

**Florida Department of Health  
Resource Typing  
SpNS - Shelter Oxygen Packs**

<b>Resource: Special Needs Shelter Oxygen Packs</b>										
<b>Category:</b> Health & Medical										
<b>Kind:</b> Equipment										
<b>Mission:</b> Special Needs Shelter oxygen re-supply										
Minimum Capabilities (Component)	Minimum Capabilities (Metric)	Type I		Type II		Type III		Type IV		
Equipment	Ω Patient Care Capabilities = 30 clients @ 3 liters per minute	72 hours		36 hours		24 hours		12 hours		
Personnel & Equipment Readiness	Roster Fulfillment, Equipment Loading	Upon request, on site in shelter within 12 hours		Upon request, on site in shelter within 12 hours		Upon request, on site in shelter within 12 hours		Upon request, on site in shelter within 12 hours		
Equipment & Supplies	Logistics Pack Δ	Tank	Tanks Needed	Tank	Tanks Needed	Tank	Tanks Needed	Tank	Tanks Needed	
		D	1350 <i>or</i>	D	675 <i>or</i>	D	450 <i>or</i>	D	225 <i>or</i>	
		E	810 <i>or</i>	E	405 <i>or</i>	E	270 <i>or</i>	E	135 <i>or</i>	
		M	139 <i>or</i>	M	69 <i>or</i>	M	46 <i>or</i>	M	23 <i>or</i>	
		H (K)	69	H (K)	35	H (K)	23	H (K)	12	
		Plus one accessory pack*		Plus one accessory pack*		Plus one accessory pack*		Plus one accessory pack*		
Transportation §	Vehicle Status	Mode based on necessity and availability		Mode based on necessity and availability		Mode based on necessity and availability		Mode based on necessity and availability		

Ω Historically, approximately 30% of Florida’s Special Needs Shelter clients have been found to be on continuous or intermittent oxygen therapy.

Florida Department of Health standard shelter resource typing uses a census of 100, hence the use of the 30 clients at 3 liters per minute

Δ Consideration should be given to including several small tanks in packs to be used for ambulation of clients to toilet facilities.

\* Accessory pack includes 30 regulators (non flow meter type if possible), 30 nasal cannulas, 15 extension tubing (25’), and 20 tubing, connectors, 3 oxygen tank wrenches, 20 hazard signs (i.e., No Smoking). Tank stands should also be included if available. Manifold systems can be used for larger tanks if available

§ Bulk oxygen packs must be transported by a licensed vendor

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Calculations

Tank	Cylinder Constant	Flow ‡	Duration †	Tanks Per Person Per day	Tanks Per 12 hours for 30 people	Tanks Per 24 hours for 30 people	Tanks Per 36 hours for 30 people	Tanks Per 48 hours for 30 people	Tanks Per 72 hours for 30 people
D	0.16	3 liters /min	1.6 hours {1° 36 minutes}	15	225	450	675	900	1350
E	0.28	3 liters /min	2.8 hours {2° 48 minutes}	9	135	270	405	540	810
M	1.56	3 liters /min	15.6 hours {15° 36 minutes}	1.54	23.1	46.2	69.3	92.4	138.6
H (K)	3.14	3 liters /min	31.4 hours {31° 24 minutes}	0.76	11.5	23	34.5	46	69

‡ Standard non conservation type regulator

† Tank Calculations (tank pressure – 200 {safe residual pressure} x cylinder constant divided by {/} liters per minute = tank life in Minutes / 60 = hours of oxygen remaining)

D:  $2000 - 200 = 1800 \times 0.16 = 288 / 3 = 96$  (minutes) = 1.6 hours {1 hour, 36 minutes}

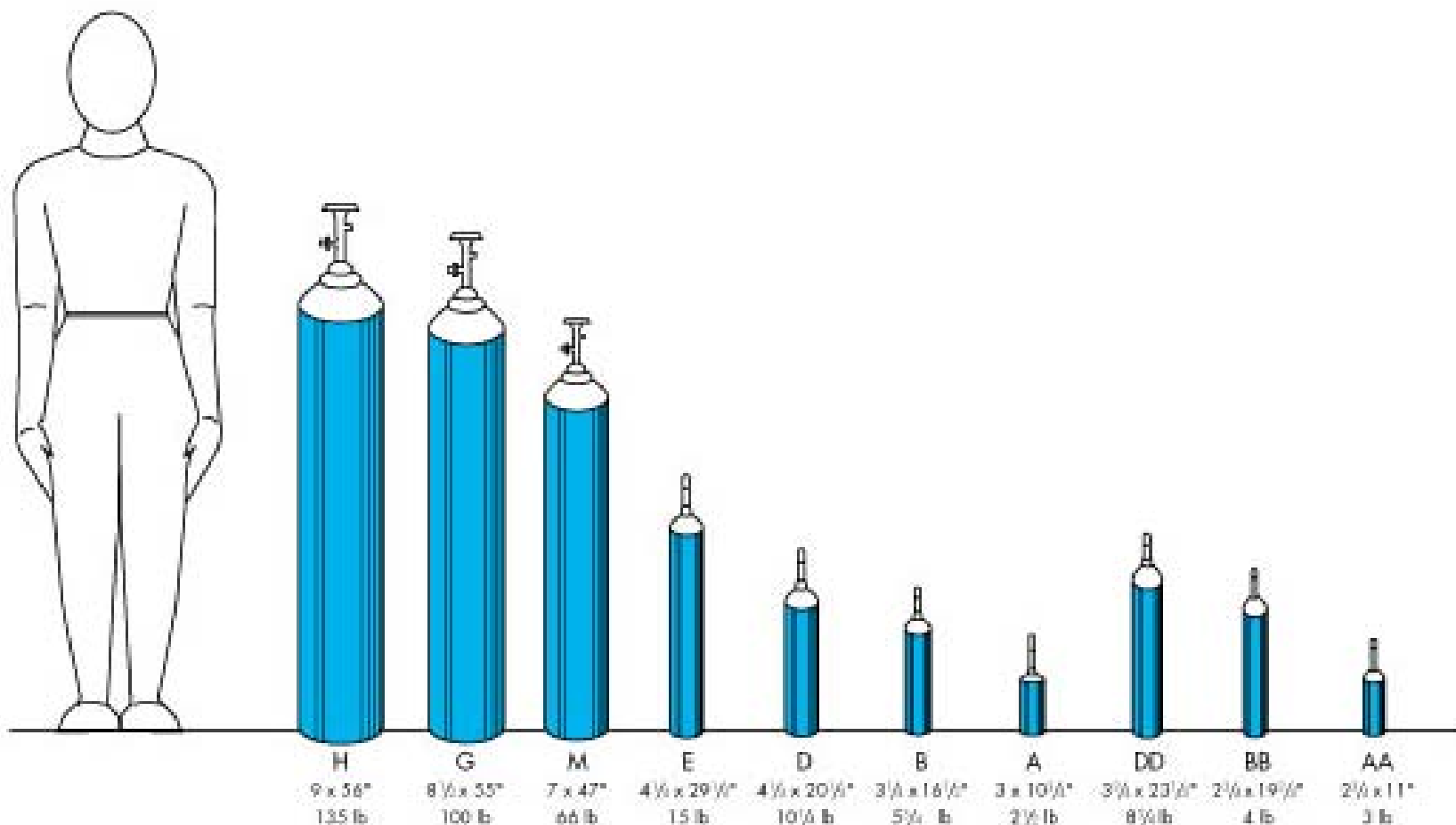
E:  $2000 - 200 = 1800 \times 0.28 = 504 / 3 = 168$  (minutes) = 2.8 hours {2 hours, 48 minutes}

M:  $2000 - 200 = 1800 \times 1.56 = 2808 / 3 = 936$  (minutes) = 15.6 hours {15 hours, 36 minutes}

G:  $2000 - 200 = 1800 \times 2.41 = 4338 / 3 = 1446$  (minutes) = 24.1 hours {24 hours, 6 minutes}

H:  $2000 - 200 = 1800 \times 3.14 = 5652 / 3 = 1884$  (minutes) = 31.4 hours {31 hours, 24 minutes}

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**Figure 2-2** Various types of high-pressure cylinders used in medical gas therapy. (Modified from Barnes TA: Core textbook of respiratory care practice, ed 2, St Louis, 1994, Mosby.)  
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