



# OXYGEN GENERATION SYSTEMS

ON2Quest's oxygen generation systems are engineered to deliver a reliable and efficient source of gas supply through cutting-edge on-site pressure swing adsorption (PSA) technology. These systems are designed with the latest advancements in technology to fulfil different demands of industrial applications as well as healthcare settings, guaranteeing continuous operations.

#### THE EQUIPMENT



At the core of each integrated systems, there is a PSA concentrator designed for diverse operational requirements in terms of volume and product gas flow. This adaptability ensures ON2Quest can offer optimal solution for different operational requirements, catering to various manufacturing processes requiring purity levels ranging from 92% to 95%, and flow rates between 0.5Nm3/h to 400Nm3/h.

These integrated systems includes essential peripheral equipment such as air compressors, air preparation modules, buffer tanks and boosters for higher output pressures based on the preferred setups, ensuring maximum efficiency and compatibility.

Alternatively, end-users are presented with the flexibility to integrate the standalone oxygen concentrators into their existing equipment setups. This integration eliminates the need for extensive modifications or additional investments, streamlining the process of enhancing oxygen supply capabilities for businesses.

With a wide range of capabilities and flexible integration options, ON2Quest ensures that businesses can confidently have their oxygen supply needs met, regardless of their specific requirements or scale of operations.

## TYPICAL INSTALLATION



- 1. Air compressor
- 2. Dryer
- Activated carbon tower
- 4. Air tank

- Oxygen generator
- **6.** Product tank
- **7.** Booster
- 8. Cylinder filling manifold

# THE COMPLETE PACKAGE

By providing a complete package, ON2Quest ensures optimal system performance of the product gas quality and efficiency. From air compressors to air preparation modules and buffer tanks, each component is carefully selected to work together from a single control system, eliminating compatibility issues.

In order to still be able to meet the needs for specific end-users related to product quality, daily consumption pattern and back-up requirements, standardised systems can be cascaded easily and additional peripherals for post-purification or storage can be added.

Depending on the end-user's preference, systems can either be supplied on skids for indoor operations or as climate-controlled containers for more stringent environmental conditions.

Each integrated system is factory tested before shipping, assuring plug-and-play installation and quick deployment.

## SKID-MOUNTED SYSTEM



# **CONTAINERISED SYSTEM**



#### **UNIQUE PROPOSITION**



#### **PLUG & PLAY**

No need for systems engineering, component selection, software integration, on-site construction and certification.



#### **QUICK DEPLOYMENT**

Pre-testing at the factory allows for minimal on-site installation and commissioning requirements, reducing downtime.



INTEGRATED

**SYSTEMS** 

#### MODULAR APPROACH

Skid-mounted or containerised systems can be cascaded to increase security of supply and allow future expansion based on demands.



#### **SPACE EFFICIENCY**

Systems are designed to maximise space utilisation and at the same time creating a lesser need for on-site storage.



#### INTEGRATED QUALITY CONTROL

Inlet pressure, dew point and temperature control ensures consistent gas flow and purity.



#### REMOTE MONITORING

Enables real-time control and monitoring without the need for additional manpower.

## **SPECIFICATIONS**

Output	
Purity range [%]	92 - 95
Operating pressure range [bar(g)]	6
Compressed air requirements	
Inlet air quality according to ISO8573-1 [Class]	1.4.1
Pressure dew point [°C]	+3
Ambient conditions	
Operating temperature [°C]	5 - 45
Electrical connection	
Voltage [V]	230 or 110
Frequency [Hz]	50 or 60
Power Consumption [kW]	0.1
Technical features	
Protection class [IP]	54
Noise level [dB(A)]	55 to max 85

# **CONCENTRATORS**

# **MODELS**

					Measurements		
Purity	92%	93%	94%	95%	L	W	н
OQ-1	N/A	0.75	0.72	0.69	550	700	1730
OQ-2	N/A	1.71	1.65	1.57	550	700	1730
0Q-3	N/A	2.45	2.35	2.27	550	700	1730
OQ-4	N/A	3.49	3.37	3.23	550	700	2210
0Q-5	5.40	5.30	4.70	4.40	880	620	1910
0Q-6	6.70	6.40	6.20	5.80	980	760	1850
OQ-12	13.40	12.30	11.70	10.90	800	1050	2020
0Q-16	22.10	21.00	20.00	19.00	1130	900	2180
0Q-25	27.40	26.80	26.20	24.60	1350	1050	2200
0Q-38	40.90	40.10	39.30	36.80	1550	1250	2300
0Q-46	51.40	48.90	46.40	43.80	1920	1400	2470
OQ-63	71.00	66.90	62.70	58.60	2250	1450	2500
0Q-73	82.30	77.10	72.00	66.90	2250	1450	2910
0Q-93-II	102.90	97.80	92.80	87.70	2730	2800	2470
0Q-127-II	142.00	133.80	125.50	117.30	3260	2900	2500
0Q-146-II	164.60	154.40	144.10	133.80	3370	2900	2910
OQ-127-II-SKID	142.00	133.80	125.50	117.30	6058	2438	2895
OQ-146-II-SKID	164.60	154.40	144.10	133.80	6058	2438	2895
OQ-190-III-SKID	213.00	200.70	188.30	176.00	6058	2438	2895
OQ-219-III-SKID	247.00	231.60	216.10	200.70	6058	2438	2895
OQ-254-IV-SKID	284.00	267.60	251.10	234.60	6058	2438	2895
OQ-293-IV-SKID	329.30	308.70	288.20	267.60	6058	2438	2895
OQ-306-V-SKID	341.50	322.80	299.40	280.70	7460	2438	2895
OQ-366-V-SKID	411.73	385.90	360.20	334.50	7460	2438	2895

#### Notes:

- 1. Stated flow rates are in Nm³/hour and are for operation with reference to 20°C, 1013 mbar. Flow variance ±5%.
- 2. Stated measurements are in millimeters.
- 3. Required inlet pressure is 1-2 bar(g) above required product outlet pressure depending on the purity and vessel sizes.
- 4. Stated IP rating for the electrical cabinet is IP54, others available on request, contact ON2Quest sales.
- 5. Air and product tanks are included for skid-mounted systems.

# **KEY BENEFITS**



#### **COST SAVINGS**

- Eliminate costs associated with trucked delivery.
- No losses caused by evaporation or transfilling of liquid supply.
- No losses from gas cylinder swopping.
- No price increase over system's life time.



#### **ENVIRONMENTALLY FRIENDLY**

- Eliminate the need for transportation, reducing associated environmental impact.
- Lower energy consumption as compared to traditional gas supply method.



#### **ON-DEMAND SUPPLY**

- Independent from third party with no waiting time.
- Mitigates risk associated with unforeseen events.
- Generate gases based on real-time demand forecasts.



#### **PACKAGED SOLUTIONS**

- Carefully designed for optimal system efficiency.
- No additional costs for installation on-site.
- Pre-tested at assembly facility for quick deployment.



#### **RELIABILITY**

- Inline monitoring of gas quality.
- Robust system design for 100% uptime.
- Possibility of cascaded systems for critical operations.



#### **ENHANCED SAFETY**

- Reduces on-site storage.
- Minimises risk associated with gas transportation and handling.

# **QUALITY CERTIFICATIONS**









## **INDUSTRIES**



BEAUTY



MINING & MINERAL PROCESSING



ULA55



PHARMACEUTICS



METAL



WATER TREATMENT





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