



Spiracle Carbon Fiber Oxygen Vessels

The Spiracle Technology Carbon Fiber Oxygen Vessels are ideal for search and rescue, aeromedical transports, transport incubators and ventilators. The 'DD'-Lite can be mounted to a Ferno 35-A+ or 93EX Squadmate cot and can even be mounted to the back of an EMS bicycle. Two custom designed kits, the ERC BackPack and the SAR BackPack, allow you to go further, and carry more oxygen with the lightest oxygen vessels available. The significant reduction in weight and greater capacity of these carbon fiber vessels means you can carry more oxygen to remote locations, on-board helicopters, up flights of stairs and in your ambulance.

The 'EE'-lite and 'DD'-lite are fully wrapped, carbon fiber reinforced, aluminum lined vessels. Both vessels are manufactured using the highest grade aerospace materials. The construction consists of a seamless 6061-T6 alloy aluminum liner fully overwrapped with epoxy impregnated polyacrylonitrile, PAN-based carbon fibers. Both vessels carry the Department of Transportation (DOT) regulatory approvals, including design and qualification certifications.

The 'EE'-Lite contains two times the amount of oxygen found in a standard 'E' cylinder and the 'DD'-Lite holds approximately *twice the amount of oxygen contained in a steel 'D' cylinder.

*A limited number of oxygen service providers can fill vessels to a service pressure of 3000 psi.

Check with your local gas supplier.

At a service pressure of 2216 psig the 'DD' vessel contains 533 liters of oxygen.

 **Spiracle Technology**
A FERNQ Group Company

Oxygen Administration

10 Good Reasons To Use Spiracle Technology Carbon Fiber Oxygen Vessels

Value Priced- The 'EE'-Lite and the 'DD'-lite vessels provide the best value for reducing the weight while carrying two and three times the amount of oxygen to a rescue.

More Oxygen- The 'EE'-Lite contains 1,377 liters of oxygen, two times the amount of oxygen in an aluminum 'E' cylinder and the 'DD'-Lite holds 717 liters of oxygen, approximately twice the amount of oxygen contained in a steel 'D' cylinder. (see chart below for comparisons of other cylinder sizes, weight and oxygen contents).

Less Weight- A significant reduction in the weight of these carbon fiber vessels means you can carry more oxygen to remote locations, on board helicopters, up flights of stairs and in your ambulance.

(see chart below for comparisons of other cylinder sizes, weight and oxygen contents).

Extend O₂ Administration- Reduce the chances of running out of life saving oxygen when administering oxygen during extended transport times and high flow use during resuscitation.

Custom Carrying Cases- The Spiracle ERC BackPack is especially designed to give you the optimum system, protection and means to carry the 'EE'-Lite vessel. The 'DD'-Lite vessel is rescue ready in the SAR BackPack weighing less than five (5) lbs. with O₂ vessel, ORO₂ Oxygen Regulator, OX-series Inhalator, masks, airways and hoses.

Multiple Applications- Ideal for search and rescue operations, mounting on a Ferno 35A+ and 93EX Squadmate, aeromedical transport, transport incubators, ventilators and even EMS bicycle fleets.

Easy to Use- Both vessels can be ordered with either CGA 540 or CGA 870 post valves with a built-in on/off toggle lever. There are no changes in the way you currently care for and/or handle an oxygen vessel. Care for the fiber oxygen vessel just as you do your existing cylinders.

Conformance to Standards- Both vessels carry the Department of Transportation (DOT) regulatory approvals DOT-E11194-CFFC.

Safety- Structural analysis design/qualification certifications. Vessels underwent hydrostatic burst tests, ambient/environmental/thermal cycling test, drop test, gunfire (ballistic) and bonfire tests. Technical data files are available upon request.

Maintenance and Handling- Fifteen (15) year service life. Hydrostatic testing every three years.

CAUTION: Federal law restricts this device to sale by or on the order of a physician.

How To Specify And Order Spiracle Technology Carbon Fiber Oxygen Vessels



'DD'-Lite
Model No.
205

w/ CGA 870 post valve
and On/Off toggle.

'DD'-Lite
Model No.
206

w/ CGA 540 valve outlet.

'EE'-Lite
Model No.
210

w/ CGA 870 post valve
and On/Off toggle.

'EE'-Lite
Model No.
211

w/ CGA 540 valve outlet



SPECIFICATIONS

	'DD'-Lite	'EE'-Lite
Service Pressure:	3000 psi (207 bar)	2216 psi (153 bar)
Volumetric Capacity:	200 in. ³ (3.28 liters)	516 in. ³ (8.46 liters)
Outer Diameter:	5.38 in. (137 mm)	6.63 in. (168 mm)
Length:	13.50 in. (343 mm)	20.42 in. (519 mm)
Weight:	3.7 lbs. (1.68 Kg.)	7.3 lbs. (3.31 Kg.)
Oxygen Content:	@ 3000 psi: 717 liters @ 2000 psi: 533 liters	- - @ 2216 psi: 1,377 liters
Materials:	Seamless 6061-T6 alloy aluminum liner. Epoxy impregnated polyacrylonitrile, PAN-based carbon fiber overwrap.	
Valve Port:	.750 - 16 UNF	
Regulatory Approvals:	U.S. Department of Transportation-CFFC : DOT E11194	

Oxygen Vessel Comparisons Chart

	Steel 'D'	Alum. 'D'	Alum. Jumbo 'D'	Alum. 'E'	'DD'-Lite	'EE'-Lite
Oxygen Contents (l.)	396	414	646	682	717	1,377
Weight (lbs.)	10.3	7.9	8.6	8.0	3.7	7.3
Diameter (in.)	4.50	4.37	5.25	4.37	5.30	6.60
Length (in.)	20.0	16.5	7.5	25.6	13.5	20.4
Service Pressure (psi)	2015	2015	2216	2015	3000	2216

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