

Emergency Clamshell Repair job in Middle East lead to a complete installation package order



A leaking bellows DN 850 in a large oil refinery with UOP processing in the Middle East was in february 2004 repaired within 48 hours with an temporary oversize clamshell expansion joint designed by KE-Burgmann Bredan engineers. This expansion joint seals the existing bellows in order to keep the plant on line. Shutdown would otherwise have resulted in millions of euros in lost revenue. Bellows material used is Inconel 625 LCF, a material used in aggressive medias. KE-Burgmann Bredan keeps a stock of Inconel 625 LCF which allows to start up manufacturing as soon as the engineers have finished and approved the design. A clamshell package solution includes on-site inspection, engineering, manufacturing within 48 hours, on-site welding carried out by experienced KE-Burgmann Bredan welders with support from site personnel, supply of Materials Welding Equipment, special tools and transportation.

The customer was very satisfied with this on line solution and contacted KE-Burgmann Bredan July 2004 where a planned shut down was scheduled - this time to make a permanent expansion joint solution.

In order to supply to a UOP processing company a number of details has to be approved by UOP *). KE-Burgmann Bredan engineers designs an externally pressurized expansion joint with a two ply testable bellows. A two ply testable bellows has two plies each ply independently designed for the full system design conditions that enables the customer to supervise the bellows in finding leaks in order to plan refurbishment or replacement in future shutdowns.

*) UOP is a leader in developing and commercializing technology for license to the oil refining, petrochemical and gas processing industries. They have been a leader within refining of gasoline from crude oil and contributes processes and technologies in many different oil industries world wide.