



High-tech compounds against explosive decompression

Special materials for extreme pressure changes

Many manufacturers and operators in the oil and gas industries as well as in the compressor manufacturing business and in compressed air conditioning have difficulties with explosive decompression and its consequences, since conventional elastomer seals cannot withstand the intense strain.

For the high demands on elastomer seals against explosive decompression (AED/Anti Explosive Decompression) COG offers with various tested compounds a wide range of AED products which were especially developed for use in this sector. All compounds have been tested successfully according to the Norsok Standard M-710 – the leading international standard for this field of application and renowned for safety for applications where explosive decompression may occur. These materials have already successfully prevented O-rings used in natural gas production of being damaged by explosive decompression, therefore also avoiding expensive leaks.

FKM AED materials

Due to a special recipe and performance the FKM compounds from COG are suitable for applications in gas environment and have a long-term sealing effect even when a drop in pressure occurs. Furthermore FKM compounds offer a high chemical and thermal resistance.

The compound Vi 890 has proven its ability in praxis for applications where explosive decompression may occur and scored the excellent Norsok rating of '1100'. COG has developed a further high-performance compound for the oil and natural gas industry that successfully passes the Norsok test to Standard M-710 with the best possible '0000' rating. What's more, its ISO 23936-2 certification also means that Vi 900 offers additional options for use.

The FKM compound Vi 895 offers a very good low temperature flexibility down to -45 °C as well as a high resistance to explosive decompression. Vi 895 fulfils some of the most important certifications for this sector: the Norsok Standard M-710, NACE TM 0297 (explosive decompression) and NACE TM 0187 (sour gas). Next to an excellent low temperature flexibility down to -46 °C the FKM compound Vi 899 offers high resistance to explosive decompression. Vi 899 is suitable for the use in API 6A & 6D compliant valves and wellhead equipment. Furthermore there is a selection of additional materials for the special requirements of the valves and fittings industry available.