



BILFINGER SALAMIS UK

## BILFINGER ADVANCED HABITAT SYSTEM

### Features:

- Design and operations verified to NORSOK Z-015, temporary equipment rev 4.
- All components Atex rated to a minimum of Zone 1.
- Integrated Closed Loop Safety System for tool power, automatically isolating power should pressure drop below set value or gas is detected.
- Battery Back-up for fan allows continued pressurisation of habitat for a period of several hours should the 110v power trip or oscillate.
- Only one operator required per shift for operation of habitat.
- Mobile Control Panel allowing habitat operator to monitor scope while acting as external sentry
- 5 Gas Detectors set at 10% LEL throughout the system.
- Emergency stops throughout system allowing all operatives involved in operations to stop the job.
- Optional - 440v MDU can be tied into closed loop safety system.
- Zone 2 air conditioning unit available to significantly extend working times in warm climates, or high temperature working areas.

Previously in the Oil and Gas sector, the term 'habitat' has simply been used to describe an enclosed area with over-pressure, which prevents flammable gas from reaching hot work (e.g. welding) inside the habitat and igniting.

There has been little innovation in safety measures - until now.

### Automatic Ignition Shutdown

Bilfinger Salamis UK offers an advanced habitat system, which features an innovative safety control system. This system allows us to provide one of the safest habitat systems available.

The flexible system can be constructed around obstacles such as pipework, racks and beams. A lightweight airlock also allows personnel to move in and out of the habitat without losing pressure from the main enclosure, optimising safety. The emergency escape allows a secondary escape route.

Remote gas detectors linked to the shutdown system continuously monitor the internal and external environment for hydrocarbons.

In the event of an emergency the electric feed to any heat generating appliances being powered via the system. e.g grinders, welding tools etc. The ignition shutdown is automatically triggered when one of the following emergency criteria is met:

- Gas detection
- Loss of overpressure
- Equipment malfunction
- Emergency stop
- Change in installation status

This advanced system significantly reduces the risk to both personnel and plant, giving our clients complete confidence in the safe and continuous operation of the habitat on their assets. All electrical components used on the habitat system are certified to ATEX Zone 1 standards.

*Please turn over for more information...*



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### Technical description

**Pneumatic Start** - Eliminate power circuit trips traditionally experienced at pressurisation start up. Minimum 2 BAR required.

**Ignition Control** - Automatic shut-off of ignition sources activates without delay, at the same time visual and audible alarms are activated.

**Overpressure** - If pressure drops below (25pcl), tooling is immediately isolated. The battery back up allows overpressure to continue in the event of a change in installation status, enabling the workpiece to cool.

**Battery** - Allows continuous operations without interruption for up to 11hours, or while electrical connectivity is established.

**Emergency Stop** - Each system has emergency stops throughout, which can be initiated by the habitat technician, firewatcher or habitat user. The emergency stop button will deactivate power outlets in all connected systems, while maintaining overpressure.

**Gas Detection** - The advanced habitat system operates 5x infrared gas detectors. One gas detector is positioned in the fan inlet. In the event of gas detection, or detector failure, the fan automatically shuts down preventing hydrocarbon ingress into the enclosure.

The Bilfinger Advanced Habitat system is a light weight, turnkey solution that is used on a number of major operators' assets both on and offshore, in the Norwegian and UK oil and gas sectors.



### Maintenance, Modifications and Operations

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