

SMAW welds, possible score 100 Pts, 50 pts for E6011 and 50 pts for E7018

Looking for total length, right size, consistency the entire length, flat or slightly convex face, toes washed in, undercut, tie in (weld will require more than one rod), good wash in at start (not cold) and crater filled at end.

E6011 weld: one ¼" fillet 9¾" long

E7018 weld: one ¼" fillet 9¾" long

GMAW-100points total: To be broken into 4 categories: **1)** the 2 outside ¼" fillet welds (19.5" total length) on the base assembly for 25 points, **2)** circumferential corner welds on the main body-to-end caps ((88" total length) 25 points, **3)** all "visible" outside welds: smoke stack, horizontal lid seal, base-to-main body, hinges, and handle brackets (55" for high school, 46" for post-secondary) 25 points **4)** internal intermittent welds : center and side fuel rack supports, food rack supports, 51"

GTAW (post secondary) 100 points Handle Brackets, outboard 6 welds 1.5" long ea
Entire length, size consistency, flat/convex face, undercut, crater filled.

OA Cutting 100 Points: set up and lighting 25pts, straightness of cut, continuity /lack of scalloping, dimensions (radius cut)

4 cuts: 2 of 90 deg 25pts (12.5pts/ea), 2 of radius cuts 50pts (25pts/ea)

If a team is unable to display competency in safely setting up and lighting torch immediately notify event coordinator for process of DQ

Fabrication 150 points: overall dimensions (L x W), placement and orientation of bases, squareness of bases, how warped are bases (do they sit flat?) sharp edges vs rounded and safe on outside of project only, , operation of fuel door and hinges, operation of lid and hinges, fit up of lid to main body, orientation of smoke stack, orientation of handles (square and at proper angle?) , spatter-clean-up & wire whiskers, all slag removed from SMAW, oversized welds are a deduction, excessive warpage/distortion (note base-feet and end cap-to-main body, this will be a challenge to control)

Teamwork 100 points: to what degree of project completion-67 points, Team submit written plan/outline 33 points. Deductions for: not bringing pencil to written test, team members not having PPE gear, cursing at one another or other action of non-team play

Blueprint Reading -100 points Are all parts in the right locations? Are all welds in the right locations and of specified size? Note preexisting longitudinal seam weld on main body, on backside.