

Brazer Qualifications - Confused by what's needed by the Pressure Equipment Directive?

A simple guide

The Pressure Equipment Directive (law since May 2002) makes it a requirement for brazers of refrigeration equipment to be qualified. But to what level?

The qualification needed depends on the category of the joint being brazed.

Qualifications

Sound Engineering Practice (SEP) and category 1 joints can be brazed by an engineer with an “industry recognised” qualification. This can be the British Refrigeration Association’s Specification for Brazing and Brazer Assessment. The assessment for this scheme requires the candidate to braze a test piece which is then cut open and examined for penetration and quality of joint. The brazing is witnessed by a qualified assessor, who also examines the resultant joints. There is also a theory section to the assessment covering safety and the procedures required to achieve clean and reliable pipe joints.

Category 2, 3 and 4 joints must be brazed by an engineer who has been certificated by a third party – usually a Pressure Equipment Directive Notified Body. In this case the test piece is tensile tested and examined in an approved laboratory. A representative of the Notified Body witnesses the brazing and the testing. This is therefore a more costly procedure. A brazer qualified to this level can also braze SEP and category 1 joints.

Categorising joints

Most commercial refrigeration pipe work is SEP or category 1 – joints in such pipe work would therefore be no higher than category 1 and can be carried out by a brazer with the BRA qualification.

Where joints are made directly onto components which are category 2, 3 or 4 (such as liquid receivers or large oil separators), the joints would be the category of the components (2, 3 or 4) and would therefore have to be carried out by a brazer with the Notified Body qualification. The only exception to this is where the joint is onto a removable connection (e.g. a rotolock valve as fitted to many receivers), in which case the joint is categorised according to the valve size.

Many installations do not require brazers with the Notified Body approval and therefore contractors need only qualify some of their brazers to this level. However, a number of contractors have qualified all their brazers to this level to maintain flexibility in installation work.

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