

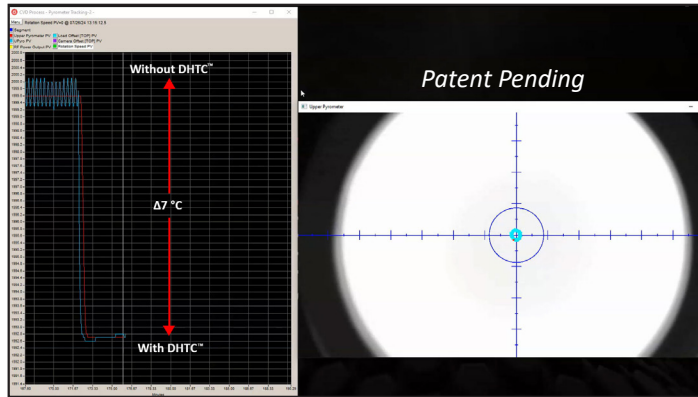
**NEW**

# Dynamic Hotzone Temperature Control (DHTC™)

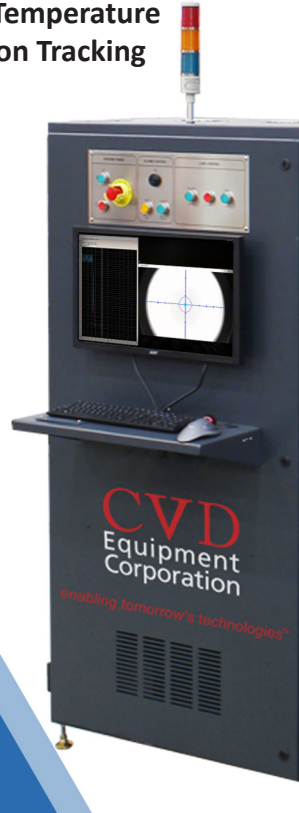
Yield Improvement within Run, Run-to-Run,  
System-to-System Repeatability by Optimized  
Temperature Measurement and Control for PVT Systems

**CVD**  
Equipment  
Corporation

Temperature & Process Optimization



Video Processing Software & Mechanical  
Hardware for Temperature Measurement  
Accuracy & Dynamic Temperature  
Measurement Position Tracking



**CVD**  
Equipment  
Corporation

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PVT200™

Physical Vapor Transport System

www.cvdequipment.com

enabling tomorrow's technologies™

# CVD Equipment Corporation's New Technology Solution for Improving Temperature Measurement Accuracy for Physical Vapor Transport Systems

DHTC™ is an option that addresses some of the temperature dependent contributors to yield loss. DHTC™ is video processing software and mechanical hardware for temperature measurement accuracy and dynamic temperature measurement position tracking. DHTC™ combines video processing software and mechanical hardware for tracking the center of rotation, position of crucible viewport, and pyrometer alignment to determine, record, and compensate for misalignment of the hotzone for optimized temperature control.

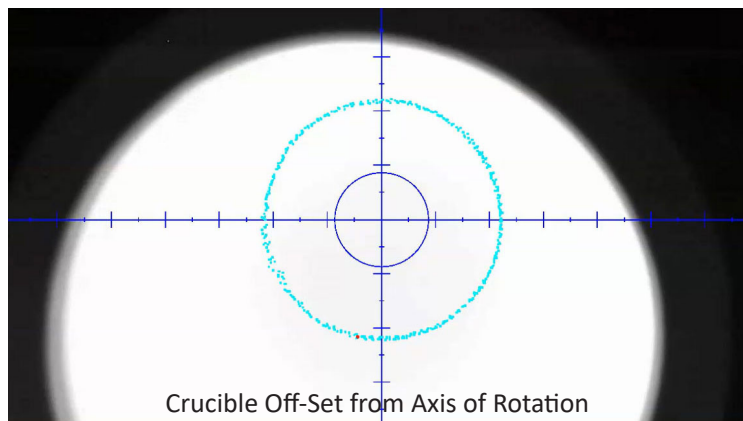
## Benefits

- Yield Improvement for SiC Crystal Growth by Optimizing Temperature Measurement & Control
- Minimizing Impact of Misalignment from Hotzone Degradation, Assembly, & Loading

## Features and Options

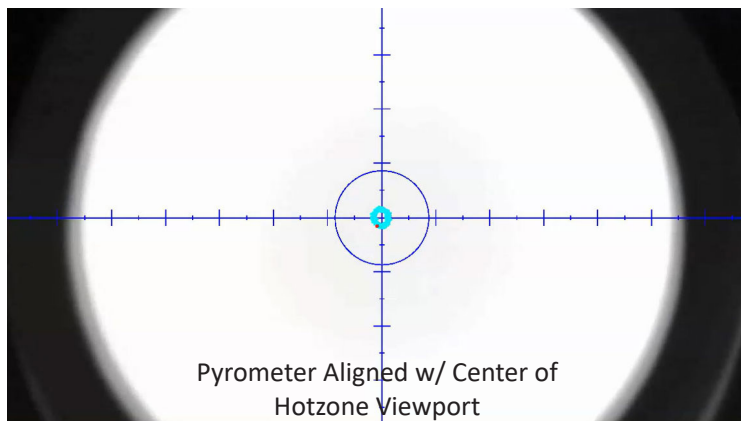
- Video Processing Software & Mechanical Hardware for Temperature Measurement Accuracy & Dynamic Temperature Measurement Position Tracking
- Automated Pyrometer Tracking & Alignment to Hotzone
- Offered as an Integration Option for CVDE's PVT200™
- An Integration Option Offered for Your Existing PVT System

### DHTC™ Inactive



Real time position tracking of pyrometer and hot zone center to record misalignment deviation.

### DHTC™ Active

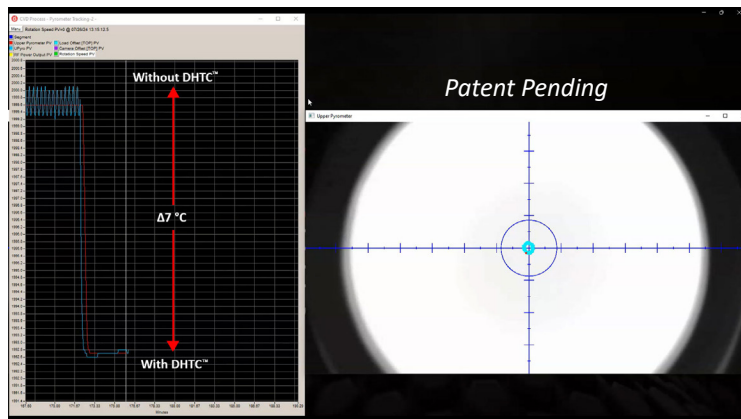


Precise temperature measurements at the center of viewport.

Our solution enables operating PVT systems in temperature control mode, allowing highly repeatable temperature measurements in the center of viewport and dynamically compensates for misalignment of top or bottom viewport, and eliminates temperature mis-reading due to hotzone shift. DHTC™ ensures consistent temperature measurement and control during SiC boule growth runs.

Offered as an option on all of CVDE's PVT systems and also can be offered on your PVT systems. Learn how DHTC™ has the potential to improve yield and system fleet productivity.

Dynamic Hotzone Temperature Control (DHTC™) is patent pending CVDE innovation.



The actual temperature is 7 °C lower due to the misalignment, contributing to boule yield loss without DHTC™

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