

**Pero**  
Advanced Metal System



built to  
**last**



built for  
**speed**



built to  
**perform**

## Clean Savings for Harwin plc



Emily Gower is R&D engineer at electrical and electronic interconnect solutions provider Harwin Plc. "Engineers buy Harwin connectors for lots of reasons, perhaps the most important of which is reliability," she enthuses. "So, if a product isn't spotlessly clean, it wouldn't exactly create the right impression and it probably couldn't be relied upon to do the job. We've **taken the SER changes as an opportunity** to simultaneously improve our processes and to do something positive for the environment. The added bonus is that we're saving considerable amounts of money, too."

"Since installing the Pero, we've been able to reduce machine manning levels by one operator, We've also eliminated the aqueous washing on one of the plating lines, **saving around 500-litres of water and 200-litres of cleaning solution every month**. Due to the subsequent improvement in process quality, plating re-work has dropped from around 7 re-works per month to 2 or less."

"We apply the 5 housekeeping S's to everything we do", says Gower. "Sort, straighten, scrub, systemise and standardise. It's part of our Six-Sigma

quality control procedure. The air inside **the room has less than 3 parts per million of solvent fumes**, so it exceeds the new legislation - currently 50 ppm - and makes for a pleasant working environment."

An additional benefit of measuring and controlling the cleaning process is that costing and scheduling becomes simpler. Alongside a PC adjacent to the machine is a small, wireless digital device, which measures the power consumption of the Pero and displays a cost, usually around 7p/kW hour. The system even measures the output of greenhouse gases. "The old degreasing machine used around 6-7 tonnes of solvent per year," says Gower. "The new machine has used **less than 6-litres** in the last 3-months!"

Harwin Chairman Damon De Laszlo is known for his opinions on how British and European industry needs to reduce overheads if it is to compete with the threat from overseas competition. One of his beliefs is that Western companies can thrive by committing to and investing in best practice and the latest manufacturing technology.

"Since we've been operating the Pero machine we've made dramatic savings" says Gower. "From a previous spend on solvents of around £800 per month, we anticipate **spending no more than £800 in total over a full year operation** of the Pero machine which includes safe disposal of used solvent at the end of it's life. That's hard, financial proof that doing the right thing for the environment can also be a good business opportunity."



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