



First contact

Soldier Modernisation talks to Nick Harper, managing director, ODU-UK

Innovation and refinement are vital when providing solutions for the military sector. Nick Harper, managing director of ODU-UK, explains how constant improvement and the incorporation of soldier feedback inform the company's offerings.

Q: How does ODU's history continue to inform the company's character?

Nick Harper: 80 years ago, engineer Otto Dunkel took inspiration from seeing a man with a twig-broom sweeping up leaves, and this gave him the idea for an entirely new type of contact, with dramatically improved reliability. He later patented this 'springwire contact', which became the foundation product for ODU, now a €200-million-turnover privately owned connector manufacturer with 2,300 global employees.

Our founder's ethos remains with us, as we are an innovative 'problem-solving' connector supplier to our customers, providing them with high-performance products that are designed to provide application-specific solutions. Our strength lies in our flexibility, together with our commitment to work with our customers to design and produce the best possible products for the military market.

Q: What has ODU's military pedigree been in the UK?

A: In the military sector, the drive for weight-reduction, robustness, easy handling and cleaning, and safe signal transmission was the ideal opportunity for ODU to further develop existing push-pull connectors into a specific range of connectors especially for military equipment, the ODU Advanced Military Connector (AMC) series.

ODU's first major UK opportunity came with the Bowman C41 Tactical Comms System and we're proud of the fact that, since 2002, ODU has supplied over 100,000 helmet connectors to the programme without a single reported in-service failure.

Q: Has ODU's experience with future soldier programmes changed anything?

A: We have been able to solve many application problems for customers with our ODU AMC® series, with consistently positive customer feedback, and this has enabled us to become part of the next generation of R&D projects.

The company did learn things from its experience. Most important was the biggest concern of the foot soldier: 'can I clean it?'

It was this feedback about the ability, during conflict, to swap and clean equipment that gave rise to the next development in the company's AMC connector range, the ODU AMC® Easy-Clean. The contacts are easily and quickly cleaned in the field, even under the most unfavourable conditions, because when the connector is unmated, the contacts lie flush with the insert face.

Q: What types of miniature connectors for in-vehicle use is ODU working on at present?

A: In military and security technology, the reliable transfer of as much data as possible in the shortest time possible is becoming increasingly important. The ODU AMC® Highspeed Data connector series can combine and transmit all common data transmission protocols, with rates up to 10GB. So far, most military data connectors have incorporated standard commercial connectors inside a MIL-STD connector shell.

This is not the method favoured by ODU. Instead, we have chosen the more elegant solution of adapting our own multi pin connectors to transmit the required protocol. The result is a much smaller connector with all the ruggedness and performance required of a military connector.

In addition, not only are the ODU AMC® connectors inherently smaller and lighter, but the push-pull locking concept allows closer panel spacing, as finger-space for rotation locking is not required.

Two further developments in the ODU AMC® range have been specifically designed to provide fresh options for the in-vehicle equipment manufacturer. The ODU AMC® High-Density series comes in four sizes, with shell diameters from less than 10mm up to 18.5mm with 40 contacts, with options of power up to 15A and combined data and power up to 5A, proving that quality can come in small packages.

Secondly, in a direct response to a military equipment OEM's problems with extremely high vibration levels, we have introduced the ODU AMC® Threaded Connector. This is a device that uses a screw-locking-with-ratchet mechanism – half-turn locking – intended for applications requiring additional security, or where pressure, vibration and temperature could prove problematic for other connectors.



ODU Threaded Connector

Q: What makes ODU confident that its military products will sell in UK?

A: Given our successful performance since 2002 in the continually niche head-set sector, then we think our extended product range now gives us every opportunity to sit down and talk to OEM's about how we can help with their in-vehicle equipment.

As the demand for better data performance from yet smaller and lighter equipment grows, then that gives our rugged miniature connectors an edge over the competition in markets with which we are comfortable in, as well as confidence in new territory.

Q: Is there anything else you would like to add or let the customers know?

A: Simply to reiterate the message that we are problem-solvers. At ODU, we pride ourselves in keeping the whole manufacturing process in-house.

With their special geometry and carefully selected base materials, our contacts enable hundreds of thousands of mating cycles.

According to some of our customers, ODU connectors continue to work, while remaining fully operational, for over one million mating cycles.

There are many connector manufacturers in the military market place and we are certainly not the largest, but we believe that our strength lies in our flexibility, together with our commitment to work with our customers to design and produce the best products for the military market. Finally, if our customers prefer, we can supply the complete connector sub-assembly package, including over-moulding and any necessary metalwork.

So, any OEM facing a connector or packaging conundrum should get in touch. ■

**For more information: www.odu-connectors.com
Visit us at DSEI: 10.09-13.09, ExCel London, Booth S3-118**



ODU AMC® Easy-Clean

ODU Group: global representation with perfect connections

The ODU Group is one of the world's leading suppliers of connector systems, employing 2,300 people around the world. In addition to its company headquarters in Mühldorf am Inn (Germany), ODU also has an international distribution network and production sites in Sibiu/Romania, Shanghai/China and Tijuana/Mexico. ODU combines all relevant areas of expertise and key technologies including design and development, machine tooling and special machine construction, injection, stamping, turning, surface technology, assembly and cable assembly. The ODU Group sells its products globally through its nine subsidiaries in Denmark, England, France, Italy, Sweden, the US, China, Korea and Japan, as well as through numerous international sales partners. ODU connectors ensure a reliable transmission of power, signals, data and media for a variety of demanding applications including medical technology, military and security, eMobility, energy, industrial electronics, and measurement and testing.