

VICODA® SUCCESS STORY

INDUSTRY, AREA OF PIPELINE CONSTRUCTION

Damping of a condensate line, Germany

PROJECT DATA

Brief description

Measurement and reduction of operating vibrations on the condensate line of a combined heat and power plant by means of polybutene dampers.

Project duration

12 weeks

Product Data Dampers

Quantity: 6 polybutene dampers

Resonance frequency: 3 Hz

Ø Pipes: DN350 + DN80

PROJECT DESCRIPTION

In the Munich cogeneration plant, vibration-induced cracks occurred at valves of a condensate line. This led to leakage of liquid and would in the long run have pressure loss during operation.

SOLUTION

To determine the relevant natural frequencies of the pipeline, LISEGA measurement engineers used special sensors to carry out a quick and uncomplicated measurement.

In this connection, broadband vibrational forces that were outside the standard were detected. Since this was a resonance problem, in-house viscoelastic polybutene dampers including the steel support to the pipe and the surrounding structure were installed on site.

The great advantage of these dampers is the mode of action over a wide frequency spectrum in all spatial directions. In this way, vibration problems could be reduced by a factor of 8, which means that the applicable standards were met very well.

