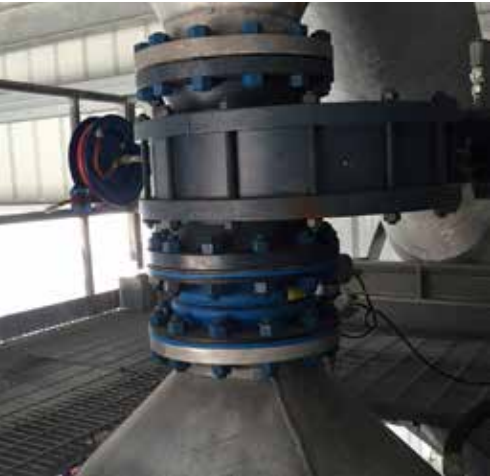


Case Study: Chemical Processing - Abrasives Style 9394 ABRA-LINE™ Expansion Joint



INDUSTRY

Chemical Processing - Abrasive application

CUSTOMER

The customer is a leading wholesale supplier of acetylene—the most efficient fuel gas for welding and cutting applications. Through additional products and services, they provide customers with a turnkey solution for receiving acetylene and maintaining their cylinder fleets.

BACKGROUND

This chemical processing plant produces acetylene. The acetylene production process involves calcium carbide that is fed through a screw feed metering bins. Style 9394 expansion joints with ABRA-LINE™ tube, along with stainless steel flow liners, are installed at the bottom of the metering bins. During the manufacturing process after passing through the metering bins, calcium carbide is mixed with water, causing a chemical reaction, which produces the acetylene. A competitors expansion joints were installed at this location and after 6 months of service, they were continuously failing due to abrasion.

OPERATING CONDITIONS

1. Size: 10" x 6" Expansion Joint
2. Temperature: Ambient
3. Application: Screw feed metering bin
4. Media: calcium carbide
5. Pressure: up to 15 PSI



SOLUTION AND BENEFITS

After lots of unnecessary down time, due to the constant failure of 12 expansion joints every 6 months, the customer decided to save time and money by switching to Garlock Style 9394 expansion joint with ABRA-LINE™ tube. The 12 expansion joints were installed in 2015 and have been in service for over 4 years with no signs of deterioration.

PROPOSITION VALUE

Garlock expansion joints offer superior performance, reliability and service life. The abrasion resistance of the ABRA-LINE elastomer continues to outperform previously installed configurations. With an increase in over 8x the service life, after 4 plus years of service and ongoing, the Garlock expansion joints still show no visible signs of stress, leaking, or failure, representing significant operational savings for the site.

For more information, please visit:
<http://www.garlock.com>