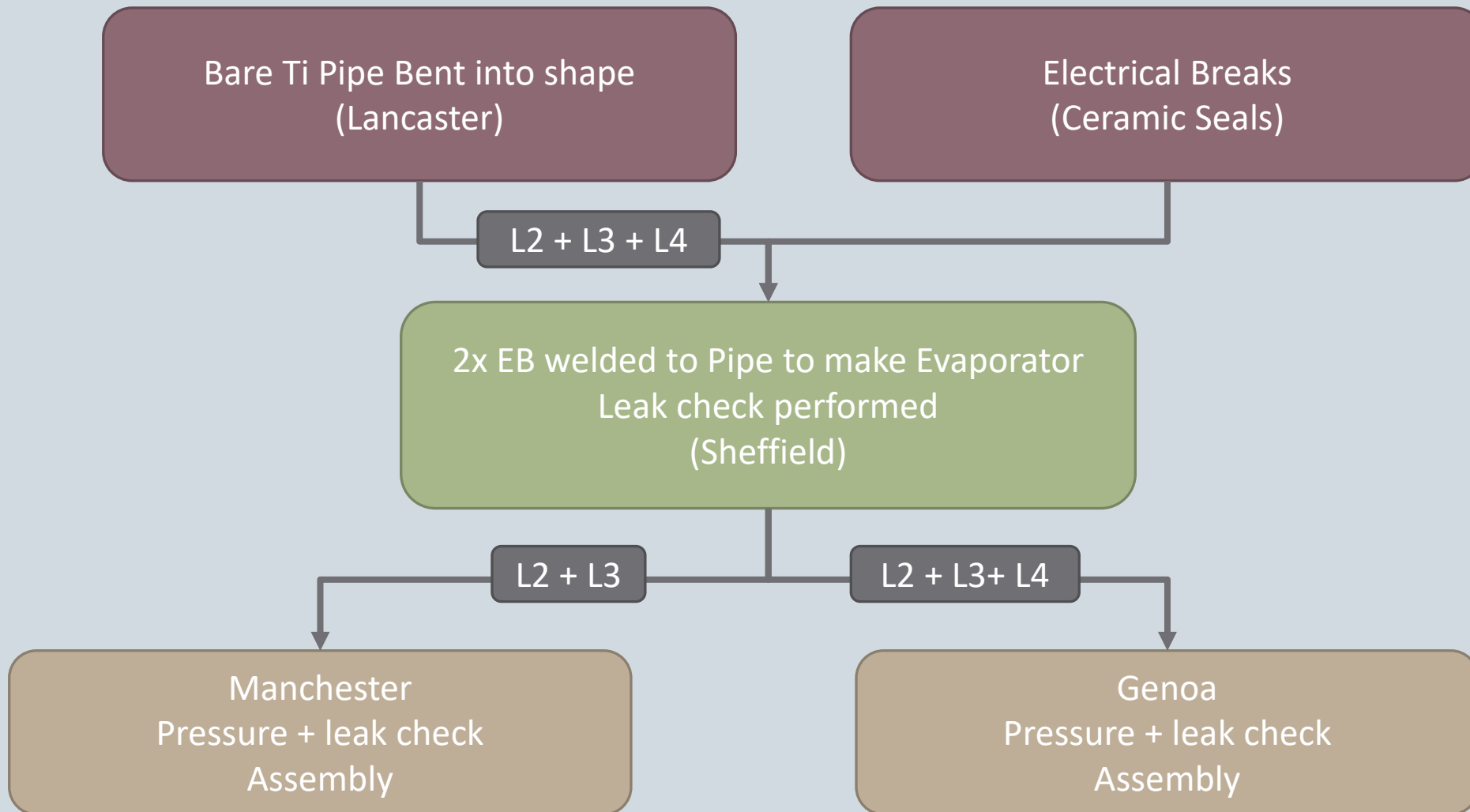


UK Welding Status – Pixel Endcap Evaporators

SAM EDWARDS, PAUL KEMP-RUSSELL, MITCH NORFOLK



Current Status

- December 23 - Delivered 2x L4 and 2x L2 evaporators to Genoa
- December 23 - Delivered 2x L3 and 3x L2 evaporators to Manchester
- Full production stock of tube in hand @ Lancaster
- Full production stock of Electrical Breaks in hand @ Sheffield
 - Discussions on going RE what level of TiR we can accept
- Set up and ready to make more Evaporators when bare $\frac{1}{2}$ rings arrive from Lancaster

Integration

Aim is to make integration (Manchester + Frascati) as reliable as possible

Two main this to help with this.

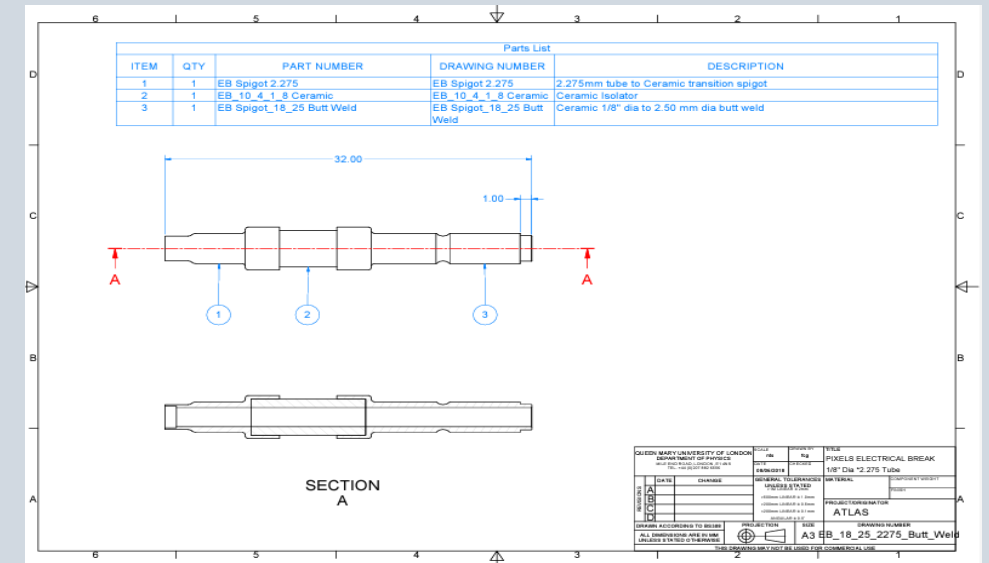
EB Design



Old Design New Design

Originally the EB to Exhaust / Inlet weld was to be a 2.5mm Sleeve joint.

Now changed to be a mating part
Better joint
Thicker wall
Better gas connection

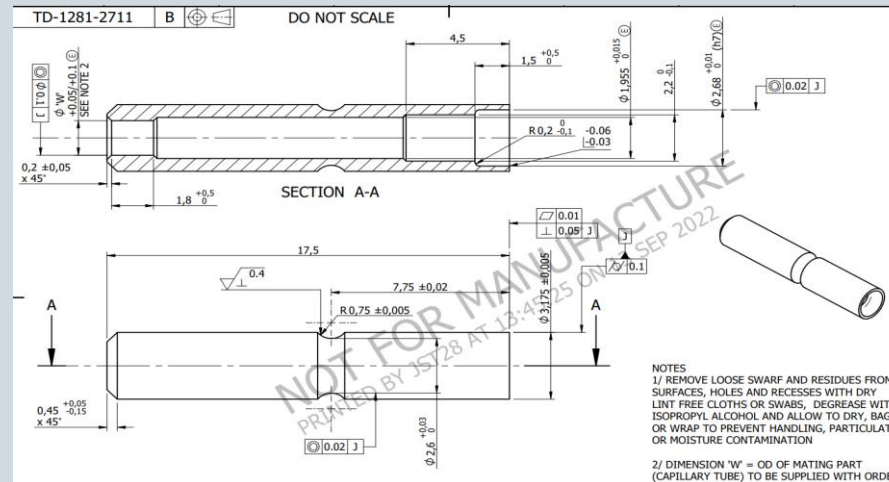


This 'male' end now fits to 'female' fitting on either Capillary or exhaust

Integration

Weld trials with these fittings have gone well. This also give an opportunity to do a repair weld. By cutting at both o’ring grooves and placing a custom made fitting in the middle

Exact same joint being used in Stave.



Capillary 'female' fitting

Welds have been tested, WPS verified and CT scans completed.

A number of these joints are now in use on the Stave SR1 system test.

Integration

Plan is to have these u-bends made with the long leg (1) over size, that way it can be measured and trimmed on site

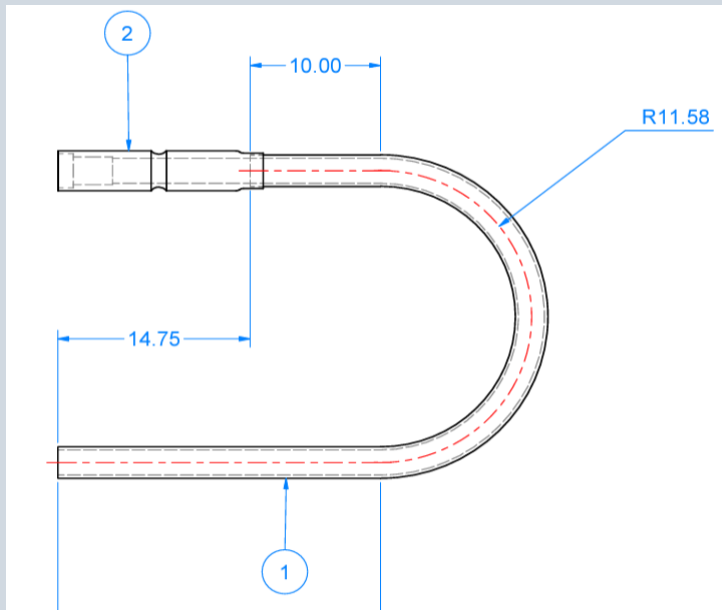
Plan to also have U-bends made with different radii (11.0, 11.5, 12.0)

These 2 features combined should cover a range of possible misalignments.

On site you would dry fit a bare U-Bend, cut then weld the fitting on before welding into the system

Some form of mock up needs to be made to test gas pressures for these welds. At the moment they are an unknown, and very critical.

Discussion also required on testing Leak + Pressure during integration. Who, what when.



Exhaust 'female' fitting