

Increased Productivity With High Temperature Composite Expansion Joint Installation.

Application:

Dryer/ Shaker Expansion Joint used in a Salt production operations to absorb the systems movements and vibration.



Problem:

At a salt production facility, an 84" Metal Expansion Joint was failing to absorb the system movements and vibration during operation as part of their Dryer/Shaker. The joints experienced fatigue cracking, requiring intermittent shutdowns for field repairs affecting production and increased maintenance costs. The plant was averaging a nine-month life span, with two or three maintenance shutdowns within the nine months, due to current metal bellow design.

Solution:

Our Engineering team worked with our Partner Distributor and the Plant Manager to obtain accurate measurements, movements, pictures, and videos to evaluate the movements of the expansion joint during operation. We learned the system had more extension and compression movements than noted, as well as, the bellows being open to the media. The constant movements, along with media build-up, wore a hole in the metal bellow. Our Engineering team designed a new complete High-Temperature Composite Flat Belt Style Expansion Joint, which included bolt in frames, double baffles, and a full cavity insulation pillow to keep the media from ruining the flexible element. The new design will eliminate the frequent shut-downs, with little need for maintenance during operation and ease of replacement after its service.