

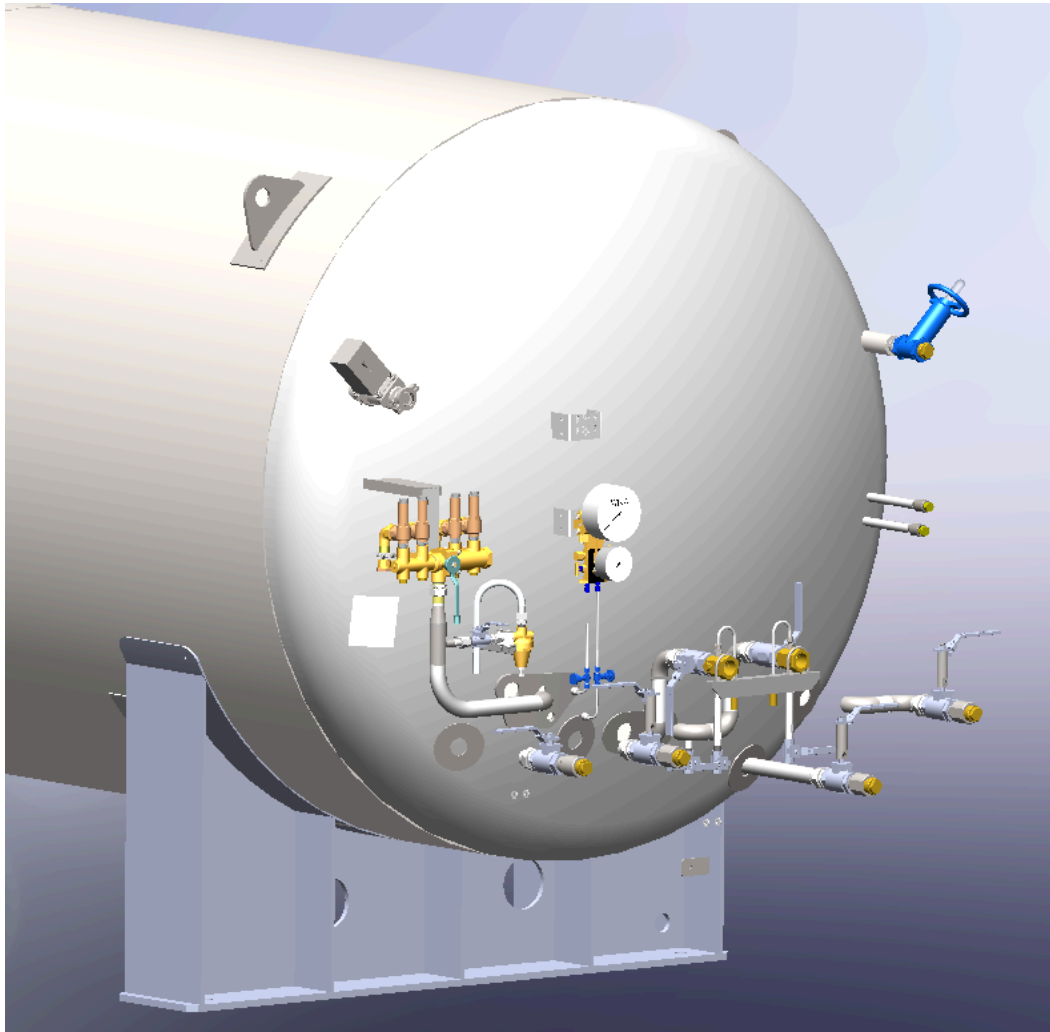
HORIZONTAL CRYOGENIC STORAGE TANK - CO₂. EFHA - USA STOCK



CRYOLOR ASIA PACIFIC introduces the latest generation vacuum insulated cryogenic tank, the **EFHA** series, for Liquid Carbon dioxide service with **Stainless steel** inner vessel. Available in a range of sizes with a Maximum Allowable Working Pressure of **350 psig** (≈ 24 bar), **EFHA** series is designed in accordance with **ASME Section VIII Division 1 + Mandatory appendix-44 with ASME certification mark and 'U' designator**.

Moreover, the saddles used in the EFHA range are calculated to resist high winds and earthquakes according to IBC code with Ss 2.0 and wind speed 190 mph.

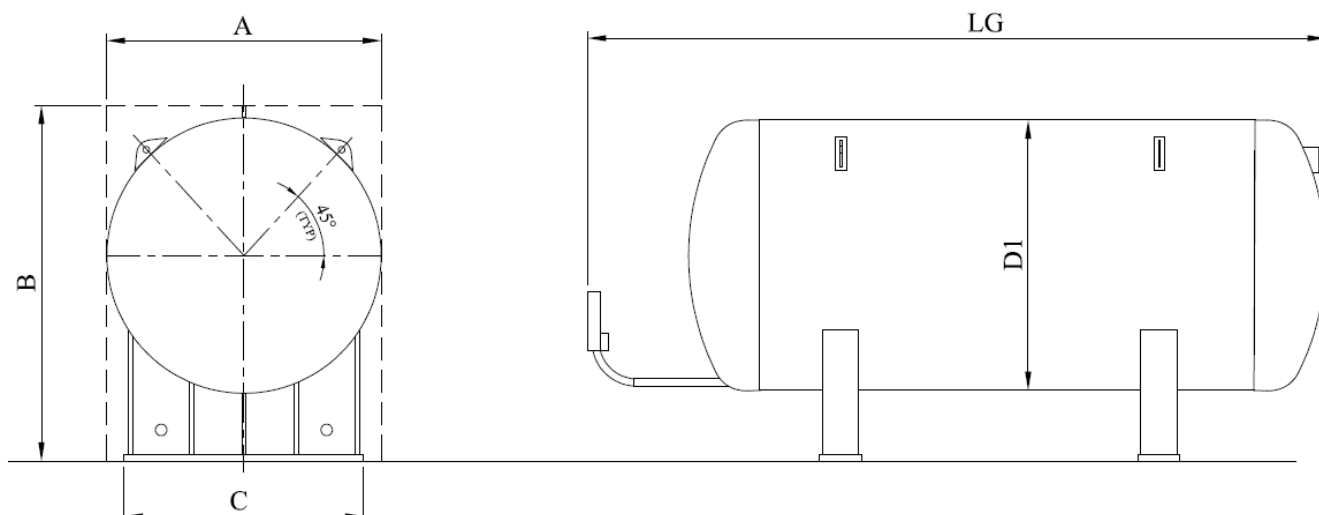
- **A maximum use of Stainless steel** - uses as much stainless steel in its construction to guarantee the lowest life cycle costs - valves, interconnecting piping and all welded connections are stainless steel.
- **Components selected for their operational reliability** - safety system with dual relief valves as standard and stainless steel valves.
- **Reduced overall operational costs** - optimized pipework layout with fewer connections minimize potential leaks and facilitate operation & servicing, filling assembly isolation valves as standard, proven painting techniques guarantee years of care-free operation.



Disclaimer: The image shown above is just a representation of the tank, The actual product may vary in appearance and size.

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EFHA - USA STOCK



TYPE	EFHA 06 (6 TON)		EFHA 14 (14 TON)		EFHA 30 (30TON)		EFHA 50 (50 TON)		EFHA 60 (60 TON)	
Gross capacity (liters / USG) *	6150	1625	12570	3321	28040	7407	47530	12556	56270	14865
Net capacity (liters / USG) *	5658	1495	11564	3055	25797	6815	43728	11552	51768	13676
Empty weight (kg / lbs) **	5200	11464	7500	16535	13200	29101	21100	46518	24000	52911
Weight full Carbon dioxide (kg / lbs) ***	11882	26196	21157	46643	43666	96268	72743	160370	85138	187697
Daily Evaporation rate CO2(%)	0.086		0.075		0.060		0.045		0.040	
Ø Diameter (in / feet)	86.6 / 7.2						111.8 / 9.3			
LG (in / feet)	169.3	14.1	244.1	20.3	450.8	37.56	456.7	38.1	531.5	44.3
A (in / feet)	90 / 7.5						111.8 / 9.3			
B (in / feet)	112.2 / 9.3						122.0 / 10.2			
C (in / feet)	78.7 / 6.5						102.4 / 8.5			

Trycock level is 92%.

* Manufacturing tolerance : ± 4%

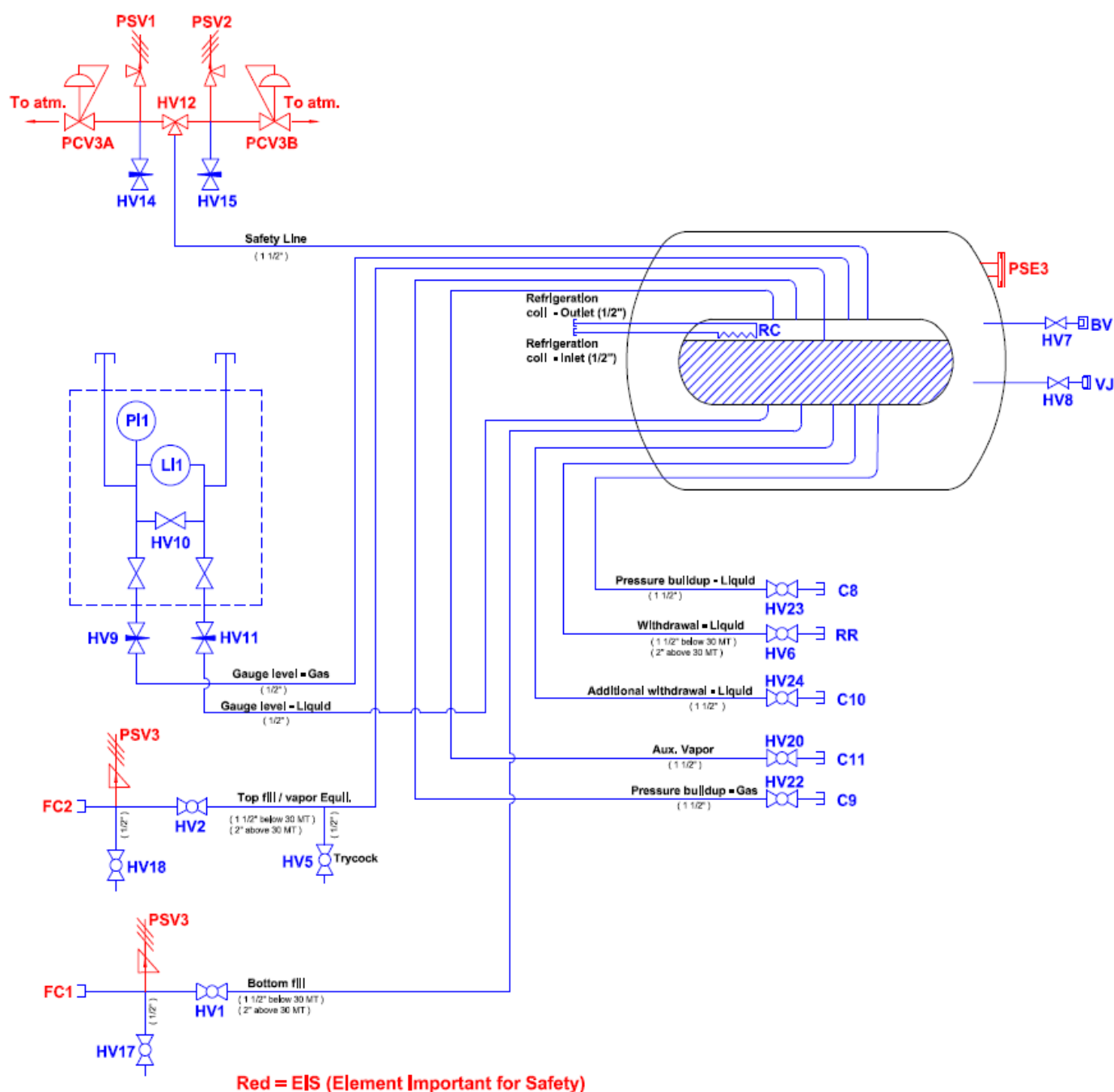
** The empty weight shown is an estimated weight; the actual weight may vary, and it will be indicated once the design is completed.

*** The density of 1181 kg/m³ is considered in the weight calculation.

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FLOW DIAGRAM



HORIZONTAL CRYOGENIC STORAGE TANK - CO₂.

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Reference	Description	Size		Valve	
		06 & 14 MT	30-60 MT	Manufacturer	Model number
BV	Vacuum pump down connection	-	-	-	-
C8, C9	Connections for pressure buildup unit	1 1/2"	-	-	FNPT threaded with Male plug
C10	Add. Liquid withdrawal connection	-	1 1/2"	-	FNPT threaded with Male plug
C11	Connection for Auxiliary Vapor	1 1/2"	-	-	FNPT threaded with Male plug
FC1	Bottom filling coupling	1 1/2"	1 1/2"	-	CGA Coupling (Brass)
FC2	Top filling coupling	1"	1"	-	CGA Coupling (Brass)
HV1	Filling liquid	1 1/2"	2"	Jamesbury	9FB3600XTB
HV2	Filling gas	1 1/2"	2"	Jamesbury	9FB3600XTB
HV5	Full trycock	1/2"	-	Jamesbury	9FB3600XTB
HV6	Liquid use	1 1/2"	2"	Jamesbury	9FB3600XTB + Extended stem JV SE-095
HV7	Vacuum isolation valve	1 1/2"	-	Saunders	2205-S-11R-CV
HV8	Vacuum probe isolation valve	1/8"	-	Hoke	4551-F2B-1/8"
HV9	Level gauge manifold, Gas	OD 1/4"	-	Swagelok	SS-1RS4-SC11
HV11	Level gauge manifold, Liquid				
HV12	3 way diverter	3/4"	1 1/4"	Herose	Type 06512
HV14 & HV15	Vent valve for safety tree	1/4"	-	Generant	FNV-4 MFB-X
HV17	Purge valve	1/2"	-	Jamesbury	9FB3600XTB
HV18	Purge valve	1/2"	-	Jamesbury	9FB3600XTB
HV20	Auxiliary Vapor	1 1/2"	-	Jamesbury	9FB3600XTB
HV22	Pressure building - Gas	1 1/2"	-	Jamesbury	9FB3600XTB + Extended stem JV SE-095
HV23	Pressure building - Liquid	1 1/2"	-	Jamesbury	9FB3600XTB + Extended stem JV SE-095
HV24	Additional Liquid withdrawal	-	1 1/2"	Jamesbury	9FB3600XTB + Extended stem JV SE-095

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Reference	Description	Size		Valve	
		06 & 14 MT	30-60 MT	Manufacturer	Model number
LI1	Mechanical liquid level gauge			WIKA	MODEL: 712.15.160
PI1	Mechanical pressure gauge				
HV10	Level gauge manifold, Equalizer				
PSE3	Annular space pressure relief	-		Cryolor	-
PSV1 & PSV2	Vessel safety relief valve(SRV)	1/2"	1"	Herose	Type 06388 (Set @ 350 Psig)
PSV3	Thermal relief valve	1/4"		Generant	CRB-250B-K-350 (Set @ 350 Psig)
PCV3A, B	Back pressure regulator	1/4"		Generant	BPR-250I-D-O2 (Set @ 490 Psig)
RR	Liquid use connection	1 1/2"	2"	-	NPT threaded with Male plug
VJ	Vacuum gauge / sensor	1/8"		Teledyne Hastings	DV-6-R
RC	Refrigeration coil	-		Cryolor	

Note:

- This technical specification is purely an indication, It can't be considered as a contractual document.
- This technical specification is subject to change without prior intimation.