

Design examinations

Accurate dimensioning and suitable materials of the safety-relevant parts are vital when planning plants with pressurized components.

They are not only decisive factors in safety, availability and cost-effectiveness, but also must comply with the European Pressure Equipment Directive (PED) 2014/68/EU or other directives.

TÜV NORD verifies and confirms the fulfilment of the relevant legal requirements as part of the certification.

Setting the course for a compliant and cost-efficient solution as early as the draft design phase is important - but this requires time and experience. And this is also where TÜV NORD comes in: our independent experts have many years of practical experience and comprehensive knowledge of the many different safety and calculation standards.

Design examination is based on the technical regulations and standards used by the manufacturer (e.g. EN 13445, EN 13480, EN 12952/12953, ASME), or on national specifications such as AD 2000.

TÜV NORD - Making our world safer.

Our services

Design examination of:

- Unfired pressure vessels (AD 2000, EN 13445, ASME VIII/Div.1 etc.)
- Water-tube boilers (EN 12952 etc.)
- Shell boilers (EN 12953 etc.)
- Piping systems (EN 13480, ASME B31 etc.)
- Piping components such as pipes, reducers, bends, tees, expansion joints, flange connections, weldolets, sockolets and threadolets
- Valves with and without safety functions
- Flange connections (AD 2000, EN 1591, ASME VIII/Div.1 etc.)

With consideration of e.g.:

- Stability analysis for columns and pressure vessels
- Load cycling and creep fatigue
- External loads (nozzle loads, wind and earthquake loads etc.)

Examination of:

- High pressure gas pipelines and long distance pipelines
- Transportable und fixed tanks and tank vehicles, demountable tanks and tank containers (ADR directive)
- Flat-bottomed tanks

Support in implementation of EU directives combined with appropriate standards and specifications

The benefit to you:

- Compliance with legal requirements and safety regulations
- Reliable statements on examination results
- Directive-compliant placing on the market of pressure equipment

Our expertise:

- Neutrality and independence
- Long-time experience in design examination
- Expertise in national and international standards
- Short reaction time
- Worldwide network of TÜV NORD companies

*We look forward to sharing our expertise with you.
Why not contact us.*

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