

glasstech, inc.

Service Bulletin

Customer Service Department

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FORCED CONVECTION HEATER COOLDOWN PROCEDURE

Reference 009

The practice of accelerated or "forced" cooling of Forced Convection Heaters by continuing to run the combustion blower and hot fans at high speed blowing cold combustion air into the heater is ***not*** recommended by Glasstech as a routine, daily operating procedure. Such a practice can significantly increase the amount of particulate material in the furnace and on the roll bed. The rapid cooling produces high thermo-mechanical stress rates in the metal components with the result of excessive release of surface oxides normally formed on the components at the operating temperatures. Additionally, the rapid cool-down may place undue stress on the impellers of the hot fans since the coldest injected air feeds directly into their inlets.

Normal recommended procedure is to idle the system at ~ 400 ° C during non-use periods. If an extended shut down is required, the system should be cooled by shutting off the burners and setting the hot fans to their minimum speed. The hot fan drives may be turned off after the system temperature drops below ~ 200 ° C, but the cooling water must remain flowing until the system reaches plant ambient temperature.

Accelerated cool-downs should only be employed when urgent maintenance work must be performed that cannot wait for the furnace to cool down with all burners off, combustion blower off, hot fans at the minimum speed, and the roof kept closed. *It is not recommended that the furnace roof be opened while furnace temperatures are above 100 degrees C. This is due to the potential for damage to elastomeric components located on the outside of the furnace roof.*