

# **Sample Documentation**

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## **Sample 1 – 08/25/15**

This sample was welded using new tooling that is holding the part on the mating surface rather than the bottom end as before.

Results: Consistent Penetration throughout, but a gap of ~0.005 was noticed on the top of the weld where the beam initially punches into the material.

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## **Sample 2 – 08/26/15**

This sample was welded the same as sample 1 except we went back and welded over the first row of spot welds in an attempt to nail the gap down further.

Results: Consistent Penetration throughout, but a gap of ~0.005 was noticed on the top of the weld where the beam initially punches into the material.

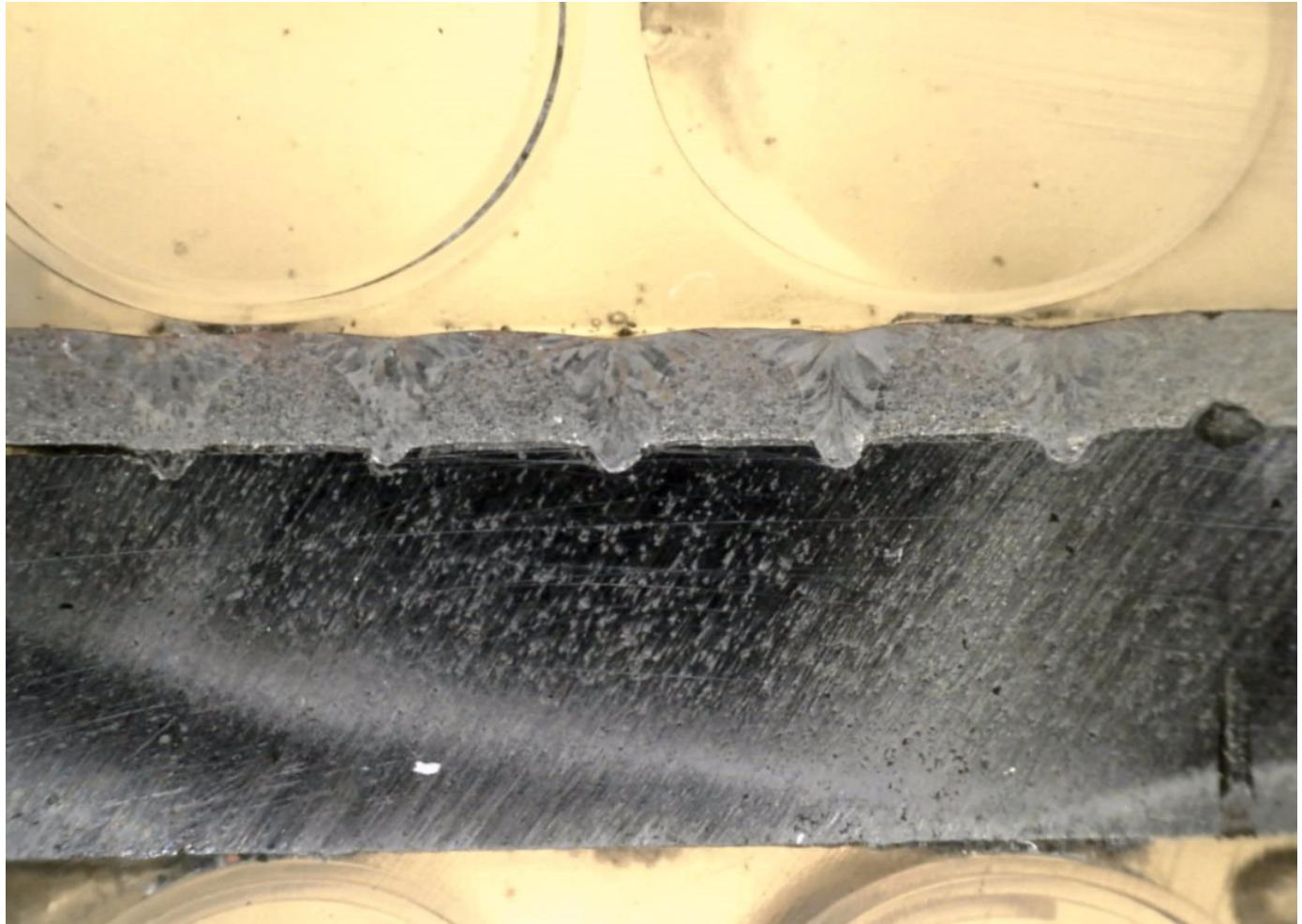
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## **Sample 3 – 08/27/15**

This sample was welded in the traditional manner, clamping down on the bottom of the part rather than the mating surface (like previously welded in the beginning) We rolled the edges of the weld (fillet weld) on 4 corners, proceeded to tack the 35 spots, then did a full fillet weld pass on the 3 applicable sides of the shunt.

Results: Consistent Penetration throughout, but we noticed external cracking on the toe of the fillet welds, and internal cracking through the base metal.

## Sample #1 Picture



## Sample #2 Picture



### Sample #3 Picture

