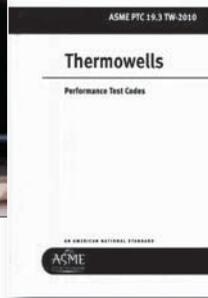
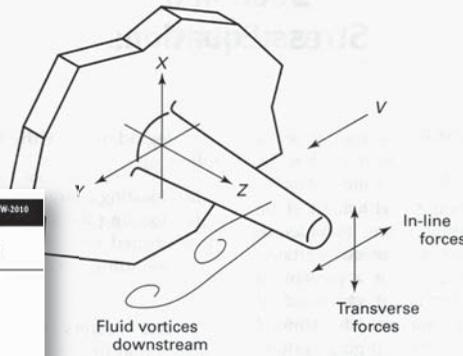


Fig. 6-3.1-1 Fluid-Induced Forces and Assignment of Axes for Calculation of Thermowell Stresses



Thermowells

A Standard for Engineers Worldwide

ASME PTC 19.3 TW - 2010

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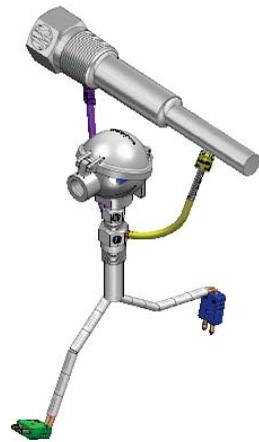
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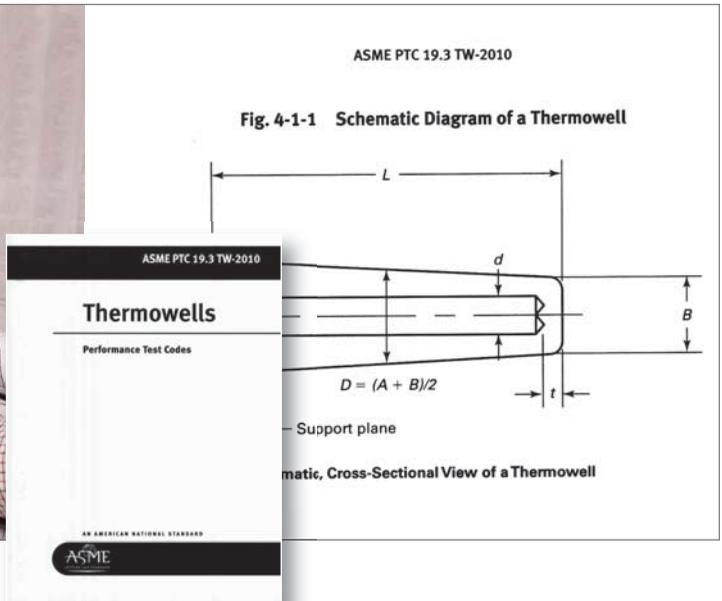
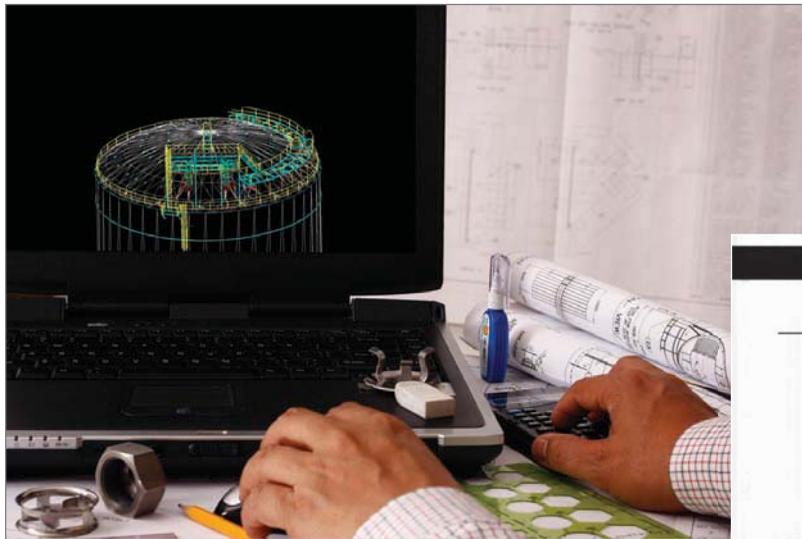
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Thermowells

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The Industry Speaks

“The industry had been anticipating for this update for some time. Our customers around the world were excited to finally see some emphasis placed on a trouble spot in their plants. Many designers I spoke with in the U.S. and abroad welcomed the change and were re-energized to use the new standard to evaluate thermowells on their next project.”

—Dirk Bauschke
Engineering Manager

“Customers have many questions when assessing a thermowell installation. How do I assess angled installations? Elbow installations? How do I consider the effect of shielding? Can I use a velocity collar and apply this calculation? What dimensional limits apply? The answers to these questions and many more are finally provided by the PTC 19.3 TW-2010 standard.”

-- Frank Johnson
JMS Founder, US Delegate to the IEC and former ISA SP1 chair
JMS Southeast, Inc.

“By covering a broad range of straight, tapered, and step-shank thermowells, the new PTC 19.3 TW-2010 standard provides a uniform method of designing thermowells for many applications. Although the primary purpose of the standard is to ensure safe and reliable installations, meeting this standard will also have reduced sensor vibration, which is an underappreciated source of measurement error and maintenance costs.”

—Dean Ripple
Acting Group Leader, Process Sensing Group
National Institute of Standards and Technology

“The new PTC 19.3TW is a significant improvement and update over the previous guidelines. It finally consolidates the recommendations and observations that have been prevalent in the industry for years, but not formalized or documented through a generally accepted publication. I have already encountered an application where the new standard correctly predicted a previously documented thermowell failure where the existing standard did not.”

—Allan G. Gilson, P.E.
Instrumentation and Controls Section Head
Black and Veatch Energy Division

