



BSI Standards Publication

Welded steel tubes for pressure purposes — Technical delivery conditions

Part 5: Submerged arc welded non-alloy and alloy steel tubes
with specified elevated temperature properties

National foreword

This British Standard is the UK implementation of EN 10217-5:2019. It supersedes BS EN 10217-5:2002, which is withdrawn.

The UK participation in its preparation was entrusted to Technical Committee ISE/110, Steel Tubes, and Iron and Steel Fittings.

A list of organizations represented on this committee can be obtained on request to its committee manager.

The UK committee draws users' attention to the fact that BS EN 10217 Parts 1 to 7 are product standards and are therefore intended to assist specifiers, designers and other users of the documents by setting out a series of tube and pipe grades intended for use in pressure applications. The non-alloy and low-alloy grades in Parts 1 to 6 are comparable (interchangeable) with seamless grades of the same designations in BS EN 10216 Parts 1 to 4. Similarly the stainless grades in Part 7 are comparable to seamless grades of the same designations in BS EN 10216 Part 5.

It should be noted that guidance on material suitability for specific applications is not provided in product standards. It is therefore important that specifiers, designers and other users of the documents understand the differences between the types and characteristics of the welded pressure pipes covered in the standards so that the appropriate type and grade can be specified or selected for the application concerned.

In particular, it should be noted that, although BS EN 13480 supports essential requirements of EU Directive 2014/68/EU (the Pressure Equipment Directive or PED), the TR1 grades in BS EN 10217-1 are not suitable for use under the PED (as indicated in Table 4 of the Standard). This is because, in particular, they do not meet the essential requirements of the Directive in respect of ageing (determined by the chemical composition) or ductility (specified as minimum Charpy impact requirements). In addition, most HFW TR1 grades imported into the UK are cold-formed and hence the weld seam will not have been heat-treated which means that the weld area is likely to be highly stressed, which can lead to cracking if the tube is subjected to additional processing. The UK committee therefore recommends that users do not use any HFW products certified or sold as being of BS EN 10217-1 TR1 grade. Instead, to ensure PED compliance, the UK committee recommends that hot-finished HFW tubes in accordance with BS EN 10217-2 should be used for most pressure applications, although BS EN 10217-1 TR2 grades may be considered in some cases.

As BS EN 10217 steel tubes and pipes can be used for a whole range of applications from building services to critical requirements involving gas or chemicals, it is important that the specifier, designer or user selects the most suitable tube or pipe type and grade from the seven parts of the standard provided.

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