency (80%) furnace is designed so as to assure that a micro-cracked induced draft blower will not cause a safety risk.

Sincerely,

RHEEM AIR CONDITIONING DIVISION

A handwritten signature in dark ink, appearing to read "James T. Mikles".

James T. Mikles
Residential Product Specialist
NATIONAL SERVICE DEPARTMENT