



Engineering Services · Active Fire Protection · Nitrogen Generation

INMACO 

– Protecting your investment

INMACO work with Safety and Loss Prevention Engineering Services, Process Systems and as Safety Contractors. Our competence lies in technology, product know-how, project execution, integrated solutions and overall customer satisfaction. Through subsidiaries, affiliates and agent networking INMACO's goal is to be a global oil & gas industry provider of safety engineering- and contracting services, integrated solutions and high technology products.

COMPANY VISION

INMACO's Vision is - Protecting your investments. This means that Inmaco shall be a significant player in the process of renewal, development and promotion of solutions which are aimed at improving the functionality and safety of customer operations. Inmaco's vision is demanding and represents an ambitious goal for the organisation and each individual employee. Constant revision and simplification of our structures and routines make a strong competitive edge.

COMPANY GOALS

The main goal of Inmaco is to create profit for future growth and R&D by taking care of customers, employees, cooperating partners and the interests of society in general. The economic assets shall be created through profitable and healthy growth. This growth is based on developing solutions which simplify the use and enhances the value of advanced technology. Through this Inmaco will contribute to provide the customers with a freedom of choice and a greater number of opportunities.



INMACO's staff of engineers have many years of experience with active fire protection in the offshore industry. We supply a wide range of engineering services.

ENGINEERING SERVICES

- Feasibility studies
- System functional specifications
- Reliability and availability studies
- Consequence analysis
- Planning and supervision of total installation
- Fire Risk consideration, and selection on type of Fire
- Protection System / Equipment
- Preparation of Fire Protection Plot Plans, Piping and
- Instrument Diagrams
- Design of deluge and sprinkler nozzle layout drawings
- Design of deluge distribution piping
- Hydraulic calculations and balancing (static and transient analysis) of deluge piping distribution systems by use of Pipe net software
- Area safety charts
- Plot plans
- Material selection
- Functional specification
- Water demand report
- Mechanical flow sheets
- SDRL and datasheets
- Estimated cost, delivery time and needed recourses
- Material Takeoff

QUALIFICATION

- Technical safety design
- Fire and explosion protection
- Firewater ring main and distribution system design
- Static and transient hydraulic calculations
- Offshore material and corrosion calculation
- NFPA, PED, SIL, ATEX, ASME, API, ANSI, BS, AS, ISO, DNV, Lloyds, NORSOK etc.

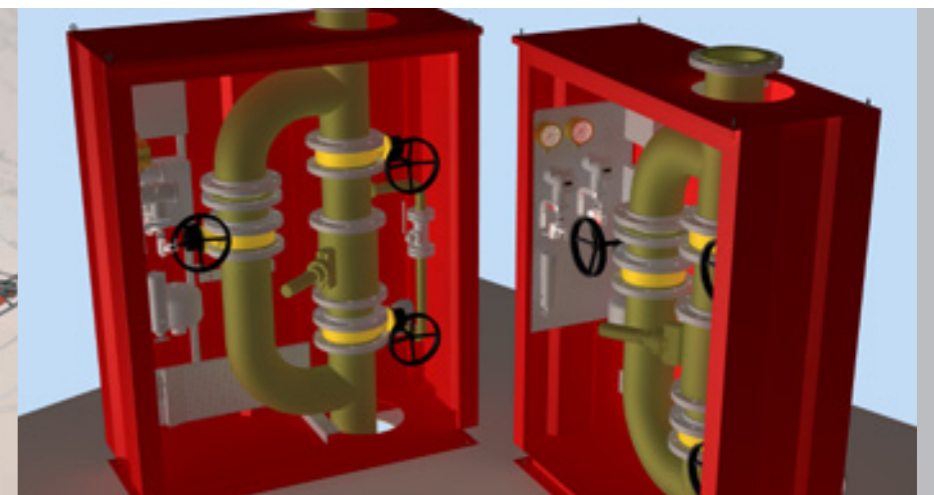


"Inmaco has defined three core assets which shall form the basis for all employees behaviour both internally and externally; Efficiency, Innovation and Responsibility.

- *To be flexible in order to adopt changes in technology, market and society, and to be able to solve all kind of problems that appears.*
- *To be innovative in a constant search of new opportunities for development and growth.*
- *To be responsible with realistic expectations, deliver as promised and have an active relationship to the society which the company is part of.*

We trust you find our company and services interesting and hope that we can be of assistance in future."

*Yours Faithfully,
Rune Reinertsen
General Manager*



After sales, service and maintenance

Even though the majority of our systems are delivered as skid units, some installation work is still required. We offer installation- and commissioning-assistance on all products and systems supplied.

POST ORDER INSTALLATION / COMMISSIONING

- Maintenance of own and others equipment
- Holding an unique experience and know-how we offer service on Fire Protection Systems and Nitrogen Systems supplied by any manufacturer.

FULLY QUALIFIED SERVICE ENGINEERS

Our staff have more than 15 years of experience in design, engineering and service of safety systems.

TRAINING

We can offer theoretical and practical training, either at our office facilities in Norway, customer premises or at site.

MAINTENANCE PROGRAMMES

All systems supplied by Inmaco are delivered with our standard maintenance procedure. In some cases it could be cost effective having an in house safety engineer, evaluating the maintenance programme for all your safety systems installed. We have the experience!

FULL FLOW TEST STATION

Water systems supplied by Inmaco are flow tested before delivery. As one of few companies having a full flow test rig, we can offer this unique service.

SERVICE AND UPGRADE

- Service and upgrade are offered on:
- Deluge and Sprinkler systems
 - Powder and Foam systems
 - Water mist
 - Gaseous systems
 - Monitors, Hosereels and Hydrants
 - Fire Extinguishers
 - Nitrogen Generation systems
 - Deluge skid test



Quality philosophy

Inmaco offer equipment that meets customer's expectations and requirements, end-users needs, relevant statutory authority requirements related to quality, safety, regularity, availability and operational reliability.

TO ACHIEVE THIS, WE FOCUS ON

- Having a motivated and stable staff with varied job content and personal development.
- Keep continuous focus on our need for "know-how" and competence, define required training and courses when needed.
- Develop agreements with strategic partners to have access to additional in house competence
- Achieve customer's satisfaction so they return with new business.
- Continuously improve our procedures to achieve reduced project period.
- Secure quality aspects do not suffer relative to other non realistic requirements put forward.
- Secure total quality between our own manufactured goods and those from sub-suppliers.

HSE OBJECTIVES

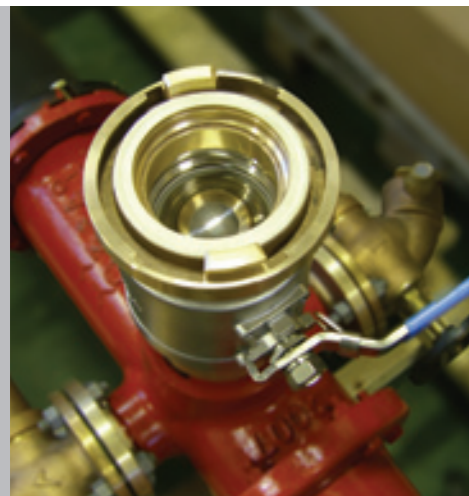
INMACO HSE targets are set to be: Zero (0) fatalities. Lost time accident frequency shall equal zero (0) for engineering, finance & administration and sales & marketing activities. Reportable (Statutory) environmental incidents shall equal zero (0). Time off due to sickness shall not exceed 0,5 of total hours worked. Statistics on the above is maintained by the Quality Manager

DESIGN & DEVELOPMENT PHASE HSE ACTIVITIES

A product designed for safe operation and maintenance, contribute to our clients working environment. One criteria INMACO always adhere to, is that all products developed and designed by INMACO shall contribute to raise the safety level. Another criteria is that all products developed and designed by INMACO shall be checked for minimal use of hazardous material, toxic liquids and emissions. Risk analysis and HAZOP studies are performed as required. These studies shall be examined at the Design Review stage which is the most important milestone in this period.



DNV Certificate: ISO 9001:2000



HSE POLICY

INMACO HSE policy is based on a well organised HSE Management system as the best way to protect INMACO, our clients, employees and equipment, as well as the environment. This approach also yields economical benefits.

INMACO policy is that through a safety optimised design we will create the base to prevent accidents. INMACO will also through design review, RPT08, examine all new products and ensure they will not cause any negative environmental effect. It is INMACO's policy to perform workshop and construction work in a safe manner.

Øyvind Tobiassen
Safety Engineer



Active fire protection

Fixed fire-fighting systems shall be installed in areas representing a major fire risk, and particularly cover equipment containing significant quantities of hydrocarbons.

ACTIVE PROTECTION

In addition to deluge, foam supply shall be provided for all areas where hydrocarbon or alcohol pool fires are likely to occur. According to international standards the fire water system shall be operable at all times, including periods of maintenance and shall ensure adequate supply of water for fire fighting. INMACO acknowledge these strict international requirements and adopt these specifications into high quality and reliable products and systems. We offer the complete range of systems and products required to any Oil & Gas installation and Petrochemical plant.

THESE INCLUDE:

- Deluge Systems
- Sprinkler Systems
- Foam Systems; Local, Centralised, High Expansion
- Water Mist Systems
- Powder and Dual Agent Systems
- Gaseous Systems such as Inergen, Argonite, FM200, CO2 etc.
- Firewater Monitors, Hosereels, Hydrants
- Foam Proportioning Equipment
- Deluge, Sprinkler and Foam Nozzles
- Hydrophore Systems
- Foam concentrates
- Powder



Nitrogen generation

Inert gas is used for blanketing and purging of chemical tanks, and for purging of equipment and systems before maintenance. The inert gas system can be divided into three sub-systems:

- Nitrogen generator/source
- Storage system
- Distribution system

TYPICAL OPERATING/ DESIGN CONDITIONS

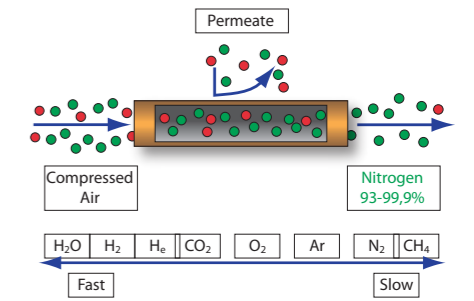
Typical supply pressure is 6-9 barg when using plant air feed.
 Typical design and operating criteria for the main equipment:

- Feed air pressure 6-10 barg
- Feed air temperature 30-50 °C
- Feed air particle size 3 micro meter
- Feed air dew point (at 10 bar) -25 °C
- Oil free feed air Less than.. 0,01 mg/m3
- Design pressure 8-13.5 barg
- Design temperature, min/max.. -10/60°C

TYPICAL CONSUMERS

Consumer description:

- Produced water flash drum
- Compressor gas seals
- Produced water disposal caisson
- Heating medium expansion vessel
- Methanol storage tank
- Low pressure flare header
- Atmospheric vent header
- Hazardous open drain sump
- Closed drain flash drum
- Reclaimed oil sump
- Heave compensation



Nitrogen is used extensively for drilling, completion and workover of oil and gas wells, also for pressure maintenance and gas storage in condensate formations. It can be generated on site at high pressures and low oxygen levels to safely prevent ignition of flammable gases or protection of field tubulars from downhole corrosion.



CLIENT/OPERATOR REFERENCES

AkerKvaerner · MH Allseas · APL / CNNOC · Awilco Sea Beds II AS · BHPBilliton · Bluewater Energy BV BP · Burullus Ga Company · ConocoPhillips · Dimond Offshore · Dolphin · Eastern Drilling · Enex/Turkmengaz · Exxon · Fædrelandsvennen IOEC · Maersk · Marathon Petroleum Mærsk/Husky · Nexen Petroleum UK Ltd (EnCana) · Pertobras Petrojarl · PROSAFE OFFSHORE Rosetti Marino · SPA · Royal Norwegian Navy · SEVAN MARINE · Sevmorneftegaz · Statoil Teekey · Total/Norsk Hydro · Transocean · Wessoe · Woodside

CONTRACTOR REFERENCES

Advanced Production Loading AS (APL) · Aker Reinertsen · AkerKvaerner · MH/Gransow AkerKværner · AkerKværner Offshore Partner · Bluewater · Energy BV CB&I · John Brown Ltd ConocoPhillips/Tiga JV Diesel Power · Dimond Offshore · Dresser Rand · Fædrelandsvennen FIAS/TriOcean · FluorAmec · JV KIDDE Norway · Marine Aluminium · MW Kellogg · Origo Engineering · OSM · Offshore AS · Petrojarl · Reinertsen Engineering · Samsung · Single Buoy Mooring · Technip/Cosalt · Technor · Transfield Worley · Woodside Alliance · Transocean · Tri Ocean · UMOE · Mandal · Vecto Aibel · WEIR · Westcon



INMACO A/S Norway

P: +47 99 48 00 10
F: +47 99 48 00 11
M: +47 99 48 00 12
E-mail: post@inmaco.no

INMACO (DK)

M: +45 3013 1405
E-mail: jeff.petersen@inmaco.no

INMACO LTD (UK)

P: +44(0)1344 488827
F: +44(0)1344 488827
M: +44(0)7976 421311
E-mail: john.tilbury@inmaco.co.uk

INMACO PTY LTD. (AU)

P: +61(0)8 92037750
F: +61(0)8 92037749
M: +61 (0)400030565
E-mail: morten.benjaminsen@inmaco.com.au

Plus global agent network,
please contact us for details



Agent: