

Gold Star Powders

Furnace Controller Guide

DTC6

The majority of casting faults are directly related to an incorrect burnout cycle or lack of control of the burnout cycle. By using a high quality digital temperature controller such as the **DTC6** many variables, that can lead to problems associated with burnout, can be tightly controlled and thus dramatically reduce rework rates and scrap levels in any scale of manufacturing facility.

Gold Star Powders, in conjunction with a UK digital instrument manufacturer, has designed the DTC6 **digital temperature controller specifically for the lost wax casting industry**. All GSP furnaces are supplied as standard with the DTC6 fitted, the product may also be purchased from GSP as a stand-alone unit to retrofit to most make of electric furnace.

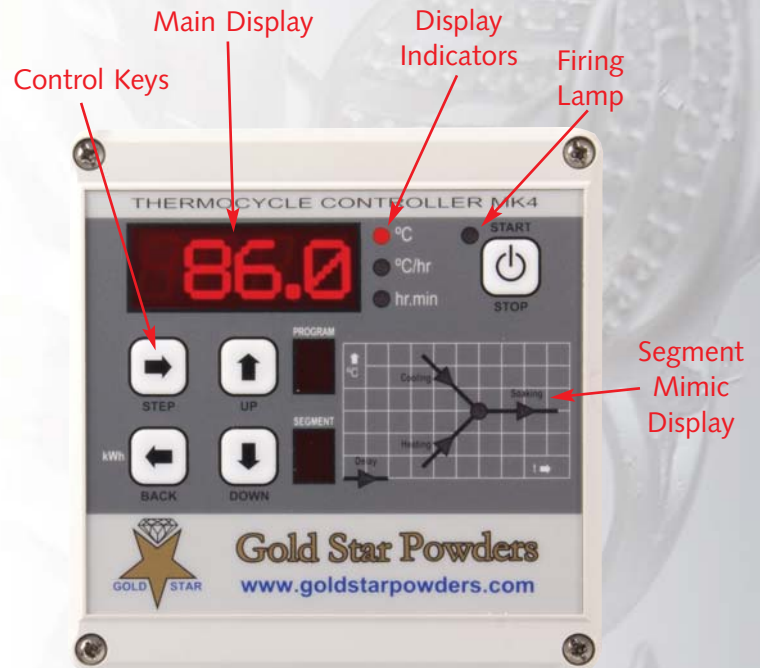
One of the major problems experienced in countries that suffer from regular power cuts is that the furnace shuts off and will not complete the burnout cycle. The DTC6 has **Power Failure Recovery facility** so that, in the event of a power cut, the controller logs the stage in the cycle and when furnace is powdered up again the controller re-heats the furnace back to the temperature where it lost power and continues with the programmed burnout cycle (the controller will log cycle position for up to 2 hours).

Programming

A firing step within the burnout cycle program consists of a temperature ramp (positive or negative) followed by a soak period. Between 1 and 9 steps may be used in a burnout cycle depending on the requirements of the user.

The controller ramps the burnout furnace at the specified rate until the required soak temperature is reached. The program then controls the furnace temperature at the specified soak temperature for the desired length of time. Once this step is complete the controller then runs through the subsequent steps until the program is complete. Once the program is complete the controller will display "END".

It is very important to soak flasks at the desired casting temperature for a minimum of 1 hour in order for the core of the flask to decrease in temperature.



Key Features

- Easy to use
- Soak Time 1 – 99 hours
- Program Pause Facility
- Delayed Start Facility 1 – 99 hours
- 9 Programs (up to 9 steps each)
- Lockable Keyboard
- Power Failure Recovery
- Ramp Rate 1 – 99 °C/hour
- Energy Usage Display

