OXYVITAL®

www.oxyvital.com.tr

MEDICAL

OXYGEN

PSA GENERATOR SYSTEMS

www.oxyvital.com.tr

WHO WE ARE

Oxyvital is a Turkey-based company and the leading global supplier of advanced Psa Generator Systems since 1989.
Oxyvital has 35 years of experience designing, engineering, and manufacturing high-quality oxygen and nitrogen gas generators to meet customer needs and process specifications.
We operate worldwide, and our mission is to be your preferred innovative, dynamic, and environmentally responsible supplier of on-site medical oxygen solutions.

PSA technology can be used in all industries and will make you independent from liquid or cylinder supply.

Around the world since

1989

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OUR STRATEGY

Through an ever-on-going process, Oxyvital continues to develop oxygen and nitrogen solutions for clients worldwide, to be highly cost-effective and market-leading in terms of quality, performance, delivery, and price.

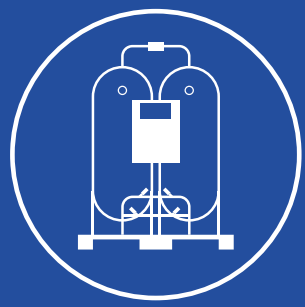
Our scope can include the entire plug-play solutions, including remote control and support, training, supervision.

Our mission is to be your preferred innovative, dynamic, and environmentally responsible supplier of on-site oxygen and nitrogen solutions worldwide. We listen, we design and we manufacture. Therefore, we gained a worldwide reputation as the highest-quality psa system supplier.


LISTEN
WE
DESIGN
MANUFACTURE


PSA
O2


PSA
O2
PSA
O2
O2



High quality on-site

OXYGEN

PSA GENERATOR SYSTEMS

OXYGEN
PSA GENERATOR SYSTEMS

OUR TECHNOLOGY

You can produce oxygen with Oxyvital PSA gas generators to create high-quality oxygen gases on-site. Our generators are based on the well-known PSA (Pressure Swing Adsorption) technology. This air separation technique will enable you to produce oxygen and nitrogen using only electricity and atmospheric air.

PSA (Pressure Swing Adsorption) technology can be used in all industries.

scan and view interactively

Air Filter

G-General Purpose Protection Filter: Removal of particles down to 1 micron, including coalesced liquid water and oil, providing a maximum remaining oil aerosol content of 0.5 mg/m³. Automatic discharge unit.

PSA Generator

Filled with molecular sieve traps nitrogen /oxygen molecules and allow oxygen/nitrogen molecules to flow through.

Oxygen Storage Tank

High-quality oxygen /nitrogen flows from the PSA generator and is ready for use with pure oxygen.

PSA Generator Control Screen

7" Touch Color Screen.
Control monitor, electronic control panel (Liquid and dust-proof)

Air Tank

It accumulates the required volume of air for the PSA generator.

Utilization Line Regulator

Pressure can be adjusted between 4 and 6 bar.

Air Compressor

It provides air and adds the required level of pressure and flow.

Sterile Bacteria Filter

(0.001 Micron)

Air Dryer

It removes moisture from the compressed air by cooling.

Active Carbon Filter

It is used to filter oil vapor and remove hydrocarbon odour. The remaining oil in the filter outlet is 0.003 mg/m³ 21°C. (If there are G and H grade filters at the inlet)

High-Efficiency De-oiling Removal Filtration

Removal of particles down to 0.01 microns, including water and oil aerosols providing a maximum remaining oil aerosol content of 0.01 mg/m³. Automatic Discharge Unit.

OXYGEN
PSA GENERATOR SYSTEMS

GENERAL FEATURES

- Full automation & independency
- 24/7 – 365 days operation
- Full compliance with MDD (Medical Device Directive) 93/42/EEC, PED (Pressure Equipment Directive) and CE medical certification, ISO 13485:2016, ISO 9001:2016, ISO 14001:2016
- Purity Rate: 90-96%
- Oxygen Output: 0.60-150.00 Nm^3/hr.)
- Quick ROI (1-2 years)
- 'No' on ongoing costs (refills, delivery, and transportation charges etc.)
- No safety risks in handling of high-pressure cylinders
- Safe delivery; controlled flow and uninterrupted gas
- Overall cost reduction of up to 80% in comparison with cylinders
- Operation Electric: 380 V/50 Hz- 220 V/50 Hz
- Operation Temperature: -32°C to +55°C
- Lowest Energy Consumption ≤ (1,0 kW/m^3)
- Low CO_2 emission
- Remote control access

- Optional container or frame-built solutions optional skid-mounted solutions
- Optional OEM supply
- Optional on-site cylinder filling
- Scada automation system
- External digital mass flow meter / measuring instant oxygen quantity with the flowmeter
- Audible and visual alarm system of air compressor
- Line filters pollution indicators (ANALOGUE - DIGITAL)
- Oxygen purity measurement with zirconium sensor
- Another language option other than English - Turkish - Russian
- Light-sound alarm system for PSA Generator system automatic oil and liquid drain valve with thermostatic control heater
- Activated carbon tower filtration system.
- Operation Pressure: 0-10 bar
- Heat Thermometer

OXYGEN
PSA GENERATOR SYSTEMS

MANAGEMENT MONITOR PARAMETERS

- Date / Time
- Active run time / Inactive time
- Displaying the produced oxygen flow in m^3/hr or liters/minute
- Numerical-graphical monitoring of the directed oxygen flow
- 7” color LCD touch screen (password entry)
- Oxygen generator twin tanks (PSA) purity rate (21-96) %
- Oxygen generator twin tanks (PSA) pressure ratio (0-10) bar
- Oxygen backup tank purity rate (21-96) %
- Oxygen backup tank pressure ratio (0-10) bar
- Language option (Totally ten language options)
- Liquid waste timing: manual/automatic monitoring-adjusting
- Numerical-graphical monitoring of pressure values of oxygen generator twin tanks (pressure graph)

- Numerical-graphical monitoring of oxygen generator twin tanks and oxygen backup tank purity values (purity graph)
- PSA Generator system monitoring screen
- Service-maintenance time tracking and warnings
- Recording a total of 10 alarm pieces of information
- Ability to show the instantaneous operating status of pneumatic valves used in the system in different colors (controlling manually / automatically)

7 ” Color LCD Touch Screen

OXYVITAL®

OUR MODELS

Skid-Mounted Model

Mobile Model

Portable Container Model

Hospital Facility Model

VOLUME

S

SERIES

VOLUME S SERIES

MODELS AND CAPACITY TABLE

MODELS	OXYGEN FLOW & DENSITY									AIR CONSUMPTION FAD m³ / Min 7–10 Bar (g)	AIR RECIEVER TANK (L)	OXYGEN RECEIVER TANK (L)	TOTAL ENERGY kW/m³	TOTAL ENERGY INVERTER kW/m³
	%90			%93			%95							
	Nm³ / Hour	L / Min	Kilos / Hour	Nm³ / Hour	L / Min	Kilos / Hour	Nm³ / Hour	L / Min	Kilos / Hour					
Oxyvital-1	0,60	10	0,85	0,59	9,8	0,84	0,55	9,2	0,78	0,15	150	100	1,30	1,30
Oxyvital-2	1,20	20	1,71	1,18	19,7	1,68	1,16	19,3	1,65	0,34	150	150	1,85	1,85
Oxyvital-4	2,40	40	3,43	2,08	34,7	2,97	1,93	32,2	2,76	0,55	300	200	1,97	1,97
Oxyvital-6	3,60	60	4,72	3,00	50	4,12	2,88	48,00	4,12	0,63	400	300	1,52	1,14

Our production is highly standardized, and we deliver high quality every time.

Oxygen Flow Output Pressure:
4-6 Bar (g)

Purity Rate:
up to % 96

Operating Temperature Range
-32°C to +55°C

Capacity
0,60 to 3,60 Nm³/hr

The molecular sieve beds will have an almost permanent life time with normal operating conditions and correct maintenance.

"All values are valid at 7 bar entry pressure and 20°C ambient temperature."

VOLUME

A

SERIES

VOLUME A SERIES

MODELS AND CAPACITY TABLE

MODELS	OXYGEN FLOW & DENSITY									AIR CONSUMPTION FAD m³ / Min 7–10 Bar (g)	AIR RECIEVER TANK (L)	OXYGEN RECEIVER TANK (L)	TOTAL ENERGY kW/m³	TOTAL ENERGY INVERTER kW/m³
	%90			%93			%95							
	Nm³ / Hour	L / Min	Kilos / Hour	Nm³ / Hour	L / Min	Kilos / Hour	Nm³ / Hour	L / Min	Kilos / Hour					
Oxyvital-7	4,20	70	6,00	3,77	62,8	5,39	3,44	58,2	4,92	0,88	500	500	1,78	1,33
Oxyvital-11	6,97	116	9,96	6,54	109	4,35	6,06	101	8,66	1,65	500	500	1,57	1,17
Oxyvital-17	10,77	180	15,40	10,11	169	14,45	9,36	156	13,40	2,40	750	500	1,39	1,04
Oxyvital-21	13,72	229	19,62	12,89	215	18,43	11,93	199	17,05	2,86	1000	500	1,31	0,98
Oxyvital-29	18,47	308	26,41	17,35	289	24,81	16,06	268	22,96	3,85	1000	750	1,19	0,83
Oxyvital-37	24,07	400	34,42	22,60	377	32,31	20,93	349	29,93	5,02	1500	1000	1,24	0,86
Oxyvital-45	28,50	475	40,75	26,77	446	38,28	24,78	413	35,43	6,00	1500	1500	1,29	0,90
Oxyvital-55	33,60	560	48,06	31,52	525	45,06	30,00	500	41,63	7,40	2000	1500	1,33	0,86
Oxyvital-65	41,17	686	58,87	38,66	644	55,28	35,80	597	51,20	9,00	2000	2000	1,33	0,86

Oxygen Flow Output Pressure:
4-6 Bar (g)

Purity Rate:
up to % 96

Operating Temperature Range
-32°C to +55°C

Capacity
4,20 to 42 Nm³/hr

The molecular sieve beds will have an almost permanent life time with normal operating conditions and correct maintenance.

"All values are valid at 7 bar entry pressure and 20°C ambient temperature."

VOLUME

E

SERIES

VOLUME E SERIES

MODELS AND CAPACITY TABLE

MODELS	OXYGEN FLOW & DENSITY									AIR CONSUMPTION FAD m³ / Min 7-10 Bar (g)	AIR RECIEVER TANK (L)	OXYGEN RECEIVER TANK (L)	TOTAL ENERGY kW/m³	TOTAL ENERGY INVERTER kW/m³
	%90			%93			%95							
	Nm³ / Hour	L / Min	Kilos / Hour	Nm³ / Hour	L / Min	Kilos / Hour	Nm³ / Hour	L / Min	Kilos / Hour					
Oxyvital-80	50,67	845	72,45	47,59	793	68,05	44,06	734	63,00	11,20	2500	2000	1,48	0,96
Oxyvital-90	58,06	968	83,02	54,53	909	77,98	50,49	841	72,20	14,00	3000	2500	1,29	0,83
Oxyvital-110	70,00	1167	100,00	65,73	1096	94,00	60,86	1014	87,03	15,50	3000	3000	1,28	0,83

You can produce your own oxygen with OXYVITAL PSA gas generators creating high quality oxygen gases on-site. There will be no need to order in, store and stock check your liquid oxygen tanks, gas cylinders when you can produce your own supply on site.

Oxygen Flow Output Pressure: 4-6 Bar (g)

Purity Rate: up to % 96

Operating Temperature Range -32°C to +55°C

Capacity 51 to 70 Nm³/hr

The molecular sieve beds will have an almost permanent life time with normal operating conditions and correct maintenance.

"All values are valid at 7 bar entry pressure and 20°C ambient temperature."

VOLUME

L

SERIES

VOLUME L SERIES

MODELS AND CAPACITY TABLE

MODELS	OXYGEN FLOW & DENSITY									AIR CONSUMPTION FAD m³ / Min 7–10 Bar (g)	AIR RECIEVER TANK (L)	OXYGEN RECEIVER TANK (L)	TOTAL ENERGY kW/m³	TOTAL ENERGY INVERTER kW/m³
	%90			%93			%95							
	Nm³ / Hour	L / Min	Kilos / Hour	Nm³ / Hour	L / Min	Kilos / Hour	Nm³ / Hour	L / Min	Kilos / Hour					
Oxyvital-122	72,12	1302	111,71	73,36	1223	104,90	67,93	1132	97,12	17,70	3500	3000	1,40	0,91
Oxyvital-155	98,70	1645	141,20	92,70	1545	132,60	85,83	1430	122,70	23,00	4000	3500	1,33	0,86
Oxyvital-185	118,23	1970	179,00	111,04	1850	158,80	102,81	1713	147,00	26,00	4000	4000	1,35	0,87
Oxyvital-231	150,00	2500	211,30	147,79	2463	211,30	138,80	2313	198,50	33,00	5000	4500	1,35	0,87

Oxygen Flow Output Pressure: 4-6 Bar (g)

Purity Rate: up to % 96

Operating Temperature Range -32°C to +55°C

Capacity 72 to 150 Nm³/hr

The molecular sieve beds will have an almost permanent life time with normal operating conditions and correct maintenance.

"All values are valid at 7 bar entry pressure and 20°C ambient temperature."

OXYVITAL®

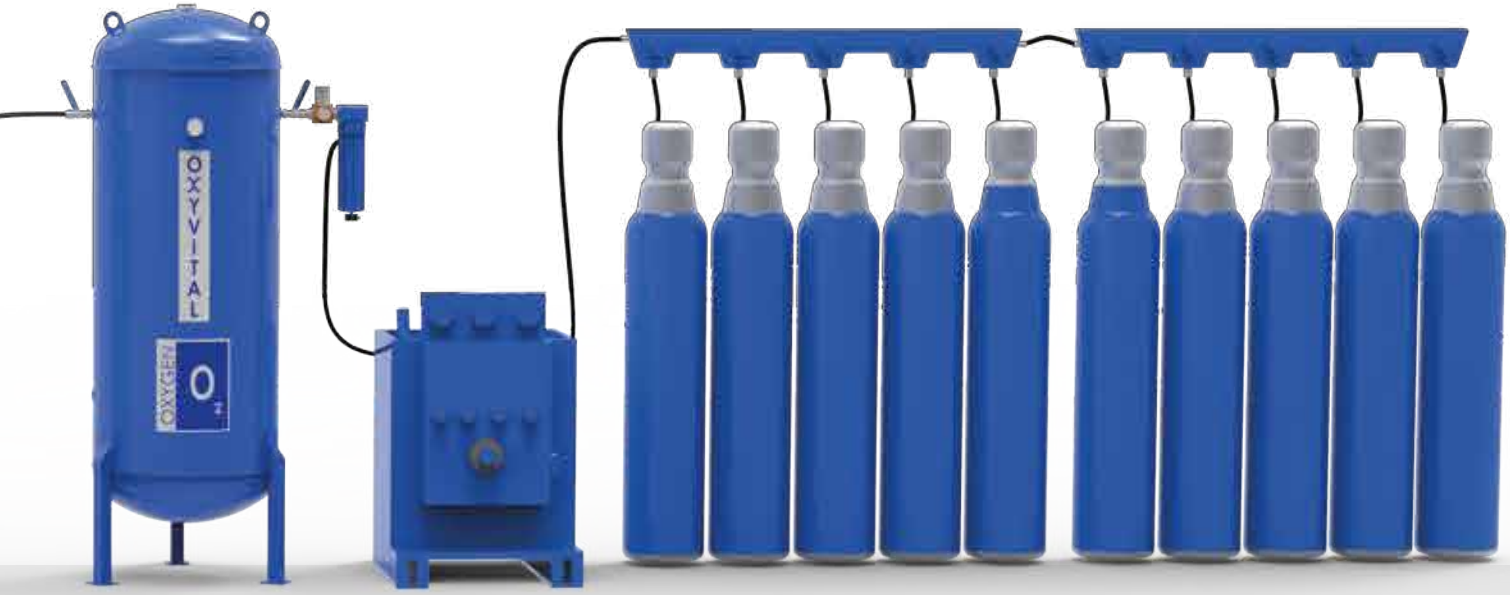
HOSPITAL FACILITY MODEL

Capacity Range of 4 m^3/hr up to 150 m^3/hr

You can produce oxygen with Oxyvital PSA gas generators creating high-quality oxygen gases on-site. No need to order in, store, and stock check your liquid oxygen tanks and gas cylinders when you can produce your supply on-site.

You can supply oxygen directly to your hospital.

You can fill your own compressed oxygen gas cylinders for product backup.



OXYVITAL®

PORTABLE CONTAINER SOLUTIONS

20 DC CONTAINER
OXYVITAL 7-11-17-21-29

40 DC CONTAINER
OXYVITAL 37-45-55-65

40 HIGH CUBE CONTAINER
OXYVITAL 80 – 90 -110 -122

2X40 HIGH CUBE CONTAINER
OXYVITAL 155-185-231

All Oxyvital models of PSA generator systems can be installed in a container as plug-play, ready-to-use units. The quality and endurance of our most advanced and high-tech container design has been proven through a consecutive test in;

- Extreme temperature (- 32°C +55°C)
- Humidity (90 % @ 40 °C)
- Altitude (2000 m)

Standard Inside Container Specifications

- With all electrical supply and air conditions
- Inside will be isolated stone wool
- Checkered steel plate thickness: 4-5 mm with colored
- Main electrical panel (for all components)
- Lightning
- Air compressor hot air isolated channel
- Ventilation

OXYVITAL®

SKID-MOUNTED MODEL

SKID-MOUNTED
PSA GENERATOR SYSTEMS

The equipment is mounted on a steel plate, assembled and pre-piped, pre-wired in the shop between individual equipment, inspected and tested before delivery.

Skid-mounted design helps reduce the erection, assembly, and start-up time at the site, thus, saving time and cost of labor, supervision, and coordination at the customer's end. The foundation is not required, and a shorter installation can save some costs.

All engineering, fabrication, controls, project management, start-up, and commissioning work is carried out by Oxyvital.


OXYVITAL
AIR TANK
O_2
OXYVITAL
OXYGEN
O_2

AT A GLANCE

OXYVITAL®

1. HEADQUARTER in TURKEY
2. Production in ANKARA/TURKEY
3. More than 100 employees worldwide
4. Large network and distributor
5. Manufacture of custom-designed oxygen systems
6. More than 1500 generator systems installed in more than 60 countries
7. Our founder and honorary chairman, Mr. Mete YILMAZ

O_2 N_2 TIME DEMAND SITE

Turkey
Discover
the potential

OXYVITAL®

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