

HELP DOCUMENT WELDER TESTS - The difference between the **WELDING** and **WELDER**

WELDING - this is the test for the **parent materials**, the parts are welded by a welder, and they will get a qualification (assuming it passes) after the test **BUT** the range will be different and more restrictive.

- ✓ ASME IX sections
 - QW-253 (SMAW), QW-254 (SAW), QW-255 (GMAW & FCAW), QW-256 (GTAW), QW-257 (PAW)
- ✓ BS EN ISO 15614 series 1 to 14 depending upon material, process etc.

WELDER - This tests the person and their hand skills involved in welding and is governed by these standards

- ✓ ASME IX
 - QW-353 (SMAW), QW-354 (SAW), QW-355 (GMAW), QW-356 (GTAW), QW-357 (PAW)
- ✓ BS EN ISO 9606 series
 - BS EN ISO 9606-1 (Steels)
 - BS EN ISO 9606-2 (Aluminium)
 - BS EN ISO 9606-4 (Nickel)

EN **WELDER** qualification

The **WELDER** "shall" (section 6.2 of ISO 9606-1) follow a WPS or pWPS document, **NOT** a (W)PQR. This (the WPS) should be referenced on their qualification, BUT the range from the WPS **WILL NOT BE THE SAME** as the range for the welder. The welder's range will generally be greater than the WPQR/WPS range because it is a test of their hand skills not the parent material.

Note: If a welder welds a butt weld, they will **NOT** be qualified for fillet welds **UNLESS** they weld a **SUPPLEMENTARY FILLET WELD TEST**. This test is defined from the standard as *'The test piece shall be at least 10 mm thick, or the thickness of the butt weld test piece if the thickness is less and completed using a single layer in the PB position.'* The fillet weld can then be fracture or Macro tested to demonstrate the welder can weld the fillet weld correctly, they will then get Butt and Fillet for their range on their certificate.

ASME **WELDER** qualification

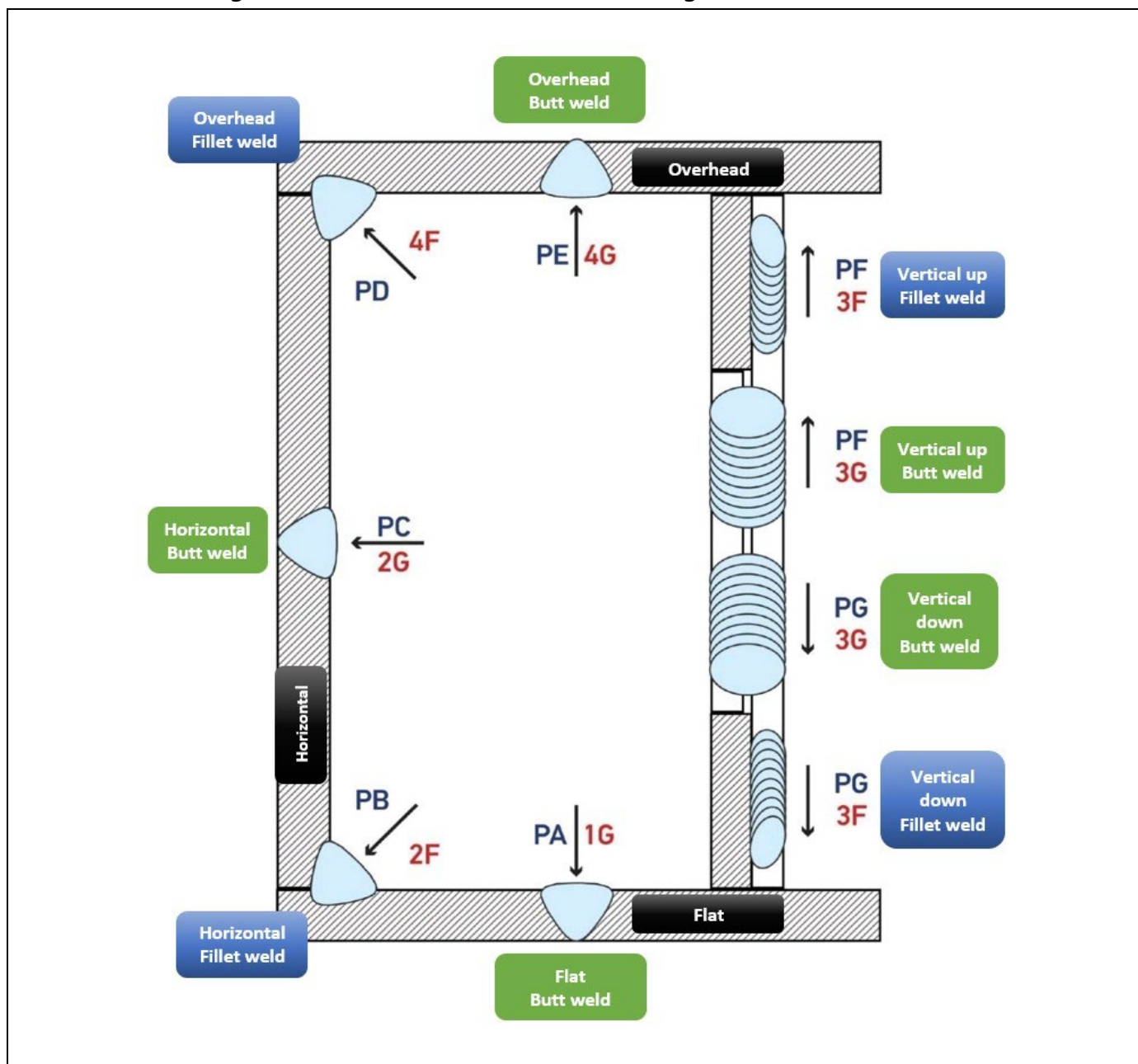
The **WELDER** "shall" (section QW-301.2) follow a WPS document, **NOT** a PQR. This (the WPS) should be referenced on their qualification, BUT the range from the WPS **WILL NOT BE THE SAME** as the range for the welder. The welder's range will generally be greater than the PQR/WPS range because it is a test of their hand skills not the parent material.

Welding Test Piece Sizes Used

| Welding (BS EN ISO 15614-1) Minimum sizes | | Welder (BS EN ISO 9606-1) Minimum sizes | |
|--|---|--|---|
| Plate Butt weld (each plate) | 150mm x 350mm (Min.) and the thickness | Plate Butt weld (each plate) | 125mm x 200mm (min.) and the thickness |
| Pipe Butt weld (each pipe) | Diameter & thickness and 150mm long min. | Pipe Butt weld (each pipe) | Diameter and 125mm long (Min.) and the thickness |
| Fillet weld (each plate) | 150mm x 350mm and the thickness | Fillet weld (each plate) | 125mm x 200mm (Min.) and the thickness |
| Branch weld (each pipe) | Both pipes' minimum of 150mm distance from the joints all round (bottom pipe will be much longer). | Fillet weld on pipe to plate | Pipe - Diameter x 125mm long (Min.) and the thickness The plate must be ≥50mm or more all- round from the outside diameter used. |

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Different Welding Positions for the welder and welding



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