

## ATEX DNV 2.7-2 Zone II Compressor



### Technical Specifications

Performance	
Discharge volume	± 1,000CFM = 28.2 M3 / min
Discharge Pressure	150 psi / 10 bar
Discharge Air Temperature Downstream Aftercooler	15°C above ambient
Fuel Consumption	67 Litres per hour at 100% Load
Ambient Capability	-10°C to +40°C
Sound Pressure Level (SPL)	76 DB(A) at 1M (80.5 dB(A) at exhaust)

The unit is certified according to DNV 2.7-2. Delivered complete with certified lifting slings (wire) and shackles. The container unit is made of carbon steel. Four certified lifting points are built into container roof.

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### Dimensions

Overall Length	6,058 mm
Overall Width	2,438 mm
Overall Height	2,591 mm
Weight	14,200 Kgs

### Air Discharge Fittings

2 x 2" WECO FIG 100

2 x 1" CROWSFOOT

The unit has all necessary safety and functional provisions allowing for stack operation and transport. Stack operation is limited to 2 units and 3 layer stackable for transportation.



### Special Features

- Unit equipped with a Cummins QSM 11 diesel engine and Aerzen screw compressor protected by 3GHI Protection™ system – Negates the need for flame traps
- Lowest engine emissions in sector
- Lowest noise emissions (76 dB(A) at 1M) – Market norm typically over 100 dB(A) at 1M
- Fire and Gas detection with 3GHI Protection system
- H<sub>2</sub>S detection integrated with 3GHI protection system
- RACOR twin fuel filter system

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## User Safety and Firefighting

- Two entrance doors on both container sides
- Fire detection integrated with 3GHI protection system
- H<sub>2</sub>S detection integrated with 3GHI protection system
- Hydrocarbon detection integrated in diesel engine intake system
- Local emergency stop push buttons and provision for remote emergency stop signal capable of accepting 24VDC and 110 VAC emergency stop signals from installation

## Human Machine Interface

The Operator is able to control the compressor unit and check 3GHI Protection™ status from the local control panel. The control panel enclosure is made from stainless steel with protection cover for transport. The control panel is accessible from outside of the container. In case of stack operation, the control panel can be removed from the top unit and stationed alongside the panel on the unit below, allowing full operator interface. The emergency stop button can be used from this panel. An internal ladder system allows the operator access to the top unit to carry out daily checks.

## Monitoring Functions

The following monitoring functions are available on the panel.

Engine	Compressor	3GHI Protection™
Engine Speed	Oil Temperature	Safety System Status
Engine Load	Discharge Pressure	All Active Alarms
Oil Pressure	All Active Alarms	Alarm History
Oil Temperature	Alarm History	All safety temperature and pressure monitoring is based on analogue values. This gives a major advantage regarding pre-warning, status monitoring and troubleshooting
Coolant Temperature		
All Active Alarms		
Alarm History		

The 3GHI Protection™ system has separate backup battery to keep protection and gas detection functionality during main power source failure states.

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## Compliance

ATEX Mark II 3G IIA T3

## EU Directive Compliance listing

94/9/EC	ATEX
2006/42/EC	Machinery Directive
2004/108/EC	Electro Magnetic Compatibility Directive (EMC)
2006/95/EC	Low Voltage Directive (LMV)

## Other Compliance listing

DNV 2.7-2	Offshore Service Modules
CSC 1496-1	3 Layers Stackable for Transportation, 2 Layer for Operation



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### Harmonised Standards Listing

The following Harmonised Standards and Directives have been undertaken in the design and construction of this equipment

EN 1834-1-2000	Safety Requirements for Design & Construction of Engines for use in potentially explosive atmospheres
EN 13463-1	Non-electrical req. for use in potentially explosive atmospheres
EN 50495:2010	Safety devices required for the safe functioning of equipment with respect to explosion risks
EN 61511	Functional safety - Safety instrumented systems for the process industry sector
EN 60079-0	Electrical apparatus for use explosive gas atmospheres
EN 60079-14	Electrical installation in hazardous areas (other than mines)
EN 1679-1-1998	Reciprocating internal Combustion Engines Safety
EN 1127-1-1998	Explosive Atmospheres- Explosion Prevention & Protection
NORSOK M-501	Surface protection & protective coating
ISO 3746:2010	Acoustics (Sound level test method)
Directive 97/23/EC	Pressure Equipment Directive (PED)

Note: The above referred specifications are our minimum standard and for guidance purposes only. For compressor specific information applicable to comply with region specific standards, please consult your local Centurion Power & Equipment representative.

For more information on Air Compressors, please contact your local Centurion Power & Equipment representative or email us at [CPEUK@centuriongroup.co.uk](mailto:CPEUK@centuriongroup.co.uk).

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