

Temperature is a crucial process parameter in the manufacturing of cement. The correct monitoring of temperature at various stages of the process - Kiln Motor-bearing, Conditioning tower, Flue discharge, Preheater cyclones, and fuel storage determine the quality of clinker and the final product.

Also, they help to detect at an early stage any overheating which may lead to malfunctions. Since the cement manufacturing process involves corrosive and harsh environments, the sensors employed should have strong resistance to adverse process phenomenon.

Temp-Pro temperature sensors are tested to comply with heavy vibrations, rapidly changing temperatures, abrasive discharges and corrosive gases to ensure the plant operator does not have to worry about maintenance.

Since 1972, Temp-Pro has been supplying a complete range of temperature sensors and related products designed to serve the needs of multiple industries. Through innovation and sheer determination, Temp-Pro continues to evolve and serve the needs of the most demanding of customers through integrated in-house manufacturing.

Temp-Pro products are found in:

- ▶ **Temperature Sensors**
- ▶ **Thermowells**
- ▶ **Electrical Enclosures**
- ▶ **Electro-Mechanical Assembly**
- ▶ **Cable & Harness**
- ▶ **Miscellaneous Instruments & Accessories**

***Temperature
Sensors for the
Cement Industry***

- **Kiln Inlet Temperature**
- **Calcliner Inlet Temperature**
- **Reduction Zone Temperature**
- **Kiln Riser Temperature**
- **Crusher Bearing**
- **Preheater**
- **Cement Coolers**

REQUEST A QUOTE FROM TEMP-PRO TODAY

Phone: 413-584-3165 | Toll Free: 800-991-9093 | Fax: 413-586-3625 | Email: sales@temp-pro.com
Temp-Pro.com | 200 Industrial Drive | Northampton, MA 01060



Proudly featuring:
**TEMP-PRO
THERM**

Kiln Thermocouple

- ▶ Special **TEMP-PRO THERM** Nickel Chromium Alloy Thermowells.
- ▶ Superior Performance Up To 2300 degrees F.
- ▶ Double-Well Design with Quick Release Function for Inner Thermowell and Thermocouple, allowing inspection and replacement without shutting down the kiln.
- ▶ Excellent Abrasion & Corrosion Resistance for use in Rotary Cement Kilns.
- ▶ Outstanding Corrosion Resistance in sulphurous, oxidizing, and reducing atmospheres: successfully used in petrochemical, smelting, refining, furnace, and heat treating applications.

The Kiln is the heart of the plant. The cement kiln thermocouple assembly has given excellent service in numerous applications in cement production.

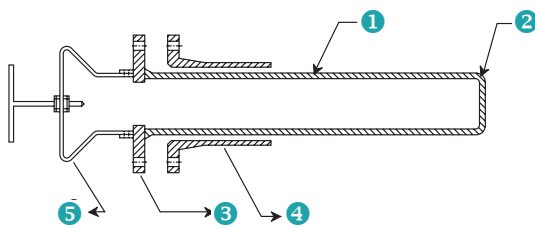
Ensures accurate repeatable temperature measurement contributing to maintain product quality.

Long life and accurate temperature measurement maximizes production by reducing down time and replacement costs.

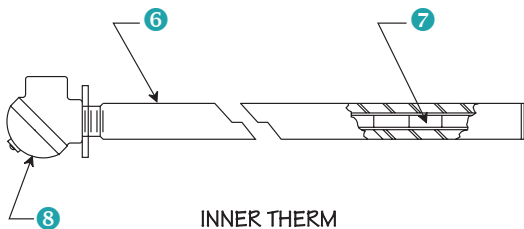
TEMP-PRO THERM is an extremely rugged nickel-chrome alloy with cobalt and tungsten added for stabilization and strengthening. Centrifugal casting of the outer thermowell assures removal of impurities, oxides, and gases from the alloy. The purity and densification of the alloy molecules contribute to the high strength and abrasion resistance of the thermocouple.

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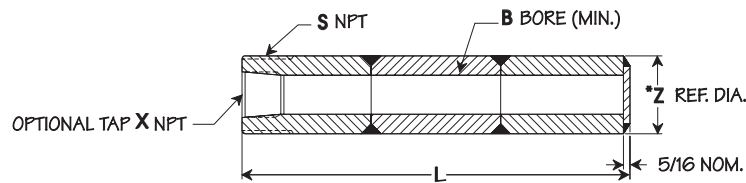


OUTER THERM



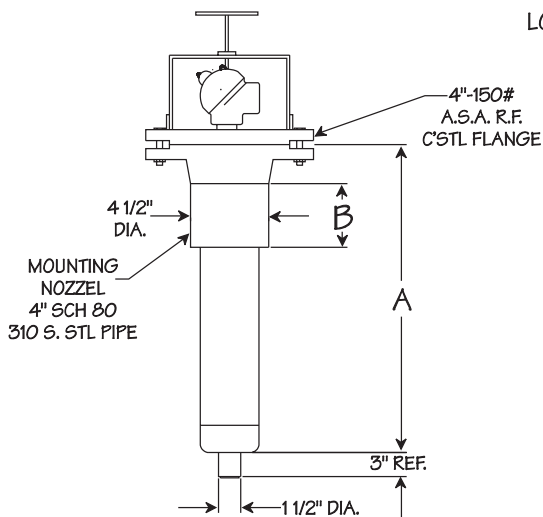
INNER THERM

- ① Centrifugally cast TEMP-PRO THERM abrasion resistant outer thermowell, 3Z"x" O.D. (Type STW-1216 & STW-1217)
- ② TEMP-PRO THERM and cap. Can be opened for fast response (TYPE STW-1216)
- ③ 4" - 150# ANSI 316.5 RF Carbon Steel Flange
- ④ Four inch Schedule 80, 310 S.S. mounting nozzle, with 4" - 150# ANSI 316.5 Weld Neck Flange
- ⑤ Quick release retainer. Allows removal of inner thermowell and/or thermocouple without shutting down the kiln
- ⑥ Special cast TEMP-PRO THERM inner thermowell, 1Z"x" O.D. (Type 563)
- ⑦ Long life 8 AWG Chromel-Alumel thermocouple
- ⑧ Heavy-duty cast iron industrial terminal head with terminal block

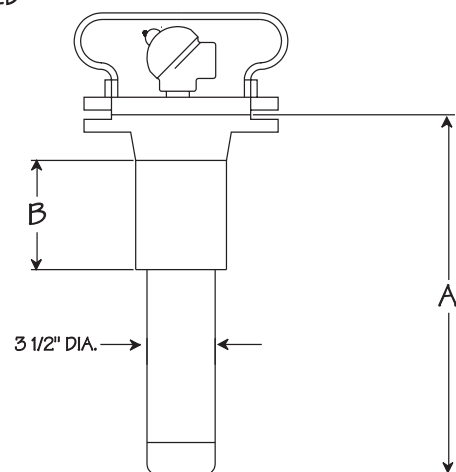


*STRAIGHTNESS OF O. D. IS PROHIBITIVE-EMPHASIS IS PLACED ON STRAIGHTNESS OF BORE

SPECIAL CAST TEMP-PRO THERM ALLOY
TYPE 563
LONG-LIFE SECTIONAL - WELDED
PROTECTION TUBE



OPEN END - FAST RESPONSE
TYPE STW-1216



CLOSED END - INNER WELL SPRING
LOADS AGAINST OUTER WELL
TYPE STW-1217

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