Pressure equipment directive 2014/68/EU (PED) in reference to thermowells

The following, among others, is defined in the 2014/68/EU Pressure equipment directive (PED) of the European Parliament and Council of 15 May 2014 on the harmonisation of the laws of the member states relating to the making available on the market of pressure equipment:

From 30th May 2002 onwards, all pressure measuring instruments placed onto the market in the EU with a maximum permissible pressure (PS) greater than 0.5 bar must comply with the PED. The applicability of the 2014/68/EU Pressure equipment directive in reference to thermowells is explained below.

In thermowells there is neither a fluid under pressure, nor is there any fluid transported within. Thermowells therefore are not "pressure-containing equipment" within the meaning of the Pressure equipment directive (see guideline for the pressure equipment directive A-40). The exception is for thermowells suitable for inline mounting in pipes, such as models TW61, TR25.

Thermowells are components within pressure equipment in accordance with the PED (guideline A-40). As such a component, it does not comply with the definition for pressure equipment in article 2 (1) of the PED and does not have to be marked with CE (see guideline A-22).

WIKA thermowells are designed and manufactured in compliance with “good engineering practice”.

This is achieved, for example, by:
- Basic layout of the thermowell design from standard thermowells in accordance with national or international standards, such as DIN 43772
- Approval to AD2000 HP0 and DIN EN ISO 3834-2
- TÜV approved welding procedure tests to AD2000 HP2/1 (EN 288-3 / ISO 15614/1) or ASME sec. IX
- Certified welders
- Mill certificates to EN 10204
- Hydrostatic pressure testing with 1.5 x PN or to customer specification.
- Non-destructive testing by authorised personnel, such as dye penetrant testing, ultrasonic testing of the bore concentricity or wall thickness, PMI (positive material identification), X-ray tests, helium leak testing
- Thermowell strength calculations in accordance with ASME PTC 19.3 TW-2016 or Dittrich/Klotter
- Development and manufacturing certified in accordance with ISO 9001 QM system

Some of the above tests/certifications are conducted optionally on customer request.