ANH Refractories

Case Study | Refractory Products | Windham, OH, USA

In business for more than 100 years, ANH Refractories has become one of the world's largest suppliers of high-temperature refractory materials. With a high demand coming from various industries—including energy, metals, and steel—ANH employs a robust team spread over the globe within 17 production sites.

The Challenge

Due to outdated testing systems that were no longer supported by the manufacturer, ANH Refractories began experiencing issues with component replacement and producing less-than-effective testing processes within the labs.

The lab manager started to notice that the older systems were limiting the operators' ability to meet the demands of the requested testing applications. And because the operators were spending a good portion of their time setting up and testing, they were limited in additional responsibilities they could take on from day to day.

After evaluating the systems and the processes, it became apparent that a significant time savings in the test process was necessary. Additionally, to provide quality test results in a timely manner, the lab manager was looking for a new system solution that included a combined test fixture component that performed compression and modulus.

However, with any type of change, there's always risk and hesitation … The time savings would need to be substantial and it was very important that the new method provide similar results and operate within industry standard testing parameters.

The Solution

After speaking with the lab managers and fully understanding their needs and concerns, Instron determined the best system solution was an Industrial Series 600DX Compression-only model—ideal for compression testing of refractory materials—utilizing Partner™ materials testing software. In addition, the Instron custom engineering group successfully designed a single fixture that combined modulus and crushing. The system was manufactured and personnel from ANH were invited to come to the factory to train on the machine with their specimen. This allowed for some system improvements prior to shipment and ensured a trouble-free installation.

The Results

The newly installed system removed the manual attention needed to perform the tests, reducing test times by approximately 60%. Lab technicians now able to concentrate on other areas of value in the lab.