

Holz Splicing Instructions Saves Power Station Time and Money

Torn Fabric Expansion Joint Nearly Causes Power Station Delays

Application:

An electrostatic precipitator (ESP) is a large industrial emission-control unit that uses a fabric expansion joint on both the inlet and outlet. An ESP traps and removes dust particles from exhaust gas stream by using an electrostatic charge. The charged particles attract to and deposit on plates or collection devices. Once enough particles are collected, they are shaken to dislodge the dust causing the dust to fall into a hopper below. (The ESP replaces the previously used bag filter system.) To accommodate the dust hopper below, ESPs are typically 10 to 25 feet above the ground. The optimal temperature of the steam gas ranges from 280°F to 320°F. This particular ESP was operated in the only lignite or brown coal power station in Louisiana. It produces 650 megawatts of electricity.



Problem:

During a planned maintenance shut-down, an aged flue duct expansion joint was scheduled for routine replacement. A new joint was manufactured by Holz and was being installed by Plant workers. Since the ESP is typically 10 to 25 feet above ground, the expansion joint must be lifted into place. Unfortunately, the installers used the bolt holes to lift the joint into place. This caused the areas around the bolt holes to rip. If left unfixed, the plant could not resume operations. For proper installation, a fabric expansion joint must be carefully lifted using a support base where the lifting tackles can be attached, rather than the tackles attaching directly to the joint.

Solution:

The plant employees immediately called Holz customer service team for help. After discussing the situation, it was determined the severity of the tear did not require a new expansion joint, saving the plant money and time. Rather the problem could be solved by splicing and correcting the torn areas. A splicing kit along with instructions was immediately sent to the customer, and the problem was resolved onsite. The plant was able to restore operations without a delay.



Splicing instructions are available on the Holz website, along with expansion joint installation instructions. In certain situations, rather than replacing an entire joint, a splicing kit can be used to lengthen the longevity of the expansion joint.

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