

## Welder Practical Exam Test Equivalency Chart

The six welding processes in the Practical Exam column below will be tested. More information about the processes can be found in "Test Processes in Detail" on the next page.

If you have proof of current corresponding CWB or ASME certifications ('tickets') for any or all Tests 1 to 5, you only have to complete the missing component(s) of the practical exam. "Current" is defined as within a two-year period of the exam application date.

### TEST EQUIVALENCY

PRACTICAL EXAM	CWB Certification	ASME Certification
<b>Test 1: SMAW</b> <ul style="list-style-type: none"> <li>F3 or F4 open root pass, F4 fill and cap, vertical up</li> </ul>	<ul style="list-style-type: none"> <li>"T" Classification SMAW F3 or F4 root pass</li> <li>F4 fill &amp; cap</li> <li>Vertical</li> </ul>	<ul style="list-style-type: none"> <li>3G or above</li> <li>F3-F4</li> </ul>
<b>Test 2: SMAW</b> <ul style="list-style-type: none"> <li>Groove/fillet joint, F4 vertical root (fillet side), then overhead fill and cap; with backing</li> </ul>	<ul style="list-style-type: none"> <li>"S" Classification SMAW F4</li> <li>4 position</li> </ul>	<ul style="list-style-type: none"> <li>4G or above</li> <li>F3 - F4</li> </ul>
<b>Test 3: GMAW</b> <ul style="list-style-type: none"> <li>Solid wire, flat, open root</li> </ul>	<ul style="list-style-type: none"> <li>"T" Classification GMAW</li> <li>Root and fill</li> <li>Flat</li> </ul>	<ul style="list-style-type: none"> <li>1G, F6 GMAW</li> </ul>
<b>Test 4: GTAW</b> <ul style="list-style-type: none"> <li>Horizontal, open root</li> <li>Horizontal, fill and cap</li> </ul>	<ul style="list-style-type: none"> <li>"T" Classification GTAW</li> <li>Root pass</li> <li>Horizontal</li> </ul>	<ul style="list-style-type: none"> <li>2G or above</li> <li>F6 GTAW</li> </ul>
<b>Test 5: FCAW</b> <ul style="list-style-type: none"> <li>Groove/fillet joint, FCAW vertical root (fillet side), then overhead fill &amp; cap; with backing</li> </ul>	<ul style="list-style-type: none"> <li>"S" Classification FCAW</li> <li>Fill &amp; cap</li> <li>4 position</li> </ul>	<ul style="list-style-type: none"> <li>4G or above</li> <li>F6 FCAW</li> </ul>
<b>Test 6: Oxy-fuel Cutting</b>	No test available	No test available

## Test Processes in Detail

PROCESS	Consumable	Joint Config	Position	Base Metal	Backing or Open Root
<b>Test 1: SMAW</b>	F3 or F4 root, F4 fill cap	Groove	V	P1	Open Root
<b>Test 2: SMAW</b>	F4 root, F4 fill cap	Groove, Fillet	V, O combination	P1	Backing
<b>Test 3: GMAW</b>	F6 solid wire	Groove	F	P1	Open Root
<b>Test 4: GTAW</b>	F6 solid wire	Groove	H	P1	Open Root
<b>Test 5: FCAW</b>	F6 cored wire	Groove, Fillet	V, O combination	P1	Backing
<b>Test 6: Oxy-fuel</b>	One bevel, one cope, one circle; 3/8 in. plate, 4 in. x 5 in.				
<b>NOTES</b>	<ul style="list-style-type: none"> <li>▪ Time allotment for all tests is five (5) hours, to be administered in one session at the end of final level of training for apprentices.</li> <li>▪ All completed coupons/straps remain the property of the administering jurisdictions and will not be returned to the candidate.</li> <li>▪ Welding coupons/straps will be prepared in advance.</li> <li>▪ Candidates must wear all appropriate PPE and follow all safety procedures. Failure to do so will result in immediate termination of test.</li> <li>▪ All coupons/straps will be evaluated by bend testing.</li> <li>▪ All coupons/straps will be split in the middle. One root bend, one face bend.</li> <li>▪ Electrodes/wire to be used:               <ul style="list-style-type: none"> <li>○ F3 – 6010 or 6011 electrode</li> <li>○ F4 – 7018 electrode</li> <li>○ F6 GMAW – ER-70S wire</li> <li>○ F6 FCAW – E-71T wire</li> <li>○ F6 GTAW – ER-70S rod</li> </ul> </li> </ul>				