

**never
compromise
on quality**



Badotherm chemical seal process simulation facility

It is common practice among manufacturers of process instrumentation and automation that specifications are submitted in data sheets, catalogues user manuals etc. so to speak 'on the safe side', i.e. the specifications are made broad enough to ensure that all instruments to which these specifications refer, also meet those specifications without any exception.

Also the temperature and pressure effects that Badotherm specify for their diaphragm seals are submitted in this way. In order to narrow the specifications to a certain extent there are techniques such as Total Probable Error (TPE) calculations, but these still result in rather broad specifications.

Badotherm's BASECAL seal calculation¹ software can easily help you in creating a TPE for a transmitter with chemical seal(s) application, in engineering practice this is a wonderful tool to make sure the right seal configuration is designed. However in those transmitters with chemical seal(s) applications where ultimate accuracy is required, Badotherm offer their unique process simulation facility.

Badotherm have the possibility to simulate simultaneously the following process conditions:

- * Static pressure/vacuum
- * Process temperatures
 - High pressure side process temperature
 - Low pressure side process temperature
- * Ambient temperatures
 - High pressure side ambient temperature
 - Low pressure side ambient temperature
- * Calibrated span.

This results in an individual 'fingerprint' for every instrument submitted to such a test. The data from this fingerprint can be entered into the DCS allowing ultimate accuracy by compensating for the errors caused by the above mentioned effects. Badotherm have been able with this facility to allow end customers to obtain level measurement under very severe conditions with an overall accuracy below 0,5% of calibrated span.

¹ For more detailed information see the BASECAL solution leaflet.



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