

Prototype Gasket Performance Test

THE CHALLENGE:

BPI was approached by a client with a new prototype gasket. This client sought BPI to test it alongside other commercially-available gaskets on the market to answer:

- Will it meet ASME-BPE 2009 Section SG-2.4.1 *Hygienic Fitting Seal Intrusion* requirements?
- Is the gasket adversely affected by the testing?
- Will the hygienic clamps seal – pneumatically and hydraulically?
- Will the hygienic clamps require adjustment over its life cycle?

OUR SOLUTION:



BPI designed a life cycle performance test for the client's prototype gasket, comparing it to other commercially-available gaskets across three sizes with respect to multiple performance criteria. The gaskets were successfully exposed to Steam-In-Place (SIP) cycles.

BPI's facility is uniquely equipped to test both multi-use and single-use equipment used in the BioProcess industry. Its flexible design features custom computer controlled process systems, which are configured and programmed to BPI clients' specific needs. These custom-designed systems utilize BPI's high quality support systems including Clean/Pure Steam, Deionized Water, and Clean Compressed Air. BPI's staff utilized high precision instrumentation to evaluate the results of the performance test.

THE RESULTS:

BPI's testing proved that this newly-designed gasket was not yet ready to go to market, since it was out-performed by other gaskets. Although the gasket neither intruded nor was recessed in the pipeline, this client had to go back to its product design engineers to redesign the gasket to achieve better overall seal performance to the process. Having studied hundreds of gaskets across many different types tested to-date, BPI concludes that there are significant performance differences between different gasket materials. With extensive experience and a wealth of knowledge, BPI is here to help you determine the best gasket for your process.

For more information on testing and analysis or marketing claim support, please contact:

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