



# GUIDANCE

## WELDING PROCEDURE AND WELDER APPROVAL TESTING

Number: **WMC 04**

Prepared by: **WELDING AND MATERIALS COMMITTEE**

Approved by: **TC 1 — Pressure Equipment and the SAFed Technical Steering Committee**

Status: **Issue 04**

Date: **01/03/16**

Reference: **BS EN ISO 15614-1 2012 / BS EN 287 – 1 2011, Thickness Approval Range for  
 $t \leq 3\text{mm}$**

### **SITUATION:**

**There is disparity between the standards BSEN 287-1 & BSEN ISO 15614-1 with regards to approval ranges on thinner materials with a single weld run deposited**

*BS EN ISO 15614-1 2012: Table 5: "Range of Approval for Thickness", gives a range for a single run weld using material with a thickness less than or equal to 3 mm as  $0,7t$  to  $1,3t$ .*

*BS EN 287- 1 2011: Table 5: "Materials Range of Approval", gives the range for material with thickness less than or equal to 3 mm as  $t$  to  $2t$ .*

**What is the technical justification for this?**

### **GUIDANCE:**

The welder approval standard BSEN 287-1 is focused on the welder's skill and the procedure testing standard BSEN ISO 15614-1 is concerned with metallurgical & mechanical properties of the weld.

This is why there is a different philosophy to approval ranges generally.

Because thinner materials require a different level of skill in relation to thicker sections and the welder has not proven his skill in welding thin materials, additional tests are required to qualify the welder.