VP800 vapour phase system – The story of success continues

Just 48 months after its launch, ASSCON Systemtechnik-Elektronik GmbH’s VP800 vapour phase system has impressively established itself in the production of global electronics. The construction number ‘100’ VP800 vapour phase system was successfully installed a few weeks ago at the Finnish company ‘Ultracom’, a producer of high-performance positioning and navigation systems.

Just like all ASSCON vapour phase systems, the VP800 stands for cutting edge technology. They are the innovative response to modern soldering tasks. The physical principles of the process allow error-free soldering of the most complex of SMD assemblies in virtually any arrangement. The VP800 is designed as a multi-chamber system. By separating off the processing zone and the cooling zone, it manages to carry out the soldering process at the standard of a serial production system in a compact space. ‘Top performance’ in the smallest of spaces.

That was exactly a reason why the Finnish company Ultracom selected the ASSCON VP800 for the production of their products. Founded in 1993, Ultracom has evolved over the years into a world-renowned specialist in the field of innovative positioning and navigation systems. Although applications for radio equipment formed the core business in the early years, Ultracom came to specialise in the field of positioning and navigation systems at an early stage. These are used for example, for locating children, injured persons or animals but also in vehicles or machinery. Year 1996, Ultracom brought its first positioning device for hunting dogs onto the market - a milestone in the production of hunting equipment. At the end of 2005 the world first positioning and navigation GPS- / Hunting device and software for mobile phones was introduced. Since then, the Ultracom’s high-tech positioning devices have been used in hunt events around the world.
Precision, efficiency and innovation are qualities that Ultracom associates with ASSCON. Since its founding in 1995, ASSCON has developed and produced progressive and innovative vapour phase reflow soldering systems (such as the VP800) in accordance with the company’s principle: ‘Innovations for your leadership’.

With the VP800 – as with all ASSCON vapour phase soldering systems – through the use of liquid and/or vapour as an energy transfer medium, a process is used, which is far more effective than, say, convection. The vapour condenses on the item to be soldered. At the same time, the item to be soldered is surrounded completely by the condensate. In the condensed liquid film, the transfer of energy commences and the preheating and soldering process starts. An inert atmosphere is created through the use of a special liquid (GALDEN ®). As such, the entire preheating and soldering process takes place in a fully oxygen-free environment.

The variable temperature gradient control unit automatically generates an amount of vapour heat which is adapted to the heat requirements of the respective component. As such, the optimum temperature is assured at all positions on the component so that components with different thermal requirements can be soldered. The temperature differences on the component remain minimal.

Any overheating of components, damage to components or delamination of printed circuit boards cannot occur, as due to physical laws, the maximum attainable temperature can never exceed the boiling temperature of the GALDEN ® medium.

The result is top quality. And that is exactly what Ultracom also stands for around the world with its products. Once again, the ASSCON VP800 has confirmed its position as a powerful, reliable and economic vapour phase solution for today’s soldering tasks. The success story of the VP800 continues!

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