



Risk Management, Safety Assurance and the Importance of Lifecycle Maintenance
Context of ALARP Compressed Breathing Air and Commercial Diving Automation

Who we are

Global Leaders in the Provision of Safety Critical Risk Management Solutions



- ✓ Based in Scotland
- ✓ Products / Services in over 25+ Countries
- ✓ 35+ Years' Oil & Gas Experience
- ✓ Recognised Market Leader
'Invisible Risk' Management e.g.
Breathing Air Systems /
Commercial Diving Vessels.

Our Clients

Examples of our clients who TRUST our solutions.



KAEFER



TechnipFMC



TOTAL



**REPSOL
SINOPEC**
Resources UK



HELIX
ENERGY SOLUTIONS



A CHOC LIMITED COMPANY



REVER
OFFSHORE



Rope access Specialists



TEKFEN
CONSTRUCTION



wood.

**BAKER
HUGHES**
a GE company



Weatherford



A Fluor Company

bp



BAE SYSTEMS



subsea 7



Safer • Smarter • Solutions



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Aligned with

HSE UK & British Safety Industry Federation to Reduce Occupational Respiratory Disease



Safety of Compressed Air – Legislation & Standards

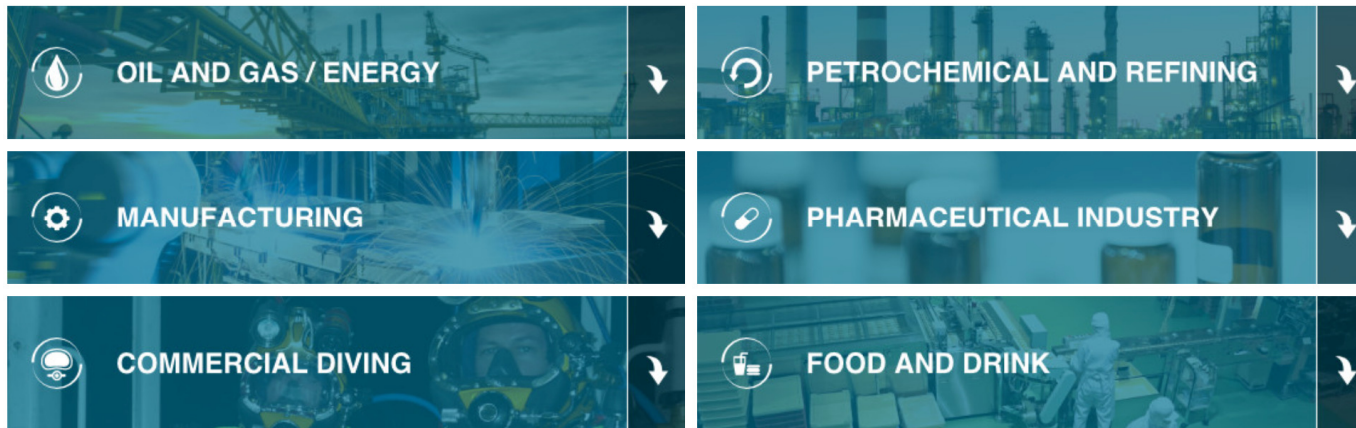
- Employer Obligations are stipulated by the Health and Safety at Work Act 1974 - Primary Legislation in UK
- COSHH L5 mandatory requirements applicable to compressed breathing air quality testing and record keeping
- BS EN 12021:2014 specifies quality standards for compressed breathing air
- The ISO8573 standards specifies quality classes for air used in different industrial applications e.g. Food / Pharmaceutical
- Process Safety Alerts from Manufacturers e.g. NOV in relation to air quality used for drilling equipment

Why Do We Need To Purify Compressed Air?

- Compressed Air is used to ensure the respiratory safety of operatives entering and working in areas likely to be hazardous to health.
- It is essential that the quality of the air used for breathing is safe and not a danger to short or long term health of the operatives
- The human lung can process 100 l/min or 6 cubic meters of air per hour. In doing so it generates a pressure of 0.02 - 0.08 Bar.
- In a healthy condition, the reliability of the human lung is unsurpassed and it costs nothing to service. It is precious.
- Contaminate the lung and the costs are expensive or Fatal

**Air supplied from a compressor is not the same as air in this room
Its an artificial air mix produced through a hot machine**

Our Industries



SAFEWELL WORKING WITH BAE SYSTEMS

To Ensure a safe, clean and reliable air source is provided when testing the On-Board Oxygen Generation Systems (OBOGS) within the Hawk fighter jet.



Our Insight

**Identify the 'Invisible' Risk
Provide Safety & Reliability
Manage the Risk Holistically**

- Education
- Training
- Competence Assurance of Operatives
- Focus on safety and occupational health
- Best Practice

Discover, Diagnose, Design, Deliver and Measure.

Examples how Safewell can help manage your risks;



COMPRESSED AIR TESTING



TRAINING & COMPETENCE



AUTOMATION RISK MANAGEMENT



BREATHING AIR PURIFICATION

Compressed Air Quality Testing

- Breathing Air
- Process Air e.g. Instrument



Training & Competency

Risk Management Training & Competence Assurance



Overview

With our training, we can work with your local specialists to help you set up a complete risk management system based on ALARP principles to create awareness, promote safety and prevent long term health risks such as COPD (Chronic Obstructive Pulmonary Disease).

TRAINING COURSES AVAILABLE

- ATEX BA Compressor
- Air Purification Units
- Air Purity Analysers
- Risk Awareness Training
- Competence Assessments
- Lifecycle Support
- Spares and Servicing
- Proof Testing of Safety Control Systems



**CLEAN AIR?
TAKE CARE!**

AVERAGE SCORE OUT OF 10



ATEX Breathing Air Purification Systems



Examples of Breathing Air Products / Solutions we have developed to provide Lifecycle Safety, Reliability and Return on Investment for our clients.



ATEX Filter Pack
(4-6 Person)



ATEX BA Purifier
(2-4 Person)



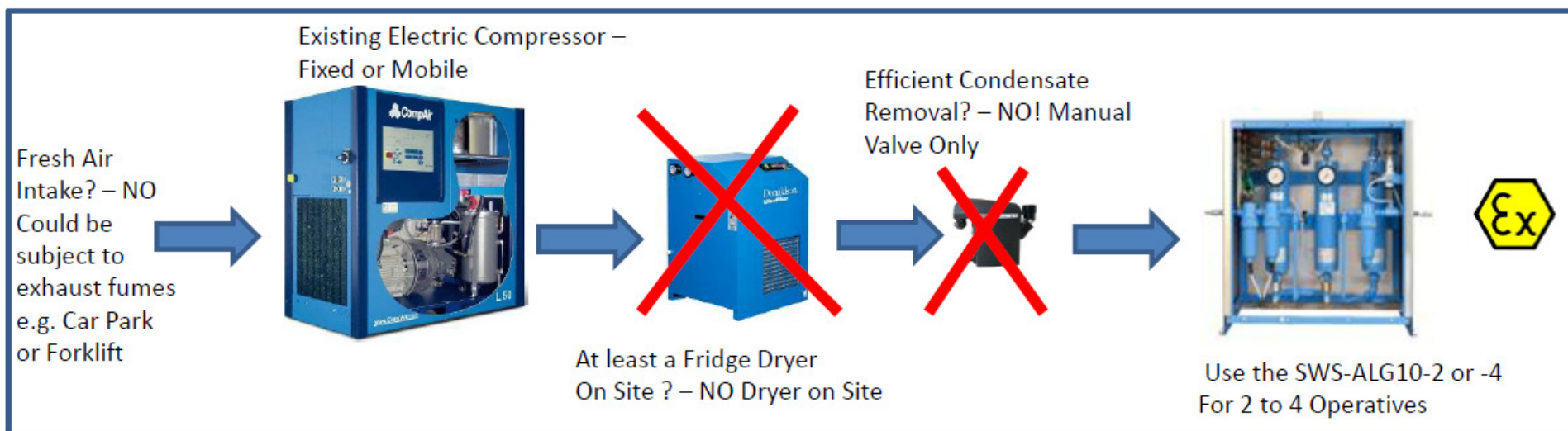
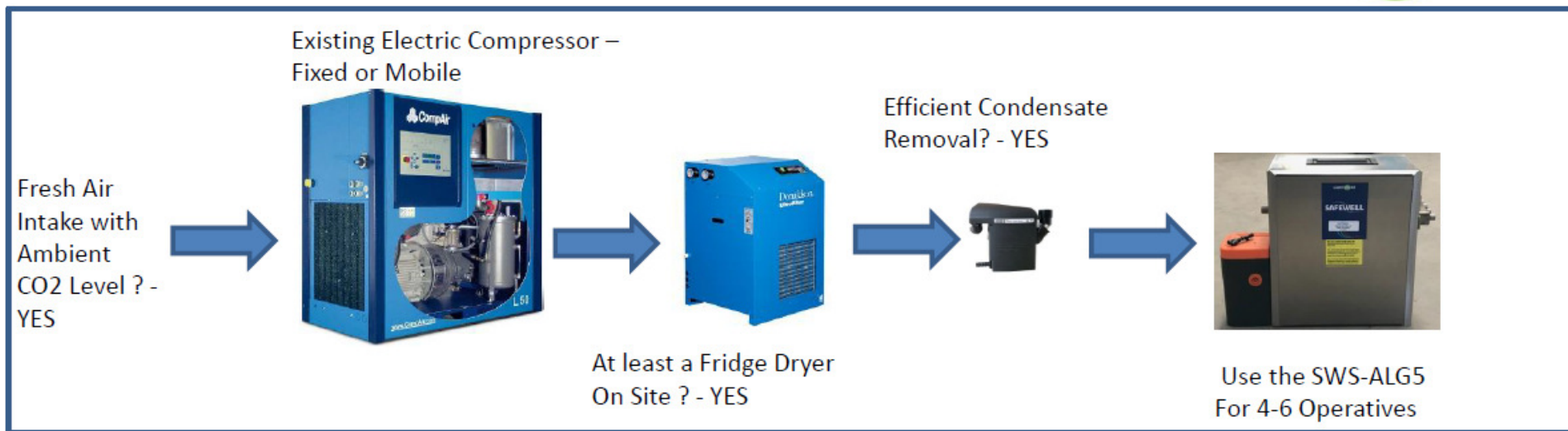
**Non-Electric ATEX BA
Purifier for Diesel
Compressors**
(4 Person)



**Electric ATEX BA
Compressors (& Non –
BA)**
(4 Person)

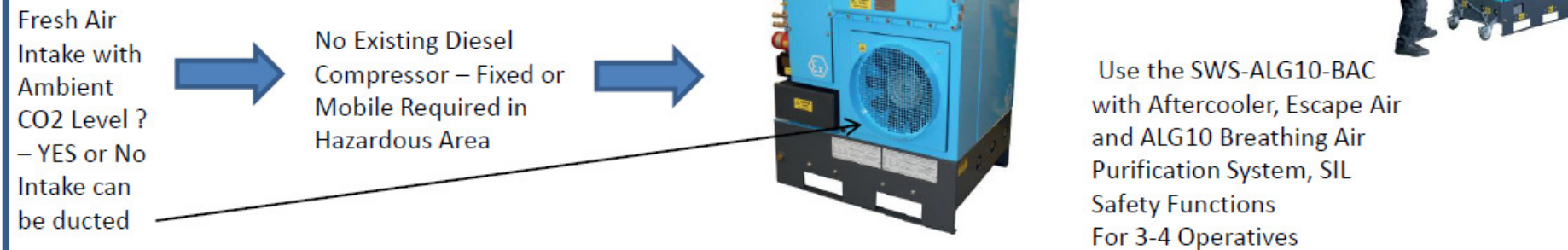
Providing Breathing Air Quality superior to BS EN12021:2014 International Standard

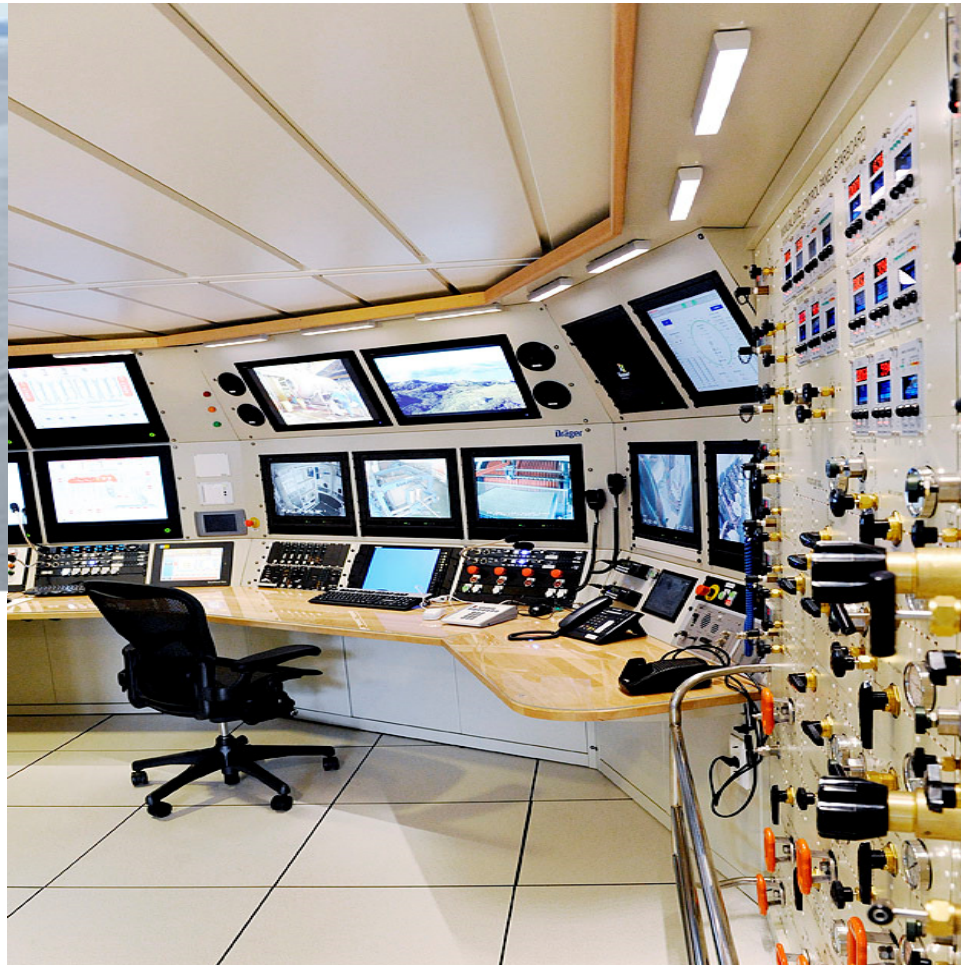
How to Choose the Best Breathing Air Safety Barrier?



How to Choose the Best Breathing Air Safety Barrier?

ALWAYS **ON** AIR





IOGP RBP468 (Recommended Best Practice)

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Safety Assurance of Automated Dive Vessels – Last 11 Years Summary of PLC DSAP

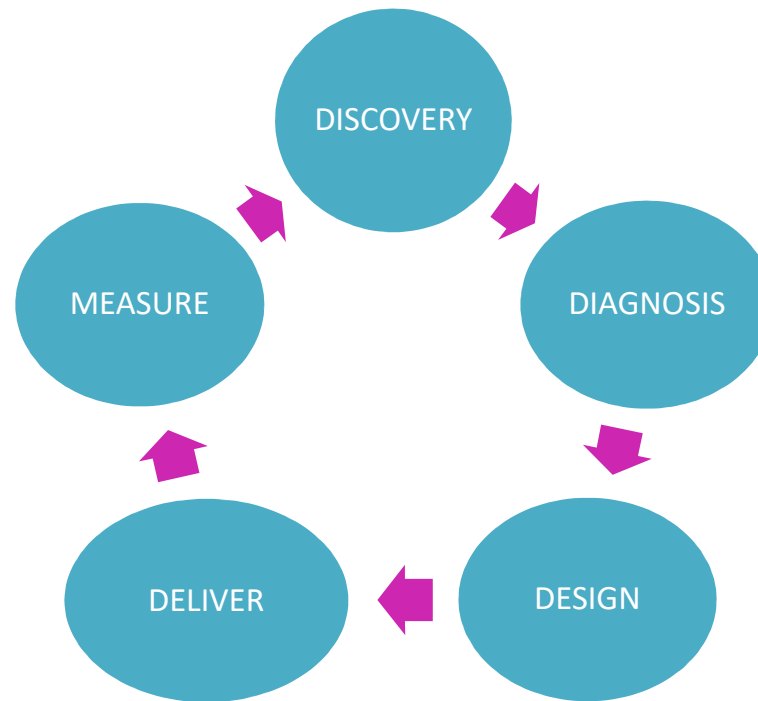
DSV's Audited	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Bibby Topaz	✓										✓	
SS7 Seven Atlantic		✓				✓	✓		✓	✓	✓	✓
SS7 Seven Havila (Falcon)					✓		✓		✓		✓	✓
Helix Well Enhancer				✓				✓		✓	✓	✓
Bibby Sapphire				✓								
Bibby Polaris							✓	✓	✓		✓	✓
Skandi (Deep) Arctic						✓	✓			✓		✓
SS7 Seven Kestrel										✓	✓	
Technip Deep Explorer										✓	✓	✓
Khankendi (BP)											✓	
Sapura Constructor											✓	
SS7 Seven Eagle											✓	
EDT Protea											✓	
Kreuze Challenger										✓	✓	
NOR Atlantis												✓
DA VINCI												✓
Normand Reach ROV											✓	
Milestones												
Skandi Arctic Bell Drop						✓						
IOGP RP468 Developed					✓	✓	✓	✓				
IOGP RP468 Published									✓			
IMCA PLC Seminar								✓				
Shell Team	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
DSVi Team									✓	✓	✓	✓



INCIDENT

Lifecycle Value Clarity

Your journey with us doesn't stop once the product or service is purchased. Safewell will always be on hand to deliver additional advice, service, conduct further risk assessments and training.



A man with a beard, wearing a white long-sleeved shirt and blue jeans, is sitting on the floor. He is looking upwards and to the right with a thoughtful expression. The background is a complex digital landscape featuring glowing binary code (0s and 1s) in various colors (blue, yellow, green, red), circuit board patterns, and abstract light effects. The overall scene suggests a connection between human thought and technology.

Thank you.

I kindly welcome
your questions.

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