

Air Receiver Capacities

Tank Size (inches)	Tank Size (gallons)	Gauge Pressure on Tank (PSI)			
		0	100	150	200
Cubic Feet Tank Capacity					
12 x 24	10	1.3	11	15	19
14 x 36	20	2.7	21	30	39
16 x 36	30	4.0	31	45	59
20 x 48	60	8.0	62	90	117
20 x 63	80	10.7	83	120	156
24 x 68	120	16.0	125	180	234
30 x 84	240	32.0	250	360	467

If your tank is not listed in the table to the left, use the following formula to calculate the tank size (gallons) and then estimate the cubic feet tank capacity at a given pressure from the table above.

$$\text{Tank Gallons} = \frac{\text{Tank Height} \times (\text{Tank Radius})^2}{73.53}$$

Height and radius are in inches

Air Hose Friction

- PSI = pressure in pounds/square inch
- CFM = air flow in cubic feet/minute

Hose Size (inches)	CFM thru 50' Hose	Gauge Pressure – Pounds/sq inch				
		50	70	90	110	
PSI Loss Over 50' Hose Length						
1/2"	20	1.8	1.0	.8	.6	
	30	5.0	3.4	2.4	2.0	
	40	10.1	7.0	5.4	4.3	
	50	18.1	12.4	9.5	7.6	
	60	X	20.0	14.8	12.0	
	70	X	28.4	22.0	17.6	
	80	X	X	30.5	24.6	
	90	X	X	41.0	33.3	
	10	X	X	X	44.5	
	110	X	X	X	X	
3/4"	20	.04	.2	.2	.1	
	30	.08	.5	.4	.3	
	40	1.5	.9	.7	.5	
	50	2.4	1.5	1.1	.9	
	60	3.5	2.3	1.6	1.3	
	70	4.4	3.2	2.3	1.8	
	80	6.5	4.2	3.1	2.4	
	90	8.5	5.5	4.0	3.1	
	100	11.4	7.0	5.0	3.9	
	110	14.2	8.8	6.2	4.9	
	120	X	11.0	7.5	5.9	
	130	X	X	9.0	7.1	
	1"	20	.1	0	0	0
		30	.2	.1	.1	.1
40		.3	.2	.2	.2	
50		.5	.4	.3	.2	
60		.8	.5	.4	.3	
70		1.1	.7	.6	.4	
80		1.5	1.0	.7	.6	
90		2.0	1.3	.9	.7	
100		2.6	1.6	1.2	.9	
110		3.5	2.0	1.4	1.1	
120		4.8	2.5	1.7	1.3	
130		7.0	3.1	2.0	1.5	



X Pressure loss is too great and therefore the combination of hose size, CFM, and gauge pressure is not recommended. Gauge pressures are the indicated air pressure, in pounds/square inch, at the source (i.e. the air compressor receiver tank).