Directives and legislation

Information on this page is for German and other European customers, except for the FQA information

EC Directive 97/23/EC
(Pressure equipment directive)

In the view of legislation "systems for monitoring" include equipment, vessels, systems and material from which a danger to the public may arise. The state fulfils its obligation (protective measures for its citizens) by creating legal regulations which eliminate the dangers or at least reduce them to a minimum - or it commissions corresponding experts to do this and to carry out suitable monitoring (e.g. TÜV = Technischer Überwachungsverein - German technical supervisory authority).

Well-known examples for this include the Road Traffic Licensing Regulations - Straßenverkehrs-Zulassungsordnung (StVZO), the Equipment Safety Act, the Atomic Energy Act, the regulations on occupational health and safety as well as the directive on pressure vessel regulation.

The directives can be found in the "Technical Regulations", which include instructions on computation and construction, on approved materials (including materials and strength classes for screws and nuts), on acceptance test provisions (factory inspection documents) and on selected and correspondingly recognised manufacturers.

The "Technical Rules" for screws and nuts apply in the pressure and vapour vessels area.

- AD 2000 data sheet W 0 = general principles for materials
- AD 2000 data sheet W 2 = for austenitic steel parts
- AD 2000 data sheet W 7 = for ferritic steel parts
- AD 2000 data sheet W 10 = for ferrous material parts for low temperatures
- TRD 106 = for ferritic and austenitic steel parts

Only those materials/property classes listed in these rules and standards may be used for the areas of application mentioned (pressures/ temperatures). The recognised manufacturer of screws and nuts made from permitted materials must prove to the responsible authority that the requirements have been satisfied according to AD 2000 data sheet W0. Manufacturers who fulfil these requirements are listed in the VdTÜV data sheet for materials 1253/1. These manufacturers are subject to constant inspection.

The standards for screws and nuts, for instance, named in the "Technical Regulations" take on legally-binding character from the form of the "related reference".

➜ **These products from the R264 catalogue comply with this directive***
DIN 931/933 (5.6, A2-70, A4-70), DIN 934 (C35, 5-2, A2-70, A4-70), DIN 938 (5.6), DIN 939 (5.6), DIN 28129 (C 35), ISO 4014/4017 (5.6, 8.8), ISO 4032 (5, 8), ISO 4762 (8.8)

* see the notes on the corresponding products on the price pages

Fastener Quality Act (FQA)

This term stands for the legal initiative in the USA which requires that fasteners introduced to the US market be subject to extensive quality testing and certification carried out by inspection laboratories especially set up for this.

The reason this initiative was set up were a number of claims for damages as a result of failing of fasteners in the 80s. First of all, only vital fasteners were to be affected (= approx. 1% of all parts). However, during the first draft law, the affected article area was expanded to such an extent that almost 70% of all fasteners became affected.

The first draft law was passed by the US Congress in November 1990 as PL (Public Law) 101-592. After some corrections and after amending the execution provisions "CFR part 280", "PL 104-113" emerged from this with a scheduled application date of 27 May 1997. The application date was postponed on numerous occasions due to objections from various organisations and because the required number of accredited inspection laboratories (min. 400) could not be set up on time: to 28 May 1998, 26 July 1998 and 25 October 1998. (PL105-234/PL 106-34).

The law (FQA – Amendments Act of 1999) was finally passed in simplified form, signed on 8 June 1999 by President Clinton and came into use 180 days later on 6 December 1999.

Mechanical fasteners included in the FQA are bolts, nuts, screws and special load-showing clipped washers with a nominal diameter of 6mm (0.25 inches) or larger, which have to be fully hardened and marked (property class) according to valid standards and correspond to valid standards.

Not included in this are, among others, mechanical fasteners which

- are part of a composite whole
- are parts which are to be used as spares, replacements or maintenance parts unless the part is in a packet which contains more than 75 such parts at the point of sale, or
- the part is one from a construction set or
- parts which are manufactured according to the requirements of a quality assurance system for fasteners (certification according to ISO 9000ff, QS 9000 and VDA 6.1) or
- parts which are manufactured according to the requirements of the company's own standards.

Additionally, electronically saved quality assurance documentation (declaration of conformity) is permitted in order to counteract the ”mountains of paperwork”.

➜ **All products exported to the USA can be delivered according to this directive.**