Project Case Study:
Sealing Solution

Product Type:

Injection molded totally encapsulated cast iron part

Industry / Application:

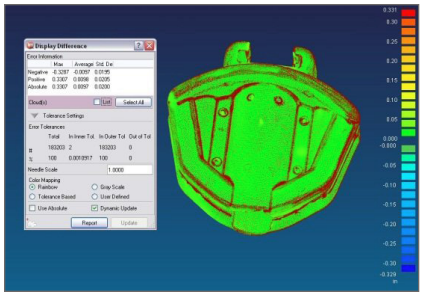
Industrial gate valve

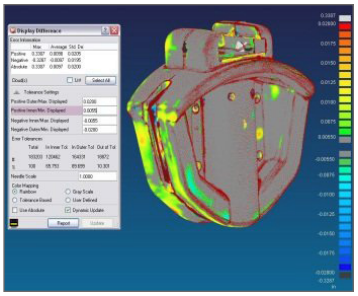
Challenge:

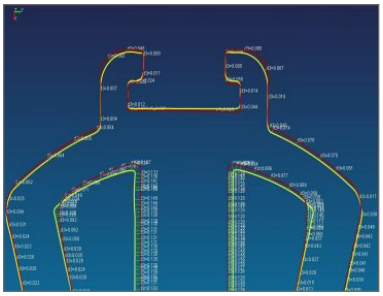
Problems around the gate seals areas were causing a customer's valve to consistently fail during final testing with no clear, identifiable reason why.

Analysis:

Working in collaboration with the customer, engineering needed to isolate and identify the specific root cause of the problem. Further complicating the matter, the customer could not determine to which REV the parts were being manufactured. Because of the complex design and not knowing which REV was being used, accurate part measurements were needed. Engineering used computer aided validation process with advanced measurement, inspection and reverse engineering software tools to determine the exact part measurements.







Solution:

Applying the measurement data provided by our engineering team, the customer was able to identify the sealing problem and determined the required sealing surface tolerances on both the molded part and the corresponding sealing surface area. In addition, the customer chose to redesign the seating area in the valve. These modifications resolved the sealing issues and the finished valve was able to pass final testing.

For more information on this and other case studies, please visit us on the web at: www.wabtecelastomers.com