Emergency Valve Shutdown for Drum Motor Systems



Global Chlorine safety solutions

The cost of a toxic leak is negligible ...the damage could be irreparable

As legislative pressures increase on toxic and other gas users, ChlorGuard offers a very flexible safeguard to prevent leaks and increase site safety. A gas leak triggers immediate secure shutdown, protecting personnel, equipment and the environment from toxic gases and ensures compliance with Health & Safety standards

- Remote, rapid shutdown
- Designed for drum and cylinder systems
- Safe operation by compressed air
- Low running and maintenance cost
- Adaptable and compatible system
- Advanced safety and diagnostic features
- Patented design
- ISO 9001 Module H approved
- World class customer support

Protecting lives... safeguarding business











ChlorGuard Control Panel



Technical Data

Dimensions

Construction

Protection

Finish

Power Supply

Control ~ Pneumatic

Control ~ Electrical

Visual Signal

Sinal Telemetry (Volt free contact)

Solenoid Valves

Option

Battery

H760mm x W415mm x D315mm

Zintec steel welded construction. Separate pneumatic & elactrical compartment. Hinged lockable outer cover c/w 3 mm perspex panel

IP44

2 pack epoxy – RAL 1021

110/230Vac - 50/60Hz

Manual, Automatic, Isolate via status control levers door mounted

Signal from gas detectors. Manual from remote closure button. Key test switch

Alarm, mains power, stand by low battery, DC fuse, Pressure

All NC or NO contacts available - Mains power failure, low pressure, low battery, alarm & levers not in open position

12Vdc for NC and 24Vdc for NO

12V DC Power take off for strobe light to indicate:

- a) Lever not in auto
- b) Reset button not pressed to cancel alarm

12Vdc or 24Vdc – 7Ah

CE Conformity

- Machinery Directive 98/37/EC
- Low Voltage Directive 73/23/EEC
- EMC Directive 89/336/EEC

The bespoke ChlorGuard control panel provides a robust philosophy for valve shutdown while also offering feedback signals so that the end user can monitor the status of the system. It has advanced safety and diagnostic features including telemetry feedback that informs the end user if there is an issue with the system such as alarm initiated; low pressure; mains power failure; low battery; or bank lever not in automatic mode. Process functionality has also been built in to assist the end user with activities such as closing the gas valves of an empty vessel before replacing.



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ChlorGuard Drum Motor Airdrive Assembly DM







Technical Data

Description

Dimensions

Body Construction

Weight Finish

Output Shaft

Drive

Output Speed

Exhaust Silencer

Mounting Bracket

Airmotors (3 stage reduction gear drive) and exhaust silencer

L231mm x D41.5mm

Aluminium

1.5 kg

Powder Coated - RAL 1021

14mm diameter shaft & key

Adaptor to match cylinder key

160 RPM at 6.2 bar free running

Silences air being expelled from the Airmotor and prevents misting or

lubricating oil in the air

Designed to suit particular cylinder

valve

CE Conformity

- Machinery Directive 98/37/EC
- Low Voltage Directive 73/23/EEC
- EMC Directive 89/336/EEC
- Pressure Equipment Directive 97/23/EC

Applications include:

- Water Treatment Plants
- Waste Water Treatment Plants
- Hazardous Gas Use Facilities

This compact drive solutions offers a niche solution for both cylinder and drum closure by providing a closing torque of up to 68Nm (50Ft/lbs) for the high torque are very light and easy for the end user to manoeuvre on or off the valve for ease of use.

"ChlorGuard is a flexible and costeffective control measure that provides peace of mind for the end user in a 24/7 business. It also provides a very necessary level of control between the operational needs of the water provider and consumer needs" Anthony Waite, MANE Consultancy

ChlorGuar

Consultant to South West Water

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Compressor & Air Receiver Assembly







Technical Data

Compressor Type Oil Free Piston Compressor

Capacity 130 – 190 L/min

Motor Size 1.1 - 1.5 kW

Motor Protection IP54

Power Supply 110/230Vac - 50/60Hz
Receiver Capacity 127, 230 and 270 litres
Receiver Size D508mm x H1505mm

D508mm x H1825mm D508mm x H1950mm

Fitted with Gauge

Safety valve

Drain Valve (manual) Pressure switch starter

Sound Level 71dB(A)

Manufacturing Specification

EC Conformity Procedure PED (97/23/EC) Modules B & D

EC Type Examination Certificate No. CEN-006062/B1-02

Technical Standard Used BS.EN286-1: 1998 Class 2

Design Pressure 11.0 Barg

Design Temperature -10 to $+85^{\circ}$ C

Hydraulic Test Pressure 16.5 Barg

Vessel Design Life 20 Years - based on a fatigue criteria

of the following pressure cycles: 1040 Cycles of Full Pressure Range (i.e. start up/shutdown cycles + 1752000 Cycles of range 2.0 Barg)

Finish Primed, blue gloss RAL 5015

The ChlorGuard system is pneumatically operated and as such requires a bespoke compressor and receiver assembly to drive the system upon activation. For redundancy, the receivers are sized with enough capacity for 2 enclosures should the compressor fail. The compressors specified are very low maintenance, being oil free, and will provide many years of reliable operation.

"As legislative pressures increase on toxic and other gas users, ChlorGuard offers a very flexible safeguard to prevent leaks and increase site safety" Chris Dolman, Product Manager Gases, BOC

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