

Cryogas Industries introduces yet another state-of-the-art cryogenic storage equipment offering multiple options to address the wide spectrum of end users; Vertical Cryogenic Storage Tanks are offered in a variety of ranges with MAWP of 17 Bar (\approx 250 psig)

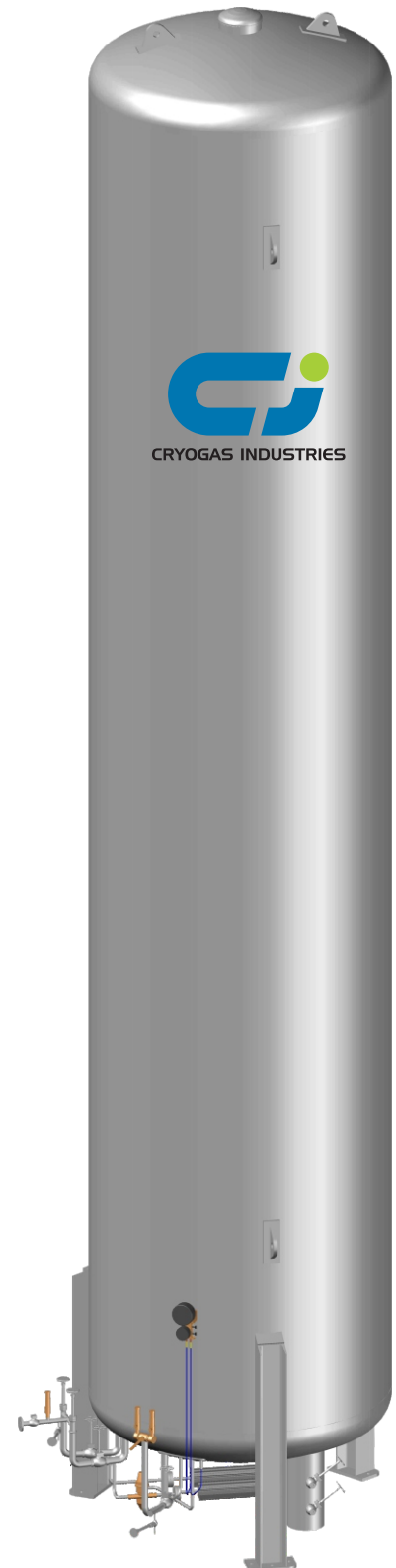
VCC : Vertical Cryogenic Cold Converter Storage Tanks

VTH : Vertical Cryogenic Thermosyphon Storage Tanks for cryogenic pumping solutions especially for cylinder filling stations

The design reduces product loss owing to its excellent insulation properties, coupled with new generation vacuum system and techniques.

Vertical Cryogenic Storage Tanks, designed in accordance with ASME, European Pressure Directives, PED 97/23/EC and EN 13458, enables use for worldwide applications.

- **VCC, VTH** ranges provide different sizes and tank volumes utilizing only two diameters. The main advantage to users and industrial gas companies is augmentation of higher volume tanks on the same footprint.
- World class components and valves for world class performance and reliability, product uniformity reduces life time ownership cost
- Cryogenic Valves, Pressure Building Coil, Safety Tree arrangement with two safety valves + two bursting discs and three way valve, Stainless Steel pipes and Stainless Steel valves offer highest performance with long life and functional reliability. Stainless Steel interconnecting piping and welded ends are standard features.
- Utilising latest engineering techniques, advancement in metal forming and minimization of weld joints result in lower life time ownership cost and brings “user delight” for years of operation



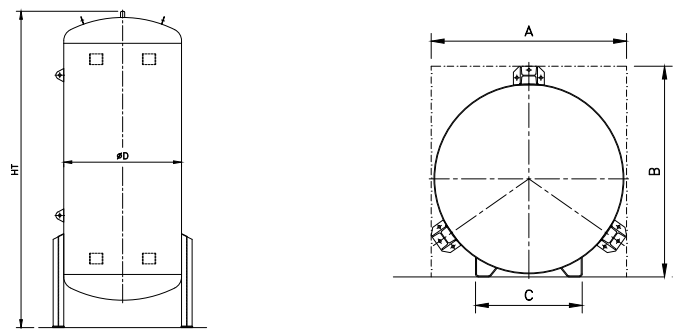
Cold Converter Models	VCC6	VCC10	VCC13	VCC21	VCC30	VCC40	VCC50	VCC60
Gross Capacity (Liters)	5892	10403	13411	20929	32031	39618	50997	62376
Net Capacity (Liters)	5597	9883	12740	19883	30430	37637	48447	59258
Daily Evaporation Rate O ₂ (%)	0.32	0.27	0.25	0.22	0.20	0.17	0.15	0.14
Empty Weight (Kg.)	3750	5268	6089	8293	14912	17371	20376	23881
Weight Full Nitrogen (Kg.) - LIN	8278	13263	16396	24378	39530	47819	59570	71821
Weight Full Oxygen (Kg.) - LOX	10138	16546	20628	30983	49639	60322	75664	91506
Weight Full Argon (Kg.) - LAR	11575	19084	23900	36089	57453	69987	88105	106724
Continuous Withdrawal Rate for 8 hours at 15 bar (Nm ³ /Hr.)	1000	1000	1000	1000	2000	2000	2000	2000
Diameter (mm)	2150	2150	2150	2150	3300	3300	3300	3300
HT Height (mm)	3933	6070	7494	11056	7357	8782	10918	13055
A (mm)	2240	2240	2240	2240	3460	3460	3460	3460
B (mm)	2405	2405	2405	2405	3660	3660	3660	3660
C (mm)	1245	1245	1245	1245	1550	1550	1550	1550
Thermosiphon Models *	VTH6	VTH10	VTH13	VTH21	VTH30	VTH40	VTH50	VTH60

Note : (1) * Tanks with thermosiphon are app. 750 mm higher (2) Specifications are subject to change without notice due to continuous product development or to improve reliability, function or design or otherwise.

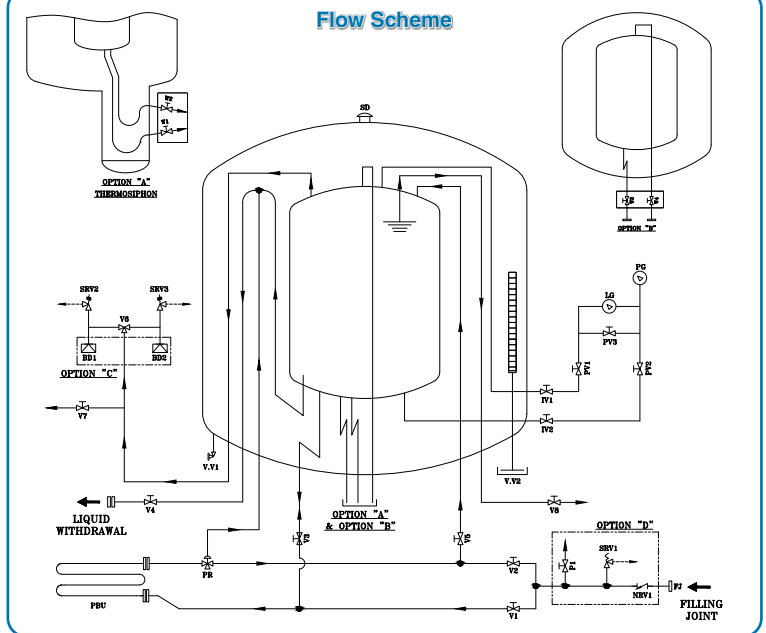
Nomenclature *

V1	BOTTOM FILLING VALVE	
V2	TOP FILLING VALVE	
V3	PRESSURIZING VALVE	
V4	LIQUID WITHDRAWAL VALVE	
V5	STOP VALVE (PRESSURIZER)	
V6	THREE WAY FLOW DIVERTER VALVE	
V7	VENT VALVE	
V8	FULL TRYCOCK VALVE	
NRV1	INLET NOT RETURN VALVE	
PR	THREE WAY PRESSURE REGULATOR	
SRV2, SRV3	SAFETY RELIEF VALVE FOR INNER VESSEL	
SRV1	SAFETY RELIEF VALVE FOR PIPE LINE	
PV1	LEVEL GAUGE VALVE	THREE WAY MANIFOLD VALVE
PV2	LEVEL GAUGE VALVE	
PV3	PRESSURE BALANCE VALVE	
LG	LEVEL GAUGE	
PG	PRESSURE GAUGE	
V.V1	VACUUM PROBE VALVE	
V.V2	EVACUATION PORT	
SD	SAFETY DEVICE FOR OUTER VESSEL	
PBU	PRESSURE BUILD-UP UNIT	
IV1, IV2	ROOT ISOLATION VALVE	
OPTION "A" (THERMOSIPHON ARRANGEMENT)		
W1	LIQUID LINE TO PUMP	
W2	VAPOUR RETURN LINE FROM PUMP TO TANK	
OPTION "B"		
W3	ADDITIONAL LIQUID TAKE OFF LINE	
W4	ADDITIONAL GAS PHASE LINE	
OPTION "C"		
BD1, BD2	BURSTING DISC	
OPTION "D"		
NRV 1	INLET NON RETURN VALVE	
SRV 1	SAFETY RELIEF VALVE FOR PIPE LINE	
P1	PURGE VALVE	

Basic Dimensions



Flow Scheme



Cold Converter Storage Tanks ♦ Thermosiphon Tanks ♦ Transport Tankers ♦ Framed ISO Containers ♦ Microbulk Cryogenic Portable Containers
Engineered Cryogenic Tanks ♦ Atmospheric Vaporizers and Powered Cryogenic Vaporizers ♦ Vacuum Insulated Pipelines ♦ Complete Turnkey Cryogenic Solutions ♦ LNG Regasification Stations ♦ LCNG Stations ♦ Mobile Cryogenic Vaporizers and Pumping Skids ♦ Portable Helium and Nitrogen Liquefaction Plants ♦ Semi and Fully Automatic Palletized Cylinder Filling Stations and Solutions.