

Incompatible Rubber Leads to Expansion Joint Failure

Application: Ventilation System Used With Oil Saturated Air In a Re-claimed Water Facility

Problem: The Flue Duct Expansion Joint is leaking during operation. The tube or gas side tube material used to manufacture the current Expansion Joint is not compatible with the system media. The tube is failing under regular operation and is allowing oil to seep inside the body of the Expansion Joint, weakening its construction and allowing the body to swell. Oil saturation has continued to the point of weeping through the Expansion Joint cover and dripping on the floor below the Joint, creating a secondary hazardous condition.

Solution: Holz's Sales and Partner Distributor reviewed the system specifications, including pressure, temperature, and media type, to determine the correct rubber material to manufacture a long-lasting replacement Expansion Joint for this application. The oil in the system is petroleum-based which does not react well with specific elastomers commonly used in the manufacture of Expansion Joints. We determined that an Expansion Joint manufactured with a Nitrile Tube and Neoprene cover would be an excellent replacement for this application. Nitrile has excellent resistance to petroleum-based products, which will allow for extended maintenance-free service life. Proper Tube Material that won't deteriorate during use will also help solve the secondary hazard by keeping the media inside the joint rather than on it. Safety matters!

