



**Case Study** | Chemical plant in Houston, Texas



*Thermocouples are still reading with extreme accuracy and without a single failure.*

**Problem:**

Tube skin thermocouples on 9 large ethylene furnaces were experiencing a 40-50% failure rate within 6 months of installation. They were also seeing large drift patterns of those thermocouples before they failed.

**Solution:**

Thermo Sensors fabricated, for test, our proprietary “K” thermocouple to the quality standards for insulation resistance testing that would continue to meet ASTM e608 (500vdc @ 1 Gigohm). Then, follow an established tube skin thermocouple installation procedure.

**Result:**

Since then, we have installed duplicate sets of 16 each “K23” Thermo Sensors tube skin thermocouples in 8 of the heaters (128 total). To date, the thermocouples are still reading with extreme accuracy and without a single failure.



PREMIER TEMPERATURE MEASUREMENT PRODUCTS

972.494.1566 1.800.889.5478

[thermosensors.com](http://thermosensors.com)