

# Electropolishing

**With Ionic Liquids**



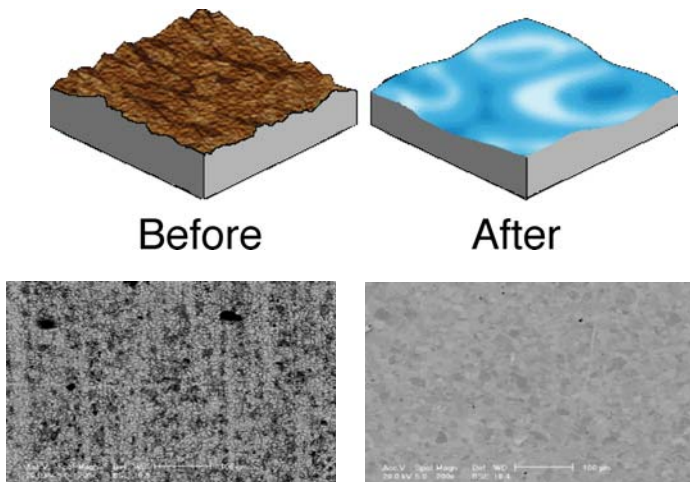
## A Revolution in Electropolishing

Scionix has developed a revolutionary new way of electropolishing stainless steels. It uses a new type of electrolyte called an ionic liquid.

The liquid is benign and has the following characteristics:

- ◆ Improved current efficiency (>80%)
- ◆ Better surface finish on many types of steel
- ◆ Non-corrosive, non acid
- ◆ Less gas evolution
- ◆ Metal recoverable

It uses the same equipment as acid based electrolytes and essentially the same pre-treatment protocol. The process involves the controlled corrosion of a metal surface to bring about a reduction in its surface roughness and hence increasing its optical reflectivity.



Scionix also deals with your waste issues by recycling the liquid when it comes to the end of its use.

**Most of our solvents are based on Choline Chloride (vitamin B4) as it is non-hazardous and produced on Mtonne scale.**

## What Can Scionix Offer?

Whatever your electropolishing requirements Scionix can offer a package to fit.

- ◆ For companies experienced with electropolishing Scionix can supply any volume of ionic liquid from 25 kg for testing to 20 tonnes for production.
- ◆ If you want to test the capabilities of ionic liquids and have the necessary equipment for the process we can design a package to supply the liquid with the necessary technical back-up.
- ◆ Or, if you are inexperienced with this technology we can supply not only the training and technical back-up but also the equipment necessary to carry out the process.

The new electropolishing technology is designed to be a drop-in replacement for current acid based solutions. It uses the same plant and conditions as the current processes and differs only in a lower current density for the polishing process and is less hazardous to use.





Scionix aims to embrace Sustainable Development to provide economic, environmental and social benefits from its new technology. All the opportunities we are currently involved in add all the benefits associated with eco-efficiency and social business ethics. We produce ionic liquids for a large number of ongoing collaborations, among which are consumer product manufacturers, automotive and aerospace materials finishers, mining conglomerates and pharmaceutical companies. We are, already one of the worlds largest, per volume, manufacturer and distributor of these types of liquids.

# Scionix

[www.scionix.co.uk](http://www.scionix.co.uk)

**Dr. Khalid Shukri**

**Scionix Ltd**

**298 Regents Park Road, Finchley, London, N3 2UA, UK**

**tel: +44 (0) 20 8371 3905**

**fax: +44 (0) 20 8371 3958**

**e-mail: [khalid@genacys.co.uk](mailto:khalid@genacys.co.uk)**

**web: [www.scionix.co.uk](http://www.scionix.co.uk)**