

James Walker[®] Townson

Power: Gas Turbines



High Performance Expansion Joints



Comflex® Gas Turbine Expansion Joints

James Walker Townson has long been associated with the growth and development of gas turbine power generation expansion joints and worked closely with the industry to develop improved technology, providing greater efficiency for the system together with increased life expectancy.

Closely allied to this is the whole subject of mounting frames and associated metalwork for which we can provide designs with reduced thermal stress levels resulting in trouble free operation. These designs, where appropriate, can be supported by Finite Element Analysis.

A considerable investment has been made by James Walker Townson to develop suitable frame designs that cater for these applications, together with detailed studies involving both the expansion joint and the internal bolster/pillows. These studies have included design and in-house simulation in our own extensive research and development department.

James Walker Townson's experience covers the expansion joints installed on the air intake and the more arduous duty exhaust side of the turbine. Here temperatures can be as high as 700°C with rapid increases and thermal shock together with relatively high cycle times - up to 2 times per day when peak loading is considered.

In addition to the main ducting expansion joints, which can be 8m x 8m in size, there are often many boiler side penetration and roof penetration seals. These cover temperature ranges from 150°C to 600°C with large movements and also require special consideration in order to ensure good performance and life expectancy.

Whatever the application or problem, you can be assured that James Walker Townson has the experience and materials knowledge required to provide a successful long-term solution.

It is important to ensure at all times that the Comflex materials are installed correctly and for this reason James Walker Townson offers a complete installation service to ensure that its Comflex expansion joints operate trouble free for many years.

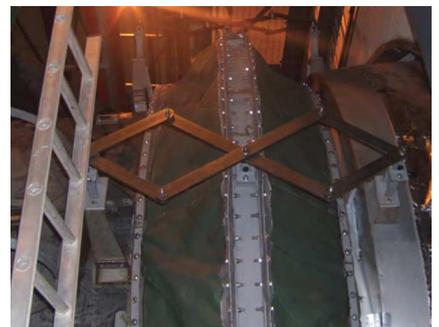
In addition, the company provides an expansion joint thermographic survey service together with 24/7 emergency breakdown cover. (24/7 cover is available only in the UK)



Gas Turbine Exhaust



Bypass



Gas Turbine Pantograph



Gas Turbine Exhaust Joint Section

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