

MEDFOX

| STANDARD RANGE |
| MEDICAL OXYGEN CYLINDER FILLING SYSTEMS |



Application:
Oxygen Cylinder Filling for Patient Use

Designed & Manufactured by:



Tel: (+27) 21 785 4002 WhatsApp: (+27) (0) 79 687 6148 info@foxolution.co.za www.foxolution.co.za

ISO 9001 Certified Quality Management System | SAQCC Gas Registered: DOL Legally Mandated Certified Technical Personnel
| ECSA Registered Engineers | SAHPRA Licensed for Medical Device Manufacturing

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[A]. INTRODUCTION:

Thank you for your interest in our industry-leading MEDFOX Oxygen Cylinder Filling Systems, designed specifically for medical applications.

While this document outlines the standard range of Foxolution Cylinder Filling Systems, all offered systems will undergo an engineering design sizing calculation. This process ensures that the equipment can deliver the specified oxygen volumes at the local ambient conditions¹ of your specific site.

MEDFOX systems are supplied with the highest quality componentry:

The electrical switchgear, hardware, PLC, and HMI touchscreen controller are Allen-Bradley or equivalent. The primary air supply equipment is of European origin, supplied by Atlas Copco or Kaeser, while all pneumatic components are sourced from Festo. The oxygen generation module is designed and manufactured in-house by Foxolution in Cape Town. Any high-pressure oxygen compression equipment, where applicable, is sourced from the USA and manufactured by RIX Industries.



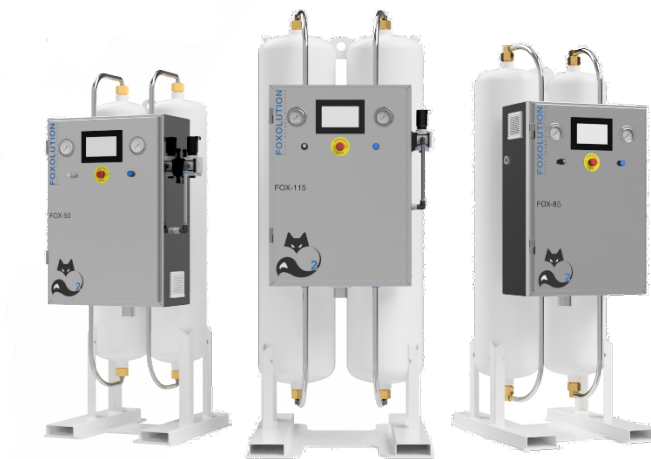
SYSTEM BENEFITS of being self-sufficient in your onsite gas generation:

- ✓ 24/7 Oxygen Supply: Ensure a continuous oxygen supply around the clock.
- ✓ Cost Reduction: Producing your own oxygen significantly lowers total gas costs—guaranteed.
- ✓ Inventory Control: Regain control of your gas inventories and eliminate dependence on suppliers, fuel surcharges, rentals, and other extra costs.
- ✓ Rapid ROI: Achieve a return on investment in less than 2 years. Additionally, the system is a depreciable asset over its operational life.

¹Ambient temperature, relative humidity and site elevation, amongst other key variables, all to be considered.

KEY POINTS to consider:

- Fox's range of PSA Oxygen Generators includes an integrated desiccant dryer by design, which greatly extends the molecular sieve lifespan.
- Pressure vessels are designed for 2.5 million cycles (± 15 years' continuous service).



- FOX's labour contingent responsible for the sign-off of the installation are registered as "Gas Practitioner" which means a person who is registered as competent within the scope of work for which SAQCC Gas, has registered that person. SAQCC Gas is an approved authority under the mandate of the Chief Inspector of the Department of Labour.
- All the equipment on offer is backed up locally by Foxolution SE (Pty) Ltd.

We currently travel to 14 countries on the African continent for service, maintenance, and support solutions so we are well positioned to provide for all planned and unplanned support and site visits, with customized Service Level Agreements (SLA) available upon request.

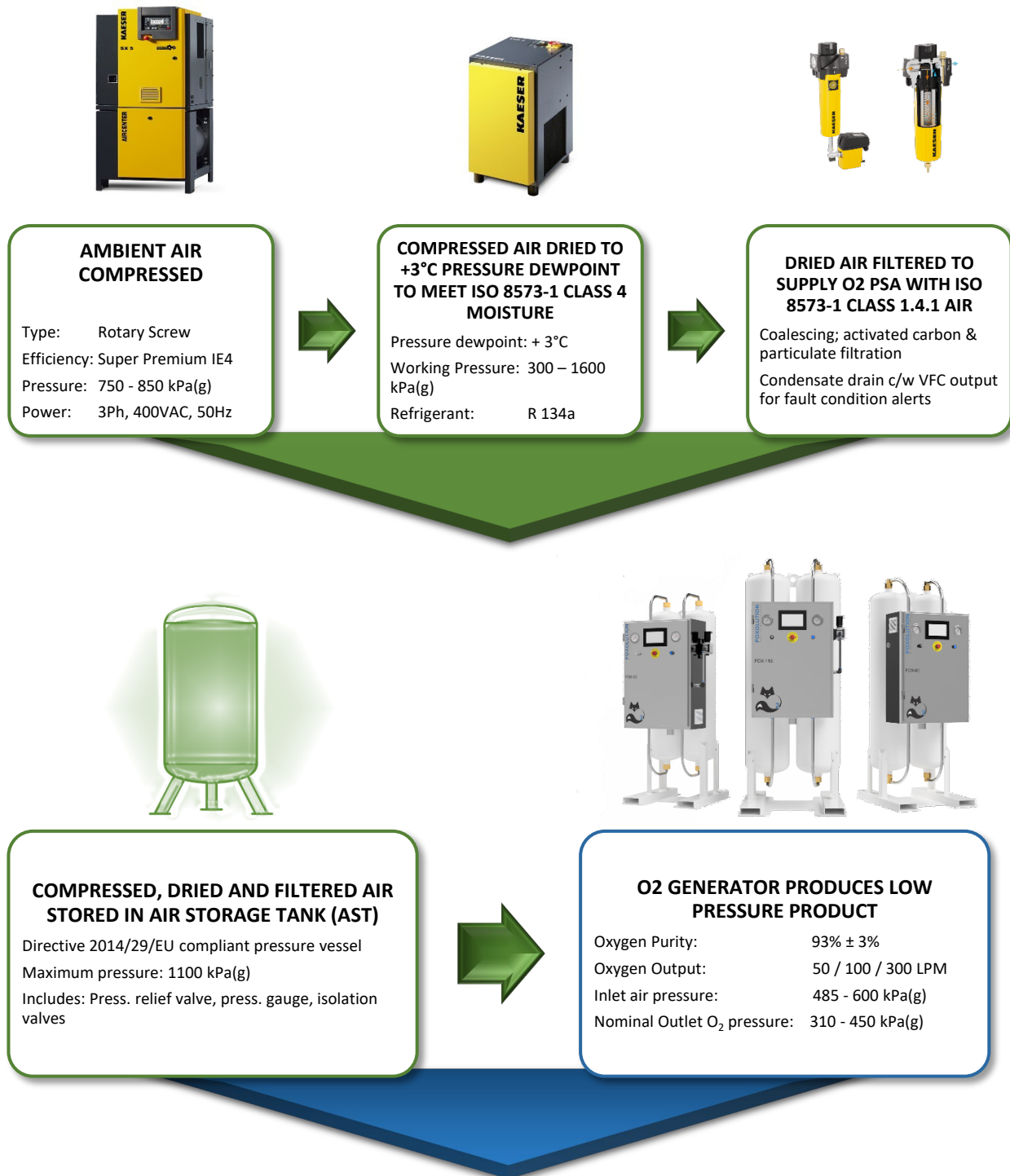


- Onsite pressure vessel testing by an Authorized Inspection Authority (AIA) as per the Pressure Equipment Regulations (PER) in accordance with SANS 347-Ed.2:2012 can be included in the offer if installed within the borders of RSA² to comply with local law and regulations as per SANS 347 and the PER of South Africa³.
- FOX will train all customer-appointed plant operators on all requirements as set out in the OSHACT⁴ related to the equipment scope of installation and gas type.

² Each countries rulings differ from another for this scope, Fox to assist and guide where and when required.

³ Foxolution can cater for this at cost + 20% upon request.

⁴ Occupational Health and Safety Act.

[B]. SYSTEM PROCESS FLOW:




**LOW PRESSURE O2
STORED IN OXYGEN
STORAGE TANK (OST)**

Directive 2014/68/EU compliant
pressure vessel
Maximum pressure: 1100 kPa(g)
Includes: Press. relief valve,
press. gauge, isolation valves,
Sterile Filter to protect against
any bacterial growth



**O2 COMPRESSORS,
COMPRESSES PRODUCT
TO 142bar(g) FOR
CYLINDER FILLING**

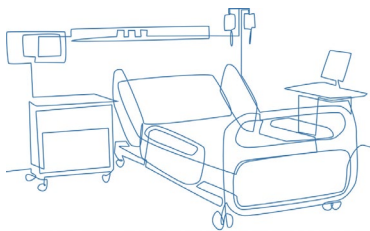
Two / Three Stage Oil Free
Discharge Pressure: 142 bar(g)
Air Cooled



**CYLINDER FILLING
MANIFOLD INCLUDES:**

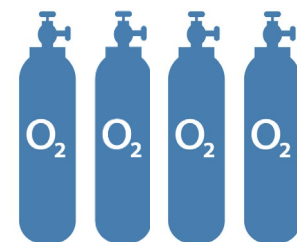
5 or 10 way oxygen manifold
c/w filling hoses
Pressure contents gauge
High Pressure O2 Pressure
Transducer

DS



**OPTIONAL: DIRECT SUPPLY
SYSTEMS (DS)**

LOW PRESSURE OXYGEN
DIRECTLY SUPPLIES FACILITY
AUTOMATIC BACKUP SUPPLY TO
COME ONLINE IN THE EVENT OF
A FAULT CONDITION



**OPERATOR PLACES FILLED
CYLINDERS IN A SECURE &
SHADED STORAGE AREA
UNTIL REQUIRED FOR
PROCESS**

[C]. MEDFOX SYSTEM BUILD OPTIONS:

1. SKID MOUNTED – SM

- Turnkey modular design.
- Convenient to reposition or move if required.
- Minimizes installation complexity & time.
- Requires a suitable building/structure for housing the system.



2. CONTAINERIZED – CT

- 20ft or 40ft modified container with steel floors.
- Air conditioner units fit.
- Air intake & outlet ducts for air compressor.
- Emergency exit door.
- Fire extinguishers (CO2 dry powder).
- 10 Volume change per/hour fan hardwired for plant shut down if fault condition monitored.
- Ambient oxygen and nitrogen monitoring system hardwired for plant shutdown if preset limit met.
- Air intake grill/louver c/w dust mats
- Anti-skid rubberizing.
- Anti-vibration mountings as required.
- LED lighting.
- Oxygen lines – Medical grade Cu / 304 SS lines connected & leak tested for standard layout only.
- Does not require a building/structure for housing the system.



[D]. MEDFOX EQUIPMENT SPECIFICATIONS & TYPICAL INCLUSIONS:

TECHNICAL SPECIFICATION TABLE			
SKID MOUNTED SYSTEMS - SM	MEDFOX-50-SM	MEDFOX-100-SM	MEDFOX-300-SM
SIZE (LWH)	2.40 x 2.26 x 2.40m	2.40 x 2.26 x 2.40m	7.60 x 2.40 x 2.40m
EST WEIGHT (kg's)	2, 000	2, 300	3, 800
OXYGEN DESIGN OUTPUT*	50 LPM / 3.0 m³/hr	100 LPM / 6.0 m³/hr	300 LPM / 18.0 m³/hr
OXYGEN DISCHARGE PRESSURE ^{5*}	142 bar(g) / 14, 200 kPa(g)	142 bar(g) / 14, 200 kPa(g)	142 bar(g) / 14, 200 kPa(g)
OXYGEN MANIFOLD SIZE	5 way	10 way	10 way
COMPATIBLE WITH CYLINDER SIZES	J/K, F, E (50L/40L, 9L, 3L water capacity)	J/K, F, E. (50L/40L, 9L, 3L water capacity)	J/K, F, E. (50L/40L, 9L, 3L water capacity)
50L WATER CAPACITY CYLINDERS FILLED / DAY	+/- 10	+/- 20	+/- 54
9L WATER CAPACITY CYLINDERS FILLED / DAY	+/- 50	+/- 100	+/- 300
3L WATER CAPACITY CYLINDERS FILLED / DAY	+/- 155	+/- 315	+/- 890
POWER CONSUMPTION (kW) *	7.6	12.2	33.5
OPERATING TEMPERATURES*	-5 degrees C – 40 degrees C.	-5 degrees C – 40 degrees C.	-5 degrees C – 40 degrees C.
PLC CONTROL PANEL WITH TOUCHSCREEN CONTROLLER (SMARTPHONE ICON DRIVEN)	Yes	Yes	Yes
TOUCH SCREEN CONTROLLER TYPE	65, 536 Colour TFT LCD Display	65, 536 Colour TFT LCD Display	65, 536 Colour TFT LCD Display
TOUCH SCREEN CONTROLLER RESOLUTION	1024 X 600	1024 X 600	1024 X 600
TOUCH SCREEN CONTROLLER SIZE	10 inch	10 inch	10 inch
AIR COMPRESSOR	Yes	Yes	Yes
FOOD-GRADE OIL TO REPLACE STANDARD INDUSTRIAL-GRADE PRODUCT	Optional Subject to adherence to local regulations, customer standards, territorial requirements, and alignment with internal standards		
BREATHING AIR/FOOD-GRADE FLEXIBLE AIR HOSES	Optional Subject to adherence to local regulations, customer standards, territorial requirements, and alignment with internal standards		
REFRIGERATED AIR DRYER	Yes	Yes	Yes
CONDENSATE MANAGEMENT SYSTEM	Yes	Yes	Yes
AIR FILTRATION TO MEET ISO 8573 CLASS 1.4.1	Yes	Yes	Yes
AIR STORAGE VESSEL & SAFETY DEVICE	Yes	Yes	Yes
PSA OXYGEN CONCENTRATING UNIT	Yes	Yes	Yes
OXYGEN STORAGE VESSEL & SAFETY DEVICE	Yes	Yes	Yes
OXYGEN STERILE/BACTERIAL & PARTICULATE FILTRATION	Yes	Yes	Yes
HIGH-PRESSURE OXYGEN COMPRESSOR	Yes	Yes	Yes
FILLING MANIFOLD WITH ALL ACCESSORIES	Yes	Yes	Yes
SAFETY SIGNAGE	Yes	Yes	Yes
FIRE EXTINGUISHER	Optional	Optional	Optional
EMERGENCY STOP (HARDWIRED) *	Yes	Yes	Yes
SAFETY ALARMS - AUDIBLE & VISUAL SEE*	Yes	Yes	Yes
OXYGEN / NITROGEN LEAK DETECTION*	Optional	Optional	Optional
OXYGEN PRODUCT PURITY SENSOR*	Yes	Yes	Yes
AUTOMATIC PURITY CONTROL*	Yes	Yes	Yes
PRESSURE DEW POINT (PDP) DETECTION*	Yes	Yes	Yes
INLET AIR TEMPERATURE MEASUREMENT*	Yes	Yes	Yes
INLET AIR PRESSURE MEASUREMENT *	Yes	Yes	Yes

⁵Higher pressures are available upon request.

OIL TEMPERATURE MEASUREMENT*	Yes	Yes	Yes
VOLTAGE FREQUENCY MONITORING*	Yes	Yes	Yes
OVER-VOLTAGE PROTECTION*	Yes	Yes	Yes
CYLINDER VACUUM STATION	Yes	Yes	Yes
REMOTE MONITORING FUNCTIONALITY	Optional	Optional	Optional
HISTORICAL DATA LOGGING	Optional	Optional	Optional
OXYGEN MANIFOLD SAFETY VENT VALVE	Yes	Yes	Yes
HIGH-PRESSURE OXYGEN SAFETY SWITCH*	Yes	Yes	Yes
LOW-PRESSURE OXYGEN PRESSURE TRANSMITTER*	Yes	Yes	Yes
HIGH-PRESSURE OXYGEN PRESSURE TRANSMITTER*	Yes	Yes	Yes
HIGH-PRESSURE OXYGEN VIBRATION ANALYSIS*	Yes	Yes	Yes
HIGH-PRESSURE OXYGEN STAGE TEMPERATURE*	Yes	Yes	Yes
CO2 CONTAMINANT DETECTION IN OXYGEN*	Optional	Optional	Optional
CO-CONTAMINANT DETECTION IN OXYGEN*	Optional	Optional	Optional
PARAMAGNETIC OXYGEN ANALYSIS*	Optional	Optional	Optional
AIR CONDITIONING*	No	No	No
EXHAUST VENTILATION*	No	No	No
EMERGENCY EXIT DOOR	No	No	No
COMPRESSOR AIR INLET FILTRATION	No	No	No
COMPRESSOR AIR INLET & OUTLET DUCTING	No	No	No
ROOFING STRUCTURE	No	No	No
POWER CONSUMPTION METER	Optional	Optional	Optional
FLOW USAGE/VOLUME PRODUCTION MONITORING AND METRICS	Optional	Optional	Optional

TECHNICAL SPECIFICATION TABLE

CONTAINERIZED SYSTEMS - CT	MEDFOX-50-CT	MEDFOX-100-CT	MEDFOX-300-CT
SIZE (LWH)	6.06 x 2.44 x 2.59m	6.06 x 2.44 x 2.59m	12.20 x 2.44 x 2.90m
EST WEIGHT (kg's)	3, 800	4, 050	7, 400
OXYGEN DESIGN OUTPUT*	50 LPM / 3.0 m ³ /hr	100 LPM / 6.0 m ³ /hr	300 LPM / 18.0 m ³ /hr
OXYGEN DISCHARGE PRESSURE ^{6*}	142 bar(g) / 14, 200 kPa(g)	142 bar(g) / 14, 200 kPa(g)	142 bar(g) / 14, 200 kPa(g)
OXYGEN MANIFOLD SIZE	5 way	10 way	10 way
COMPATIBLE WITH CYLINDER SIZES	J/K, F, E (50L/40L, 9L, 3L water capacity)	J/K, F, E. (50L/40L, 9L, 3L water capacity)	J/K, F, E. (50L/40L, 9L, 3L water capacity)
50L WATER CAPACITY CYLINDERS FILLED / DAY	+/- 10	+/- 20	+/- 54
9L WATER CAPACITY CYLINDERS FILLED / DAY	+/- 50	+/- 100	+/- 300
3L WATER CAPACITY CYLINDERS FILLED / DAY	+/- 155	+/- 315	+/- 890
POWER CONSUMPTION (kW) *	10.1	14.7	38
PLC CONTROL PANEL WITH TOUCHSCREEN CONTROLLER (SMARTPHONE ICON DRIVEN)	Yes	Yes	Yes
TOUCH SCREEN CONTROLLER TYPE	65, 536 Colour TFT LCD Display	65, 536 Colour TFT LCD Display	65, 536 Colour TFT LCD Display
TOUCH SCREEN CONTROLLER RESOLUTION	1024 X 600	1024 X 600	1024 X 600
TOUCH SCREEN CONTROLLER SIZE	10 inch	10 inch	10 inch
AIR COMPRESSOR	Yes	Yes	Yes
FOOD-GRADE OIL TO REPLACE STANDARD INDUSTRIAL-GRADE PRODUCT	Optional Subject to adherence to local regulations, customer standards, territorial requirements, and alignment with internal standards		
BREATHING AIR/FOOD-GRADE FLEXIBLE AIR HOSES	Optional Subject to adherence to local regulations, customer standards, territorial requirements, and alignment with internal standards		
REFRIGERATED AIR DRYER	Yes	Yes	Yes
CONDENSATE MANAGEMENT SYSTEM	Yes	Yes	Yes
AIR FILTRATION TO MEET ISO 8573 CLASS 1.4.1	Yes	Yes	Yes
AIR STORAGE VESSEL & SAFETY DEVICE	Yes	Yes	Yes
PSA OXYGEN CONCENTRATING UNIT	Yes	Yes	Yes
OXYGEN STORAGE VESSEL & SAFETY DEVICE	Yes	Yes	Yes
OXYGEN STERILE/BACTERIAL & PARTICULATE FILTRATION	Yes	Yes	Yes
HIGH-PRESSURE OXYGEN COMPRESSOR	Yes	Yes	Yes
FILLING MANIFOLD WITH ALL ACCESSORIES	Yes	Yes	Yes
SAFETY SIGNAGE	Yes	Yes	Yes
FIRE EXTINGUISHER	Yes	Yes	Yes
EMERGENCY STOP (HARDWIRED) *	Yes	Yes	Yes
SAFETY ALARMS AUDIBLE & VISUAL SEE*	Yes	Yes	Yes
OXYGEN / NITROGEN LEAK DETECTION*	Yes	Yes	Yes
OXYGEN PRODUCT PURITY SENSOR*	Yes	Yes	Yes
AUTOMATIC PURITY CONTROL*	Yes	Yes	Yes
PRESSURE DEW POINT (PDP) DETECTION*	Yes	Yes	Yes
INLET AIR TEMPERATURE MEASUREMENT*	Yes	Yes	Yes
INLET AIR PRESSURE MEASUREMENT *	Yes	Yes	Yes
OIL TEMPERATURE MEASUREMENT*	Yes	Yes	Yes
VOLTAGE FREQUENCY MONITORING*	Yes	Yes	Yes
OVER-VOLTAGE PROTECTION*	Yes	Yes	Yes

⁶ Higher pressures are available upon request.

CYLINDER VACUUM STATION	Yes	Yes	Yes
REMOTE MONITORING FUNCTIONALITY	Optional	Optional	Optional
HISTORICAL DATA LOGGING	Optional	Optional	Optional
OXYGEN MANIFOLD SAFETY VENT VALVE	Yes	Yes	Yes
HIGH-PRESSURE OXYGEN SAFETY SWITCH*	Yes	Yes	Yes
LOW-PRESSURE OXYGEN PRESSURE TRANSMITTER*	Yes	Yes	Yes
HIGH-PRESSURE OXYGEN VIBRATION ANALYSIS*	Yes	Yes	Yes
HIGH-PRESSURE OXYGEN STAGE TEMPERATURE*	Yes	Yes	Yes
CO2 CONTAMINANT DETECTION IN OXYGEN*	Optional Subject to adherence to local regulations, customer standards, territorial requirements, and alignment with internal standards		
CO-CONTAMINANT DETECTION IN OXYGEN*	Optional Subject to adherence to local regulations, customer standards, territorial requirements, and alignment with internal standards		
PARAMAGNETIC OXYGEN ANALYSIS*	Optional	Optional	Optional
AIR CONDITIONING*	Yes	Yes	Yes (2)
EXHAUST VENTILATION *	Yes	Yes	Yes
EMERGENCY EXIT DOOR	Yes	Yes	Yes
COMPRESSOR AIR INLET FILTRATION	Yes	Yes	Yes
COMPRESSOR AIR INLET & OUTLET DUCTING	Yes	Yes	Yes
ROOFING STRUCTURE	Optional	Optional	Optional
POWER CONSUMPTION METER	Optional	Optional	Optional
FLOW USAGE/VOLUME PRODUCTION MONITORING AND METRICS	Optional	Optional	Optional

*Denotes inclusion of various levels of alarm priorities and corresponding actions based on the criticality of the measured variable. This can range from audio and visual alarms to complete system shutdown, as well as autonomous reporting via preferred channels. Please enquire for more information if required.

Each Systems Documentation Pack to Include:

- Operation & Maintenance Manual
- Safety Standards and Instructions
- Component List Indicating Parts Description & Part Number

[E]. OPTION | REMOTE MONITORING SYSTEM (TELEMETRY SOLUTION) & REAL-TIME MONITORING



There are numerous ways to structure this solution to meet your specific requirements and KPIs. In summary, the solution enables the customer and Foxolution (if permitted), to remotely monitor the system providing advanced notice of maintenance needs and potential issues whenever possible. Additionally, it offers value-added telephonic support to help resolve faults or breakdowns quickly, assisting on-site staff with a rapid turnaround by allowing Foxolution to access the system in real-time from a remote location.

Key CUSTOMER benefits include⁷:

1. **Enhanced Monitoring:** Gain real-time insights into system efficiency and operator performance, with data on both productivity and safety.
2. **Proactive Maintenance:** Receive early warnings about maintenance requirements, reducing downtime and extending system lifespan.
3. **Remote Assistance:** Access telephonic support to address faults and breakdowns swiftly, ensuring minimal disruption.
4. **ROI Measurement:** Track and measure the return on investment (ROI) of your system, providing a clear view of its value and effectiveness.
5. **Data Logging and Storage:** Benefit from comprehensive data logging and storage, with retrievable historical data trends for the full life cycle of the system.
6. **Alarm Notifications:** Receive alarm notifications via email and/or SMS to stay informed about critical system events.
7. **Web Dashboard:** View real-time system values from any PC or mobile device on a customized web dashboard.
8. **Lower Costs:** Reduce operational and maintenance costs by minimizing the need for on-site operational resources and increasing system uptime.

Furthermore, this solution includes the following considerations:

⁷ Subject to options selected at the time of purchase.

- **Cost Structure:** The initial cost covers hardware only, with a monthly service charge to be included in a Service Level Agreement (SLA).
- **Service Management:** Foxolution will manage servicing requirements remotely, informing you of the next service interval in advance. This alleviates the pressure on you to manage the system's maintenance plans.

This comprehensive approach ensures your system operates optimally, delivering maximum efficiency and safety while reducing operational costs and resources required on-site.

[F] TRAINING PROVIDED

Includes training on-site on the below topics if installation is selected:

- System Operation & Basic Maintenance⁸
- Fire Hazards of Oxygen and Oxygen-Enriched Atmospheres
- Hazards of Oxygen-Deficient Atmospheres
- All training referenced to EIGA (European Industrial Gases Association) literature and ASTM material

[G]. OPTIONAL EXTRAS⁹:

- Service level agreement
- Custom system cylinder filling volumes
- Direct oxygen supply to the patient with intelligent autonomous monitoring and control of primary, secondary, and reserve oxygen supplies to ISO7396-1 Medical Gas Pipeline Systems – Part 1: Pipeline systems for medical gases and vacuum.
- Additional medical gas systems to be integrated to allow for medical air and vacuum services, additional medical gas solutions available upon request.
- Cylinder supply.

[H]. WARRANTY:

- All Foxolution-installed equipment **other** than the Oxygen Concentrator is subject to a 1-year unconditional worldwide warranty on workmanship; parts are subject to the manufacturer's warranty.
- The Foxolution Oxygen Concentrators come standard with a 3-year unconditional worldwide warranty on parts and workmanship (molecular sieve excluded) subject to the adherence to the Foxolution scheduled maintenance program.
- All compressor equipment is subject to their respective manufacturer's warranty and subject to scheduled maintenance by proprietary trained technicians. Details are available upon request.
- All air receivers, oxygen receivers, and associated appurtenances are subject to their respective manufacturer's warranty.

⁸ Only day to day operation related, not Air & Oxygen Compressor service training.

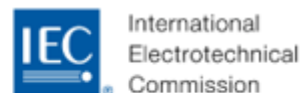
⁹ Motivation and or benefits available upon request.

Additional Notes:

- Foxolution is SAQCC (South African Qualification & Certification Committee) accredited and registered Gas Practitioners and Installers, as mandated by the South Africa Department of Labour for work/scope of this nature.
 - All the equipment on offer is backed up locally by Foxolution.
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[I]. STANDARDS REFERENCED IN THE DESIGN & BUILD OF MEDFOX SYSTEMS:

- ✓ United States Pharmacopeia (USP) XXII Oxygen 93% Monograph
- ✓ ISO 9001:2015 Quality Management System – Certified
- ✓ ISO 7936-1:2016 Medical Gas Pipeline Systems Part 1: Pipeline Systems For Compressed Medical Gases
- ✓ ISO 13485-2016(En) Medical Devices - Quality Management Systems – Requirements For Regulatory Purposes
- ✓ ASTM G63-15: Standard Guide For Evaluating Non-Metallic Materials For Oxygen Service
- ✓ ASTM G88-2013: Standard Guide For Designing Systems For Oxygen Service
- ✓ ASTM G93-03: (Re-Approved 2011) Standard Practice For Cleaning Methods And Cleanliness Levels For Material and Equipment Used In Oxygen-Enriched Environments
- ✓ ASTM G94-05: (Re-Approved 2014) Standard Guide For Evaluating Metals For Oxygen Service
- ✓ ASTM G127-15: Standard Guide For The Selection Of Cleaning Agents For Oxygen Enriched Systems
- ✓ EIGA Cleaning Of Equipment For Oxygen Service Guideline IGC Doc 33/06/E
- ✓ EIGA Oxygen Pipeline And Piping Systems IGC Doc 13/12/E
- ✓ EIGA Flexible Connections In High-Pressure Gas Systems IGC Document 42/16/E
- ✓ EIGA Good Manufacturing Practice Guide For Medicinal Gases IGC Doc 99/15/Part 1
- ✓ EIGA Environmental Impacts Cylinder Filling Plants IGC Doc 110/16/E
- ✓ EIGA Hazards Of Inert Gases And Oxygen Depletion IGC Document 44/09/E
- ✓ EIGA Safe Installation And Operation Of PSA And Membrane Oxygen And Nitrogen Generators IGC Document 149/17/E
- ✓ EIGA Fire Hazards Of Oxygen And Oxygen Enriched Atmospheres IGC Doc 04/09/E
- ✓ EIGA Reciprocating Compressors For Oxygen Service Code Of Practice IGC Doc 10/17/E
- ✓ EIGA Unmanned Air Gas Plants: Design & Operation IGC Document 132/15/E
- ✓ IEC 60204-1: 2016 Safety Of Machinery – Electrical Equipment Of Machines – Part 1: General Requirements
- ✓ IEC 61508-3: 1998 Functional Safety Of Electrical/Electronic/Programmable Electronic Safety-Related Systems Part 3: Software Requirements
- ✓ CGA G-4.1: 2009 Cleaning Equipment For Oxygen Service
- ✓ CGA G-4.6: 2014 Oxygen Compressor Installation And Operation Guide
- ✓ SANS 347:2012 Categorization And Conformity Assessment Criteria For All Pressure Equipment
- ✓ SANS 60079-29-2:2017 Explosive Atmospheres Part 29-2: Gas Detectors - Selection, Installation, Use And Maintenance Of Detectors For Flammable Gases And Oxygen
- ✓ SANS 10260-1:2004 Industrial Gas Pipelines Part 1: Distribution Of Oxygen, Nitrogen, And Argon At Consumer Sites
- ✓ SANS 10019:2008 Edition 6 Transportable Containers For Compressed, Dissolved And Liquefied Gases Basic Design, Manufacture, Use And Maintenance
- ✓ ANSI/ASME B16.5 Pipe Flanges And Flanged Fittings: Nps 1/2 Through Nps 24 Metric/Inch Standard American Society Of Mechanical Engineers



[J]. SYSTEM IMAGES:

IMAGE 01: INTERNAL OF MEDFOX-100-CT O2 93 CYLINDER FILLING SYSTEM ¹⁰

From left to right: Oxygen compressors, mounted on top of horizontal Oxygen receiver, Oxygen generator, Aircenter (air compressor, dryer, filtration, air receiver)



IMAGE 02: INTERNAL OF MEDFOX-100-CT O2 93 CYLINDER FILLING SYSTEM

From left to right: Aircenter (air compressor, dryer, filtration, air receiver), Fire extinguisher, Emergency exit, Main control panel, workbench, and calibration gases



¹⁰ Images for illustrative purposes. May differ from actual.

IMAGE 03: MEDFOX-100-CT 10-WAY CYLINDER FILLING CHAMBER WITH VACUUM STATION



IMAGE 04: MEDFOX-50-CT SYSTEM OPERATION VIA TOUCH SCREEN CONTROLLER – MUCH THE SAME AS OPERATING A SMARTPHONE



IMAGE 05: MEDFOX-185-CT-DS CONTAINERISED OXYGEN 93% CYLINDER FILLING SYSTEM EXTERIOR



IMAGE 06: MEDFOX-185-CT-DS CONTAINERISED OXYGEN 93% CYLINDER FILLING SYSTEM EXTERIOR



IMAGE 07: MEDFOX-185-CT-DS CONTAINERISED OXYGEN 93% CYLINDER FILLING SYSTEM INTERIOR



IMAGE 08: MEDFOX-185-CT-DS CONTAINERISED OXYGEN 93% CYLINDER FILLING SYSTEM INTERIOR



IMAGE 09: MEDFOX-300-CT-DS CONTAINERISED OXYGEN 93% CYLINDER FILLING SYSTEM INTERIOR



IMAGE 10: MEDFOX-300-CT-DS TYPICAL AIR SUPPLY EQUIPMENT



IMAGE 11: MEDFOX-300-SM SKID-MOUNTED CYLINDER FILLING SYSTEM HOUSED IN A PURPOSE-BUILT PLANT ROOM



IMAGE 12: MEDFOX-300-SM FILLING MANIFOLDS AND 2V3 RIX 50 P/DAY OXYGEN CYLINDER FILLING COMPRESSORS



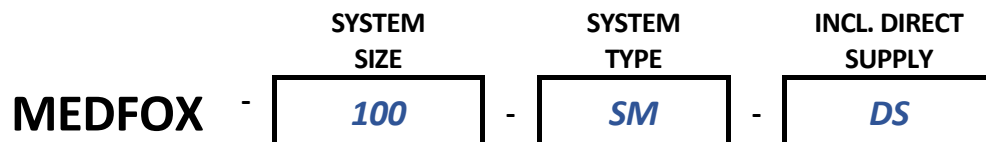
IMAGE 13: MEDFOX-300-SM 3D ILLUSTRATION



[K]. CYLINDER SPECIFICATIONS:

FOX CYLINDER SPECIFICATIONS		STANDARD SIZES	
	3L	9L	50L
International Manufacturing Standard	84/526/EEC European Standard Aluminum Cylinder CE TPED Approval	84/526/EEC European Standard Aluminum Cylinder CE TPED Approval	ISO 9809-1/2 Refillable seamless steel gas cylinders – Design, Construction & Testing
Cylinder Material of Construction	Aluminum AA6061	Aluminum AA6061	34CrMo4 Steel
Gas Filled	No	No	No
Neck Thread	17E, EN ISO 11363-1 (W19.8)	25E, EN ISO 11363-1 (W28.8)	25E, EN ISO 11363-1 (W28.8)
Base	Concave	Concave	Concave
Tare Weight Approx.	3.8 [kg]	10 [kg]	62 [kg]
Water Capacity	3 [L]	9 [L]	50 [L]
Working Pressure	166 [bar]	166 [bar]	200 [bar]
Test Pressure	250 [bar]	250 [bar]	300 [bar]
Outside diameter	111 [mm]	159 [mm]	232 [mm]
Height	475 [mm]	667 [mm]	1550 [mm]
Color Marking Standard	SANS 10019	SANS 10019	SANS 10019
Painting/Color Coding - Shoulder	White	White	White
Painting/Color Coding - Body	Black	Black	Black
Testing By	TUV /Bureau Veritas	TUV / Bureau Veritas	TUV / Bureau Veritas
Valve Included	Yes	Yes	Yes
Valve Outlet (Pi Stamp, TPED)	17E Pin-index Valve (CGA 870)	25E Pin-index Valve (ISO 407 / CGA 870)	25ES Bullnose (BS 341-3 No.3)
Guard Included	No	Yes	Yes
Guard Type	N/A	Tulip Type	Tulip Type



[L]. CONFIGURE YOUR SYSTEM:**MEDFOX SYSTEM CONFIGURATOR**

SYSTEM SIZE:	50, 100 or 300 liters per minute (lpm) production capacity. Refer to pages 8 - 9 Equipment Specifications for more detail on system sizes.
SYSTEM TYPE:	SM – SKID MOUNTED CT – CONTAINERIZED
INCL DIRECT SUPPLY:	DS – Direct supply of low pressure oxygen to facility. *Consult Foxolution for DS type systems as requirements are unique to facility and/or application.
CONFIGURATION EXAMPLE	MEDFOX-100-SM-DS = [100 LPM SYSTEM, SKID MOUNTED, DIRECT SUPPLY]

