

# Standards



A harmonised standard is a standard considered by the European Commission as satisfying some of the directives essential safety requirements.

Harmonised standards are covered by three types of European Standard:-

- **Harmonised Product Standards**  
These are application codes that cover the design and manufacture of Pressure Vessels, Boilers and Pipework
- **Harmonised Support Standards**  
Welding, NDT and other standards that supplement the application codes.
- **Harmonised Material Standards**  
A material specified in a harmonised standard will satisfy the requirements of the directive in terms of ductility, toughness and strength but does not guarantee that the material will be suitable for a specific application.

Each harmonised standard will contain an annex stating which essential safety requirements it satisfies. The advantage of using these standards is that no additional justification is required that essential safety requirements have been met and providing the standards have been correctly applied the design of the equipment can not be challenged.

Another advantage of using Harmonised Standards is that they provide an interpretation of the directive. For example if a pressure vessel is to operate below zero the impact tests on the material and welding procedures have to be carried out the lowest operating temperature the vessel will experience according to ESR 7.5. This is not current practice as far as either PD5500 or ASME VIII is concerned as both these standards permit, under certain circumstances, warmer impact test temperatures. The European Unfired Pressure Vessel Standard prEN13445, currently in draft form, appears to follow an almost identical approach to that contained in PD5500 when determining impact test temperature. Therefore when this standard is published it will be possible to argue a case for using warmer impact test temperatures.

Harmonised Standards are not essential, any appropriate standard can be used but the satisfaction of essential safety requirements must be proved. Both PD5500 and ASME VIII have produced annexes stating how and which essential safety requirements they claim to satisfy, these annexes have not been approved by the European Commission and therefore neither standard can claim to be harmonised.

Note PD5500 has nothing to do with the PED, it is simply the latest revision of BS5500, it no longer has the status of a British Standard because it will conflict with BSEN13445 when it is published. It is now a Published Document rather than a standard, This will make no difference to it as it will continue to be supported as long as its popularity remains

The harmonised standard for the qualification of welding personnel is EN ISO 9606, for operating procedures it is EN ISO 15614. (Note EN ISO 15614 only satisfies the requirements of E.S.R 3.1.2 it does not satisfy the requirements for welding consumables stated in E.S.R 4)

{Only EN versions of ISO 9606 are harmonised and EN ISO 9606 Parts 1, 2 and EN ISO15614 are not available until early 2004}

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