

Alternative Fuels Ground Storage

Since 1897, CP Industries has manufactured large, seamless steel pressure vessels with the inherent strength to safely contain high-pressure compressed gases such as CNG and Hydrogen. Vessels for stationary ground storage applications are designed and constructed in accordance with ASME (American Society of Mechanical Engineers), Section VIII, Division 1 or Division 2 upon request. CP Industries can provide single vessels and finished multi-vessel assemblies complete with valves and piping manifolds.

Assemblies can be customized with high flow manifolds, flanges, paint systems, seismic bracing and certifications for use in a variety of countries. To avoid sulfide stress cracking and hydrogen embrittlement, CP Industries controls ultimate tensile strength. All vessels are ultrasonic shear wave tested and pneumatically tested to working pressure. CP Industries can assist with valuable technical assistance on installation techniques, and provide continuing support after your system is on line.



Photo courtesy of Giant Eagle, Inc.

- Proven record of safety, efficiency and reliability
- Vessels with pressure ratings up to 12,000 psi
- Vessels require no periodic retesting
- Customized mounting assembly using I-beams or frames Easily reinforced for installation in specific seismic zones
- Engineering and technical support available



A worldwide supplier of superior products and exceptional customer service, since 1897



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ASME UNITS FOR COMPRESSED NATURAL GAS STORAGE

LENGTH (ft)/(m)	COMMON CONFIGURATIONS	WATER VOLUME (ft ³)/(liters)	CAPACITY @ W.P. (SCF)/(SCM)	WEIGHT (lbs)/(kg)
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VESSEL DIAMETER 20" / 508mm

DESIGN PRESSURE **5500 psi / 379 bar** WORKING PRESSURE **5000 psi / 345 bar**

11'-6"/3.5	1-PACK	16.0/453	5,711/162	4,219/1,914
	3-PACK	48.0/1,359	17,133/485	11,882/5,390
19'-2"/5.8	1-PACK	28.1/796	10,030/284	6,390/2,898
	3-PACK	84.3/2,387	30,090/852	18,390/8,342
23'-0"/7.0	1-PACK	34.2/969	12,207/346	7,515/3,409
	2-PACK	68.4/1,937	24,414/691	14,513/6,583
	3-PACK	102.6/2,906	36,621/1,037	21,770/9,875
	4-PACK	136.8/3,874	48,828/1,383	29,026/13,166
	6-PACK	205.2/5,811	73,242/2,074	43,540/19,749
37'-0"/11.3	9-PACK	307.8/8,717	109,863/3,111	65,310/29,624
	3-PACK	168.9/4,783	60,285/1,707	34,140/15,486

VESSEL DIAMETER 24" / 610mm

DESIGN PRESSURE **5380 psi / 371 bar** WORKING PRESSURE **4842 psi / 334 bar**

16'-3"/5.0	3-PACK	101.1/2,863	35,565/1,007	21,720/9,852
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OTHER CONFIGURATIONS AND VESSEL SIZES ARE AVAILABLE

Assemblies commonly include with each vessel:

ASME safety relief valve - sized for fire conditions

Stainless steel full port ball valve with locking device for servicing safety relief valve

Wide range of sizes on Stainless steel full port inlet/outlet ball valve

1/2" Stainless steel drain valve

COMMON HYDROGEN SINGLE VESSELS

Vessel Dimension o.d. x length (in x ft/mm x m)	Design Pressure (psi/bar)	Vessel Water Volume (ft ³ /L)	Gas Volume per Vessel @ working pres. (SCF)/(SCM)	Vessel Weight (lbs/kg) ea.
16" x 30'-0"/406 x 9.1	6667/460	27.0/765	8,693/246	6672/3026
16" x 25'-0"/406 x 7.6	8695/600	20.6/583	8,100/229	6335/2874

***Material can be ordered for specific requirements based on customer specifications**

Key Features:

- Offer valves and fittings that meet NFPA 52 requirements for CNG
- Custom paint systems are available
- Code 62 designed valves and fittings available up to 6000 psig
- Modular designs available - permits installation of additional storage capacity



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