

4. INSTALLATION AND OPERATION OF ELECTRICAL EQUIPMENT IN HAZARDOUS AREAS

Until Edition 2007 of IEC 60079-14, a selection matrix was applied to define when additional sealing compound was required in the screw fitting according to gas group, zone and enclosure volume. The matrix was superseded by IEC 60079-14 in 2013. Screw fittings with sealing compound should continue to be used. However, this is not required if a round tight cable* with a minimum length of 3 m is used in conjunction with a screw fitting approved for flameproof enclosures. At this point, the flameproof enclosure depends on the care taken by the installer on laying the cables and lines.

4.4 INSPECTION AND MAINTENANCE

Regular maintenance is required to maintain the safety of electrical systems in hazardous areas. The personnel performing such maintenance work must be supervised by an explosion protection expert and be informed of the special hazards. Before modification and maintenance jobs, it must be ensured that there is no risk of explosion during this work. Usually, official written permission must be obtained from the management.

A report documenting the work performed should be drafted on completion. In addition it must be confirmed that all relevant regulations were observed.

When replacing components or entire pieces of equipment, the explosion and equipment specifications should be noted.

This publication affords an initial insight into the extensive field of explosion protection. You can find other brochures and information on the subject on our website, r-stahl.com. We also offer a comprehensive range of courses to keep you abreast of changes in explosion protection. From foundation and advanced courses to current developments, you are sure to find the seminar that suits your needs among the many courses on offer. We will be pleased to answer any questions you may have.

* Cables and lines in a thermoplastic, duroplastic or elastomeric material. They must be circular and compact. All embedding or sheaths must be extruded. If filling material is used, it must not be hygroscopic.