



MARSOL  
TECHNOLOGIES

DIFF SKID  
**SELF CONTAINED**



## ABOUT MARSOL

MARSOL Technologies, Inc., based in Houston, Texas, USA, specializes in designing, manufacturing, and implementing firefighting, safety systems, and related products for onshore, offshore, and marine industry applications. Our ethos is centred on delivering solutions that exceed minimum compliance requirements and ensure safety critical performance.

### PRODUCT SERVICE SUPPORT

- 🔧 Spray Nozzles
- 🔧 Foam / Deluge Skid
- 🔧 Foam Concentrates
- 🔧 Control Equipment
- 🔧 Custom Engineering
- 🔧 System Integration
- 🔧 Factory Approval Testing
- 🔧 Field Service and Technical Support

## PRODUCT OVERVIEW

The MACS Series skid a standalone foam system primarily intended for extinguishing fires in normally unmanned installations (NUI). The MACS is connected to a DiFFS which has better extinguishing capabilities than conventional foam monitors. The system is a self-contained type with all equipment packaged within the skid frame. The Skid consists of steel pressure vessel, high pressure nitrogen cylinders, foam tank, in-line foam inductor, control valve and regulator panel. As an option, the system can also include an control panel which is used for monitoring and controlling the system locally and from remote locations. The system is activated manually using remote control stations located at the entry/exit points of the helideck. Based on the project requirement, the system is supplied with 3IR flame or Visual Flame Sensors which detect fire on the helideck and release the system automatically. The system also can be activated using remote operation when connected to a third party RTU/DCS (activation method is subject to project requirement.)

The MACS is also available with electrical motor driven pump type systems for projects where sufficient electrical power is available to drive electrical motors during system discharge. Various pump type such as centrifugal or multistage pumps supplied based on project requirement.

## MACS - VERSIONS

**Standard Foam System** - is supplied with a built in foam tank and foam mixing equipment to supply the foam solution.

**Pre-Mix System** - is supplied as a pre-mix type, where the foam concentrate is premixed with water and stored in a pressure vessel.

**Water Only System** - is supplied with only a water pressure vessel (ie without any foam production components installed) when the system is used in conjunction with a passive fire retardant type (perforated deck surface) aluminium helideck.



#### Design standard / Specification

- Civil Aviation Authority (CAP-437)
- NFPA-418
- ICAO - 14
- ICAO-9261
- Others (Project Specific)

#### Quality Testing

- Pressure Test (Pipe Line)
- Pressure Test (Pressure Vessel)
- Certificate of Conformity
- FAT Certificate
- Component Certificate
- 3rd Party Verification



#### Certifications

*Project Based 3rd Party Certification*

- American Bureau of Shipping (ABS)
- Det Norske Veritas (DNV)
- Lloyd's Register of Shipping (LRS)
- Bureau Veritas (BV)

#### KEY SPECIFICATIONS

|                                            |
|--------------------------------------------|
| Custom Built                               |
| Stainless Steel 316/316L Pressure Vessel   |
| 200Bar/300Bar Nitrogen Cylinders           |
| Stainless Steel 316 Regulators             |
| Instrument Junction Box                    |
| Monitoring and Control Panel               |
| 4-Point Lifting                            |
| Built-in Foam Filling Pump                 |
| Painting and Coating to Offshore standards |
| Electric or Pneumatic Operated Main Valve. |
| Open or Enclosed Skid design.              |

#### OPTIONS

|                                           |
|-------------------------------------------|
| Redundant Regulators                      |
| Redundant Nitrogen Cylinders              |
| Ex-Proof Electricals                      |
| SIL-2 Monitoring & Control Panel          |
| SIL-2 Visual Flame Sensor (HART)          |
| UL/FM Approved Components                 |
| Individual Nitrogen Cylinder Monitoring   |
| Range of Pipes and Valve materials        |
| Insulated Enclosure with Enclosure Heater |
| SS-316L Enclosure or Skid Frame.          |



# OFFICES

## Head Quarters

### Marsol Technologies, Inc.

14331 Spencer Road (FM-529),  
Houston Texas - 77095, USA.

## Middle East

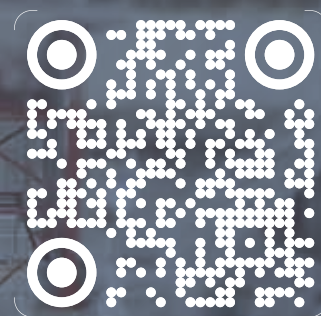
### Marsol Technologies, FZE.

P.O Box 50481,  
Hamriyah Free Zone, Sharjah, UAE.

## Asia

### Marsol Engineering (India) Pvt. Ltd.

Akshatha Enclave, Kuvempunagar,  
Mysore, Karnataka, India - 570023.



# Contact

**Email :** [info@marsoltech.com](mailto:info@marsoltech.com)

**Phone :** +1-346-701-8268

[www.marsoltech.com](http://www.marsoltech.com)