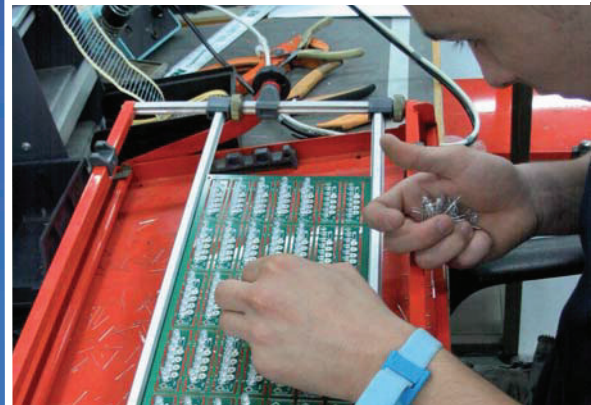
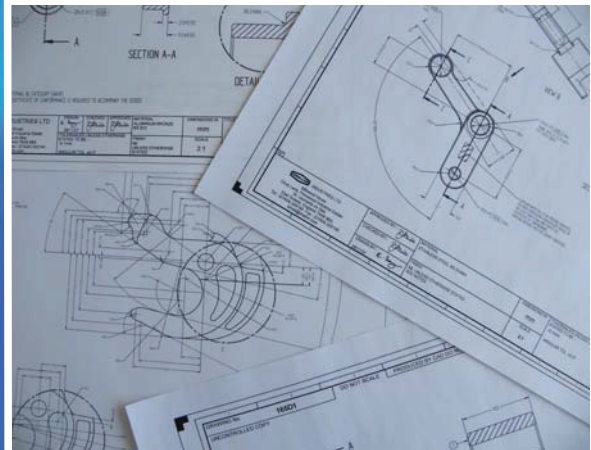




Leading Innovators in Technology and Quality

# Industrial

Custom and Contract  
Manufacturing Brochure



**Industrial**  
**Manufacture**  
**Custom Design**  
**Bespoke Engineering**  
**Assembly and Repair**  
**Testing and Approvals**  
**Post Sales Services**  
**Install/Commission**



# An Introduction to Drallim Industrial

The Industrial Division was born out of the innovative Rotary Selector Valve. Originally launched in 1957, the ground breaking device still remains in demand today. Complemented over the years by a diverse range of products including electrical, pneumatic & hydraulic control panels, mechanical cables and control rods, specialist test equipment and a general electro-mechanical/mechatronic contract design manufacture and test service. Most recently our electrical services have expanded to include the manufacture of industrial lighting, electrical testing and installation services.

Drallim Industrial are an Engineering company with a wealth of knowledge in the design of equipment to withstand arduous conditions, built to a standard expected by users in our sector. We have been supplying an extremely diverse range of products into niche markets for over 50 years.

We handle contracts to manufacture, install and commission our own equipment for companies and also sub-contract manufacture specialist industrial products for other companies.

## Contract Design

- Concept development
- Prototype Build
- Pre production engineering
- Design for Manufacture and Assembly

## Contract Manufacture

- Assembly Services
- Cabinet Wiring
- Cable and Wire-Assemblies, Electrical, Electronic, Military
- Cable Harnesses and wiring looms
- Chassis assembly & wiring
- Conventional PCB Population
- Control Panels
- Electrical Panel wiring
- Electromechanical Assembly Services
- Electronic documentation systems

## Contract Manufacture Cont...

- Electronic Box Build
- Electronic procurement & supply chain management
- Factory based product repair and refurbishment service
- Field based installation and repair
- High volume production partners overseas
- Material procurement
- Mechanical control cables and rods
- Packaging to any standards
- Pneumatic panel specialists
- Prototyping

## Quality

Drallim is committed to continuous quality improvement in all that it does, and carries high levels of accreditation:

AS9100D & BS EN ISO 9001:2015

ISO 14001 Environmental | ISO 45001- Health and Safety

Cyber Essentials Certification | MAA Design Control | Aerospace JOSCAR



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## DESIGN & MANUFACTURE



- ◆ Bespoke Design and Prototyping
- ◆ Custom Parts
- ◆ Tooling and Jigs
- ◆ Aircraft Accessories and Fittings
- ◆ Refurbishment Services
- ◆ Test Equipment
- ◆ Test Rig Manufacture

### Engineering services

Drallim is regularly awarded contracts to design solutions for specific customer problems. We not only provide Prototypes, but also manufacture production quantities backed up by a lifetime support. Our established history and wealth of experience mean we are able to design and manufacture specialist industrial products for many well respected companies such as BAe, AgustaWestland, British Airways, Rolls Royce, Virgin Airways, Bechtel, Aramco, Petronas, Tube Lines National Grid Gas, British Telecom, JCB to name a few.

### Production Facilities

Our modern 1800 square metre production area and trained staff have all the necessary skills and production capabilities to meet any requirements you might have from one off prototypes to full production runs.

Our fully integrated Enterprise Resource Planning system (ERP) streamlines the process from order entry and shop floor scheduling through to delivery. This gives us complete visibility and control allowing us to work efficiently and effectively.

### Development Services

The expertise of our design and development department is frequently called upon to work directly with the customer and develop unique and cost effective solutions, using the very latest developments in CAD/CAM and rapid prototype modelling, providing a valuable, dependable service.

### We have extensive experience in :



**Testing**

- ◆ Mechanical
- ◆ Electrical
- ◆ Control
- ◆ Instrumentation
- ◆ Automation
- ◆ Assembly and test
- ◆ Prototyping and approvals



**Control Panel**

- ◆ ATEX rated control panels
- ◆ IP ratings
- ◆ Mechatronic assemblies
- ◆ Unusual requirements



## PNEUMATIC / HYDRAULIC

Drallim offers a comprehensive design & manufacturing service for control panels or boxes. We can incorporate any pneumatic, hydraulic, electrical or instrumentation components. Low temperature applications are a specialty of ours. From 3D Prototyping through to production, our experienced engineers will be happy to discuss your precise requirements.



Hydraulic Valve Control Box

- ◆ Valve Control Boxes
- ◆ Valve Shutdown Cabinets
- ◆ Pneumatic Panels
- ◆ Hydraulic Panels
- ◆ Solenoid Test Systems
- ◆ Electro/Mechanical Panels

### Custom designs

When there is no other way we can start from scratch and design a truly bespoke solution to a particular problem.

### Valve Control Boxes

The Sakhalin Project approached Drallim for the design and supply of the valve control boxes. Drallim responded with comprehensive speed & temperature calculations for pneumatic single & double acting valves and also hydraulic systems. Drallim designs were adopted as the project standard.



Valve Shutdown Cabinet with Partial Stroking

**The Drallim Group**

Leading innovators in technology and quality



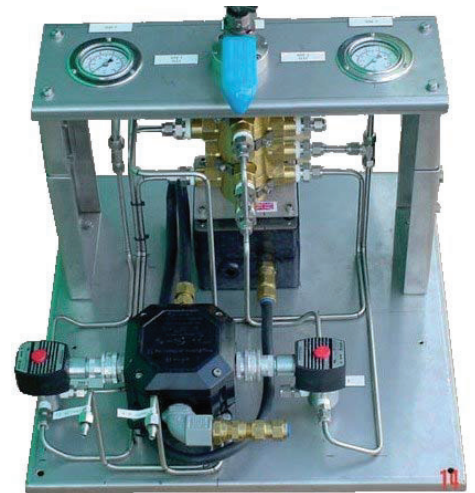
## ELECTRO / PNEUMATIC



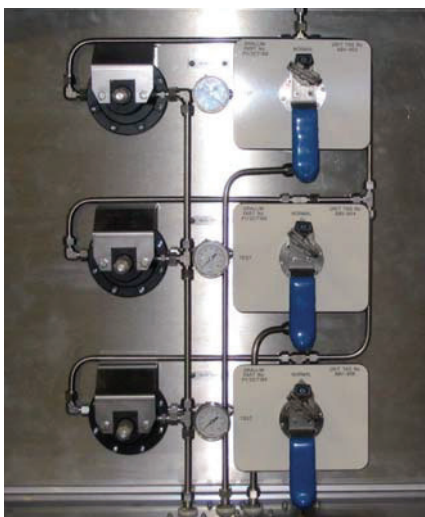
**Electro/Pneumatic Control Panel**

### Solenoid Test Panels

Exxon Mobil required a system for testing the dual solenoids used for the control of their single acting shutdown valves while online. Drallim designed a suitable system that not only independently tested each solenoid but had the advantage of online replacement of the solenoids if found faulty.



**Solenoid Test Panel**



**Pneumatic Partial Stroking Control Cabinet**

### Pneumatic Partial Stroking Control Panels

Petronas in Malaysia had a requirement to partially stroke their shutdown valves, the only problem being that the platforms were non-powered. Drallim developed a totally pneumatic partial stroking system that has now been adopted.

*Tell us your requirement and our Technical team will develop a solution to meet your needs... **How can we help you?***



# DRY AIR

Drallim Dry Air products all started life as custom solutions to resolve the needs of a particular customer. If we do not have the exact equipment you require today, these designs can be further adapted or enhanced to suit your needs.

## PRODUCT VARIANTS



Waveguide Dehydrator 12435

As an example, the Waveguide Dehydrator 12435 was designed to fulfil a need in the mobile phone industry to ensure the signal is strong in all conditions by keeping the aerial feeder/mast dry. It occupies just 3U (133mm) of 19" rack space.

This solution was found not to be suitable for a particular customer, who, although he liked the unit, didn't have a 19" rack on which to mount the dehydrator. So we developed a wall mounting version for him, and added a flowmeter and a couple of gauges and lamps that he thought would be useful. The 12445 is the result.



12445

Still the two versions could not match the requirements of a third user, who needed a unit of exacting dimensions to fit within an ETSI rack, and run off 48V DC. Shown at the foot of the page is the 12446.

We have more versions borne from the same equipment - with connections on the front where rear access is unavailable; or the fitment of larger compressors where more dry air is needed. If you want it, we'll try and add it for you. The Drallim design team are ready to cater for your specific requirement.

## From 3D Prototyping through to production



Custom Design

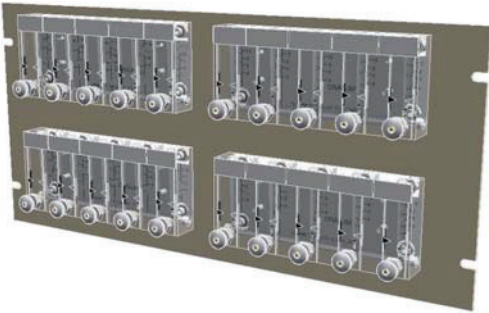


When there is no other way we can start from scratch and design a truly bespoke solution to a particular problem, which is how the Waveguide Dehydrator started life. Can you think of a variant to solve a need?



## DRY AIR

It is not just our dehydrators that can be adapted to meet your particular requirements. We have an established range of complementary panels and accessories to provide a total solution for your pressurisation needs.



What started life as a simple flowmeter grew into a block of five. These became panel mounted. The panels can be accommodated within a 19" rack, or supplied with wall mounting brackets to suit either a single panel, or multiple panels. An option providing alarms for high flow was later added, adjustable individually for each output. These alarms can be transmitted to a remote location and automatically reset if required. A truly custom version of this has been developed with addressable flow blocks adapted to integrate with a customer's proprietary monitoring system.

At Drallim, we manufacture a comprehensive range of air valves and adaptors to enable connection of the dry air that we provide to your cables. However, you may find that our range is just not comprehensive enough to cover your specific need. If this is the case, please let us have the opportunity to add your coupling to our next portfolio. If we haven't already got what you're looking for hidden in our archives that is. After all, we have been in the business for over 50 years, and some of our staff have been here for nearly as long!

### It doesn't stop at pressurising cables:

We are able to produce many differing products related to dry air. We have even been known to turn our hand to manufacturing equipment such as that shown to the right, which is a Purge and Leak Test Set for military use testing the canisters of Seawolf missiles. This is a vacuum unit, and is supplied fully tested and fitted with fully traceable components.



Tell us your requirement and our Technical sales team will develop a solution to meet your needs... **How can we help you?**

**The Drallim Group**

Leading innovators in technology and quality



## REMOTE MONITORING - (System designs)

Drallim Utilities provides customised remote monitoring solutions to meet demanding environmental conditions, providing rapid and reliable access to the condition status of field based plant and equipment.



A Modular Remote Monitoring System, which can be customised to meet system needs

Drallim offers a comprehensive range of product, software and service based solutions for the remote monitoring of high voltage pressurised cables and GIS switchgear, providing rapid access to up-to-the-minute operational information, alarm conditions and data acquisition, for the effective management of system assets.

### Key Features

#### Overview

Industry proven on cable systems up to 400kV, they can be tailored to the most demanding system needs. Our DISEAL software has comprehensive functionality to provide graphical views, system status and report outputs.

#### Communications

- ◆ Controllable and reliable pressurised cable management remotely.
- ◆ Unique communication protocol provides reliable and accurate data transmissions
- ◆ Monitors field based equipment remotely via auxiliary copper based pilot cables or globally compatible 'wireless' GSM networks.
- ◆ Customised SMS features available.
- ◆ SCADA voltage free interface to Operator's network.

#### Transducers

- ◆ Up to 100 digital Transducers may be connected to a single copper based pilot pair.
- ◆ Transducers are IP68 rated to a submersion depth of 2 metres (tested to 50 metres).
- ◆ High pressure accuracy, to 0.1%
- ◆ Transducers are protected from harmful induced voltages.

#### Benefits

- ◆ Compensates for temperature and current effects.
- ◆ Removes the need for regular site visits.
- ◆ Predicts time to alarm conditions.
- ◆ Rapid communication of alarm conditions.
- ◆ Advance warning of potential adverse system conditions.
- ◆ Real time pressure monitoring available.



Equipment Design, Installation, and Commissioning Services available.



Built-in design features allowing easy installation, testing, and servicing needs.in design features allowing easy installation, testing, and servicing needs.



# REMOTE MONITORING CONTRACT DESIGN / MANUFACTURE

## INCREASING SAFETY ON LONDON UNDERGROUND



### Permanent Current Rail Indicator Device P-CRID



Drallim Industries Ltd were awarded a contract by Tube Lines for the manufacture and supply of 574 Permanent Current Rail Indicator Devices.

Tube Lines, working in partnership with London Underground is rebuilding the Jubilee, Northern, and Piccadilly lines, which together carry 40% of all London Underground passengers.

The Tube Lines consortium consists of two shareholders - Amey and Bechtel. They bring together some of the most experienced providers of business services with specialist skills in the rail industry, including track and signal renewals, plus project and operational management.

At the heart of Tube Lines' business is an uncompromising approach to improving health & safety for their staff and the public.

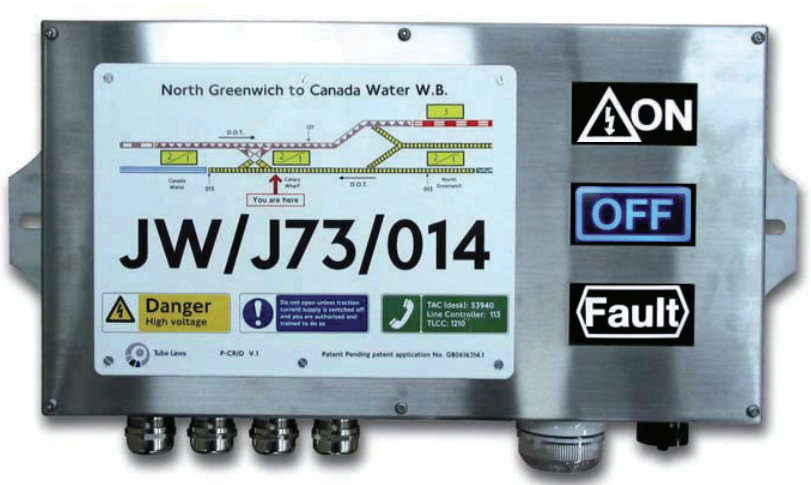
With this in mind, Tube Lines developed the P-CRID, which will perform a key function of ensuring the safety of personnel who need track access during both engineering and traffic hours.

Tube Lines approached Drallim due to their excellent track record of engineering services and contract manufacturing capabilities on previous projects with Bechtel. Drallim Industries were successful in securing the award after competing with a number of bidders using the Bechtel online E Bid system.

The P-CRID is permanently fixed trackside and monitors the status of the traction current. In addition the unit provides a fail-safe indication of status, ON, OFF or FAULT.

Drallim Industries are a well-established contract manufacturer of specialist industrial products for well-respected companies, which include British Aerospace, Ministry of Defence, Bechtel, Tube Lines, Marconi, National Grid and British Telecom.

We are regularly awarded contracts to design solutions for specific customer problems. With our excellent in-house facilities we offer electronic, software and mechanical design with manufacturing facilities from prototyping to full production runs.





## RESTRAINTS & LASHINGS

Drallim provides custom solutions in all areas of restraint. Looking outside already specified systems, many of our customers have the need for specially adapted existing products or completely newly designed items to resolve a problem quickly, efficiently and economically. Examples include:

- ◆ Stretcher strapping systems for helicopters
- ◆ Deck tie down systems for embarked aviation
- ◆ Helicopter door restraints
- ◆ Special quick release seat rail fittings
- ◆ Strapping to secure nuclear waste containers
- ◆ Cable release mechanisms for fast rope systems
- ◆ Retractable webbing restraints for sonar devices



Drallim Aerospace (Previously known as Cargo Aids ) is an AS9100D & BS EN ISO 9001:2015 company. Our quality standards allow for certification approved by MAA/CAA and the Defence Quality Assurance Board.

We offer our testing, certification and engineering facilities for projects large and small. Drallim Aerospace are always ready and willing to assist, whatever your requirements.

### Our capabilities include:

- ◆ Load testing
- ◆ Vibration testing
- ◆ Corrosion assessment
- ◆ Design justification packages
- ◆ Prototyping trials
- ◆ Standards compliance



QRC and Hook being Load Tested

Cargo Aids experienced technical sales and design team are always standing-by to discuss and develop your sketchpad ideas and turn them into a finished product. By using state of the art C.A.D. the design can be fine tuned at any stage to ensure the final production item is perfect.

## WEBBING & STRAPPING SOLUTIONS

Cargo Aids have been providing webbing solutions from the MC1 and MC2 proven lashings through custom items manufactured to customer generated designs.



Webbing retractor

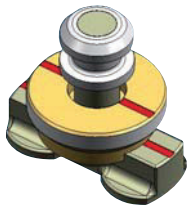
This example shows a custom mechanism designed to cater for:

- ◆ Marine corrosion environment
- ◆ Low force retraction system
- ◆ Vibration resistant
- ◆ Quick release facility
- ◆ Fully documented design validation



Torpedo lashing

Securing torpedoes and other high value weapons demands the most dependable of restraint equipment. This buckle was developed specifically for the British Royal Navy. More information can be found in our main brochure.



Seat rail fitting

This non-standard fitting was designed to allow for the rapid fitting and removal of seats into an airframe utilising the manufacturers original floor configuration. The example is one of many solutions that Cargo Aids can provide.

**Cargo Aids have in-house facilities to enable your prototype or production item to be completed quickly and efficiently.**



One of our computer controlled sewing machines

Using modern computer controlled equipment to ensure that the stitching is correct for the design load, Cargo Aids can satisfy all requirements.

Tell us your requirement and our Technical sales team will develop a solution to meet your needs...

***How can we help you?***

## FACTORY REFURBISHMENT / REPAIR SERVICE

Drallim Industries can offer a full electromechanical Refurbishment & Repair service for your products e.g:

### ◆ Pressurisation/ Dehydrator units



**Service**

We can service and overhaul all pressurisation and dehydrator units. From fault finding to get you going again, to routine services to make sure you keep going, all the way through to a "back to new" overhaul.

- ◆ Over 30 years of experience
- ◆ Full back up spares availability
- ◆ Resolution of obsolescence problems
- ◆ Quick turnaround service
- ◆ Quality assured procedures for reassurance



**Testing**

We have in-house facilities to help you with anything from identifying an air leak on an instrument to a full test of a military cargo release unit.

- ◆ Ring for over-the-phone advice
- ◆ Bring us your problems to solve
- ◆ Certified testing available

### ◆ Compressors



**Replacement**

We offer service and repair on all types of compressors and are an Authorised Gas Service Centre able to carry out anything from a simple routine service to a complete overhaul.

We offer:

- ◆ Full spares stocks
- ◆ Fast turnaround
- ◆ Replacement service when required
- ◆ Economical rates



**Repair**

## FACTORY REFURBISHMENT / REPAIR SERVICE

### ◆ Helicopter Cargo Hooks



**Sacru 1**



**Sacru 2**



**Load measuring**

Servicing, refurbishment and repair are carried out to agreed military procedures or to civil EASA Part 145 maintenance approval as required.

We offer:

- ◆ Full SACRU spares stocks
- ◆ 30 years CAA experience
- ◆ Fast turnaround
- ◆ MOD acceptance standards
- ◆ Evaluation & reporting service
- ◆ Fully calibrated test facilities

Service levels:

- ◆ Servicing
- ◆ Overhaul
- ◆ Repair
- ◆ Refurbishment
- ◆ Test & Validate
- ◆ Contract or “ad hoc”

### Custom Products

We offer a custom service to meet customer Requirements, for special purpose equipment support, some examples of this are:

- ◆ Test/ Load release mechanisms
- ◆ Purge & Leak test sets
- ◆ Pneumatic control panels

*Tell us your problem and our Technical sales team will develop a proposal to meet your needs...*

# How may we help you?



## ON-SITE SURVEY & SERVICING

**Drallim Industries can provide trial equipment & site surveys prior to delivery of your equipment, and follow-up service after installation.**

**On-site surveys** allow the specific identification of the equipment needed to meet your requirements, and also aids in the subsequent installation & commissioning process.

Frequently when retrofitting our Monitoring units it is very beneficial to conduct an initial site survey, especially when installed equipment documentation is missing or muddled by changes over the years. Issues often discovered are:

- ◆ Presence of manual reset solenoids
- ◆ Unusual solenoid configurations
- ◆ Defective valve, actuator or solenoids
- ◆ Decision on IR or RS485 communications
- ◆ Local or remote equipment installation



We have a full pre-installation check test available that covers these and many other details that will ensure a successful retrofit project.

### Cable Monitoring

The most important issues normally relate to connection of **Drallim** equipment to the customer's communication network (i.e. in the case of oil pressure & air pressure monitoring systems) In this situation an on-site survey can assess the suitability of your network, & consequently identify any modifications that need to be carried out to make the system compliant before the equipment is installed.

**Other issues that are also considered include:**

- ◆ Cable marshalling arrangements
- ◆ Equipment location in control room
- ◆ Access arrangements to pits and tunnels
- ◆ High voltage isolation arrangements
- ◆ Health & Safety risk assessment
- ◆ Power supply arrangements
- ◆ Earthing arrangements







## INSTALLATION & COMMISSIONING

Drallim Industries provide a full installation & commissioning service to support their product range.



Engineers can be provided to carry out/assist in the **Installation & Commissioning** of equipment throughout the entire product range. Experienced in the installation of advanced technical products worldwide, these engineers can ensure that your system is set up in the quickest, most efficient way and advise you on effective use and maintenance of your system:

- ◆ Compressor desiccator units
- ◆ Partial stroke testing
- ◆ Remote monitoring solutions

Our engineers hold a range of appropriate qualifications to allow them to work safely in your environment; these include:

- ◆ Petrochemical plants
- ◆ Oil rigs, offshore platforms
- ◆ Telephone exchanges
- ◆ Utilities plants 400kv substations
- ◆ Overseas work permits/visas

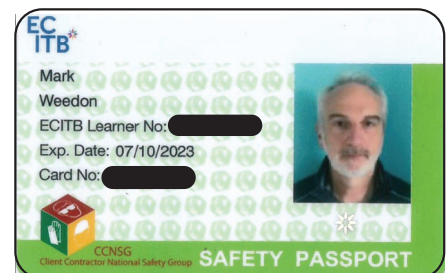


The commissioning process ensures that all the equipment in your system is operating within its specification after the installation is complete. It also provides you with a comprehensive set of documentation of its initial operating characteristics, which can be used as a 'benchmark' to access subsequent performance. You will be ready to gain the most from your investments when we hand over your system:

- ◆ Fully functioning and documented
- ◆ User familiarisation & training
- ◆ Full back up during "start up" phase
- ◆ Assurance of Drallim quality & reliability



**National Grid Competent Person**



**National Grid Safety Passport**



## PROJECT MANAGEMENT & TRAINING

We offer our clients a full range of project management services which can be customised to suit their methods of working, from basic progress reporting and documentation, through to full turn key packages.

We are happy to create a custom package typically including the necessary phases , which are:

- ◆ Site surveys and reporting
- ◆ Equipment surveys and recommendations
- ◆ Schematic drawing and documentation preparation
- ◆ Subcontractor evaluation and selection
- ◆ Preparation of schedules of work
- ◆ Factory acceptance testing (FAT)
- ◆ Coordination of installation and commissioning works
- ◆ Provision of commissioning resources
- ◆ Site acceptance testing (SAT)
- ◆ Health & Safety / Risk management
- ◆ Project management meetings
- ◆ Drawing & document sign off
- ◆ Project quality assurance release



Our experience covers projects around the world in Utilities Process facilities and offshore platforms.

### TRAINING



For each of our products we offer full training courses customised to each specific situation and tailored to the audience whether that be:

- ◆ Operators
- ◆ Supervisors
- ◆ Instrument & Process Engineers
- ◆ Managers

We can give you a custom quotation to suit you needs based on a simple daily rate and allowance for location. Our trainers will be happy to assist with accommodation locally or travel to you as required:

- ◆ Factory training in our St Leonards on Sea, or Shoreham facilities, UK
- ◆ On-site training
- ◆ UK or overseas locations

Our standard courses cover basic installation, operation and maintenance capabilities and include:

- ◆ Compressor Desiccator Units (CDU)
- ◆ OILMON fluid filled cable monitoring
- ◆ AIRMON / 303 Pressurised telecom cable monitoring

We can also supply bespoke courses to suit customer specific needs, including such extras as:

- ◆ IT systems support
- ◆ Diagnostic analysis in depth
- ◆ Electronic fault finding



## AFTER SALES SERVICES



**Drallim Industries provide the following aftersales Service:**

- ◆ Telephone & e-mail support
- ◆ Engineer site visits:
  - ◆ Sub supplier FAT tests
  - ◆ SAT tests
  - ◆ Commissioning
  - ◆ Trouble shooting

### **Post design services:**

- ◆ Design modification & control
- ◆ Documentation support
- ◆ Bonded stock of spares
- ◆ Emergency callouts
- ◆ Planned maintenance



### **Flexible service contracts can include:**

- ◆ Server and database maintenance
- ◆ Custom bonded stock holding
- ◆ Training packages
- ◆ Weekly reports on the status of customer's systems and automatic follow-up of faults
- ◆ Long term obsolescence planning for spares supply
- ◆ Fault repair services
- ◆ Software support and upgrades





## Contact Us

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