

ERS 350 Mag Environmental Regeneration System

Description:

The ERS 350 Mag is a quiet, reliable and multi-configurable external gas regeneration system for Saturation Diving. The unit consists of a robust frame/skid, located within an ergonomic cabinet with access hatches. The ERS350 Mag is designed to circulate gas from inside the chamber environment and through a scrubber. The unit also controls the humidity by the condensation of water vapour, and provides heating and cooling to the chamber environment which is achieved via a heat exchanger and a cooling heat exchanger (hot and cold water sourced separately and not part of the regeneration system). The ERS 350 Mag features a hermetically sealed high efficiency, low maintenance blower. The blower motor lies external of the pressure system and drives the blower via a magnetic coupling. This ensures the chamber gas is not exposed to the heat expelled from the motor. A local user control-centre in the form of a touch screen Human Machine Interface (HMI) is conveniently positioned for easy access on the cabinet. The interface can be easily integrated with other remote monitoring and/or control devices (eg. HMI, SCADA) where required. The operator is able to easily view the following typical parameters:

- Chamber Environment

- Temperature and Humidity
- Regen Blower Speed
- Regen Inlet and Outlet Gas Temperature and Pressure
- Hot and Cold Water Inlet Pressure and Outlet Temperature

A local audio and visual alarm (with error pop up message) would be triggered in the event that any of the process parameters are exceeded.

Specification:

- Length: 2075mm
- Width: 1360mm
- Height: 2050mm
- Mass: +/- 1700 kg
- Lifting: 4 removable eye-bolts
- Construction:
 - Pressure Vessels-Carbon Steel, coated with Marine Grade 2 Part Epoxy Paint
 - Sealing and Wear surfaces-S/S Piping (304 S/S, coated with Marine Grade 2 Part Epoxy Paint)
- Class Approved: DNV / ABS
- Max. Working Pressure: 300MSW / 30.3 bar (g)
- PV Design Code: ASME VIII Div 1 (U-Stamped)
- Design Temp.: 5°C to 50°C (ambient for ERS)
- Cooling Capacity: 10.5kW
- Heating Capacity: 10.5kW
- Max. Chamber Occupants: 6
- Intended Chamber Habitat:
 - Temp. 23-31°C
 - Temp. Control +/-1°C
 - Relative Humidity 50-80%
 - Relative Humidity Control +/- 5%



ERS 350 Mag



ERS 350 Mag – cabinet removed

- Co₂ Scrubber Canister Volume: 24 Ltr
- Chamber Circulation Flow Rate: Controllable up to 150m³/h
- Min Cooling Water Flow Rate: 40 lpm at max. temp. of 5°C
- Min Heating Water Flow Rate: 40 lpm at min temp. of 60°C
- Power Requirement: 4kW @ 400V/50Hz or 440V/60Hz; 3 Phase+Earth

Order Detail:

ERS 350 Mag Environmental Regeneration System	D-EC-125
ERS 350 Mag Control Rack	D-EC-125-02
Temperature and Humidity Sensor (one required per controlled lock)	D-EC-122-03

Can be supplied as ABS or DNV Certified. Please specify on order placement.