SELFrag process vessel assembly – closed vessel

Process vessel components

Assembly tools
Assembly Procedure

Step 1
Take the 2 x brackets and place them on the base of the vessel liner making sure to align the holes in the bracket with the holes in the liner. Ensure brackets are placed with bolt recess side up.
Insert long hex nuts into Teflon vessel liner, with the short threaded end going into the liner. Screw in until finger tight and then just nip up (<1/8 turn) with 13mm spanner.

Step 2
Place the large o-ring in the recess in the base of the vessel liner
Step 3
Place the small o-ring around the raised section in the bottom of the process vessel shell

Step 4
Invert the vessel shell and place over the vessel liner ensuring the long hex bolts come through the holes
Secure the shell and liner using the 3 allen bolts and washers.
Tighten these up using the torque wrench and allen key to 20Nm (make sure you tighten the bolts in the direction indicated by the arrow on the torque wrench). It is recommended to tighten these bolts with the process vessel assembly in the sink station jig.
Step 5 – Counter Electrode Assembly

a. Place the counter electrode o-ring into the recess in the counter electrode

b. Insert the electrode into the vessel so that threaded end comes out through the bottom. Secure it in place using the long nut and tighten to 40Nm using the torque wrench and 18mm open ended spanner attachment. If the electrode spins while tightening, hold it in place using a 10mm spanner on the end of the electrode.

c. The long nut is secured in place using the crown nut. This does not need to be overly tight, but you need to ensure the splines on the nut expose the hole through the counter electrode.

d. The crown nut is then secured in place using the spring clip.
Step 6 – Attach the Process Vessel Base

a. Screw the 3 hex nuts onto the long hex bolts so the end just protrudes (flat side down)

b. Locate the base onto the vessel assembly such that the handles on the base are aligned perpendicular to the arms that vessel shell. Tighten firmly with 13mm spanner (do not over tighten)

Completed Assembly