

FLEXIBLE JOINT SOLUTION FOR COAL INDUSTRY

No more coal dust accumulation within the DEKOMTE Expansion Joint Solution!

Location NSW, Australia
Industry Power Generation
Client Coal Briquet Production

CHALLENGE

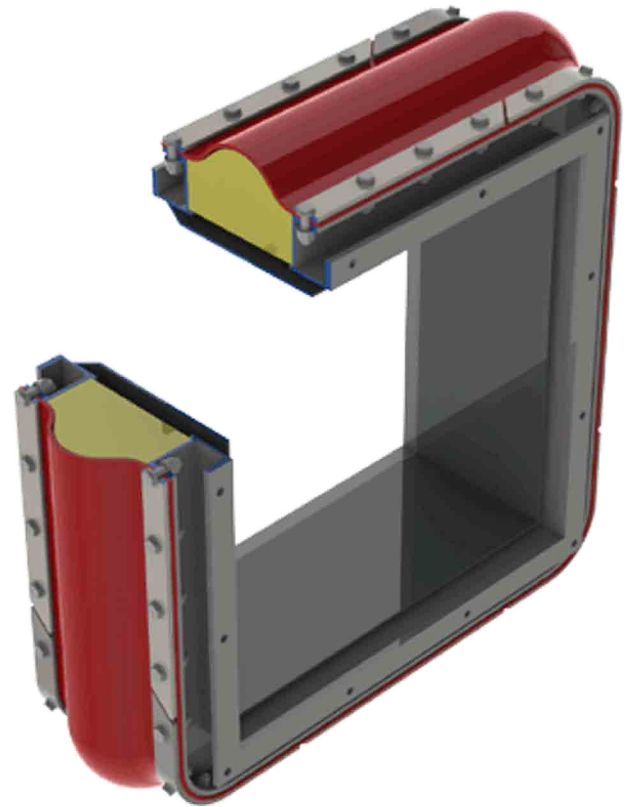
In a coal dryer system, flexible joints are used on inlets and outlets of the gas recirculating fans. These joints are primarily to isolate vibration to the structure and some minor thermal expansion. In this case study, the coal dryer system runs at 160 deg C°, at approx. 10kPa, with the fans conveying a hot inert gas with entrained coal dust.

If the coal dusts settle or accumulate in the expansion joint cavity and bolster space, this will spontaneously combust when the inert coal dryer gets turned off and the dryer returns to normal ambient conditions, i.e. normal 21% O₂ air. Hence it is of utmost importance that the expansion joint internal design does not allow coal dust to accumulate. The client has had smouldering coal dust and failures of fabric joints in the past, so bolsters and liners will have to be suitable or to have a suitable alternate design.

SOLUTION

HMA Instrumentation & DEKOMTE came in and offered a bespoke innovative solution for this application. We have now improved the bolster design and construction and added an inner barrier joint to seal the cavity and connect the liner to the adjacent duct. The fabric composition has been selected to give a durable and reliable long life with important quality construction features included such as; a sewn cuff which is clamped and retained in the fabric fixing flange.

The total solution will resist smouldering ash from



degrading and entering into the expansion joint cavity. Such design is confident to offer the plant a long life reliable solution.

TECHNOLOGY



About DEKOMTE – The Expansion Joints Solutions Experts

“Knowledge is power”, founded by Günther de Temple in 1978, DEKOMTE realizes this idea through the cultivation, collection use and advancement of knowledge as the drivers of its business. Whether through technological advances in expansion joint technology or knowledge of our customers’ precise needs, for more than thirty years DEKOMTE has used this knowledge to constantly working to innovate its products, in terms of their technical quality, performance, value for money and their sustainability, delivering the best products and services to the power generation market.

INS-CS-0005. NOV 2016