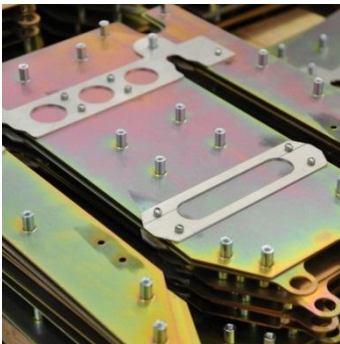




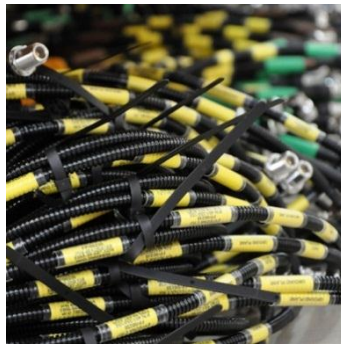
## Design & Manufacture

Exsel Dytecna is a leading independent engineering solutions, technology systems and support services business providing design, product, and manufacturing innovation to specialist industrial sectors where reliability, safety and protection are paramount.

As a production, engineering and support partner, Exsel Dytecna also enables routes-to-market for innovative products and processes. Exsel Dytecna partnerships have resulted in a series of active and highly successful projects with solutions based on niche products, companies and technologies



Mechanical



Electrical



Electronics



Software

**A complete 'turn-key' project and systems engineering approach including requirements capture, design, manufacture, testing & certification and through life support**

Exsel Dytecna is a strong and reliable business partner with over 50 years' experience of specialist UK manufacturing. The business is well-regarded with a pedigree of quality in product and service delivery in support of automotive engineering, auto electronics and aero & defence engineering and offers a true 'turn-key' scope of supply including all stages from product concept to product realisation, from specification writing, design, development, prototyping and testing through to manufacture, assembly and certification to the relevant technical, safety, security and legislative standards.

### Design & Development

Exsel Dytecna has extensive experience in the design, production and installation of a variety of mobile, static and special to type systems.

The Exsel Dytecna design team take original customer requirements and develop them into cost effective solutions that have satisfied a wide range of commercial and military contracts and deliver optimum performance throughout the anticipated equipment lifespan

### Manufacture

Exsel Dytecna manufacturing capabilities range from prototype work through to medium volume production runs – especially where there is a need for careful interpretation of customers' requirements and attention to detail.

Build to print manufacture can be completed from the most basic source data and if required original customer sketches or drawings can be developed and detailed.

Application:  
**Special Vehicle Modification**



Design, manufacture, procurement, integration and installation of communication and force protection installation kits, stowage provisions for tools and specific to role equipment. Dytecna modified 321 vehicles over 14 months.

Application:  
**Power Distribution Devices**



Design, manufacture and installation of more than 800 bespoke Power Distribution Units (PDU's) for supplying power to critical vehicle mounted electronic equipment while ensuring sufficient battery voltage to start the vehicle

Application:  
**Ballistic Protection Systems**



Development of an adaptable ballistic shield system delivering protection to personnel employed in maritime security operations. Exsel Dytecna has delivered more than 300 equipment sets to meet the needs of UK Royal Navy.

Application:  
**Training & Simulations Devices**



Design, development and manufacture of a C-130J Fuselage Trainer for the US Air Force for training of load masters on the aircraft system. This is an electro-mechanical device driven by a software system that mirrors the form and function of the subject equipment.

Application:  
**Data Acquisition & Logging System**



A portable device to collect specific data together with associated time, data and GPS co-ordinate information. The system utilised network switching to enable each separate unit to act as a 'node' and hence allow the system to be expanded for more complex monitoring exercises.

Application:  
**Automatic Test Equipment**



Exsel Dytecna has developed specialist Automatic Test Equipment (ATE) for production testing of hardware and software. Exsel Dytecna ATE is designed to comprehensively test each article such that 100% accuracy and sampling is achieved.

## Mechanical

Exsel Dytecna offers a comprehensive mechanical design capability. Structural mechanics utilising analysis tools are part of the qualification process in the design and testing of load bearing structures for land and marine deployable systems designed and manufactured by Exsel Dytecna that have included:

- Metal framed deployable vehicle box bodies and equipment shelters
- Load bearing equipment racks, frames and mounting plates
- Vehicle chassis and top hamper modifications
- Centre of Gravity calculations
- Anti-vibration rafts and mounting assemblies
- Fabricated mounting and lifting points

Designs are tailored from user input and system requirements, with a major concentration on reliability and ease of maintenance and operation.

## Electrical

Exsel Dytecna have vast experience of specification, development and integration of power supplies and batteries with the following capabilities:

- Design and manufacture of bespoke power facilities, (including battery systems, and generators) and monitoring systems to meet a platforms power budget
- Development of power generating devices and systems used within mobile equipment projects requiring stand-alone energy resources.
- Research and development of future power supplies and have developed options for intelligent power distribution that provides controllable electrical power to attached Terminal Equipment (TE) loads under harsh environment operating conditions
- EMC management to DEF STAN 59-411, Mil Std 461G and EN 61000

## Electronics

Exsel Dytecna designs and produces fully engineered, documented and supportable electronic systems to meet a particular customer's project specific requirements.

With particular experience of mission critical and safety critical systems, Exsel Dytecna's approach, scope and capability include:

- Approach – Design-for-Manufacture' and 'lowest life-cycle cost'
- Fully documented and supportable Design, Production and Testing including obsolescence management
- 'Badged' with client's name with full IP transfer to client
- Both electronic and physical specification compliance (EMC and physical shock and vibration)
- Fully transferable design information and documentation for manufacture and support by a third party

## Software

Exsel Dytecna produces fully engineered and supportable software applications to meet a particular customer's project specific requirements including testing and certification to the relevant technical, safety, security and legislative standards.

With particular experience of mission critical systems, Exsel Dytecna's approach, scope and capability include:

- Approach - Agile or 'fixed feature / fixed price'
- Fully documented and supportable Design, Production and Testing
- Fully traceable development and coding
- 'Badged' with client's name with full IP transfer to client / fully transferable code and documentation for support by a third party
- High level of security both during development and for the finished product

Application:  
**Fast Jet Training Devices**



Exsel Dytecna fast jet training devices provide a complete integrated electromechanical solution which can interface easily into the customers selected software solution. Exsel Dytecna produce a range of bespoke training devices for full task, part task or maintenance training purposes

Application:  
**Mobile Infrastructure**



Design, manufacture and integration of a deployable network security container. The scope of supply included design and development of platform power, standby power and environmental controls complete with power and signal connectivity between containers operated in tandem

Application:  
**Cable & Wiring Harnesses**



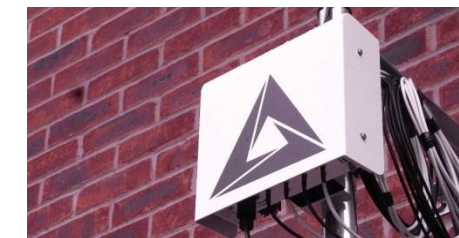
The in-house design, manufacture and test facilities at Exsel Dytecna has produced in excess of 100,000 specialist cable and harness assemblies. Many years of experience have resulted in Exsel Dytecna having a first class assembly facility that delivers quality & fast turnaround.

Application:  
**Consolidated Control Systems**



Deployed troops continue to face frequent exposure to Improvised Explosive Devices (IEDs). Exsel Dytecna, working in close collaboration with defence organisations, contribute to troop protection with the supply of consolidated control systems for electronic force protection equipment.

Application:  
**Communication Equipment**



Exsel Dytecna supply complete radio, intercom and wireless communication system solutions to applications where versatility, environmental protection, reliability and communications efficiency are essential. Communication system solutions include civilian and military, vehicle, maritime, containerised and fixed applications.

Application:  
**Condition Monitoring**



Autonomous and intelligent data capture solutions for informed real-time monitoring, analysis and management of complex systems and equipment. Exsel Dytecna monitoring equipment is equally applicable to military or civilian assets where operation with minimum downtime is essential.

## About Exsel Dytecna

Dytecna originated in 1947 and from inception has demonstrated expertise in engineering with the selection and procurement of military and off-the shelf equipment for integration into a wide range of bespoke systems – installed into tracked and wheeled vehicles, static and air-portable containers or other mediums to suit special roles and environments.

In recent years this expertise has expanded to include the design and manufacture of training and simulation hardware, protection devices and equipment (including ballistic and electronic force protection systems), and conditioning monitoring and power distribution solutions for complex systems.

Today, as a leading independent engineering solutions, technology systems and support services company, Exsel Dytecna continues to deliver to its traditional customer base and is also bringing engineering innovation to other technologically advanced sectors.

## Our People

People have always been the key to our success. All staff are academically and professionally qualified to meet internal job specifications. Suitably qualified personnel are recruited from electrical, electronic, mechanical, software and systems engineering disciplines from a wide range of industrial and military backgrounds, including but not exclusively, HM Forces, Aerospace, Telecoms, Automotive and Process industries.

## Accreditation

Integrated Management System (IMS) operating in accordance with ISO 9001 and ISO 14001.



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