

WeldQ Examiner's Test Options

This table of options must be used in conjunction with AS/NZS ISO 9606-1 or AS/NZS 2980 (as appropriate).

Available combinations of weld test plate assessment methods for all welder qualification tests to AS/NZS ISO 9606-1 and AS/NZS 2980 are:

Plate butt welds			
Visual <i>plus:</i>			
Radiography <i>or</i> →	Bend tests <i>or</i> →	Nick-break tests <i>or</i> →	Ultrasonic (≥8mm ferritic steel only)
<i>plus</i> Additional bends <i>or</i> nick-break tests for all GMAW ^{131, 135} , FCAW ¹³⁸ (metal core) and oxyacetylene ³¹¹ welding only. One of these tests to come from stop start region			
Pipe butt welds			
Visual <i>plus:</i>			
Radiography <i>or</i> →	Bend tests <i>or</i> →	Nick-break tests <i>or</i> →	Ultrasonic (≥8mm ferritic steel only)
<i>plus</i> Additional bends <i>or</i> nick-break tests for all GMAW ^{131, 135} , FCAW ¹³⁸ (metal core) and oxyacetylene ³¹¹ welding only. One of these tests to come from stop start region	For OD ≤ 25mm, notched tensile optional in lieu of bends	For OD ≤ 25mm, notched tensile optional in lieu of nick-break	
Fillet weld			
Visual <i>plus:</i>			
Fillet- break test <i>or</i> →	2 macros One macro to come from stop start region		
Branch pipe joint			
Visual <i>plus:</i>			
Fillet- break test <i>or</i> →	2 macros <i>or</i> → One macro to come from stop start region	Radiography	

Notes:

1. *Bend test*: ISO test method is ISO 5173, Australian test method is AS 2205.3.1.
2. *Fracture test*: ISO test method is ISO 9017, Australian method for butt welds is AS 2205.4.1 (Nick-break test) and for fillet welds is AS2205.4.2 (Fillet-break test). ISO 9017 provides alternative notch profiles not available within AS 2205.
3. *Macro test*: ISO test method is ISO 17639, Australian test method is AS 2205.5.1.
4. *Radiographic test*: ISO test method is ISO 17636, AS 2177 is the Australian test method. The methods are not identical and cannot be substituted.
5. *Ultrasonic test*: ISO method is ISO 17640. AS 2207 is the Australian test method. The methods are not identical and cannot be substituted.
6. *Visual test*: ISO test method is ISO 17637, Australian method is AS 3978.
7. The Australian test methods for bend testing, fracture testing, macro testing and visual examination, are similar to the specified ISO methods and provide similar technical outcomes. In some cases, the ISO test methods provide for alternative test details not available under AS 2205 or other test methodologies.
8. For radiographic and ultrasonic examinations, the specified ISO methods must be utilised if the weld procedure being followed by the welder is qualified to ISO standards. If the procedure was qualified to standards such as AS/NZS 1554.1, AS/NZS 3992 or other Australian standards then the Australian RT or UT test method must be used.