



CRYOGENIC

CRYOTEKNIK cryogenic tanks are designed and manufactured for all types of cryogenic applications with the requirements for safe, easy and economical operation. The highlights of CRYOTEKNIK tanks are:

- Storage tanks are equipped by economizer circuit, routing the boil off gas into the main system, which prevents wastage of gas. The mono-bloc pressure building economizer-regulator offers easy pressure adjustment and maintains operational reliability.
 - Storage tanks are designed and manufactured in accordance with and conforming to EC directives and EN standards. Other national pressure vessel codes, or standards are applicable upon customer's requirement.
 - CRYOTEKNIK can provide a wide range of tailor made solutions; with sizes design pressures and other specifications as required by the customer.
 - CRYOTEKNIK's cryogenic tank manufacturing facility is ISO 9000 approved, to assure the best quality in all aspects of our operation.
- The support legs are calculated according to UBC, Eurocode standards to resist high wind and seismic loads.
 - Standard equipment includes dual safety relief valves with diverter valve, stainless steel pressure gauge and differential pressure contents gauge; with optional switches, transmitters and/or telemetry unit. Horizontal storage tanks can be equipped with load cells.
 - Carefully designed stainless steel pipe work reduces operation time. Appropriate bending of stainless steel pipe work means fewer connections, minimizing potential leaks, higher operability and less servicing.
 - Rugged internal supports to resist loads and stresses during transportation.
 - Ergonomic design of valves, outlets, lifting lugs and other components enables safe and easy installation, operation, maintenance and servicing.
 - Air gas tanks and their components are cleaned for oxygen service.

PRODUCTS

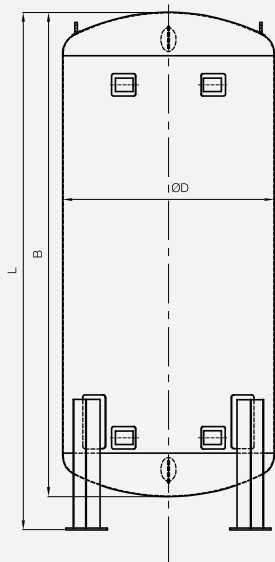
- * LPG / LNG / LIN / LOX / LAR / CLO2 / NH3 / SEMI TRAILERS
- * LPG / LNG / LIN / LOX / LAR / CLO2 / NH3 / OVER TRUCK AND TRANSPORT TANK
- * LPG / LNG / LIN / LOX / LAR / CLO2 / NH3 / STORAGE TANKS
- * LOW PRESSURE EVAPORATORS
- * HIGH PRESSURE EVAPORATORS
- * CRYOGENIC LIQUID TRANSPORT AND STORAGE CONTAINERS
- * AIR TANKS
- * FUEL TANKS / STORAGE AND TRANSPORT TANKS
- * PROCESS TANKS
- * INDUSTRIAL TANKS
- * SPECIAL PRODUCTION PROJECT TANKS FOOD TANKS
- * MEDICAL PROCESS TANKS
- * CHEMICAL TANKS
- * PETRO CHEMICAL TANKS
- * MANUFACTURING VACUUM CRYOGENIC PIPE

SERVICES

- * INDUSTRIAL GAS DIVING FACILITIES LIQUID PUMP INSTALLATION AND PURCHASE
- * LPG / LNG / LIN / LOX / LAR / LCO2 / NH3 / PLANT FACILITIES INSTALLATION
- * DOMESTIC PERIODIC CONTROL AND SERVICE
- * PERIODIC CONTROL AND SERVICE ABROAD
- * SYSTEM TRAININGS
- * PRODUCTION AND INSTALLATION TRAININGS
- * SHIPMENT INFORMATION
- * FIELD INSTALLATION TRAININGS
- * SERVICE EDUCATION

CRYOGENIC LIN / LOX / LAR AIR GAS STORAGE TANKS

DESIGN CODE	EN 13458 - PED 2018/68/EU
MAX. ALLOWABLE WORKING PRESSURE	16 BAR/37 BAR
DESIGN TEMPERATURE	-196°C
INNER VESSEL MATERIAL	Stainless Steel (According to EN 10028-7)
OUTER VESSEL MATERIAL	Carbon Steel (According to EN 10025/EN 10028-3)
INSULATION	Perlite & Vacuum



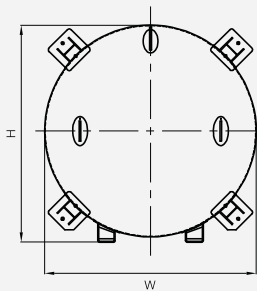
Air Gas Standard Storage Tanks Dimensions

16 BAR CRYOGENIC LIN/LOX/LAR STORAGE TANKS

MAWP	Gross Capacity	Net Capacity (%95 Filling)	Daily Evap. Rate (O2)	ØD	B	L	W	H	Empty Weight
bar	liters	liters	% / day	mm	mm	mm	mm	mm	kg
16	2150	2040	0.34	1700	3055	3755	1920	1980	2000
	3450	3280	0.32	1830	3320	4020	2050	2120	2500
	6200	5890	0.30	1830	5210	5910	2050	2120	3750
	8200	7790	0.30	1830	6695	7395	2050	2120	4800
	10450	9930	0.29	2400	4640	5340	2400	2690	5300
	14850	14110	0.28	2400	6130	6830	2400	2690	6950
	20450	19430	0.26	2400	8425	9125	2400	2690	8750
	24750	23510	0.24	2400	9925	10625	2400	2690	10800
	31300	29735	0.23	2680	9600	10300	2680	3020	11750
	46100	43790	0.20	3050	10560	11260	3050	3420	18700
	50000	47500	0.19	3050	11300	12000	3050	3420	20500
	56450	53630	0.18	3050	12370	13070	3050	3420	22200
66800	63460	0.15	3050	14370	15070	3050	3420	25750	

Data given on the table are nominal volumes and actual capacity may vary from these due to manufacturing tolerances.

37 BAR CRYOGENIC LIN/LOX/LAR STORAGE TANKS

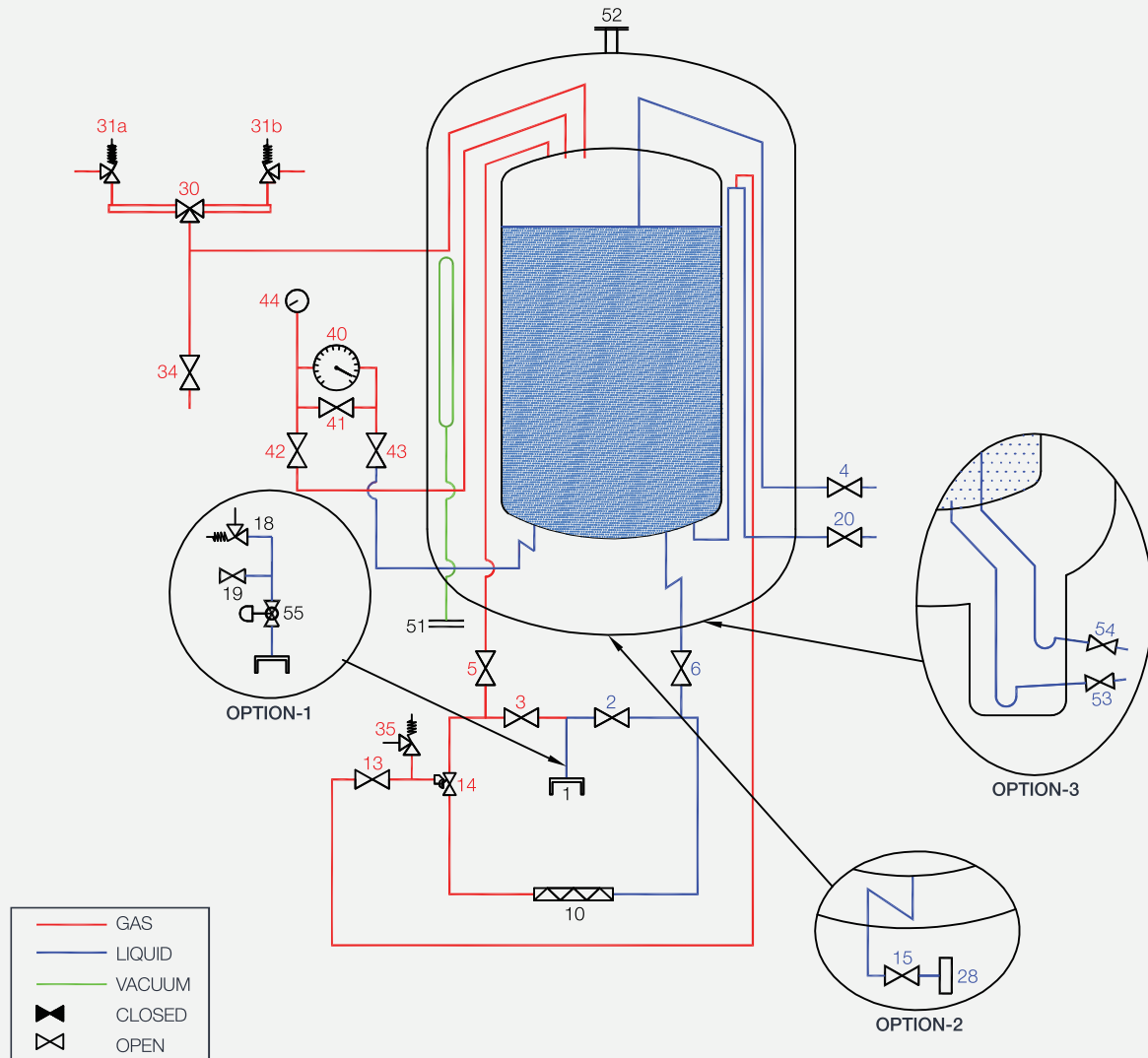


MAWP	Gross Capacity	Net Capacity (%95 Filling)	Daily Evap. Rate (O2)	ØD	B	L	W	H	Empty Weight
bar	liters	liters	% / day	mm	mm	mm	mm	mm	kg
37	3550	3370	0.20	1650	4260	4960	1950	1950	2950
	7300	6940	0.18	1930	5420	6120	2200	2250	5200
	10500	9980	0.16	1930	7740	8440	2200	2250	6900
	15500	14730	0.14	2220	7920	8620	2220	2500	9700
	20100	19100	0.13	2220	9915	10615	2220	2500	12200
	25170	23910	0.12	2500	10300	11000	2500	2780	15000
	31300	29730	0.10	2500	11040	11740	2500	2780	17000

Data given on the table are nominal volumes and actual capacity may vary from these due to manufacturing tolerances.

CRYOGENIC LIN / LOX / LAR AIR GAS STORAGE TANKS

Air Gas Standard Storage Tanks P&ID



CRYOTEKNIK reserves the right to change above specifications without prior notice.

NOMENCLATURE

1	Fill connection	31	Inner vessel safety relief valve (a/b)	Option-1 Overfilling protection
2	Bottom fill valve	34	Vapor vent valve	18 Thermal relief valve
3	Top fill valve	35	Thermal relief valve	19 Purge valve
4	Try cock valve	40	Level indicator	55 Overfilling protection device
5	Top fill isolating valve	41	Equalizer valve	Option-2 Liquid withdrawal line
6	Bottom fill isolating valve	42	Low pressure shut off valve	15 Liquid withdrawal valve
10	Pressure building coil	43	High pressure shut off valve	28 Liquid withdrawal connection
13	Economizer isolating valve	44	Pressure indicator	Option-3 Thermosyphon
14	Combine valve (Filter, Regulator, Economizer, Non return valve)	51	Evacuation connection	53 Pump feed valve
20	Liquid withdrawal valve	52	Vacuum safety device	54 Pump return valve
30	Three way valve			