



**PROCESS GAUGE ACCESSORY**

# Sta-Kool™ Cooling Element

**DESCRIPTION**

Extreme process temperature reduces the accuracy, reliability, durability, and the overall life of a pressure gauge. The AMETEK U.S. Gauge (USG) Sta-Kool™ cooling element was designed for pressure measurements with this extremely high temperature environment in mind. Under actual laboratory testing condition, in still room air, the 316L stainless steel Sta-Kool™ cooling element was able to reduce 400°F (204°C) liquid process temperature down to 100°F (38°C) at the active portion of the Bourdon tube (see chart 1 on next page).

AMETEK USG recommends using a Sta-Kool™, capillary or diaphragm seal to protect pressure gauges, pressure transmitters or pressure switches (not supplied by USG) from process temperatures exceeding 190°F. Anything exceeding 190°F will start to degrade weld joints and electronics. The Sta-Kool™ can be either threaded or welded (to eliminate a potential leak path) to any pressure gauge with 1/2" NPT male connection made out of compatible material.

Furthermore, the Sta-Kool™ cooling element can be attached in between a pressure gauge and diaphragm seal for the most comprehensive process measurement protection possible, protecting the instrument from pulsation and temperature extremes.



**Model 1981  
Process Gauge  
with Sta-Kool™  
Cooling Element**

**(gauge sold separately)**

**SPECIFICATIONS**

**CONNECTION:** 1/2-14 NPT male X 1/2-14 NPT female

**BODY MATERIAL:** 316L stainless steel

**WEIGHT:** 15 oz. (0.4 kg)

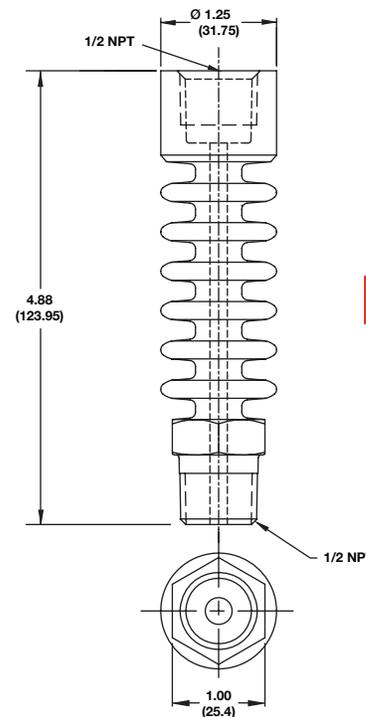
**OPERATING PARAMETERS:**

5000 psi maximum at 100°F (38°C)

750°F (400°C) maximum at 3500 psi

**Sta-Kool Spec Number Selection Chart**

Spec No.	Description
250471	Sta-Kool 316L SST cooling element

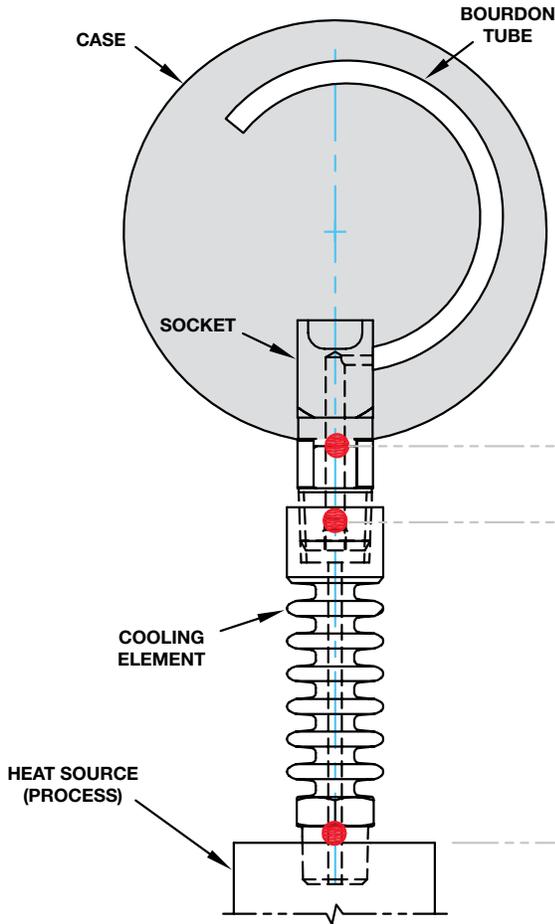


**INCHES  
(MM)**



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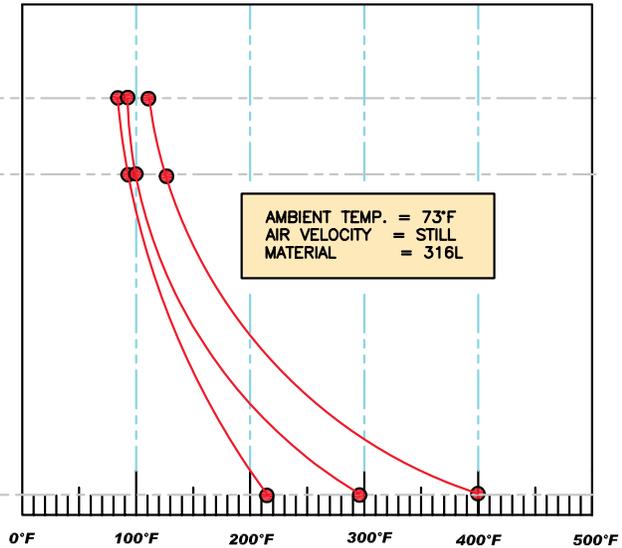
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**Chart 1**

**TEMPERATURE REDUCTION PROFILE**

Results based on actual laboratory environmental conditions and is to be used as reference only. Actual usage results in the field may vary based on additional process parameters subjected to the device.



**TEMPERATURE CURVE  
GAUGE AND COOLING ELEMENT ASSEMBLY**