# **CARBON COMPONENTS**

## The Customer

The company is a worldwide supplier of industrial graphite components. Precision machined graphite parts are available in a variety of shapes and sizes and are used in many industries including mining, aerospace, transportation and power generation.

#### The Process

Components are formed by impregnating carbon with various solvents, catalysts and resins. The formed products are loaded on to racks. These racks are then rolled into a flash off room where they sit for a time to allow solvents to flash off at room temp. The racks are then placed in batch ovens to cure.

## The Problem

The Company had a plant safety audit done and it was brought to their attention that they had nothing on their ovens to protect against explosions. Initially, they did not think they needed added protection as their batch ovens were designed for maximum load conditions. They used their calculations to determine the batch load depending upon product type. However, a batch of brushes was loaded into an oven without giving them time to flash off and the plant had an explosion.



# The Solution

A number of requirements led the company to the selection of the PrevEx analyzer for its operation. The oven atmosphere contained many different solvents and other materials such as resins. They required an analyzer that when calibrated would remain accurate for all constituents in the sample. The analyzer also had to run at a temperature high enough to keep all the oven atmosphere elements in the vapor state. In addition they also wanted to be able to integrate the analyzer into their existing Process Oven Control System. Based on these criteria they made a purchase of a PrevEx SNR675 analyzer.

Right after they installed the SNR675, they were shocked to find that they had much higher

LFL levels than their original design calculations showed. They put in an order for 11 analyzers to be put on the remaining ovens as soon as possible to protect product, ovens and personnel!

With the installation of the PrevEx analyzers, not only is the Company safer but they are also seeing trends and data that can help them better utilize the ovens.

"Initially installed to improve safety, now we have a tool that can be used to improve our process".

## SIC Code

3624: Carbon & Graphite Products

# **NAICS**

 335991: Carbon & Graphite Product Manufacturing





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