

# Case Study: STYLE 215 - Steel Products Manufacturer



## INDUSTRY

Primary Metals

## CUSTOMER

South American manufacturer of flat and long steel products

## BACKGROUND

Construction of two new facilities including a hot rolling mill.

## CHALLENGES FACED

The plant was in need of expansion joints that could handle chemicals on their pickling lines. Pickling is a metal surface treatment used to remove impurities, such as stains, inorganic contaminants, rust or scale from ferrous metals. A solution called pickle liquor, which contains strong acids, is used to remove the surface impurities. It is commonly used to clean steel in various steel making processes. The line required an expansion joint with a PTFE tube to handle the pickle liquor which included hydrochloric and sulfuric acid, but a very short overall length for installation.

## OPERATING CONDITIONS

Size: 10.000" ID Style 215

Temperature: 120°F

Application: pickling line

Media: pickle liquor with strong acids including hydrochloric and sulfuric acid

Pressure: up to 120 PSI

## SOLUTION AND BENEFITS

A style 215 Garlock expansion joint was recommended as the perfect solution to handle strong acids with a short installation face to face. The convolution design and shape provides extra-long flex life at high temperatures. Style 215 has a 100% pure PTFE body that is made to withstand corrosion and harsh acids found in pickle liquor. The proprietary multi-ply contour molding process ensures consistent wall thickness for excellent blowout resistance. Style 215 was able to offer a solution that ensured efficient installation, and an expansion joint that had proven to withstand harsh acids. The customer ordered multiple pieces with confidence that Style 215 would meet their sealing needs.

## 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