

ET Engineered tanks

Vertical and horizontal tanks for storage of liquefied atmospheric gases (N₂, O₂, Ar), CO₂ and LNG.

Engineered tanks (ET) have successful tradition and wide experience in CHART FEROX. Their design combines safe, flexible and economic operation.

The Engineered tanks are design for long-term storage of liquefied air gases, including nitrogen, oxygen and argon, as well as carbon dioxide and LNG.

Vacuum-perlite insulation minimizes the losses of stored products.

ET - tanks in vertical or horizontal arrangement with capacity from 60.000 to 700.000 liters and maximum allowable working pressure up to 24 bar.

ET - tailor made tanks, directly according to customer requirements.

ET - tanks designed according to Directive 97/23/EC, using the standards AD 2000M and EN 13458. ET according to ASME are also provided.

ET can be supplied with external PBU vaporizers, product ambient or steam heated vaporizers, vacuum insulated pipelines and other cryogenic components to create a complete installation.



Innovation. Experience. Performance.

Chart Ferox, a.s., a Chart Industries Company

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ET Engineered tanks

Technical features

- **Inner Vessel**
stainless steel for cryogenic temperatures with optimized design for lighter weight.
- **Outer Jacket**
a combined skirt and lifting lug system designed for safe transport, easy lifting and low cost erection.
- **Insulation**
a proven high quality vacuum-perlite system with molecular sieve adsorber.
- **Piping**
stainless steel piping for reliability and long life, ergonomically arranged workplace, flow diagram and gauges at eye level, easily accessible valves and safety relief valve outlets directed away from the operating area.
- **Pressure Control**
an easily adjustable multifunction regulator serves as pressure regulator, economiser and thermal-relief valve.
- **Instrumentation**
high quality pressure gauge and differential pressure contents gauge are standard with optional switches, transmitter and/or telemetry unit.



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ET Engineered tanks

■ Safety

tanks are equipped with dual relief valves with a variety of options, including additional relief valves and/or rupture discs.

■ Cleanliness

all tanks and their components are cleaned and certified for oxygen service.

■ Outer Finish

choice of two durable corrosion resistant white paints, including a new low VOC paint or a standard 2-stage epoxy-polyurethane paint.

■ Transport

rugged internal supports allow for safe transportation by road, rail or container easily



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ET Engineered tanks

Basic Dimensions of ETs produced by Chart Ferox

Approximate Volume	[m ³]	69	78	87	96	105	
Outer Diameter	[m]	3.00	3.00	3.00	3.00	3.00	
Approximate Height	[m]	15.67	17.51	19.68	21.54	23.34	
Approximate Weight MAWP 12 bar	[kg]	27900	30900	35500	38600	41500	
Approximate Weight MAWP 18 bar	[kg]	30400	33800	38700	42100	45400	

Approximate Volume	[m ³]	127	140	154	169	186	202
Outer Diameter	[m]	3.50	3.50	3.50	3.90	3.90	3.90
Approximate Height	[m]	20.30	22.10	24.00	22.10	24.10	26.10
Approximate Weight MAWP 8 (6) bar	[kg]	49500	53500	57100	60500	64700	69700
Approximate Weight MAWP 13 bar	[kg]	52700	57000	61100	66300	71300	76800

Approximate Volume	[m ³]	235	257	279	301	335	363
Outer Diameter	[m]	4.30	4.30	4.30	4.30	4.80	4.80
Approximate Height	[m]	24.20	26.20	28.20	30.20	26.50	28.50
Approximate Weight MAWP 6 bar	[kg]	80500	86400	92500	98500	108800	115800
Approximate Weight MAWP 13 bar	[kg]	91400	98300	104000	117600	125400	133700

Approximate Volume	[m ³]	392	420	450	500		683
Outer Diameter	[m]	4.80	4.80	4.80	5.00		5.60
Approximate Height	[m]	30.50	32.50	34.50	34.60		36.60
Approximate Weight MAWP 6 bar	[kg]	122300	128500	128500	136100		163500
Approximate Weight MAWP 13 bar	[kg]	141300	148900	148900			

Note: All sizes are in vertical or horizontal version except the tanks greater than 500m³, which are available only in horizontal layout.



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