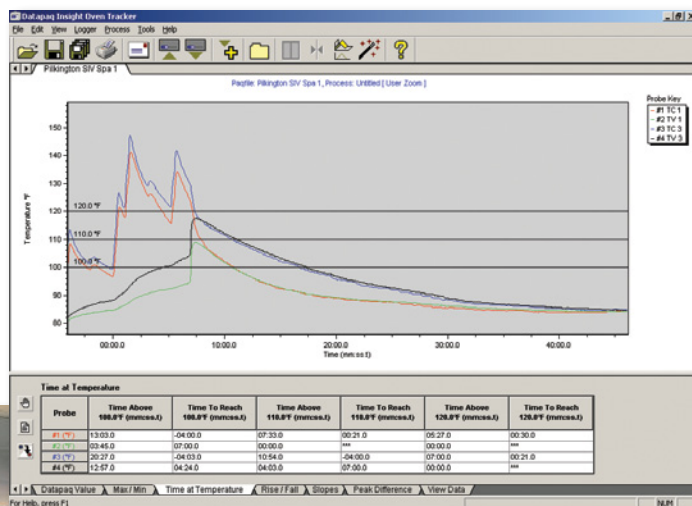# Oven Tracker® System
for Physical Vapor Deposition (PVD)

The Datapaq® Oven Tracker® Temperature Profiling System accurately collects and analyzes temperature information needed to monitor and improve your Physical Vapor Deposition (PVD) process. The PVD process requires precise temperatures to achieve an extremely durable and smooth finish. Because product temperature may not equate to set temperature, it is important to identify product temperature, so oven cycles can be adjusted to give the optimum profile. The Oven Tracker system can withstand the hostile conditions of vacuum ovens/furnaces, while maintaining a clean environment during the process.

SYSTEM BENEFITS

• Profiles can be used to 'match' products and optimize production cycles

• Oven setting can be adjusted to ensure coating adherence

• Highly polished thermal barrier prevents contamination

• Compression fittings on mineral insulated probes withstand high voltage in vacuum chamber – no trailing thermocouples needed

• No out-gassing of insulation or adhesives around thermal barrier sealing gasket

Tpaq21 Data Logger

TB5014 Barrier

Thermocouples

DATA LOGGER

Type	Tpaq21
Channels	10 Type K
Measuring Range	-100°C to 1370°C (-148°F to 2498°F)
Accuracy	±0.3°C (±0.5°F)
Resolution	0.1°C (0.2°F)
Sampling	No telemetry – 0.1 sec to 50 mins RF telemetry – 2 secs to 50 mins
Memory	130,000 datapoints
Maximum Operating Temperature	70°C (158°F)
Battery	NiMH rechargeable
Battery Life	No telemetry – 340 hours RF telemetry – 40 hours (3s sample interval)

THERMAL BARRIER

Barrier Model	TB5014 with (2) TB1001 Heatsinks
Weight	7.8 kg (17.2 lbs)
Dimensions (H x W x L)	100 mm x 146 mm x 303 mm (3.9 in x 5.7 in x 11.9 in)
Operating Temperature	Maximum temperature 400°C (752°F)
Thermal Duration	4 hours @ 200°C (392°F) 6 hours @ 150°C (302°F)

THERMOCOUPLES

PA0710	Mineral Insulated, Nicrobel 1.0 m (3 ft)
PA0711	Mineral Insulated, Nicrobel 2.0 m (6 ft)

INSIGHT™ ANALYSIS SOFTWARE FEATURES

Datapaq Insight™ software is a powerful software package that quickly converts raw data into meaningful information. Complete documentation is generated in seconds with a detailed analysis of the curing cycle.
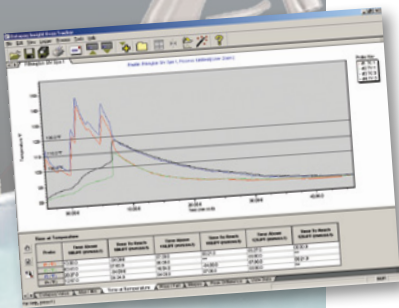
- Wizard driven for ease-of-use
- DatapaqValue, Reference and Tolerance Curves, SPC, and Bakechart analysis
- Time at Temp/Peak Temp shows time spent above pre-determined temperature thresholds and the maximum temperature reached
- Analysis alarms for when the process is out of tolerance
- Import and export data into spreadsheets for further analysis
- Notification for logger recalibration