

SCS - Cryogenic Bulk Tanks

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SCS - Cryogenic Bulk Tanks



*SCS 5000 Taylor-Wharton
Standard Tank for LIN/LOX/LAR*

TAYLOR-WHARTON offers a range of cryogenic bulk tanks - the high performance SCS range - which can be used for a variety of applications. Our SCS range shows following features:

- All piping in stainless steel for strength and improved appearance.
- Pressure-building vaporisers made from aluminium fin tubes.
- Two separate penetration plates to avoid ice formation.
- Lifting lugs and foot plates in stainless steel to avoid corrosion.
- Positioning of feet within the diameter of the tank.
- Foot mounting point accessible from outside the tank, to ensure ease of installation.

SCS tanks are stationary, vacuum-insulated pressure vessels for storage of cryogenic liquefied gases such as nitrogen, oxygen, argon, LNG, CO₂ or NO₂. Low evaporation rate, ergonomic layout of instruments and controls for ease of use, carefully selected components and outstanding build quality ensure a high degree of reliability and economy in everyday use and guarantee the longevity of the vessel.

Vessels are available in vertical or horizontal configurations, sized from 2,200 to 150,000 litres, and are manufactured and tested according to the European Pressure Equipment Directive 97/23 CE (PED) or to the regulations of other countries.

Our vessels have been in use world wide for decades. High quality is ensured by measures including a quality management system complying ISO 9001.

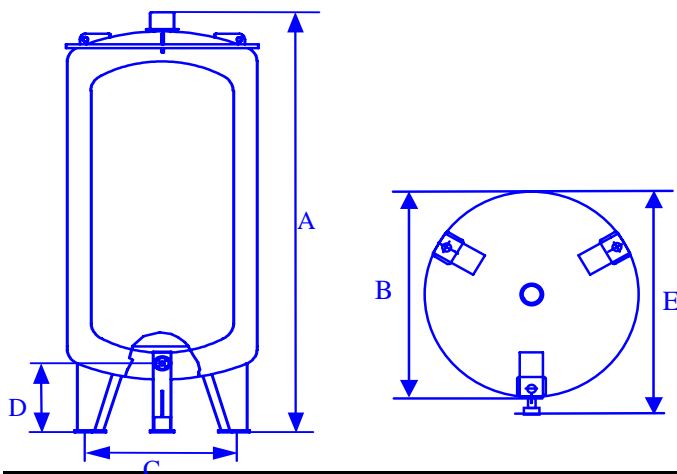
SCS bulk tanks consist of an inner and an outer vessel. The inner vessel, which is suspended concentrically in the outer vessel, is used for storage of cryogenic liquefied gases and is manufactured from stainless steel materials. The outer container is made from carbon steel. The space between the vessels is filled with high quality perlite and evacuated. The integrity of the welded joints is checked by leak-testing, using a helium mass spectrometer. This ensures long-term vacuum maintenance. In addition, a molecular sieve absorbs remaining molecules to improve and maintain the vacuum during the working life of the vessel. These vessels can also be supplied to customer's design requirements or specifications.



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Technical Data of SCS Model Line Specification Standard Pressures

18,5 bar - 22,0 bar - 37,0 bar



Outer vessel : Carbon steel
Inner vessel : Stainless steel
Insulation : Vacuum Perlite
Vessel cleaned for : Oxygen application
Coating : Blasted ground (to SA 2 ½, DIN 559281)

Type	SCS-	2200	3300	5000	6100	11000	13400	17000	20000	28000	32000	37000	41000	50000	60000	73000
Brutto-Inhalt 1) Gross capacity 1)	I	2150	3300	4900	6100	11000	13300	17000	20000	28000	32300	36600	41000	50000	61000	73000
Netto-Inhalt (95%) 1) Net capacity (95%) 1)	I	2045	3135	4655	5795	10450	12635	16150	19000	26600	30690	34770	38950	47500	57950	69350
Norm. Verd.-Rate/Tag (O2) Daily Evaporation Rate (O2)	%	0,48	0,45	0,38	0,32	0,26	0,23	0,23	0,21	0,18	0,17	0,15	0,14	0,13	0,13	0,12
Druckaufbau Press. build. capacity	bei / at N ₂ in Nm³/h/ 8h	12bar	260	260	260	530	800	530	530	800	800	800	800	800	800	800
		8 bar	400	400	400	820	1240	820	820	1240	1240	1240	1240	1240	1240	1240
		2 bar	1400	1400	1400	2900	4400	2900	2900	4400	4400	4400	4400	4400	4400	4400
Gesamthöhe / Total height A	mm	3550	4850	6530	7400	6350	6000	8900	10050	10240	11940	12770	14150	11990	13990	16400
Durchmesser / Diameter B	mm	1600	1600	1600	1600	2200	2500	2200	2200	2500	2500	2500	2500	3000	3000	3000
Lochkreis / Foot hole circ. C	mm	1500	1500	1500	1500	2000	2300	2000	2000	2300	2300	2300	2300	2800	2800	2800 3)
Ladehöhe / Height load. E 2)	mm	1800	1800	1800	1800	2400	2700	2400	2400	2700	2700	2700	2700	3200	3200	3200
Füllflansch / Fill flange h. D	mm	500	500	500	500	500	500	500	500	500	500	500	500	500	500	500
Leergewichte / Weight of empty tank	18.5 bar	Kg	2250	3000	3950	4500	7150	9000	10150	11500	16900	18700	23500	25800	30900	37000
	22 bar	Kg	2300	3100	4100	4700	7700	9500	11000	12600	16100	17900	19900	24900	27400	38540
	37 bar	Kg	2650	3550	4800	5500	9200	11700	13100	15000	20000	22300	24800	30200	38330	44930

M0006.08

1) Geometric volumes can deviate as consequence of the cold stretch process

2) Consider height of wooden transport saddles! Accessories like e.g. MG-97 (200 mm) may increase the dimensions.

3) SCS 73000 - with 4 legs.

Data subject to changes without prior notice



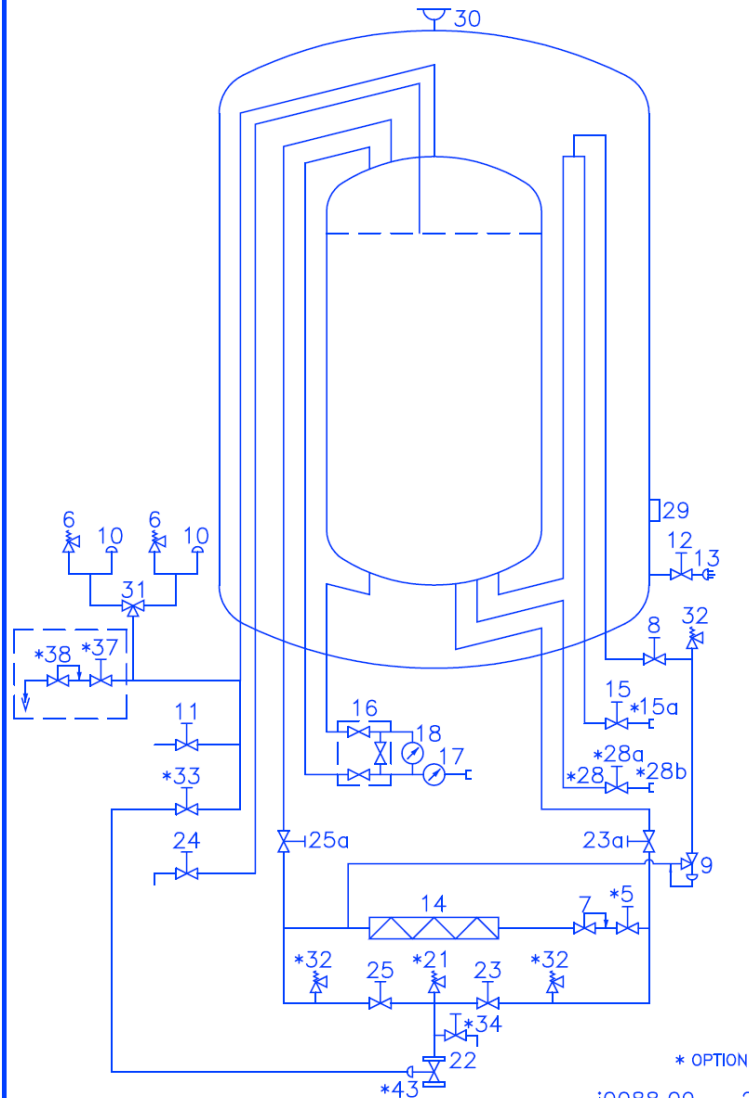
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TAYLOR-WHARTON Harsco s.r.o.

Vstupný areál U.S. Steel
044 54 Košice
Slovenská republika



TAYLOR · WHARTON
INTERNATIONAL LLC



* OPTION

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POS.	DESCRIPTION	DETAILS
5 *	Shut-off valve in P-B system (OPTION)	DN20 K
6	Main safety valve	1/2"-1"
7	Pressure building regulator	
8	Shut-off valve in pressure reducing system	DN15 K
9	Pressure reducing regulator (economizer)	
10	Inner tank bursting head	1/2"
11	Vent valve	DN20 L
12	Vacuum probe valve	DN6
13	Vacuum probe	
14	Pressure building vaporizer	
15	Product withdrawal valve	DN25 L
15a*	Screwed coupling of product withdrawal (OPTION)	
16	Three valve manifold	DN3
17	Pressure gauge	
18	Liquid level indicator	
21*	Section safety valve (OPTION)	1/4"
22	Fill connection	DN40
23	Liquid phase fill valve	DN25 L
23a	Liquid phase service valve	DN25 L
24	Over flow valve	DN15 L
25	Gas phase fill valve	DN25 L
25a	Gas phase service valve	DN25 L
28*	Additional liquid withdrawal line (OPTION)	
28a*	Valve at add. liquid withdrawal line (OPTION)	DN25 L
28b*	Screwed coupling of add. liquid withdrawal (OPTION)	
29	Evacuation connection	2"
30	Vacuum bursting disk for outer tank	4"
31	Change over valve	DN15
32*	Section safety valve (some as OPTION)	1/4"
33*	Service valve for Safety shut off device (OPTION)	DN15 K
34*	Purge valve (OPTION)	DN15 K
37*	Shut-off valve for process protection (OPTION)	DN15 K
38*	Pressure red. regulator for process prot. (OPTION)	
43*	Safety shut-off device (OPTION)	DN40

K = short spindle
L = long spindle

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