

Case Study: STYLE 206 EZ-FLO[®] & 204 w/ ABRA-SHIELD[™] - Ethanol Plant



INDUSTRY

Chemical

CUSTOMER

Canadian Ethanol Plant

BACKGROUND

Production at the Ethanol Plant generates CO₂ from the fermentation of corn. The facility partnered with a nearby tomato greenhouse facility to pipe excess CO₂ into their greenhouse to boost tomato growth. They were also able to capture the waste heat from their grain drying process through a heat exchanger and through closed-loop piping underground to help heat the greenhouse. The result was bigger tomatoes and a reduction in energy costs by 40-50%. This was the first greenhouse facility in North America to be warmed by waste heat.

CHALLENGES FACED

The existing expansion joints were showing signs of degradation and the company requested that Garlock perform an on site survey of their current joints. The application presented a challenge due to the media being Stillage (corn mash and syrup) and 40% solid content.

OPERATING CONDITIONS

Size - 12" ID up to 24" ID with various face to face dimensions

Temperature - Up to 212°F (100°C)

Application - Evaporation pumps

Media - Stillage 40% solids

Pressure - 40 PSI

SOLUTION AND BENEFITS

Garlock representatives measured all expansion joints to ensure the perfect fit and ease of installation. Style 206 EZ-FLO[®] and Style 204 with ABRA-SHIELD[™] tubes were recommended as an outstanding fit with the corn mash, solids and high temperature. The customer was able to place an order for various sizes with confidence due to the onsite support and recommendation by Garlock for ABRA-SHIELD[™] to combat a demanding application.

For more information, please visit:

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Tel: 1-877-GARLOCK / 315.597.4811

Fax: 800.543.0598 / 315.597.3216

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