

HIGH PRESSURE FILLING SYSTEMS

Cascade System

SEE BELOW

High pressure storage system, increase your air capacity today. Available in 2, 4, and 6 cylinder systems. System includes everything you need to install with ease.

High Pressure Storage systems include

- 4500 PSI, 444 cu. ft. Cylinder: Part Number T347-4500
- 1/4 in. Steel Tee: Part Number PFT-4S
- CGA347 Nut: Part Number N85
- CGA347 Nipple: Part Number NP765
- 24 in. 1/4 in. Male HP Hose: Part Number 520N-24
- 1/4 in. Steel Plug: Part Number P45



Specifications	
Color	Yellow
Capacity	486 scf at 5000 PSI
O.D.	9.31 in.
Length	51 in.
Weight	144 lbs per K bottle
Cylinder Valve	CGA

Compressibility of Gas Volumetric						
PSIG	Air		Helium		Oxygen	
	A	B	A	B	A	B
100	7.82	7.81	7.77	7.77	7.87	7.84
300	22.60	21.54	21.20	21.15	21.70	21.70
500		35.36		34.32		35.79
600	42.20		41.00		42.90	
1000	70.00	70.29	67.00	66.37	72.00	71.82
1500	104.00	104.77	98.00	98.12	109.00	108.65
1800	124.00	124.57	115.00	116.49	133.00	130.08
2000	137.00		126.00		144.00	
2015		138.75		129.44		146.77
2265	154.00	154.85	144.00	144.32	165.00	165.10
2400	162.00	163.04	151.00	152.24	174.00	174.97
2640			165.00	186.77	192.00	
3000	197.00	198.95	186.00	214.65	217.00	217.08
3500		226.13	213.00		249.00	250.09
3600	230.00		219.00	241.78	256.00	
4000	251.00	251.59	241.00	268.18	280.00	280.70
4500		274.64				308.65
5000	294.00	296.59	292.00	293.89	336.00	333.84
6000	333.00	334.16	335.00	343.37	382.00	

Factors on this chart are for a vessel of 1 cubic foot volume (at 1 at most phere and 70°F)

Column "A"=Taken from Gulick letter of 10/23/62

Column "B"=Taken from U.S. Steel Hand book

Deluxe Fill Hose

9932-00

Brass plated high pressure hose fitting with 6 foot hose with line valve, yoke and bleeder assembly. Includes 0-5000 psi gauge with boot and stainless steel adapters. Maximum working pressure is 3000 PSI.

Tank Pressure Gauge with Bleed

SEE BELOW

For reading tank pressures to 3,000 PSI service pressure. Chrome plated brass with shock resistant neoprene cover. Large knurled relief screw, swivel yoke. Dual scale gauge psi/bars.

Ordering Information	
9913-01	Complete Gauge with Bleeder
5705-20	Dust Cap
RUBBER-COVER	Rubber Cover

PART NUMBER FC-347S 4 CYLINDER SYSTEM SHOWN. SYSTEM DOES NOT INCLUDE GAUGE ASSEMBLY, FILL HOSE, DIN FILER OR STEEL SCUBA TANK.

Ordering Information

FC2-347S	2 Bottle Cascade System
FC4-347S	4 Bottle Cascade System
FC6-347S	6 Bottle Cascade System

Formula

To calculate cu.ft. of gas in a known cylinder size at a given pressure

Step 1

$$\frac{\text{Cylinder Water Capacity in.}^3}{1728} = \text{Cylinder Water Capacity ft.}^3$$

Step 2

$$\text{Cylinder Water Capacity ft.}^3 \times \text{Factor} = \text{ft.}^3 \text{ of Gas in Cylinder at given PSI}$$

Example

Air cylinder rated at 2400 PSI and 2980 in.³ water capacity

Step 1

$$\frac{2980}{1728} = 1.724537$$

Step 2

$$1.724537 \times 163.04 = 281.17 \text{ ft.}^3 \text{ at 2400 PSI}$$

