ASME PTC 19.3 TW (2010)

NEW THERMOWELL STANDARD IS READY NOW

JMS Southeast participated in the ASME PTC 19.3 TW committee performing the first major revision since 1974 to the only US thermowell strength standard. The new standard addressing wake frequency calculations was published July 12th and is available for purchase from www.asme.org.

During revision of the standard, it developed from 4 to over 40 pages.

Make adapting to this standard easier with <u>SwiftyCalc™</u>, <u>FREE online software</u> allowing you to *perform* and *save* calculations utilizing the latest standard in seconds.

Log in, reap the benefits of our hard work and experience, and find out why JMS is #1 in customer service and satisfaction.



For the first time it allows you to run calculations on step wells, straight wells and more.

What the ASME PTC 19.3-TW (2010) Does:

- Provides the only US Standard giving explicit guidance on the strength of thermowells.
- Addresses risk posed to thermowells from transverse and in-line vibration.
- Addresses Oscillatory and Steady State Stress independently of each other.
- Includes the effects of foundation compliance, fluid, sensor mass, temperature de-rating for stress limits, thermowell shielding and more.
- Allows increased geometries never previously permitted like the step shank well which provides optimal response time at no increased cost to you.
- Provides the most sophisticated & innovative approach to thermowell design in 30 + years.

Why do we run wake frequency calculations like the ASME PTC 19.3 TW (2010)?

- To Avoid Vibration Damage to the Well. Thermowells exposed to a flow can begin to vibrate and harmonize with the vortexes left in its wake by the passing fluid. This is called its natural frequency. As the thermowell approaches its natural frequency the amplitude of vibration increases dramatically and can cause catastrophic failure of the thermowell typically at its base or root.
- To Avoid Vibration Damage to an RTD. Let's not forget why these thermowells are installed in the first place so that we can insert a probe into that thermowell to measure the temperature of a process. A thermowell that vibrates so much that it shakes the sensing element in an RTD to pieces is not much help to the end user. Minimizing vibration increases the reliability of your control and monitoring systems while reducing expenses that result from unnecessary replacement of damaged probes
- To Avoid Stress Damage to the Well. Steady State Stress occurs when a fluid exerts stress at the base of the thermowell (and thermowell step in the case of a step shank well) in the direction of the fluid's flow. Oscillating Stress occurs when a fluid exerts stress at the base of the thermowell (and thermowell step in the case of a step shank well) in multiple directions.

JMS Southeast Inc has software to make it easy!
Google "SwiftyCalc" or go to www.jms-se.com/swiftycalc

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Who We Are

JMS is the industry's leading manufacturer of thermowells, thermocouples and RTDs for all types of temperature measurement applications.

What sets JMS apart from the average temperature sensor manufacturer are the "extras" it provides to ensure customer satisfaction.

- * The 24 hour Swifty Sensor Service (at no extra charge), the free SwiftCalc software applying the new ASME PTC 19.3 TW (2010) standard,
- * The Calibration Program that complies with ISO 9000/OSHA PM 1910 and is NIST traceable,
- * The Rolling Purchase Order Program for special volume and OEM discounts

These are just a few of the "extras" that make us the best. Contact JMS at 1.800.873.1835 or sensors@jms-se.com.

SWIFTYCALCTM HELPS YOU:

- * Quantify the design possibilities for your thermowell application.
- * Document temperature de-rated thermowell strength calculation results and drawings to match.
- * Promptly establish list pricing for your budgetary needs.

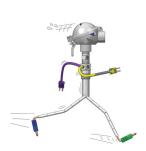
Design thermowells that last and extend the life of your temperature sensors with JMS SwiftyCalc.

The only US Standard regarding the strength of thermowells has just had its first significant revision in 35 years. There are new geometries, new requirements, new capabilities and more than 40 new pages of math and physics calculations to boot in the ASME PTC 19.3-TW (2010).

WHAT SWIFTY CALC DOES:

- * Provides you with a quick, free wake frequency calculation report based on the new ASME PTC 19.3-TW (2010).
- * Allows you to save configurations so that you can come back later to tinker with them.
- * Allows you to compare multiple thermowell designs to a single process and vice versa quickly and easily.
- * Provides theoretical max insertion and flow criteria on the fly.
- * Permits you to print a one page report showing pass / fail results.
- * Provides a simple interface to receive pricing for your well with the push of a button.
- * And much, much more.

Perfect for faster response time and increased reliability in your temperature measurement system.



The JMS SwiftyCalc quickly provides you with a thermowell design based upon your material requirements and process variables that you can count on to meet the ASME PTC 19.3-TW (2010) standard. Save your results to your own account and return later to modify on the fly.

JMS SwiftyCalc provides you with instant theoretical maximums for insertion length and flow rate.

Need to develop a quick budget for your temperature application project? Push a button and get pricing from a friendly and knowledgeable JMS sales engineer.





JMS Southeast Inc has software to make it easy!
Google "SwiftyCalc" or go to www.jms-se.com/swiftycalc