

HORIZONTAL CRYOGENIC STORAGE TANK - CO₂.

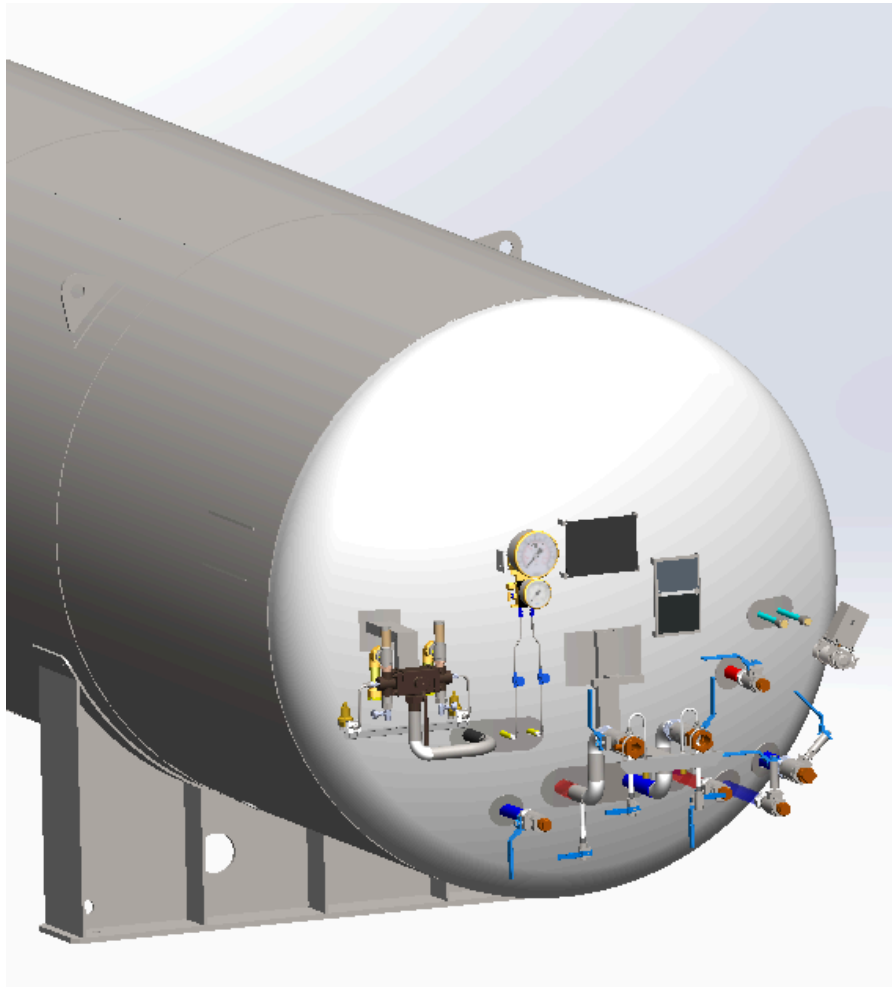
EFHA - USA STOCK



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** (\approx 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.

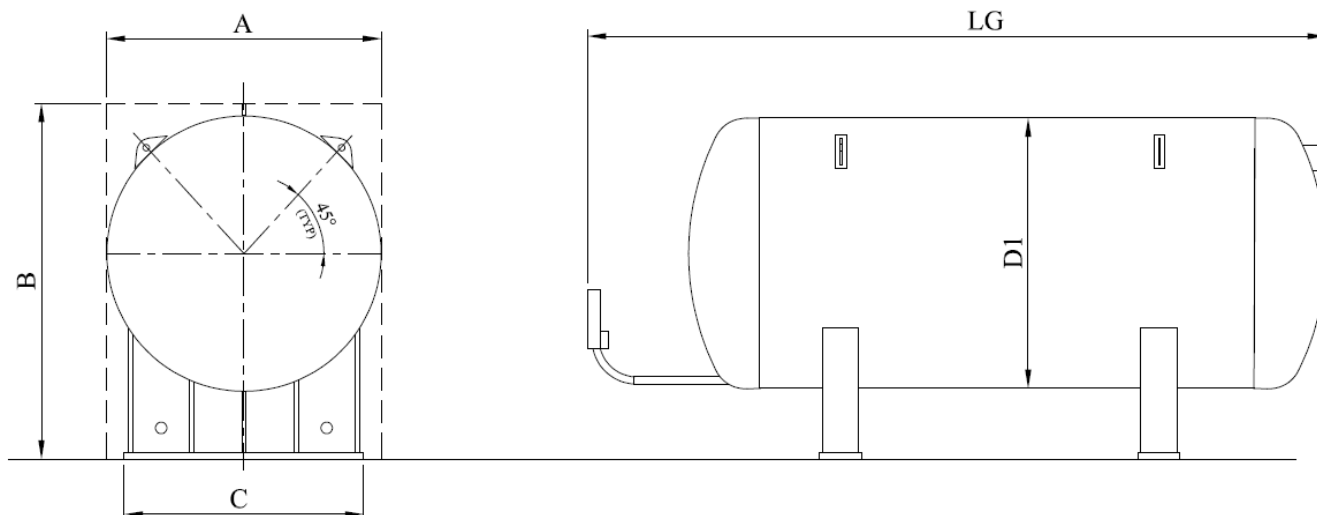
- **A maximum use of Stainless steel** - uses as much stainless steel in its construction to guarantee the lowest life cycle costs - valves, interconnecting piping and all welded connections are stainless steel.
- **Components selected for their operational reliability** - safety system with dual relief 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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TYPE	EFHA 06 (6 TON)	EFHA 14 (14 TON)	EFHA 30 (30 TON)	EFHA 50 (50 TON)	EFHA 60 (60 TON)
Gross capacity (USG) *	1625	3321	7407	12556	14865
Net capacity (USG) *	1495	3055	6815	11552	13676
Empty weight (lbs) **	11464	16535	29101	46518	52911
Net weight of LCO ₂ at full trycock (Ton) ***	6.3	13.0	28.8	49.0	58.0
Daily Evaporation rate CO ₂ (%)	0.30	0.20	0.15	0.05	0.04
∅ Diameter (in)	86.6			111.8	
LG (in)	169.3	244.1	450.8	456.7	531.5
A (in)	86.6			111.8	
B (in)	112.2			122	
C (in)	78.8			102.4	

Note:

Trycock level is 92%.

* Manufacturing tolerance : ± 4%

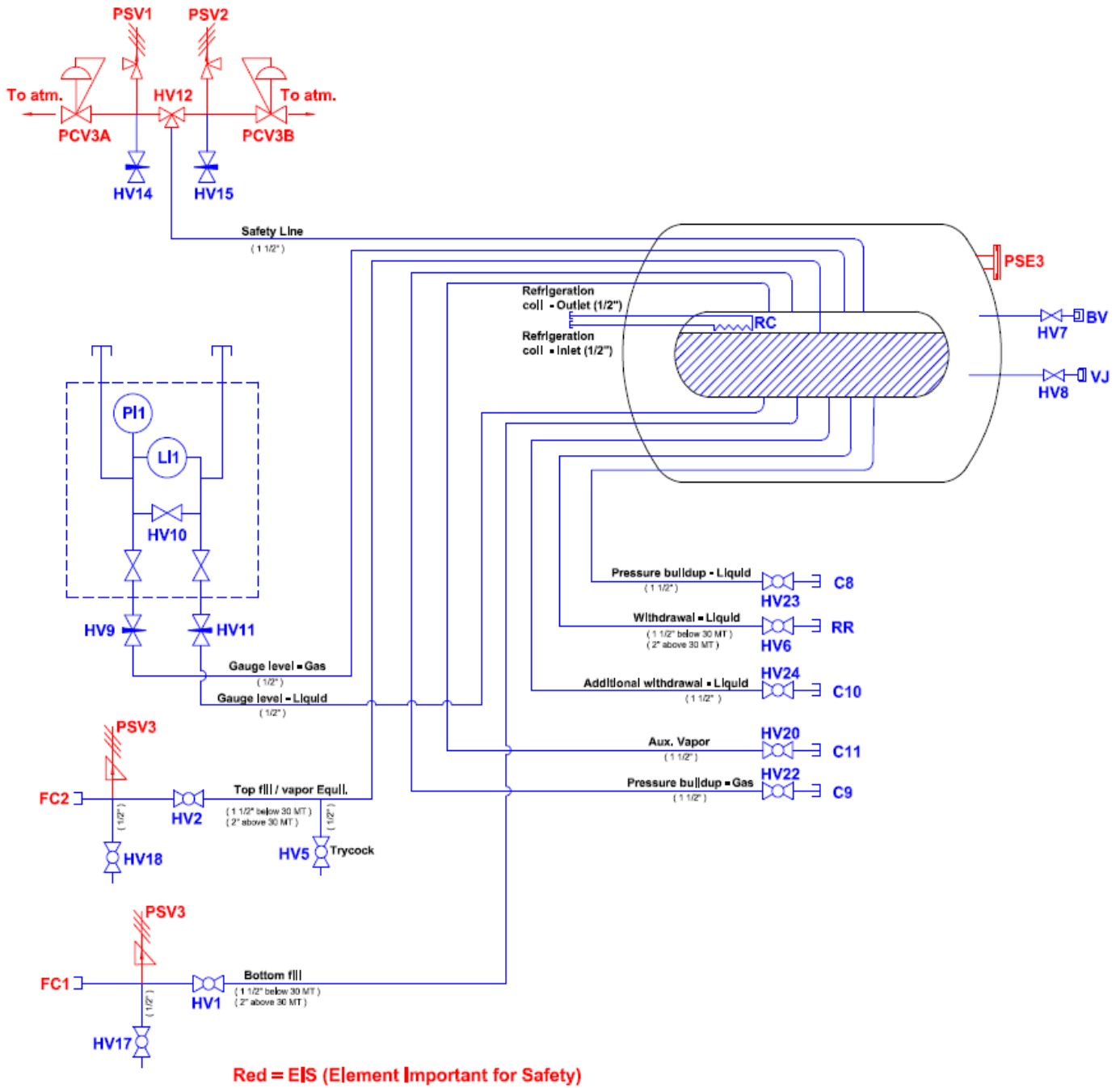
** The indicated tanks' empty weight is intended for foundation and handling.

*** LCO₂ weight is calculated by the density of 63.36 lbs/ft³ at an operating pressure of 300 psig.

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FLOW DIAGRAM



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Reference	Description	Size		Valve	
		06 & 14 Ton	30-60 Ton	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 Ton	30-60 Ton	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.