HAYGOR INSTRUMENT
& COMPANY, INC.

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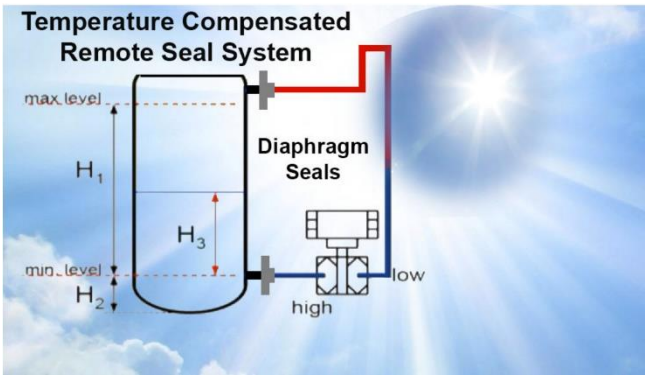
Temperature Compensating Remote Seals
DP Level Measurement

We at Haygor think a little differently than the rest of the industry. We think "outside of the box" allowing us to create solutions for some of the most critical measurement problems faced. We design products and solutions that just work! We took remote diaphragm seals to the next level and solved the one existing problem that the industry has been forced to live with. Do your D/P remote seal transmitters drift? Most likely this is caused by fluctuations in ambient temperature or direct sunlight effects.



Haygor has designed a proprietary Temperature Compensated Remote Seal System that eliminates drift by compensating for ambient temperature fluctuations. No need for cumbersome heat tracing or insulated capillary lines. No need for costly alternatives such as electronic remote seals or the latest and greatest radar level transmitters that may or may not work. You no longer have to guess what the level really is or take an average. The Haygor Temperature Compensated System solves the drifting problem. This system will work perfectly regardless of the distance between taps or how long the capillary lines are. It can be used to replace a LevelTrol with 20" tap to tap or be used to measure level in a tank that's 200 FT tall. Our system works with and complements any brand D/P transmitter on the market and does not affect accuracy or repeatability.

We've been providing solutions to the Petrochemical, Oil & Gas, and Cryogenic industries for over 40 years. We think differently than the rest of the industry and believe we can help find the right solution for you.

Haygor Temperature Compensated Seal System for DP Measurement (Patent Pending)

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Functionality of The Haygor Temperature Compensating Remote Seal

Unlike a typical balanced, or unbalanced DP remote seal system, the "Haygor" Temperature Compensating System utilizes an additional pair of compensating capillary tubes that are designed to offset excessive differential pressure caused by added ambient temperature to the fill fluid in the main capillaries. To mitigate excessive differential pressure and ultimately drift, the additional compensating capillaries expand at the same rate as the main capillaries and apply the excessive pressure to the opposing diaphragms.

(See Figure A)

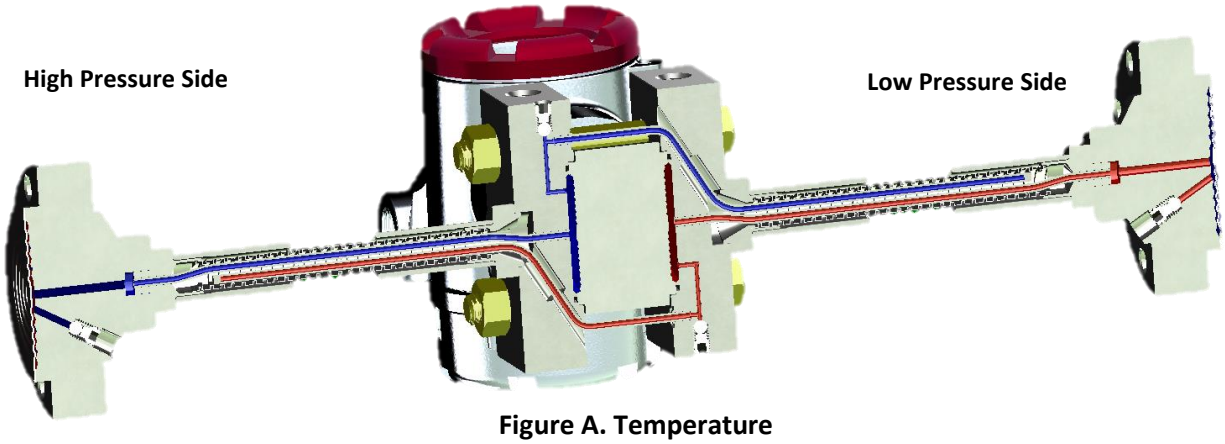

Figure A. Temperature Compensating Seal Cross Section

A Secondary, temperature compensating capillary (**red**) extends through the capillary armor from the "High Pressure Side", exerting offsetting pressure to the "Low Pressure Side" diaphragm seen in Figure A above. Similarly, a temperature compensating capillary (**blue**) extends through the capillary armor from the "Low Pressure Side", exerting offsetting pressure to the "High Pressure Side" diaphragm seen above. The opposing compensating capillaries cause a cancelling effect on the opposing diaphragms, resulting in zero drift.