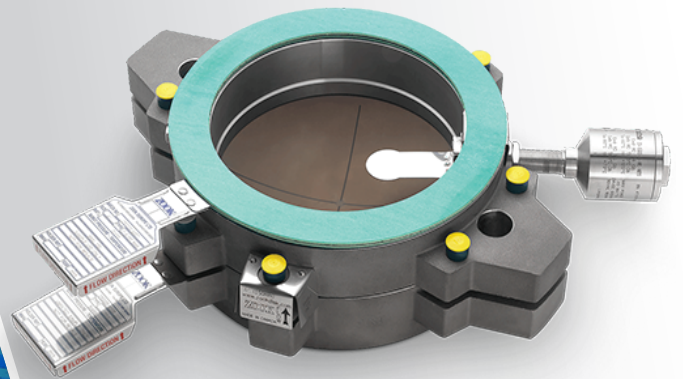


CASE STUDY

Solving Field Performance Issues for Coal Seam Gas Companies



Overview

A large Coal Seam Gas (CSG) company in Australia was drilling a large number of wellheads that required over-pressure protection on the separators. During the first few years field issues were being experienced with rupture disks failing below the stated burst pressure or failing to open fully as designed. ZOOK's appointed exclusive distributor Powerflo Solutions worked closely with the CSG company collating as much field information on the operating problems that were being experienced.

Challenge

Apart from the field engineering issues any solution needed to be able to fit within the current skid design as there were already many hundreds in operation. So to meet the high engineering specifications and have a geometry to allow possible change out was necessary. The most important request was identifying the cause for the field failures they were experiencing.

Powerflo engaged very closely with the customer visiting installations to try and identify the cause of the problems.

Solution

Working with all the information gathered from the end-user and site visits undertaken by Powerflo and ZOOK were able to understand the cause of the problems and identify the solutions to solve all the performance issues in the field. This was just one of the field issues being experienced by the client. A properly engineered reverse acting disk assembly should have the dome of the disk protected by the inlet holder recess on the process or upstream side. Failure to do this makes the probability of damage to the disk dome from mis-handling much greater resulting in failure to operate at the stated burst rating and other performance issues.

The equipment provided by the incumbent had a minimum inlet holder depth and therefore the disk dome was exposed. ZOOK assisted by Powerflo designed a new assembly the "Skid-Safe" specially for this application. The Skid-Safe is a pre-torque rupture disk assembly of a high specification incorporating a non-intrusive sensor that is the most certified in the market meeting ATEX, IECEx, TR, U/L and other certifications to an exd level.

Results

The CSG company moved over to the ZOOK Skid-Safe and have bought thousands of these and are undertaking a replacement program of the earlier wellhead disk installations. Powerflo/ZOOK has also been successful in introducing this new technology to other CSG companies. The Skid-Safe has operated in the field without issues saving a large amount of downtime and resource for the CSG companies using the Skid-Safe. To date ZOOK have supplied thousands of Skid-Safes worth a number of \$M's but has also saved the customer the high costs associated with troublesome operational field issues.

