

# AUTOSCAN\_CTE | concrete coefficient of thermal expansion

InstroTek®, Inc. has developed an advanced method and device for measuring the Coefficient of Thermal Expansion (CTE) of concrete.

All functions of the AUTOSCAN\_CTE are completely automatic, including accurate controls for heating, cooling and height measurements. InstroTek's AUTOSCAN\_CTE is designed to accumulate all height measurements without surface treatments, special holding jigs or other accessories. All height measurements are accomplished by a high precision LVDT. The height measurements of the sample are taken and averaged over a range of specified temperatures. CTE values are automatically calculated and displayed when the test cycle is completed. The AUTOSCAN\_CTE is completely self contained and operates with easy to understand graphical interface software.

AASHTO T 336-11



## ADVANTAGES:

- ▶ The LVDT used in the AUTOSCAN\_CTE is placed outside the water tank contacting only the surface of the concrete sample. This allows the LVDT to stay at ambient room temperature increasing its life expectancy and overall system reliability.
- ▶ All measurements, calculations and data storage functions are automatic and controlled with a PC
- ▶ The AUTOSCAN\_CTE is easy to use with minimal operator involvement.

# AUTOSCAN\_CTE

## SPECIFICATIONS

Sample Dimensions	Diameter 90 to 160 mm, Length 170 to 210 mm
Number of samples tested at one time	1 concrete cylinder or concrete core (optional 2 sample set-up available)
Temperature range	10° to 55° C, adjustable in 1° C increments
Temperature sensitivity	±0.1° C
Height sensitivity	0.00125 mm (0.00005 in.) over a range of 5 mm
Units	SI and English units
Data is automatically transferred to Microsoft Excel compatible file.	



INNOVATORS IN INSTRUMENTATION TECHNOLOGY

