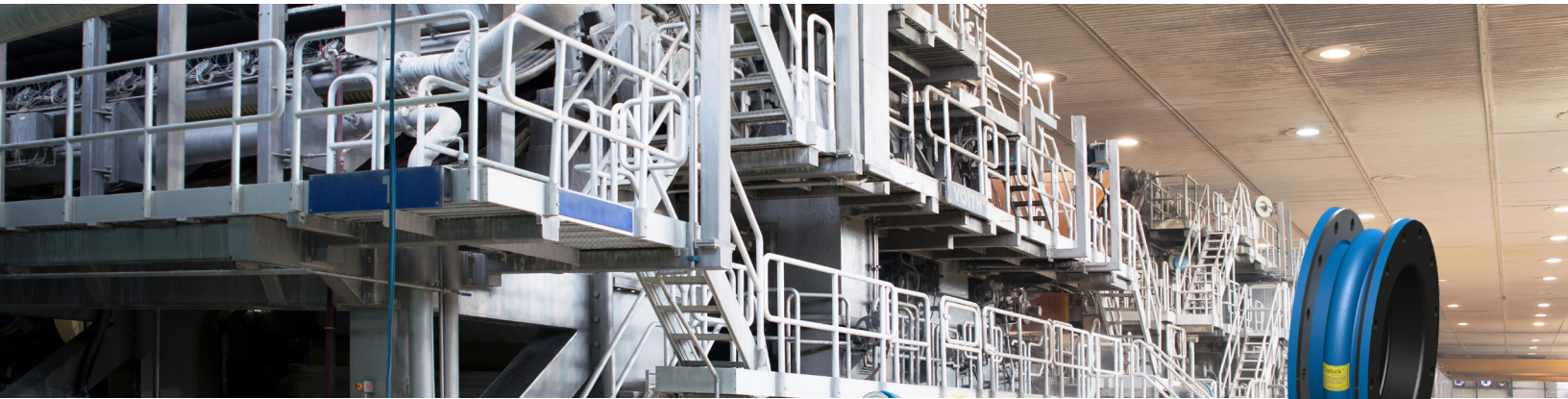


# Case Study: Style 204 Expansion Joint w/ GUARDIAN® FEP Liner - Paper Mill



## INDUSTRY

Pulp and Paper

## CUSTOMER

Large South Eastern Paper Mill

## BACKGROUND

A U.S. paper mill experienced multiple failures of expansion joints on the knotter screen pumps in the fiber area of the plant. The failures caused significant downtime and posed a safety hazard to employees working in the area.

## CHALLENGES FACED

A Garlock field survey determined that the expansion joints were experiencing significant elongation during installation. It was also evident that the pump and pipe flanges were not in parallel, creating angular misalignment. Additionally, the expansion joints were handling an aggressive media of black liquor and wood fibers, which collectively contributed to the failure.

## OPERATING CONDITIONS

Size- 24"ID (DN600)

Temperature- Less than 250°F (120°C)

Application- Knotter screen feed pump

Media- Black liquor with wood fiber

Pressure- Less than 65 psi (4.5bar)

## SOLUTION AND BENEFITS

Through on-site troubleshooting and surveying of the expansion joints, Garlock engineers were able to recommend and design an adapter plate for the pump flanges to realign the pump to the piping. This allowed the plant to standardize the replacement expansion joints to Style 204 with GUARDIAN® FEP liner to be used in multiple locations. In addition, the mechanical bond of the GUARDIAN® FEP liner provided greater reliability than the adhesive bond of competitive PTFE lined expansion joints. Replacement cost and frequency has been significantly reduced as a result of this engineered solution.

For more information, please visit:

<http://www.garlock.com>

## GARLOCK

an EnPro Industries family of companies

Tel: 1-877-GARLOCK / 315.597.4811

Fax: 800.543.0598 / 315.597.3216

[www.garlock.com](http://www.garlock.com)

Garlock

GPT

Garlock Australia

Garlock de Canada, LTD

Garlock China

Garlock Singapore

Garlock Germany

Garlock India Private Limited

Garlock de Mexico, S.A. De C.V.

Garlock New Zealand

Garlock Great Britain Limited

Garlock Middle East