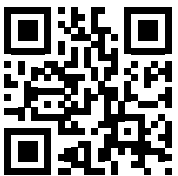




 **ISISAN**



GERMANY
GULF
AFRICA
INDIA
İSTANBUL
KAYSERİ

Who We Are?

Isisan is the core member of a group employing 1.000 people and active in steel, energy and food industries.

Isisan was established in 1968 for producing hot water boilers, then focused to the pressure vessels business by 1980's. Isisan has grown up to be a major manufacturer especially on transport and storage tanks for LPG, cryogenics, CO₂ and LNG. Today Isisan is working on a massive 46.000 m² area and exports 50% of its products to more than 60 countries.

Isisan has a proactive, dynamic and progressive approach to keep its leader position and international reputation. Our R&D professionals follow the global developments and adapts to our designs and key processes. We benefit the advantages of high technology to create value for our customers.

Quality Management

Total quality is our primary concept while forming our production; covering all aspects from technology to human. We have accomplished all employees to feel themselves as a part of our quality management system.

Inspection: A brief list of inspection methods and equipment Isisan uses are as follows:

- X-Ray
- Ultrasonic Test
- Magnetic Particle Test
- Industrial Endoscopy
- Leak Test with Helium Detector
- Vacuum Measurement
- Hygrometry for Dew Point
- UV Lamp

Approval: Isisan has achieved the level of international quality standards and has been awarded international quality certificates.

- ISO 9001
- ASME STAMPS (U, U2, S)
- GOST TR
- GOST RTN
- UKR SEPRO
- DIRECTIVE 2007/46/EC
- 2010/35/EU (TPED)

Standards: Isisan is capable to design and manufacture pressure vessels and submit certificates according to the following design codes and standards.

- AD 2000
- ASME Div.1, Div.2
- BS 5500
- CODAP
- EN STANDARDS
- ADR, ADR Part 9

After Sales Service

Our approach is to offer service in time, without compromising high quality standards and never leave our customers with unsolved problems. Our services include the following and we offer more comprehensive, location and product specific service packages upon agreement:

- Engineering services to analyze customer's requirements and advice the best solution
- Announcing system upgrades and improvements through the entire service life of the product
- Providing commissioning, operating and maintenance instructions
- Remote help and technical support for in-site repair or requalification
- Training programs for operators, maintenance personnel and engineers

Some References

ADNOC	HABAŞ
AKPET GAZ	HAFFMANS - PENTAIR
ARÇELİK	HİSAR DOĞALGAZ / ÜLKER
AYGAZ DOĞALGAZ	İPRAGAZ / SHV GROUP
BARİT MADEN / BOZKAR	LİNDE GAS
BASI GAS	LUKOIL
BİZİMGAZ / SHV GROUP	MEGAŞ
BUZWAIR	MESSER
COCA COLA	NAFTAL
EFES PILSEN	OMV GAZ VE ENERJİ A.Ş.
GASCO	PEPSİ
GEMİQAYA	PETROL OFİSİ
GLOBAL GAS	SOHAR GASES CO. LLC.
GLOBAL GYPSUM CO.	ÜLKER
GULF CRYO	VIKING SODA AB

Suppliers

BPW	KNORR-BREMSE
CRYOSTAR	MECA-INOX
ENDRESS HAUSER	REGO
FISCHER	SAMSON
HEMPEL	SMITH
HEROSE	WABCO
JOTUN	WHESOE



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

The highlights of ISISAN tanks are:

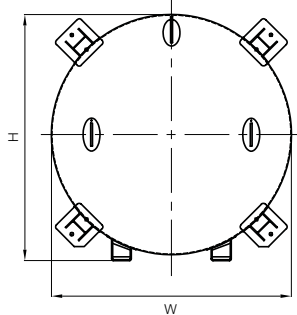
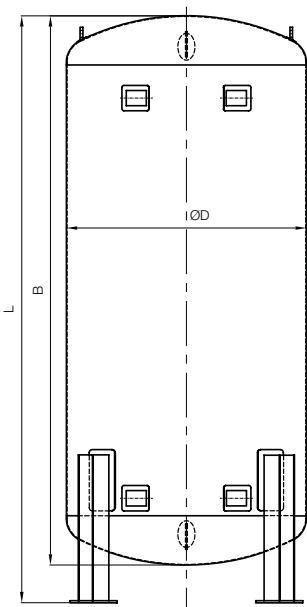
- Storage tanks are equipped by economizer circuit, routing the boil off gas into the main system, which prevents wastage of gas. The mono-bloc pressure building economizer-regulator offers easy pressure adjustment and maintains operational reliability.
 - Storage tanks are designed and manufactured in accordance with and conforming to EC directives and EN standards. Other national pressure vessel codes, or standards are applicable upon customer's requirement.
 - Transport tanks are designed and manufactured in accordance with ADR, EC directives and EN standards. All models have π mark and European approvals are provided. Other national pressure vessel codes, or standards are applicable upon customer's requirement.
 - ISISAN can provide a wide range of tailor made solutions; with sizes, design pressures and other specifications as required by the customer.
 - ISISAN'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.



Cryogenic LIN/LOX/LAR

AIR GAS STORAGE TANKS

DESIGN CODE	EN 13458 - PED 97/23/EC
MAX. ALLOWABLE WORKING PRESSURE	19 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

19 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
19	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

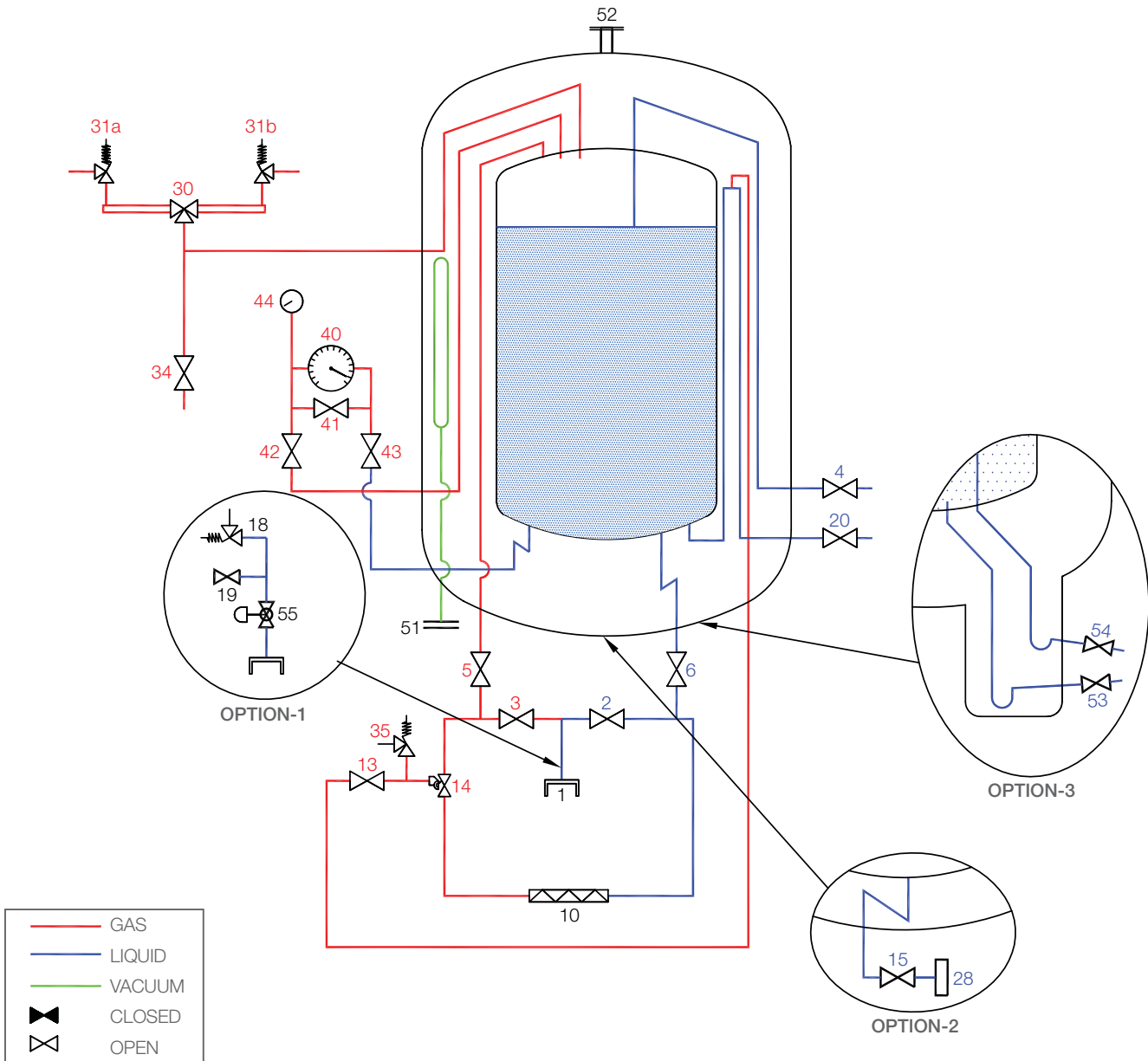
MAWP	Gross Capacity	Net Capacity (%95 Filling)	Daily Evap. Rate (O2)	ØD	B	L	W	H	Empty Weight
bar	liters	liters	% / day	mm	mm	mm	mm	mm	kg
37	3550	3370	0.20	1650	4260	4960	1950	1950	2950
	7300	6940	0.18	1930	5420	6120	2200	2250	5200
	10500	9980	0.16	1930	7740	8440	2200	2250	6900
	15500	14730	0.14	2220	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



ISISAN 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	
6	Bottom fill isolating valve	42	Low pressure shut off valve	Option-2 Liquid withdrawal line
10	Pressure building coil	43	High pressure shut off valve	15 Liquid withdrawal valve
13	Economizer isolating valve	44	Pressure indicator	28 Liquid withdrawal connection
14	Combine valve (Filter, Regulator, Economizer, Non return valve)	51	Evacuation connection	
20	Liquid withdrawal valve	52	Vacuum safety device	Option-3 Thermosyphon
30	Three way valve			53 Pump feed valve
				54 Pump return valve

Cryogenic LIN/LOX/LAR

AIR GAS TRANSPORT TANKS

DESIGN CODE	EN 13530 - ADR
MAX. ALLOWABLE WORKING PRESSURE	3 bar / 16 bar
DESIGN TEMPERATURE	-196°C
INNER VESSEL MATERIAL	Stainless Steel (According to EN 10028-7)
OUTER VESSEL MATERIAL	Carbon Steel (According to EN 10025/ EN10028-3)
INSULATION	Super Insulation & Vacuum

HIGH PRESSURE SERIES AIR GAS TRANSPORT TANK

		LOX	LOX	LOX	LOX
TANK VOLUME	lt	6500	9000	11500	14000
NET WATER CAPACITY	lt	6350	8900	11450	14040
TANK EMPTY WEIGHT	kg	4200	5020	6065	7490
LIQUID (0.5 barg)	kg	6800	9450	12160	14920

LOW PRESSURE SERIES AIR GAS TRANSPORT TANK

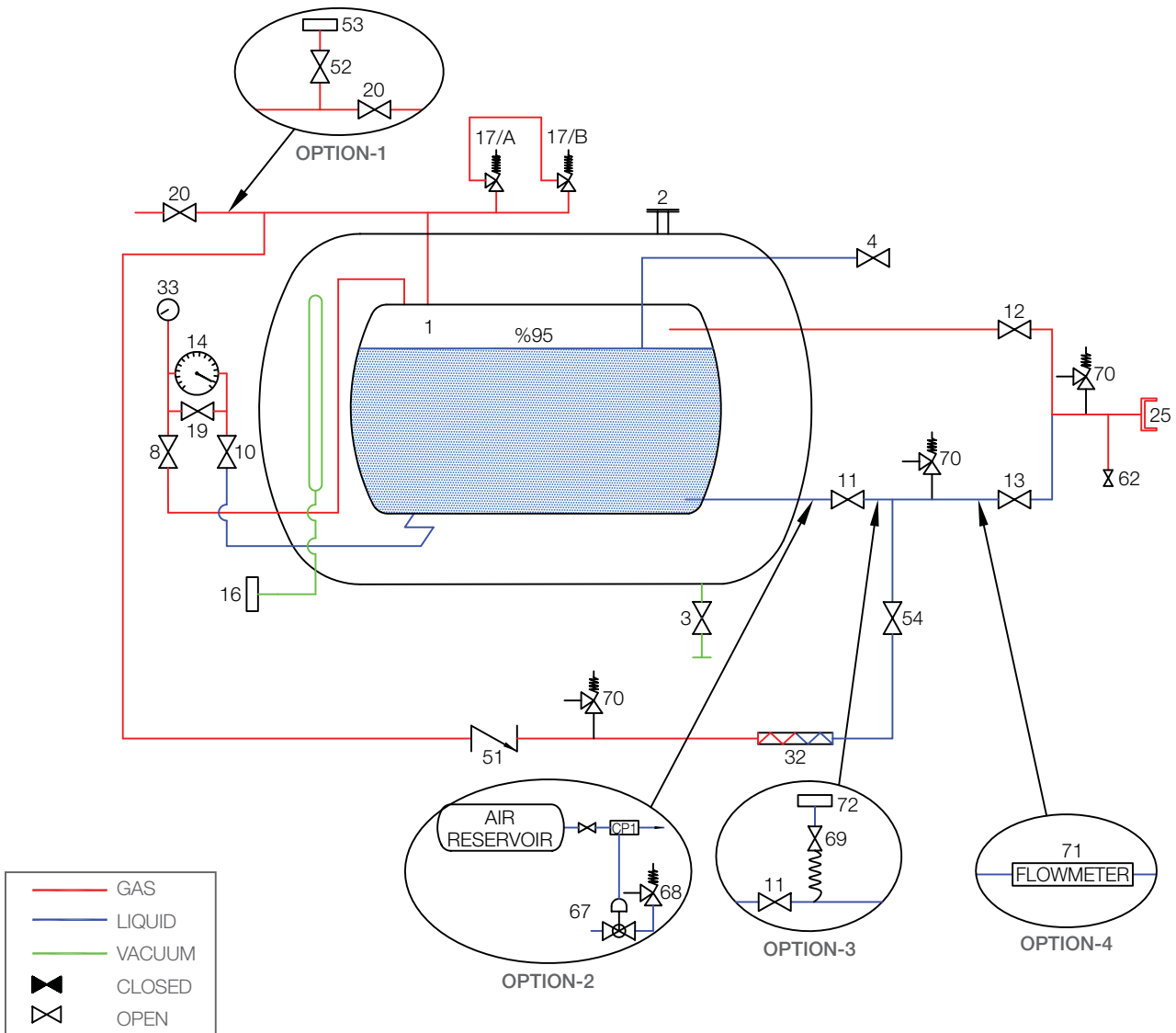
		LIN	LIN	LOX	LOX	LAR
TANK VOLUME	lt	33500	30000	24500	22000	18600
NET WATER CAPACITY	lt	33490	29800	24250	21780	18620
TANK EMPTY WEIGHT	kg	9800	10400	9250	9200	8800
LIQUID (0.5 barg)	kg	25200	22450	25750	23150	24200
TOTAL	kg	42000	39850	42000	39350	40000



Cryogenic LIN/LOX/LAR

AIR GAS TRANSPORT TANKS

Air Gas Transport Tanks P&ID High Pressure Series



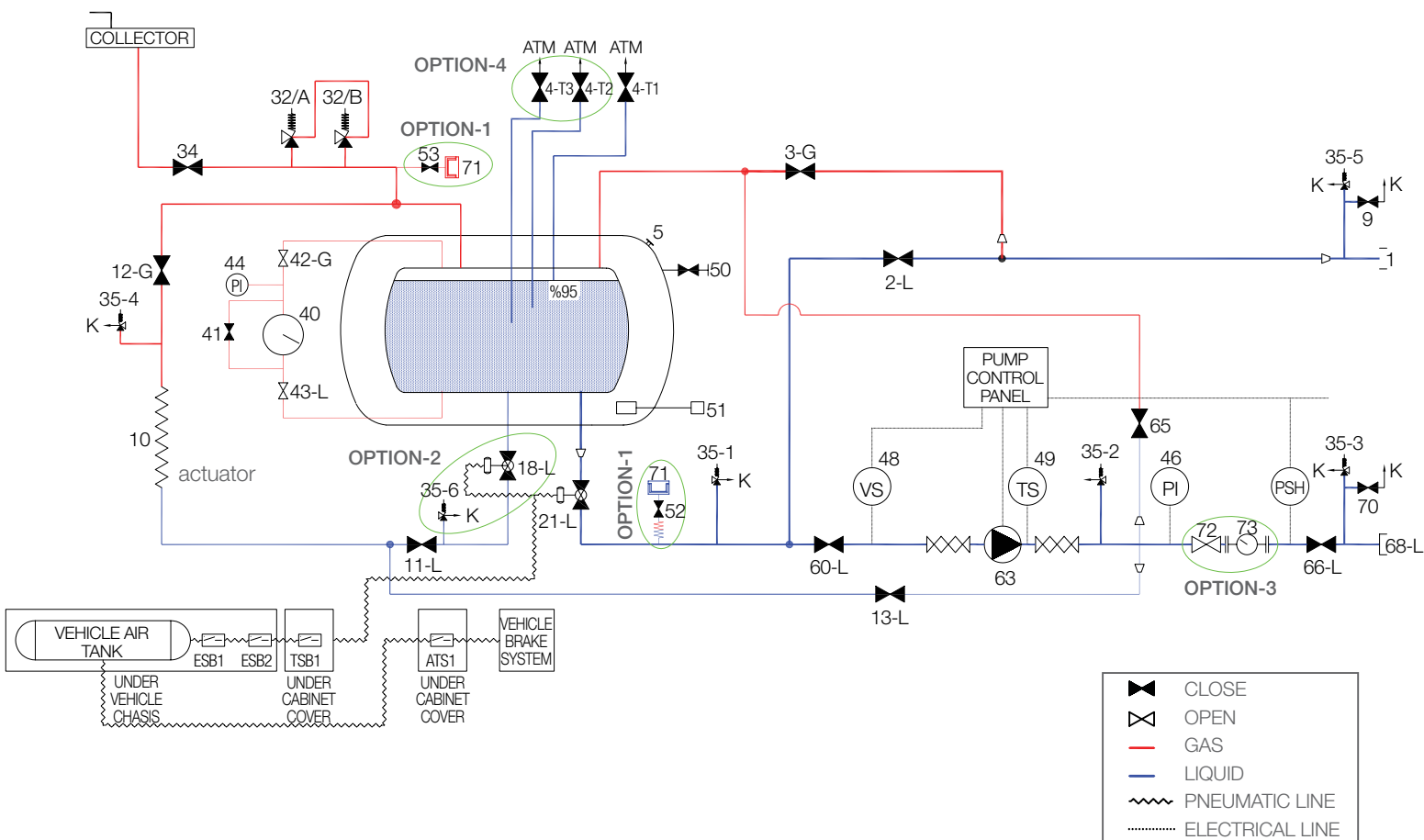
NOMENCLATURE

1	Jacketed pressure vessel	17/A	Inner vessel safety relief valve	Option-1
2	Vacuum safety device	17/B	Inner vessel safety relief valve	52 Gas analysis valve
3	Evacuation valve	19	Equalizer valve	53 Gas analysis connection
4	Try cock valve	20	Vapor vent valve	Option-2
8	Low pressure shut-off valve	25	Fill connection	67 Emergency shut-off valve
10	High pressure shut-off valve	32	Pressure building coil	68 Thermal relief valve
11	Bottom fill isolating valve	33	Pressure indicator	Option-3
12	Top fill valve	51	Non-return valve	69 Liquid analysis valve
13	Bottom fill valve	54	Pressure build-up valve	72 Liquid analysis connection
14	Level indicator	62	Purge valve	Option-4
16	Evacuation connection	70	Thermal relief valve	71 Flowmeter

Cryogenic LIN/LOX/LAR

AIR GAS TRANSPORT TANKS

Air Gas Transport Tanks P&ID Low Pressure Series



“K” outlets will be connected to collector.

PNEUMATIC CONTROL SYSTEMS

- ESB1 Emergency stop button
- ESB2 Emergency stop button
- TSB1 Transport cruising button
- ATS1 Anti-tow away system

VACUUM CONNECTION

- 5 Vacuum safety device
- 50 Evacuation valve
- 51 Evacuation connection

INDICATOR (LEVEL, PRESSURE) LINE

- 40 Level indicator
- 41 Equalizere valve
- 42-G Low pressure shut-off valve
- 43-L High pressure shut-off valve
- 44 Pressure indicator
- 46 Pump pressure gauge
- 47 Pump high pressure switch
- 48 Pump vacuum switch
- 49 Temperature probe safety device

FILL LINE

- 1 Fill connection
- 2-L Bottom fill valve
- 3-G Top fill valve
- 4-T1 Try cock valve (%95)
- 4-T2 Try cock valve (optional)
- 4-T3 Try cock valve (optional)
- 9 Drain line valve
- 10 Pressure building coil
- 11-L Pressure build-up valve
- 12-G Vapor outlet valve PBC
- 13-L Pump PBC inlet valve
- 18-L Emergency shut-off valve (optional)
- 52 Liquid anaysis valve (optional)
- 53 Gas analysis valve (optional)

CONSUMPTION LINE

- 21-L Emergency shut-off valve

SAFETY RELIEF LINE EQUIPMENTS

- 32/A Inner vessel safety relief valve
- 32/B Inner vessel safety relief valve
- 35-1 Thermal relief valve
- 35-2 Thermal relief valve
- 35-3 Thermal relief valve
- 35-4 Thermal relief valve
- 35-5 Thermal relief valve
- 35-6 Thermal relief valve (optional)
- 34 Vapor vent valve

PUMP SUCTION LINE

- 60-L Pump suction valve
- 63 Pump
- 65 Pump by-pass valve
- 66-L Pump outlet valve
- 68-L Pump outlet connection
- 70 Purge valve
- 71 Analysis adapter (optional)
- 72 Flowmeter isolating valve (optional)
- 73 Flowmeter (optional)

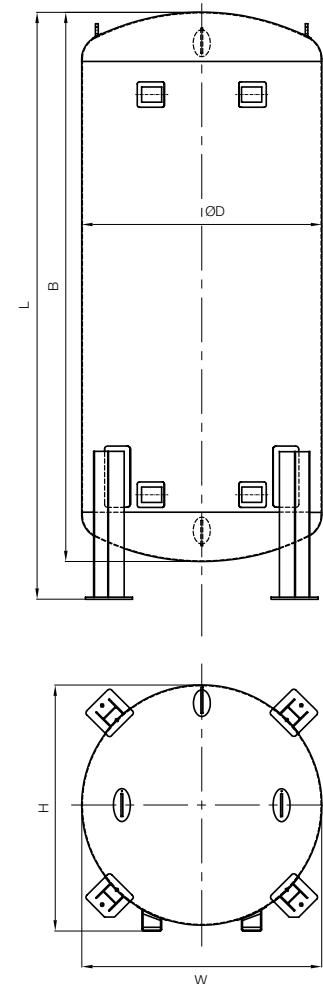
Cryogenic LNG TANKS

STORAGE TANKS

DESIGN CODE	EN 13458 - PED 97/23/EC
MAX. ALLOWABLE WORKING PRESSURE	5 bar
DESIGN TEMPERATURE	-196°C
INNER VESSEL MATERIAL	Stainless Steel (According to EN 10028-7)
OUTER VESSEL MATERIAL	Carbon Steel (According to EN 10025/ EN10028-3)
INSULATION	Perlite & Vacuum

MAWP	Gross Capacity	Net Capacity (%95 Filling)	Daily Evap. Rate (N ₂)	ØD	B	L	W	H	Empty Weight
bar	liters	liters	% / day	mm	mm	mm	mm	mm	kg
5	6100	5795	0.27	2000	3820	4520	2200	2190	2700
	10000	9500	0.25	2000	5765	6300	2200	2190	3500
	16000	15200	0.22	2750	4620	5320	2950	3050	4700
	22000	20900	0.2	2750	6100	6800	3070	3050	6200
	32000	30400	0.15	2750	8330	9030	3070	3050	10000
	53000	50350	0.13	2750	13570	14270	3400	3050	14400
	60000	57000	0.11	3350	9900	10600	3920	2830	17000
	67000	63650	0.10	3350	10870	11570	3920	3120	19000
	95000	90250	0.10	3350	14650	15350	3350	3850	25000

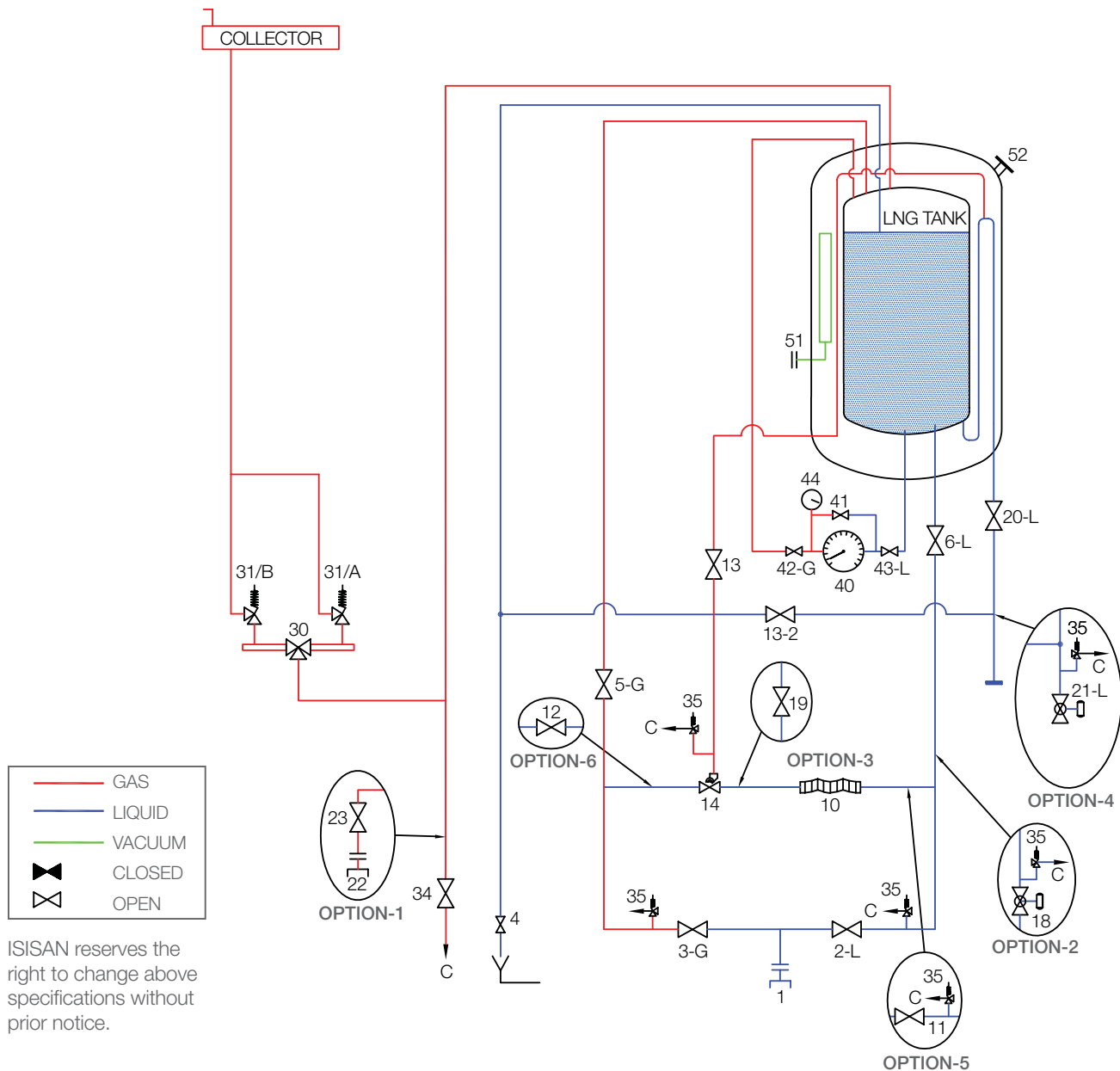
Data given on the table are nominal volumes and actual capacity may vary from these due to manufacturing tolerances.



Cryogenic LNG TANKS

STORAGE TANKS

LNG Storage Tanks P&ID



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

NOMENCLATURE

1	Fill connection	35	Thermal relief valve	Option-3 Line purging
2-L	Bottom fill valve	40	Level indicator	19 Purge valve
3-G	Top fill valve	41	Equalizer valve	Option-4 Emergency shut off system
4	Try cock valve	42-G	Low pressure shut off valve	21-L Emergency shut off valve
5-G	Top fill isolating valve	43-L	High pressure shut off valve	35 Thermal relief valve
6-L	Bottom fill isolating valve	44	Pressure indicator	Option-5 PBC Isolation valve
10	Pressure building coil	51	Evacuation connection	11 Liquid inlet valve for PBC
13	Economizer valve	52	Vacuum safety device	35 Thermal relief valve
13-2	Manual economizer valve	Option-1 Vapor equalizing line		Option-6 PBC Outlet valve
14	Combine valve (Filter, Regulator, Economizer, Non return valve)	22	Vapor equalizing connection	12 Liquid outlet valve for PBC
20-L	Liquid withdrawal valve	23	Vapor equalizing valve	
30	Change over valve	Option-2 Emergency shut off system		
31/A	Inner vessel safety valve	18	Emergency shut off valve	
31/B	Inner vessel safety valve	35	Thermal relief valve	
34	Vapor vent valve			

Cryogenic LNG TANKS

TRANSPORT TANKS

DESIGN CODE	EN 13530 + ADR
MAX. ALLOWABLE WORKING PRESSURE	6 bar
DESIGN TEMPERATURE	-196°C
INNER VESSEL MATERIAL	Stainless Steel (According to EN 10028-7)
OUTER VESSEL MATERIAL	Carbon Steel (According to EN 10025/ EN10028-3)
INSULATION	Super Insulation & Vacuum

BOBTAIL

TANK VOLUME	m ³	25	30
NET WATER CAPACITY	lt	25230	30000
TANK EMPTY WEIGHT	kg	6400	7500
LIQUID (0.5 barg)	kg	10320	12276

SEMI-TRAILER

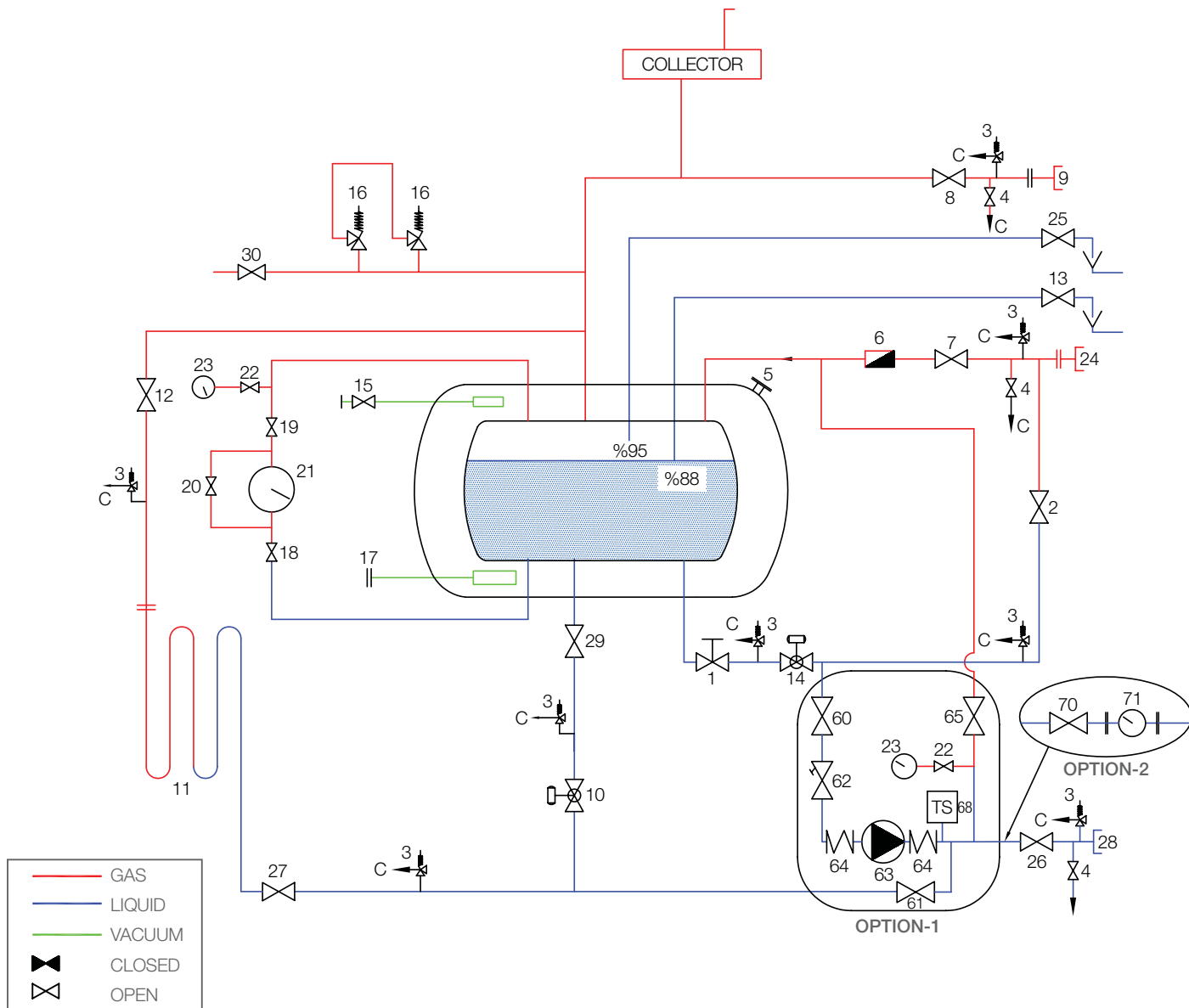
TANK VOLUME	m ³	50	52
NET WATER CAPACITY	lt	49600	51950
TANK EMPTY WEIGHT	kg	12700	13400
LIQUID (0.5 barg)	kg	20300	21260
TOTAL	kg	40000	41660



Cryogenic LNG TANKS

TRANSPORT TANKS

LNG Transport Tanks P&ID



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

NOMENCLATURE

1	Bottom fill isolating valve	16	Inner vessel safety relief valve	Option-1 Pump system	
2	Bottom fill valve	17	Evacuation connection	22	Pressure indicator valve
3	Thermal relief valve	18	High pressure shut off valve	23	Pressure indicator
4	Purge valve	19	Low pressure shut off valve	60	Pump suction valve
5	Vacuum safety device	20	Equalizer valve	61	Pressure build-up valve
6	Non return valve	21	Level indicator	62	Filter
7	Top fill valve	22	Pressure indicator valve	63	Pump
8	Vapor equalizing valve	23	Pressure indicator	64	Expansion joint
9	Vapor equalizing connection	24	Fill connection	65	Gas purge valve
10	Emergency shut off valve	25	Try cock valve	68	Temperature probe safety device
11	Pressure building coil	26	Liquid withdrawal valve		
12	Vapour outlet valve for (PBC)	27	Pressure build-up valve	Option-2 Flow meter system	
13	Try cock valve	28	Liquid withdrawal connection	70	Flow meter isolating valve
14	Emergency shut-off valve	29	Isolating valve for PBC	71	Flow meter
15	Evacuation valve	30	Vapor vent valve		

Cryogenic

AMBIENT AIR VAPORIZER

Ambient air vaporisers requires no external source of energy; and enables vaporization through exchange of heat with the surrounding air. The liquefied gas is vaporized, and warmed to almost the surrounding temperature, and finally led to the users in its gaseous state.

The vaporisers are for use with liquid:

- Nitrogen
- Oxygen
- Argon
- Carbon Dioxide
- Nitrous Oxide
- LNG

Design Specifications

ISISAN offers a full range of ambient air vaporizers in different versions and for different applications. Our ambient air vaporisers have the following properties:

- Designed and manufactured according to PED 97/23/EC
- Has CE marking
- Max. allowable working pressure 40 bar
- Cleaned for oxygen service
- Seismic requirements acc. to uniform building code-zone 4
- Low pressure drop
- Efficient fin tube design
- Optimised external and internal surfaces for optimum convection

Vaporiser options

Ambient air vaporiser options are:

- fin tube vaporisers
- fan assisted vaporisers

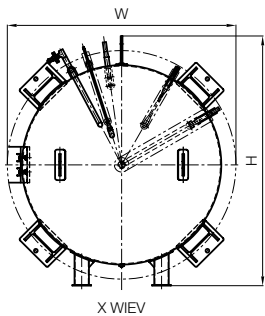
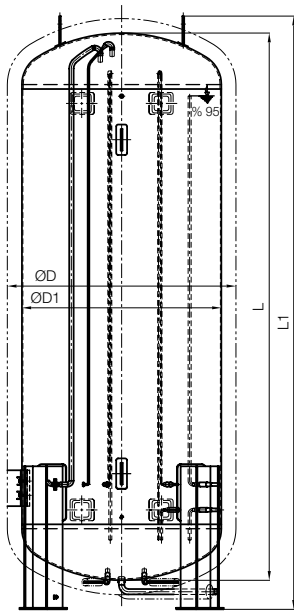
Fin tube vaporisers rely on natural convection while fan assisted models are equipped with an electric motor operated fan to enhance air flow and increase efficiency.



CO₂ Tanks FOAM INSULATED STORAGE TANKS

DESIGN CODE	AD 2000 CODE-PED 97/23/EC
DESIGN PRESSURE	22 bar
DESIGN TEMPERATURE	-40 /+50 °C
MATERIAL	Carbon Steel
INSULATION	Foam Insulation

(*) Design and manufacturing can be done according to ASME, or other design codes upon customer's requirement.



22 BAR FOAM INSULATED CO₂ STORAGE TANKS

MAWP	Gross Capacity	Net Capacity (%95 Filling)	ØD	ØD1	L	L1	W	H	Empty Weight
bar	liters	liters	mm	mm	mm	mm	mm	mm	kg
22	6600	6270	1550	1950	3870	4610	1950	2190	2400
	10000	9500	1850	2250	4060	4750	2300	2540	3500
	13620	12939	1850	2250	5560	6240	2300	2540	4400
	17600	15200	1850	2250	7090	7740	2300	2540	5300
	21500	20425	1850	2250	8560	9240	2300	2540	6200
	25460	24187	1850	2250	10060	10740	2300	2540	7200
	34000	31160	2300	2700	8820	9470	2700	2970	9400
	40000	36765	2300	2700	10320	10970	2700	2970	10800
	41000	38950	2750	3150	7540	8180	3150	3440	10700
	46000	42370	2300	2700	11820	12470	2700	2970	12200
	50000	47500	2300	3150	12920	13570	2700	2970	13200
	50000	47500	2750	3150	9040	9680	3150	3440	12500
	58000	55100	2750	3150	10540	11180	3150	3440	14200
	80000	76000	3200	3600	10780	11740	3600	3890	20000
	103000	97850	3200	3600	13780	14740	3600	3890	24600
	150000	142500	3200	3600	19780	20740	3600	3890	33500
	199000	189050	4000	4400	17500	18430	4400	4690	40200
254000	241300	4000	4400	22000	22930	4400	4690	51000	
300000	285000	4000	4400	25750	26680	4400	4540	61500	



CO₂ Tanks FOAM INSULATED TRANSPORT TANKS

TRANSPORT TANKS

DESIGN CODE	EN 14398 / EN 14025 + ADR	
INNER VESSEL MATERIAL	Duplex Stainless Steel	Carbon Steel (EN 10028-3)
MAX. ALLOWABLE WORKING PRESSURE	23 bar	24 Bar
DESIGN TEMPERATURE	-40 / +50°C	
INSULATION	Foam Insulation, with Aluminium Jacket	



SEMI TRAILER

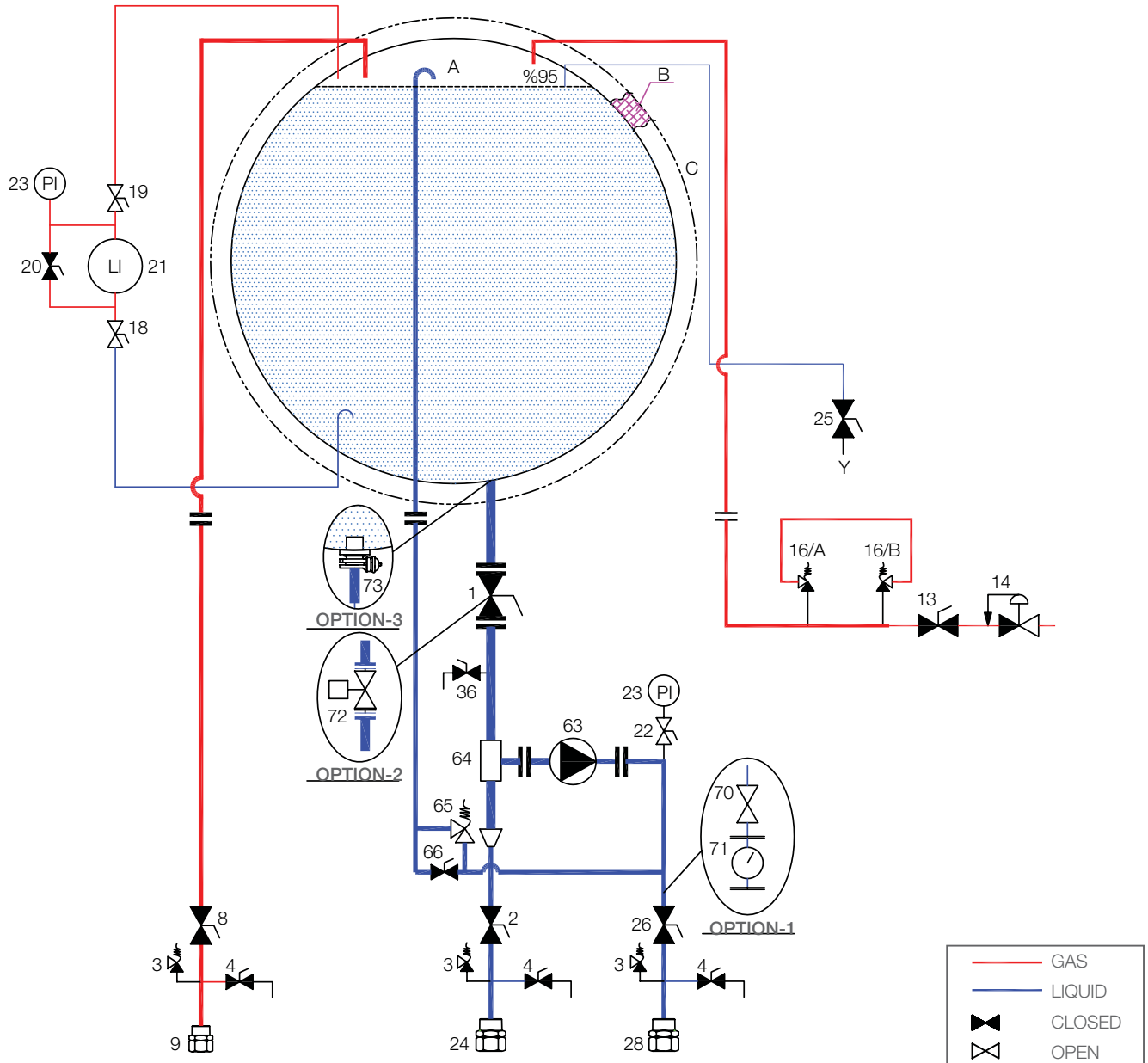
INNER VESSEL MATERIAL		Duplex Stainless Steel			Carbon Steel		
		20	23	25	20	23	24,5
TANK VOLUME	m ³	20	23	25	20	23	24,5
NET WATER CAPACITY	lt	20000	23100	24750	20000	23030	24530
TANK EMPTY WEIGHT	kg	9200	9700	10200	10000	10700	10900
LIQUID (0.5 barg)	kg	19380	22380	23980	19380	22300	23770
TOTAL	kg	35580	39100	41200	36380	40000	41670

*Volume may vary according to local traffic regulations, truck model and capacity.



CO₂ Tanks FOAM INSULATED TRANSPORT TANKS

CO₂ Transport Tanks P&ID



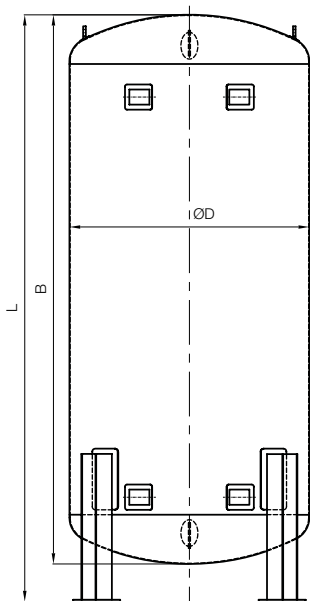
NOMENCLATURE

1	Liquid fill valve	22	Manometer valve	Option-1 Flow Meter System	
2	Bottom fill valve	23	Manometer	70	Flow meter isolating valve
3	Thermal relief valve	24	Fill connection	71	Flow meter
4	Purge valve	25	Try cock valve	Option-2 Main Liquid Valve with Actuator	
8	Vapor equalizing valve	26	Liquid withdrawal valve	72	Main liquid valve with actuator instead of 1
9	Vapor equalizing connection	28	Liquid withdrawal connection	Option-3 Internal Valve	
13	Regulator isolating valve	36	Analysis liquid valve	73	Internal valve
14	Back pressure regulator	63	Pump	A	Inner vessel
16/A	Inner vessel safety relief valve	64	Filter	B	Foam insulation
16/B	Inner vessel safety relief valve	65	Automatic by-pass valve	C	Outer jacket
18	High pressure shut off valve	66	Manual by-pass valve		
20	Equalizing valve				
21	Level indicator				

CO₂ Tanks VACUUM INSULATED STORAGE TANKS

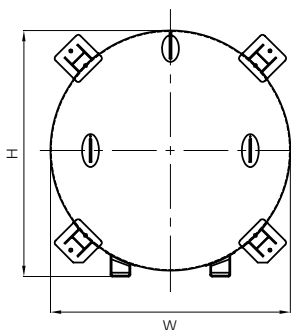
VACUUM INSULATED CO₂ TANKS

DESIGN CODE	EN 13458 - PED 97/23/EC
MAX. ALLOWABLE WORKING PRESSURE	22 bar
DESIGN TEMPERATURE	-196°C
INNER VESSEL MATERIAL	Stainless Steel (According to EN 10028-7)
OUTER VESSEL MATERIAL	Carbon Steel (According to EN 10025/ EN10028-3)
INSULATION	Perlite & Vacuum



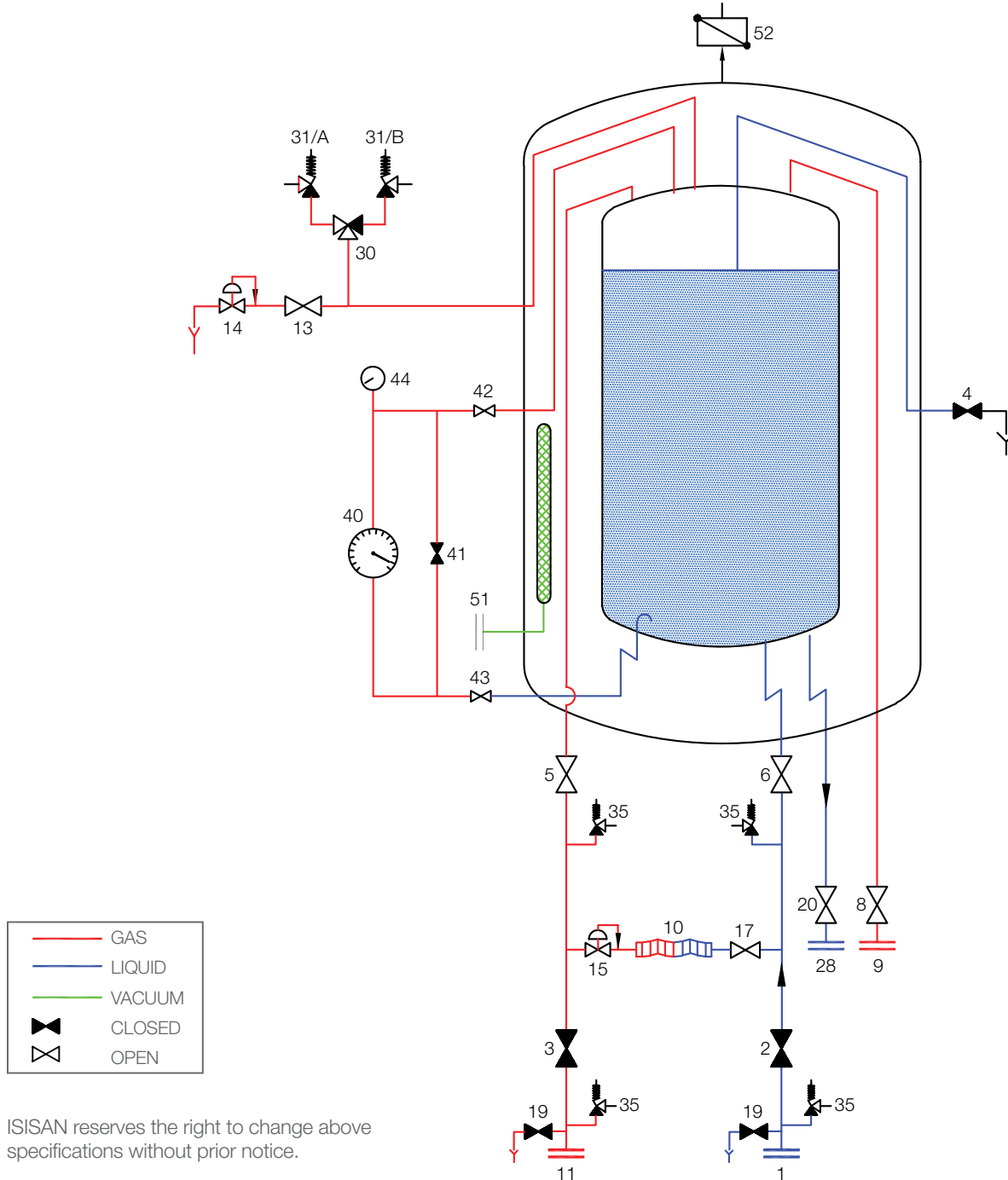
22 BAR VACUUM INSULATED CO₂ STORAGE TANKS

MAWP	Gross Capacity	Net Capacity (%95 Filling)	Daily Evap. Rate (CO ₂)	ØD	B	L	W	H	Empty Weight
bar	liters	liters	% / day	mm	mm	mm	mm	mm	kg
22	25000	23750	0.12	2750	7740	8490	3030	2870	14000
	30000	28500	0.11	2750	8880	9630	3030	2870	17000
	35000	33250	0.10	2750	10130	10880	3030	2870	19500
	43000	40850	0.10	2500	14110	14560	2770	2700	23500
	50000	47500	0.10	2650	14200	14650	2920	2700	26000



CO₂ Tanks VACUUM INSULATED STORAGE TANKS

Vacuum Insulated CO₂ Storage Tanks P&ID



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

NOMENCLATURE

1	Fill connection	13	Economizer isolating valve	35	Thermal relief valve
2	Bottom fill valve	14	Back pressure regulator	40	Level indicator
3	Gas equalizing valve	15	Pressure regulator	41	Equalizer valve
4	Try cock valve	17	Pressure building coil valve	42	Low pressure shut off valve
5	Gas equalizing isolating valve	19	Purge valve	43	High pressure shut off valve
6	Bottom fill isolating valve	20	Liquid withdrawal valve	44	Pressure indicator
8	Liquid return valve	28	Liquid withdrawal connection	51	Evacuation connection
9	Liquid return connection	30	Three way valve	52	Vacuum safety device
10	Pressure building coil	31/A	Inner vessel safety relief valve		
11	Gas equalizing connection	31/B	Inner vessel safety relief valve		

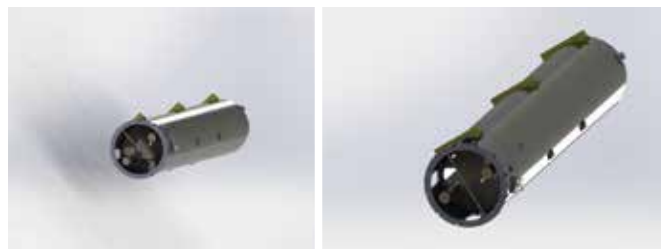
Cryogenic

ENGINEERED SOLUTIONS



- 2 x 300 m³ LOX storage tank
- 1 x 300 m³ LIN storage tank
- 1 x 100 m³ LAR storage tank
- 1 x 60 m³ LOX storage tank
- 2 x 25 m³ LIN/LOX/LAR storage tank

Manufactured for an ASU Project



- 250 m³ LIN storage tank
- Vertical
- Skirt
- Double thermosyphon



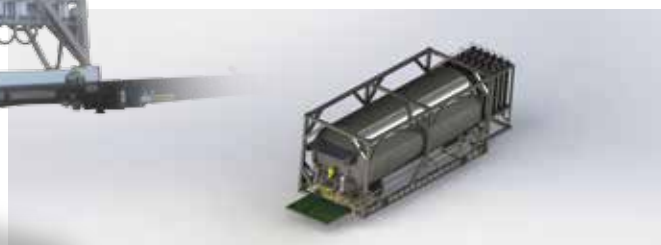
- Complete LNG system
- 2 x 95 m³ LNG storage tank
- 8 pcs. ambient vaporizer

Cryogenic

SOLUTION PACKAGES



- Compact LNG system
- LNG storage tank (3 to 10 m³)
- Two vaporizers
- Fire safety system
- Manufactured total 150 pcs.
- For İpragaz, Turkey
- Aygaz Doğalgaz, Turkey
- OMV, Turkey



- Container mounted transportable system
- 12 m³ LIN storage tank
- 450 Nm³/h capacity vaporizer
- Liquid transfer equipment
- Gas temperature controller
- Manufactured for Hussain al Jiboori, Iraq



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