

# Heliox Compressors

### **HELIOX COMPRESSORS**

Maximum oulet pressure Up to 300 bar g / 4350 psig Capacity (FGD) 25 - 135 m³/hr / 14.7 - 79.5 cfm

# The CompAir Reavell 5417 and 5437 compressors are the most popular Heliox compressors on the market today.

Renowned for reliability and long operational life, these units provide high quality compression on demand in the most arduous situations.

Designed and manufactured in the UK to the highest International standards, the 5417 and 5437 units are robust 4 stage water cooled compressors with a compact design providing one of the smallest footprints on the market for comparable compressors.



These units can be supplied as stand alone compressors for use in existing installations or as bespoke packages designed to meet specific customer requirements.

Reavell Heliox compressors are suitable for Transfer, Reclaim or dedicated Breathing Air duty, and have been designed to meet all major worldwide survey and certification requirements.



CompAir Reavell have been designing and manufacturing reliable, high

With a proven track record in a wide variety of applications including marine, navy, offshore, breathing air and general industry, you can trus Reavell compression systems to deliver time and time again.



# Advanced Compressor Design

# Maximum Flexibility for Marine Applications

- The well-balanced 90° 'V' design combined with marine anti-vibration mounts reduces vibration, removing the need for special foundations.
- The highly efficient cooling system can use either mains or seawater, providing increased flexibility.
- Installation is made quick and simple through the use
  of flexible connections, single outlet manifold for all
  pressure safety valves and an optional 3m umbilical for
  the electrical control box.
- Compact design provides easy service access. All withdrawable parts can be easily handled by a single service man with no special tools required.
- All compression parts are removable with easy access through top end without major stripdown, simplifying maintenance.

# Designed for Low Density Gases

- Use of low lift combined suction / delivery valves specifically for low density gas operation
- Gas inlet solenoid valve, pressure gauge and relief valve, as well as high & low gas inlet pressure protection switches offers complete machine protection and instrumentation. Additionally these prevent contamination and dilution of the gas mix
- Compressor mounted gas inlet pulsation vessel for increased compressor efficiency
- Special gas-tight crankshaft oil seal assembly, gas-tight oil filler assembly and gas-tight crankcase breather piped back to suction, eliminate gas wastage or contamination

# Renowned for Reliability and Long Operational Life

- High efficiency multi pass coolers are fitted after each compression stage and are removable for ease of inspection and maintenance.
- Individual compression stage separation, using CompAir designed high efficiency separators, reduces any oil / moisture carryover between stages thereby increasing component life.
- Single combined concentric long life valve on each compression stage. A single valve cover allows for easy access and quicker maintenance.
- The final high pressure stage has polymer piston rings offering more consistent wear and minimising oil carry over.
- Pressure gauges and safety valves are fitted as standard on all stages for added safety.
- Integral high efficiency corrosion resistant and withdrawable inter and afterstage coolers plus sacrificial anode corrosion rods in water jacket, ensure longer life in marine and offshore applications.

Reavell Heliox compressors can be configured for "dedicated" or "dual role" operation depending upon the vessels operating requirements.

STANDARD CONFIGURATIONS INCLUDE:

- DEDICATED HELIOX TRANSFER DUTY
- DEDICATED HELIOX RECLAIM DUTY
- DEDICATED BREATHING AIR DUTY
- DUAL HELIOX TRANSFER AND HELIOX RECLAIM DUTY
- DUAL HELIOX TRANSFER AND BREATHING AIR DUTY

# Flexible Packaging Options

# Standard Specification Unit

Easily incorporated into existing installations

- 4 stage compressor
- Drive arrangement vee belt drive or direct coupled
- TEFV, IP55 electric motor
- · Marine type (captive) anti-vibration mounts
- Compressor mounted gas inlet pulsation vessel
- · Pressure gauges and relief valves on all stages

#### **Optional Ancillary Equipment for Standard Packages**

- Starter / control panel
- Gas clean-up filtration pack
- CO (carbon monoxide) monitor (optional supplied loose)
- 02 (oxygen) monitor (optional supplied loose)



PICTURED: 5437
STANDARD SPECIFICATION UNIT

# Fully Packaged Heliox Set (Transfer and/or Reclaim duty)

Minimises onboard installation and provides a more portable package

- 4 stage compressor
- · Main equipment baseplate
- Gas inlet pressure reduction system\*
- Gas inlet buffer vessel\*
- · Gas inlet oxygen monitor / trip
- Delivery line gas clean-up filtration pack
- · Carbon monoxide monitor / trip
- Starter/control panel
- Interconnecting gas piping (inlet through to final delivery point)
- On-set electrical wiring (starter / control panel to motor + instrumentation)





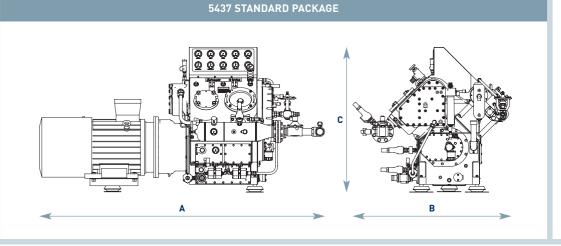
PICTURED: 5437 FULLY PACKAGED SET

#### **TECHNICAL DATA** MODEL MAX PRESSURE CAPACITY (FGD) COMPRESSOR MOTOR POWER PSI m<sup>3</sup>/hr rpm 200 2900 62 36 1580 22 30 800 1760 5417 4350 300 60 35 1580 22 30 800 1760 50 200 2900 110 65 1160 37 1570 3460 5437 300 4350 108 63.5 1160 37 1570 50 3460

DIMENSIONS (A X B X C)			
5417		5437	
1343mm x 1144mm x 846mm	53" x 45" x 33"	2568mm x 1403mm x 1308mm	101" x 55" x 51"

**5417 STANDARD PACKAGE** 

# C B



#### NOTES:

- 1. Performance figures are based on Transfer duty with an inlet pressure of 0.2 bar / 4 psi.
- 2. Performance figures are typical and do not reflect the full range available.
- 3. Performances on electric motor sets are based on a 60 Hz ship supply. Alternative voltages, capacities, speeds and pressure can be considered on request.
- 4. Performance figures are based on measurement at 20°C, 1.013 bar absolute and 15°C cooling water temperature. Flow rates measured in accordance with ISO 1217:1996.
- **5.** Cooling water flow is approximately 75 l/hr per kW of absorbed motor power.
- **6.** Maximum oxygen content of heliox should not exceed 22%.



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The CompAir standard is one of continuous improvement and we therefore reserve the right to alter specifications and processes without prior notice. All products are sold subject to the Company's conditions of sale.

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