



statement

capability



Integrated Fire Protection



The Team at Incos Engineering has developed skills and experience from delivering and supporting integrated fire protection systems across the globe. Our competencies are in technology, product knowhow, project execution, and responsible solutions aimed at overall customer satisfaction. Key personnel within Incos Engineering will partner with your company to achieve optimal results.

Incos Engineering have local and international current supply agreements including:

- INPEX
- Woodside
- Santos
- Jadestone
- Vermilion
- Maersk Drilling
- Shell
- BP Australia
- Austal Ships
- Bhagwan Marine
- BW Offshore
- McDermott
- Worley
- Wood
- Technip Energies
- APA Group
- Bellis
- Score Group

In conjunction with manufacturing our own integrated fire protection Incos have established global supply partnerships to provide the best solutions for our Australian market.

The award to Incos of the integrated active fire protection systems and equipment for Woodside Scarborough project in late 2022 was a proud moment in the history of our company.

This Capability Statement outlines key areas where Incos Engineering can add value and we welcome the opportunity to discuss and explain the services in more detail to you.

Yours sincerely,

Mark Drage
Business Development/Founding Partner

© Incos Engineering Pty Ltd. All information, drawings and data contained herein is the exclusive property of Incos Engineering and shall not be forwarded, copied or multiplied in whole or in part to any unauthorized party without the explicit prior agreement in writing of Incos Engineering Pty Ltd.

table of contents

Introduction to Incos Engineering	1
Systems expertise	2
Visual representation	3
Technical safety engineering	5
Projects and manufacturing	7
Remote assistance - reducing risk and operational cost	8
Asset support, upgrades, refurbishment, maintenance and testing services	9
Products, spares and consumables	11
Deluge service centre and Dry deluge testing	13
Workshop in a box	15
Foam testing services	17
Local support for international technology	19
Organisation	21

introduction to incos engineering

Incos Engineering focusses on smart safety solutions for integrated firefighting systems and related services for offshore brownfield and greenfield assets, onshore Petrochemical, Marine and other special hazards.

systems expertise

- Deluge
- Water mist
- Foam proportioning
- INERGEN
- NOVEC 1230
- Dry chemical
- Fire water Monitors
- Deck Integrated Fire Fighting Systems (DIFFS)
- Hydrants and related equipment

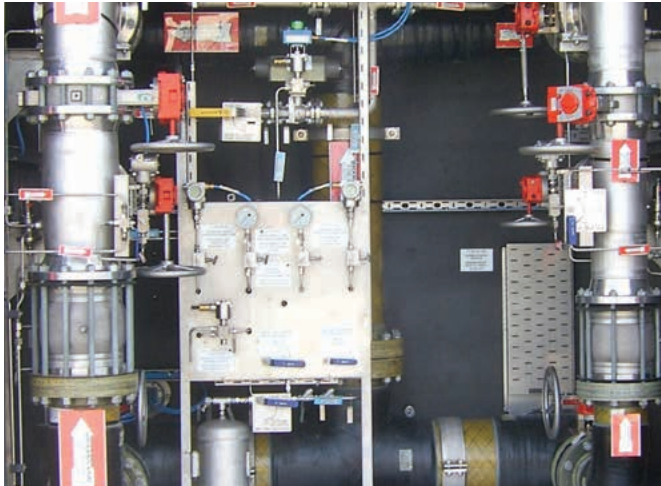
Incos Engineering work to client specifications and has experience with the following standards, guidelines and 3rd party class rule requirements;

- AS, BS, API, ANSI, ASME, PED
- ATEX, IECEx, SIL
- NFPA, IMO
- DNV, BV, ABS, Lloyds
- NORSOK

visual representation



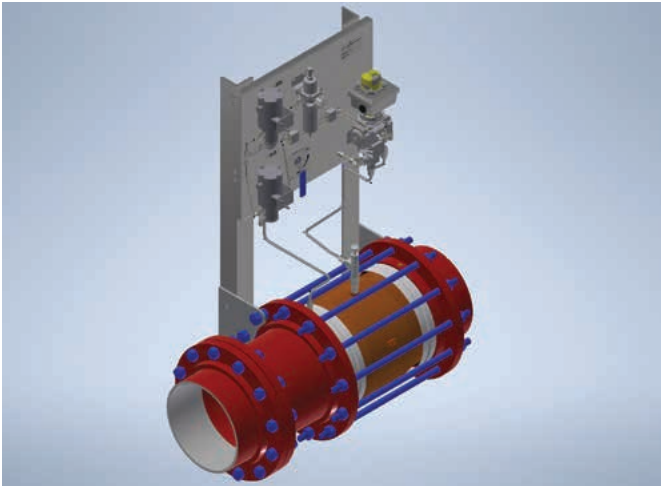
Oscillating Monitors



Deluge System



Hydrants amd Monitors



Water Control Assembly



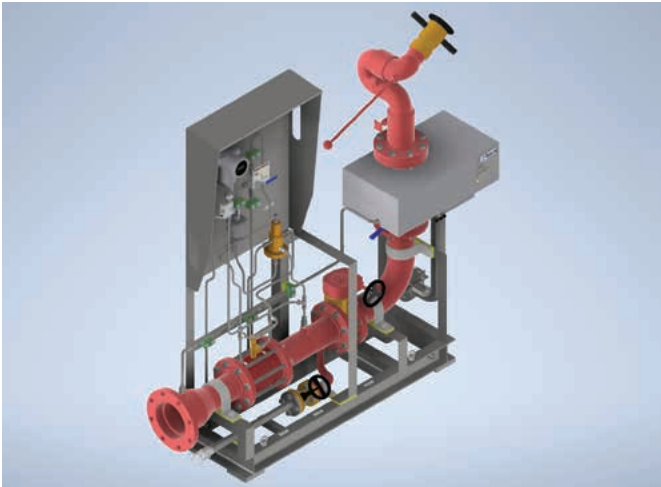
INERGEN System



Hydrants



Dry Deluge Testing



Oscillating Monitors



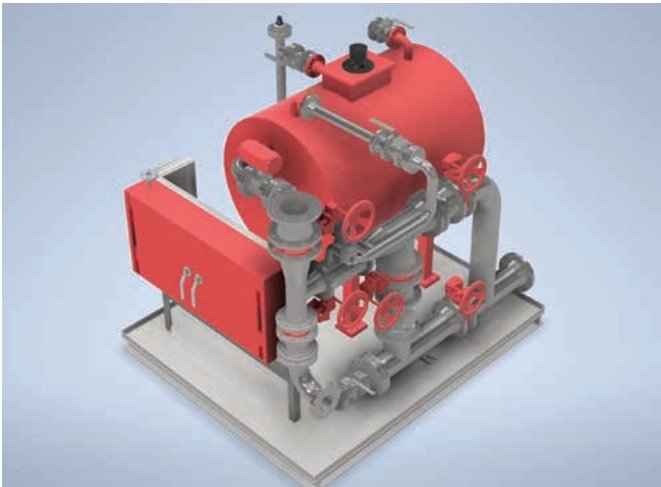
Offshore Deluge Support



Helideck Protection



Engineering Support

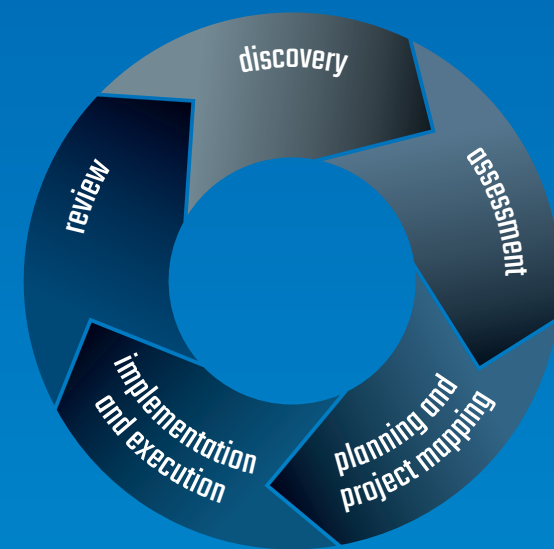


Foam Pump Skid

technical safety engineering

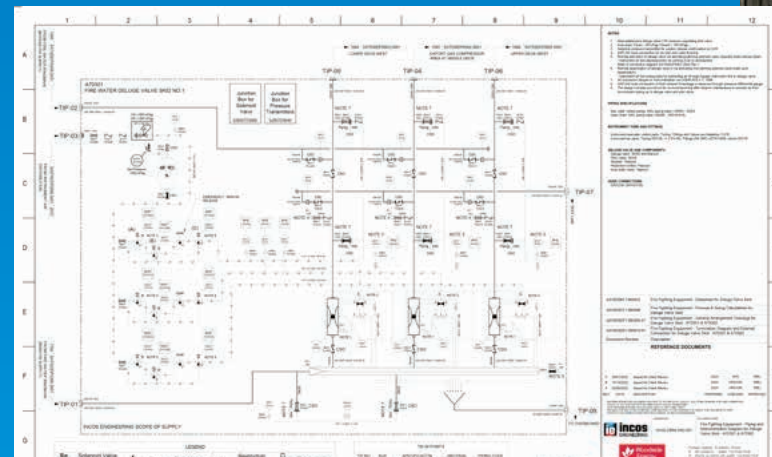
Incos Engineering is Australia's leading specialist Subject Matter Experts for Integrated Active Fire Protection Systems.

The Incos Engineering phased approach:



Our Safety expertise covers;

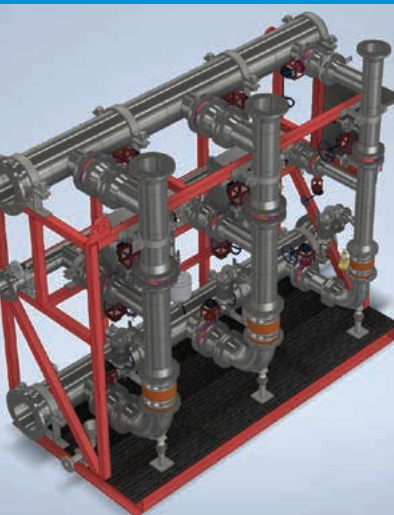
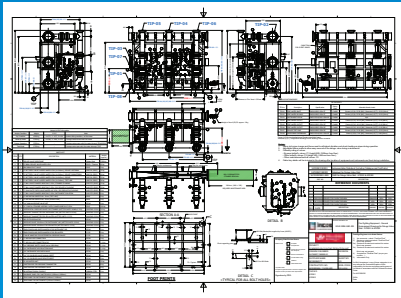
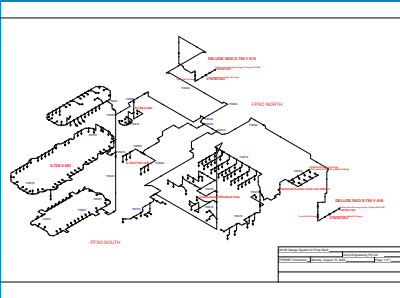
- Technical safety engineering consulting
- Greenfield active fire protection systems design and supply
- Fire fighting foam transition planning, AFFF – F3
- Brownfield modifications and upgrades engineering including design, assembly, testing and supply of the equipment
- Design or verification of deluge distribution piping
- Hydraulic calculations and balancing of systems
- Inspection and testing procedures meeting NFPA, certifying body and statutory requirements
- Design of deluge and sprinkler nozzle layout drawings
- Feasibility, Reliability, Availability and Consequence studies
- Fire Risk consideration with advice on type of fire protection system / equipment
- Providing or assisting with fire protection specifications and/or drawings for projects



projects and manufacturing

Incos Engineering project management is client focussed therefore integrating client specifications in our system designs, technical requirements and fabrication. Documentation and quality control are based on ISO 9001 and fully compliant to client specifications, with our expertise in engineering and manufacturing providing assurance in project execution. The project team has experience supplying fully custom designed firefighting systems or upgrade packages to Greenfield's platforms and FPSO's international fabrication yards as well as directly to Australian clients. Certification requirements are analysed at the start of every project enabling a successful verification of design and/or manufactured system by DNV, BV or Lloyds.

The project team consists of engineers and project engineers, with support of SME's as well as Service technicians. This team approach with skills from different levels creates integration of theory, compliance with rules and regulations as well as operation, maintenance and service being considered in the system designs. Our workshop is for assembly and testing of systems, or testing of concepts before integrating in system designs and deliveries to clients. The strong established relations with OEM's of piping, valves, frames/cabinets and instrumentation with the locally designed, fabricated and assembled systems, provides our project engineers and service technician a leading edge in design, testing and maintenance. FAT (Factory Acceptance Test) is part of our standard project execution assuring the firefighting system performs as designed, and is operationally fully understood by the team before delivery to client, enabling excellent levels of aftersales.



remote assistance - reducing risk and operational cost

expertise at a distance

Supporting and empowering the front-line team with our experts located in Australia or overseas.

Resolving challenges associated with maintenance of fire fighting equipment. Extending the life of your asset and working within the industry defined guidelines remains critical while performing the work in a more sustainable way with reduced site footprint.

Operations

Whether it's carrying out site inspections, testing, repairs or maintenance your Subject Matter Experts can work alongside your site based staff – but from afar.

- Fire safety engineering
- Technical support
- Training services
- Assurance/Monitoring



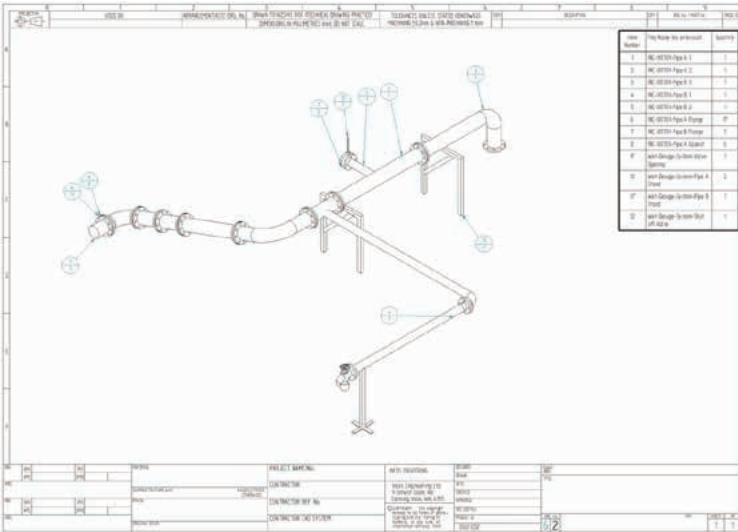
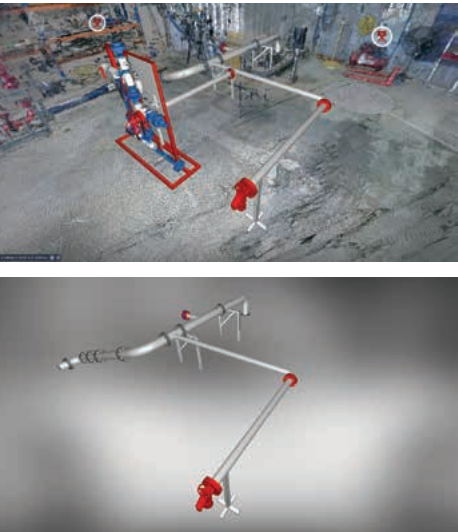
3D laser scanning + as-built CAD modelling

Traditional measurement and data capture methods can be slow and inaccurate. It can lead to unnecessary rework with repeated costly site visits, delays in completion and knock-on side effects.

Using the latest 3D Scanning hardware (compact and light to facilitate restricted FIFO baggage allowances) our technicians capture site fire fighting systems in reduced-duration visits as compared to traditional methods. Combined with serverless cloud-based collaboration software requiring no specialist/high-powered computing, the process delivers the following benefits:

- Reduced HSE exposure due to fewer personnel at site
- Reduced errors, delays and downtime during installation and maintenance operations
- Enhanced communication and remote collaboration between site & office teams
- Improved quality of scope definition and execution
- Preserve (and better manage) records of asset condition

Fit-for-purpose 3D solutions will help asset management strategies by integrating 3D digital technologies thereby reducing risk and improving performance.



asset support, upgrades, refurbishment, maintenance and testing services

Our qualified and experienced team will be able to inspect, test, repair, modify and analyse fire protection equipment and integrated systems. We develop maintenance plans and carry out works at site or in our equipped workshop in Perth, Western Australia.

Onshore / offshore services

- Site surveys, inspections and performance testing
- Scheduled onsite servicing ensuring compliance to rules and regulations
- Development and implementation of maintenance strategies
- Dry deluge system testing and cleaning (Siron service provider)
- Wet deluge system testing, flow testing and cleaning
- Foam system functional testing and produced firefighting foam sample testing
- Fire door inspection, servicing and certification (Rapp Bomek certified inspection)
- Repairs, modifications and upgrades
- Commissioning
- Supervision of local site personnel

In house servicing, repair, modifications, testing and preventative maintenance services

- Scheduled Servicing with the opportunity for total equipment lifecycle management of spares (including dedicated storage of your spares in our warehouse)
- Deluge and/or pilot valve refurbishment including testing
- Repairs and modifications/upgrades to firefighting equipment
- Full flow and continuous test facility (25m3 rain water filled tank in closed loop system) for;
 - ✓ deluge and control valves
 - ✓ water mist
 - ✓ water curtain nozzle(s)
 - ✓ oscillators and/or firewater monitors
 - ✓ flow/pressure control skids

In house theory testing, training provider and maintenance engineering services

- Strategic maintenance engineering (including scheduling of services as per guidelines and requirements)
- Training in firefighting inspection and testing regulations, guidelines and rules and systems maintenance
- Simulation / Testing of client's engineered theories and/or concepts





products, spares and consumables

Extensive knowledge of fire protection systems and associated equipment together with our global network of OEM suppliers provides the skills to source any OEM component. Incos Engineering is your procurement partner for all miscellaneous items or 3rd party services.

Providing an end-to-end total solution with back-up knowledge and service for correct installation including documentation meeting your Quality Assurance requirements.

Not limited to the below we provide;

- OEM Spare parts and consumables
- Standalone off the shelf firefighting equipment
- Fire fighting foam proportioning equipment
- Fire fighting foam concentrate test equipment
- Inert gas equipment
- Deluge valves/overhaul service kits
- Hydrants & Hoses
- Nozzles



deluge service centre

Assuring reliability and extended life of your deluge valves and deluge systems.

Our highly experienced team can maintain, service and test your deluge valves at our Canning Vale workshop or come to your local site if preferred. The Deluge Service Centre follow OEM and/or client specifications and uses the closed loop testing facility to simulate site scenarios such as pressure regulating, opening and closing.

The environmental choice

Complying with sustainability objectives the Deluge Service Centre will overhaul and function test deluge valves readying them for full operation.

Optional services

- Rotation service plan
- Training for operational team
- Upgrade/modification of deluge valve functionality
- Condition reports
- Testing
- Re-coating
- Retagging

Our Deluge Service Centre is a 'one-stop-shop' for all Deluge valve and related accessories service and maintenance requirements.

Exclusively Licenced to Incos, the patented Siron Dry Deluge System allows the facility to use a harmless vapour to test if the deluge system and nozzles are free of obstruction. This system enables the wet tests intervals to be extended.



workshop in a box

Testing and servicing fire fighting systems; onshore & Offshore Applications

Workshop in a Box is a modified 10' shipping container compliant for offshore lifting requirements, thus allowing allowing for easy transportation to site.

The most commonly complained about reason for wasting time is not having the tools and equipment ready when the specialists arrive. The **Workshop in a Box** is a dedicated work area specifically designed to allow our skilled technicians and engineers to support operations throughout a campaign. All equipment needed is loaded and QC checked prior to dispatch from our facility in Perth.

Inclusions:

- Calibrated Pressure gauges and Flow meters
- Test equipment to suit the campaign
- Specialised tools
- Spare parts/consumables

Being a dedicated fire fighting systems workshop, Incos Engineering will work with your team to coordinate any required items needed for optimising available site time.



foam testing

Foam testing is an affordable way to provide critical information enabling you to be confident your system will perform as expected in an emergency (fire).

Foam concentrate quality can be tested under laboratory conditions and compared to manufacturers specifications however for produced foam a facility benefits most from testing expansion and drainage on site using the foam generating equipment at operating conditions. This is particularly important for fluoroprotein and fluorine free foam. Field test kits are available for produced and concentrate testing and include items such as refractometer, scales, stopwatch, hydrometers, thermometer, manuals etc.

Additionally Incos can test Fluorine Free Foam with Asset specific equipment to ensure performance.



local support for international technology

Incos Engineering have agreements with original equipment manufacturers of world leading technology



Our patented Dry Deluge Testing technology is unique and field proven globally. We test fire protection systems utilizing vapour instead of water. SIRON Dry Deluge Testing is the only method of detecting blockages and partial blockages to pipe work and nozzles and also identifying damaged nozzles without testing systems with water.



High performance polymer solutions including Elastopipe, Vikodeck, Vikotherm and more. We develop, manufacture, and deliver corrosion, fire protection and thermal insulation solutions for demanding environments.



The products in our product range are tried and tested to withstand the toughest environments and are resistant to fire, blast, gas, water, intrusion, ballistics, and sound, as well as the harshest of climates. We offer global service and maintenance through our network of agents and certified service professionals and will help customers to maximize product lifetime, whilst minimizing costs, through our lifetime service concept "Certified for life".



For your choice and budget, Coltraco offers a range of ultrasonic testing tools, in order to provide you with reliable and accurate non destructive results, the device utilises ultrasonics.



Fire Products is a Norwegian manufacturer and supplier of OEM high quality firefighting equipment to the offshore and onshore markets. Backed by extensive product research and development our equipment is optimized to meet different system demands worldwide. We offer exceptional reliability, performance and technical support of components and equipment for fire fighting systems.



Fire Eater's environmentally friendly fire extinguishing solutions are based upon INERGEN®. INERGEN® consists solely of gases that occur naturally in the atmosphere therefore harmless to humans, machines and equipment. INERGEN® can be used in many different environments and is so, around the world.



Since 1971 Mil has been developing, designing, manufacturing and providing advanced automatic control valves and systems for a wide range of industries around the world. Leading players in the offshore, oil refining, oil gas and chemical storage, petrochemical, marine, aircraft hangars, and power generation markets count on Mil for a comprehensive array of automatic control valves, engineered for specific fire protection applications.



Elkhart Brass is the industry's most experienced manufacturer of innovative firefighting and fire protection equipment. We manufacture more than 2,000 products used in virtually every aspect of fire fighting.

organisation

business profile

Company Name	Incos Engineering Pty Ltd, trading as Incos Engineering
Sectors:	Offshore Oil & Gas, Onshore Petrochemical, Energy & Marine
ABN:	91 629 733 508
ACN:	629 733 508
DUNS:	745 291 671
Location/address:	9 Ernest Clark Rd, Canning Vale, WA 6155, Australia
Postal address:	PO Box 1520, Canning Vale DC, WA 6970, Australia
Phone No.:	+61 8 62527908
Web:	www.incos-e.com
Email:	sales@incos-e.com



www.incos-e.com