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How to Choose Oxygen Molecular Sieve for Small Oxygen Concentrator

At present, there are two main types of molecular sieves used by oxygen concentrator in market, sodium type and lithium type molecular sieve. The lithium type molecular sieves are more efficient than sodium type molecular sieves that can greatly reduce the volume of oxygen generators that makes the oxygen concentrator smaller and easier to carry around. Since the lithium molecular sieve is much more expensive than sodium type, sodium oxygen molecular sieve is also very popular in market for most cases.

Among our products, JLOX-501A is sodium type molecular sieve and JLOX-101A is lithium molecular sieve. The comparison of the application parameters of sodium molecular sieve and lithium molecular sieve is as follows:

Parameters	**JLOX-101A**	**JLOX-501A**
Applicable Machines	1-20 L/min	1-5L/min
Oxygen Concentration	93±3%	93±3%
Air/Oxygen Ratio	10-14	10-14
Adsorption Cycle	< 12 s	< 12 s
Adsorption Pressure	1.0-2.0 bar	1.4-2.0 bar

Molecular sieve JLOX-101A and JLOX-501A adsorbents are patented products specially designed for use in medical oxygen concentrators that employ a pressure swing cycle to generate high purity oxygen. JLOX-501A is recommended to use in portable oxygen concentrators of 1-5/L min and JLOX-101A is recommended to use in potable oxygen concentrator that required of with smaller size, JLOX-101A has the N2/O2 selectivity around 2 times higher and 2.75 times higher of static N2 adsorption capacity than JLOX-1501A. Both JLOX-101A and JLOX-501A has a high nitrogen capacity and superior nitrogen/oxygen selectivity compared to equivalent products in market that results in the use of significantly less material relative to other molecular sieve adsorbents without sacrificing oxygen through put or purity.

	Oxygen Flow Rate	**Loading Weight (g)**
JLOX-101A	3 L	500-600
	5 L	900-1200
	10 L	2200-2400
JLOX-501A	3 L	1600-1800
	5 L	2000-2400
	10 L	5000-5500

Storage and Handling

Both JLOX-101A and JLOX-501A will preferentially adsorb water over all other airborne molecules. To ensure maximum nitrogen capacity, moisture pick-up from air exposure should be minimized. Adsorbed water can not be readily removed via pressure or vacuum swing purging.