

Electric Gasmizer Gas Recovery System



Introduction

The Electric Gasmizer is the world's most popular gas reclaim system. Comprising simply of four main robust components, it is easy to see why. It will reclaim gas from two divers at down to 500msw/1,650fsw.

The Control Console is located in dive control allowing the diving supervisor to monitor and control all functions of the diver gas recovery system including electric gas booster start/stop, oxygen injection, diver supply pressure, exhaust hose pressure and the addition of make-up gas.

Large gauges are easy to read; flow alarm informs supervisor of system status; hour meter provides information for changing scrubbers and maintenance; flow indicator on make-up gas allows efficiency monitoring; and sample flow meters monitor flow to analysers.

The Internal Bell Equipment maintains the optimum negative pressure in the diver's exhaust hose, removes water and provides automatic shut down of the exhaust circuit should the diver's supply be interrupted. It also allows the bell atmosphere to be scrubbed.

Two-stage water trap is drained easily; see-through water trap allows visual monitoring; diver tracking system minimises adjustments; high-flow back pressure regulator has no mechanical moving parts; easily disassembled for cleaning; noncorrosive parts used throughout.

The External Bell Equipment consists of a high-flow check valve which prevents reverse flow and an external water trap that allows water, which has been condensed out of the bell exhaust hose, to be removed from the gas flow path. Baffled flow ensures water removal efficiency; easily disassembled for cleaning; stainless steel construction for corrosion resistance; and negligible weight is added to the bell.

The Gas Booster is a purpose-built, electric driven, non-lubricated water cooled, two stage gas booster which will support two divers down to 500msw/1,650fsw by supplying a minimum of 150 actual litres per minute at all diving depths. High pressure output compensates for umbilical and regulator losses; high flow ensures adequate supply available at all times; long life seals minimise maintenance requirements; stainless steel liners eliminate corrosion; low noise level avoids the need for noise attenuation; water cooling enables operation in any climate; heavy duty crank case eliminates over-stressing; automatic unloading provides hands-off operation; remote control allows start/stop from dive control.

The Reprocessing Unit contains the components for precisely reprocessing diver's breathing gas from two divers down to 500msw/1,650fsw. The unit is bulkhead mounted. Features include; silent operation, high pressure CO2 scrubbers maximise efficiency; the high flow back pressure regulator has no mechanical moving parts; moisture removal is by condensation and ensures trouble-free operation. A Volume Tank is required to store the reprocessed breathing gas from there processing unit until required by the diver. Because of its relative high pressure the reprocessed gas is handled in the same manner as standard gas banks. This item may already be available upon the vessel, but can be ordered with the system.

Depth rating	Min. 30msw (100fsw), Max. 500msw (1,650fsw)
Excursions below bell	0-30msw (0-100fsw)
Excursions above bell	0-20msw (0-66fsw)
Efficiency rating	90% or more

Bulkhead mounted reprocessing unit B15730

LP section

Width	1,410mm (4.6ft)
Depth	351mm (1.2ft)
Height	1,445mm (4.7ft)
Weight	160kg (353lbs)
Max. working pressure	69 Bar (1,000 psi)

HP section

Width	940mm (3.1ft)
Depth	265mm (0.8ft)
Height	1,495mm (4.9ft)
Weight	100kg (220lbs)
Max. working pressure	103 Bar (1,500 psi)
Water supply (fresh water)	13lpm (3gpm)
Water temperature	32°C Max (90°F)

Bell equipment 2 diver B1496A

Internal weight	15.5kg (34lbs)
Working pressure	-40 +20msw
External weight	6.4kg (36lbs)
Internal pressure	69 Bar (1,000 psi)
External pressure	69 Bar (1,000 psi)

Control console B1571

Width	520mm (20.5")
Depth	215mm (8.5")
Height	810mm (31.9")
Weight	20kgs (44lbs)
Power supply	220V 50/60Hz 1ph

Electric gas booster B10510AA

Width	1,610mm (5.3ft)
Depth	1,092mm (3.6ft)
Height	1,687mm (5.5ft)
Weight	1,450kg (3,200lbs)
Power supply	380-460V 3ph 50/60Hz 37kW
Water supply (salt or fresh water)	72lpm (16gpm)
Water temperature	32°C Max (90°F)
Capacity at dive depth	150 alpm (5.3acfm)
Max. discharge pressure	100 Bar (1,450 psi)

Volume tank** (10 bottle) GR2297AA

Width	1,290mm (4.3ft)
Depth	600mm (2.0ft)
Height	2,000mm (6.6ft)
Weight	780kgs (1,717lbs)
Water volume	500ltr (18.1ft ³)
Max working pressure	103 Bar (1,500 psi)

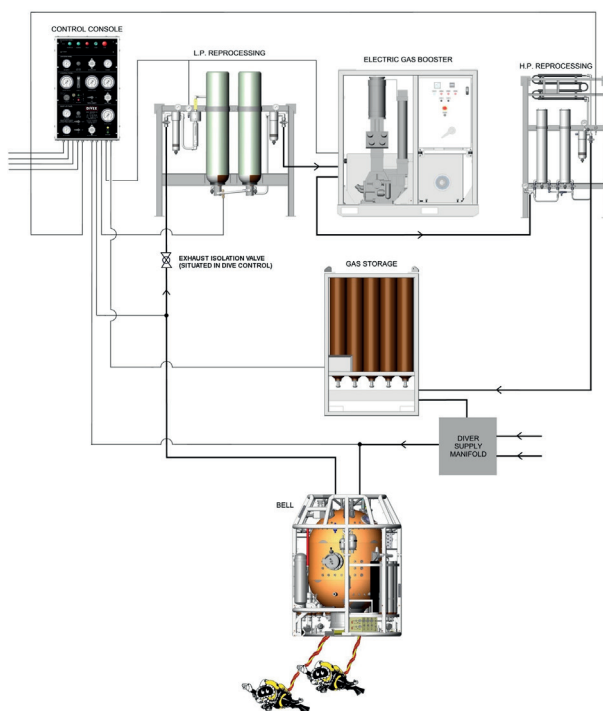
Volume tank not included in A10621

Breathing gas cost (£) per cubic metre, per diver, per bell run

Diving depth	£7	£8	£9	£10	£11	£12	£13	£14	£15
50msw	706	806	907	1,008	1,109	1,210	1,310	1,411	1,512
100msw	1,294	1,478	1,663	1,848	2,033	2,218	2,402	2,587	2,722
150msw	1,882	2,150	2,419	2,688	2,957	3,226	3,494	3,763	4,032
200msw	2,470	2,822	3,175	3,528	3,881	4,234	4,586	4,939	5,292
250msw	3,058	3,494	3,931	4,368	4,805	5,242	5,687	6,115	6,552
300msw	3,646	4,166	4,687	5,208	5,729	6,250	6,770	7,291	7,812
350msw	4,234	4,838	5,443	6,048	6,653	7,258	7,862	8,467	9,072
400msw	4,822	5,510	6,199	6,888	7,577	8,266	8,954	9,643	10,332
450msw	5,410	6,182	6,955	7,728	8,501	9,274	10,046	10,819	11,592
500msw	5,998	6,854	7,711	8,568	9,425	10,282	11,138	11,995	12,852

Example

150msw dive - gas cost £7/m³ = £1,882 per 7 hour day, per diver, per bell run or £11,292 for a single day with 2 divers working.



Order Codes

Electric Gasmizer Diver Gas Recovery System
(comprises of: B10510AA, B1571, B15730, B1496A)

A10621

Electric gas booster
50HP
B10510AA

Electric Gasmizer control console
(Wall mounted frame version)
B1571

Electric Gasmizer control console
(19" rack mounted version)
B1571-RACK

Bulkhead reprocessing
unit
B15730

Gasmizer 2 diver
bell equipment
B1496A

Volume tank assembly
10 bottle pack
GR2297AA