

Attention:

The **calculated** pressures are given only as guidance. Dimensioning of piping systems also depend on other factors like external forces, thermal stresses, dead weight etc.

Furthermore the design must be made **according to regulations from local authorities and approved accordingly.**

Overview : DIN 2413 2011-6

This standard contains the calculation rules for seamless tubes and elbows made from carbon and stainless steel for oil- and water-hydraulic systems. It is applicable for pipelines which meet the any of the three following conditions: 1. For installation in machines according to Machinery Directive 2006/42/EC. 2. For operation a. with fluids of group 2 in accordance with the Pressure Equipment Directive 97/23/EC (PED) at $DN \leq 200$ at any pressure and at $DN > 200$ and at a maximum permissible pressure $PS \leq 50$ MPa (500 bar) or b) with gases of group 2 according to the PED at $DN \leq 100$ or $PS \times DN \leq 350$ MPa (3 500 bar). 3. For operation at a maximum permissible temperature TS of up to 120 °C. It is not applicable for pipelines which fall under the scope of the Pressure Equipment Directive. This standard has become necessary in order to create a clearer delimitation of the content to EN 13480-3. With the publication of DIN EN 13480-3, the previous editions of DIN 2413-1 and DIN 2413-2 have been withdrawn. Practical application of DIN EN 13480-3 demonstrated that this standard may result in wall thicknesses which, according to many years of experience, are too great for hydraulic systems. Specification of another calculation method has therefore become necessary. This standard has been prepared in collaboration between NA 082-00-07 AA "Rohrverschraubungen" ("Tube connections") and the VDEh (German Iron and Steel Institute) on the basis of the withdrawn DIN 2413.

For tubes in pressure vessels and boilers it is **also** important to consider AD Merkblätter and TRD (Technische Regeln Für Dampfkessel).