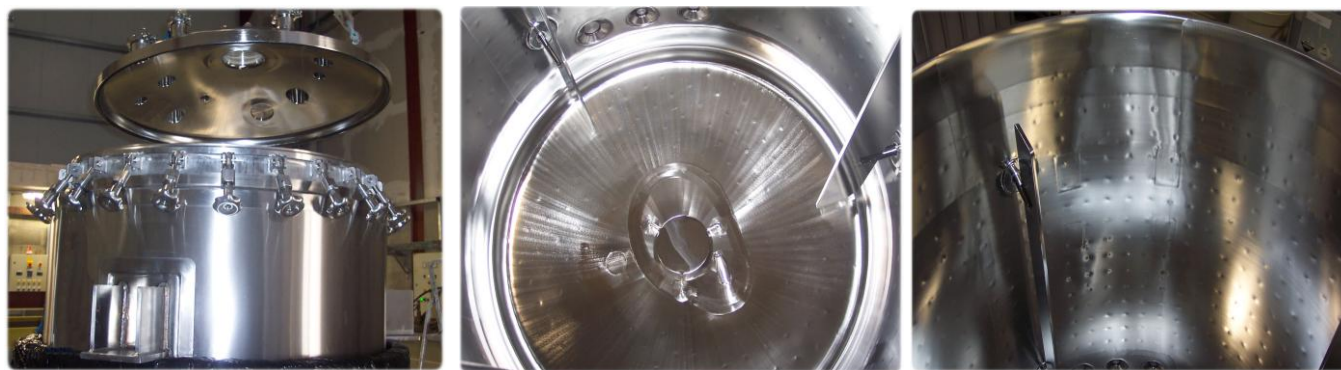


Electropolishing of Pressure Vessels at Willowchem Ireland Limited

Since being ready and open for business back in October 2007 Willowchem Ireland has increase from strength to strength and been kept busy chemically and electrochemically processing all sorts of fabrications, components and assemblies through technical consultancy of Anokap Solutions Co. Ltd.



Over this progressive period many of the projects taken on board included the internal electropolishing of relatively small pressure vessel of between 50 – 500 litres. With well documented procedures and controls, included pre cleaning and post passivation treatments, Willowchem Ireland found their past experience within the Pharmaceutical industry to be priceless with the knowledge of the high level demands expected, especially with written procedural documentation.



Willowchem Ireland Limited then moved onto even larger vessel of approximately 1000 litres

After cutting their teeth on over 25 units, Managing Director Billy Curtin decided in August that it was time to progress to the next level by taking on a project with 2 vessels of 5000 and 6000 litres. Whilst not being afraid to tackle these larger vessels with the assistance and consultation of associates, the project was even more testing by the fact that the vessels were already completely assembled and the time allocated to process them was over a weekend. Delivered Friday evening and required back to the customer by Monday lunchtime, the challenge was taken on board and the commitment given with only a week's notice, of the vessels arriving.

Engineering details of the fixturing concept were speedily implemented and the complete design and manufactured within 4 days. A detailed method statement and process procedure was drafted and all necessary safety equipment sourced, being onsite prior to the expected delivery. All the raw materials such as product chemistries, applicators, cables, cathode and Busbar materials were already onsite and the loan of a adjustable bed rotating rollers system arranged within this short notice period. the quality of fixture and jiggging build which makes the process a whole lot easier when manufactured with precision.



Unloading and positioning of the vessels for each step was carried out with precision as the wet processing area in Willowchem Ireland is fitted with a modern, fully motorized 5 ton over head hoist system and the staff rigging is and banksman skills are second to none.

After degreasing with Anokap Cleaner 160, the nimble athleticism of the staff and operators was required to fit a cathode assembly fixture at each stage of the electropolishing procedure with Anokap Electrolyte 190. In these difficult conditions, the conscientious and dedicated nature of the workforce ensured that great care was taken at each stage not to mechanically damage both before and after processing.



Finally the vessel was positioned on its legs in the upright position, desmut and passivated with Anokap 170, followed by thorough rinsing and allowed to naturally dry with the assistance of clean compressed air.



The exercise was a complete success with the first vessel collected Sunday afternoon and the second Monday afternoon. The customer was fully satisfied with both the surface finish and service and has promised more large vessel projects, already in hand in the near future.