

GLASS LINED STORAGE TANKS



CSZ Series

CSZA Series

CSE Series

CLE Series

General Technical Data

Vessel Standard

Design basis for flanged reactor structure is DIN28136. The equipment will be fabricated, inspected and accepted in compliance with GB25025 also due to national mandated regulations

Design Pressure

FV/6bar in vessel, FV/6 bar in jacket for jacketed tank;
FV/2.5bar in vessel for non-jacketed tank.

Design Temperature

-19/200 °C in vessel, -19/200 °C in jacket.

Flange Standard

Loose split flange for glass-lined nozzles. Jacket flange made acc. to HG20592 PN10 MPa (same as DIN std for 10bar). Other standards optional if required by customer.

Material

Carbon steel type Q245R lined with glass S605 imported from Europe according DIN 15159.

Manhole unit

Manhole cover according DIN 28153, with manhole protect ring and spring assisted opening device, and with quick open sight glass design is optional.

Gasket

GF 3000 PTFE enveloped gasket with stainless steel corrugation ring and special gasket insert made by NBR, graphite and aramid fibre. High compressibility excellent to cover the unevenness of nozzles.

Clamp

35 Cr , galvanized.

Vessel support

Legs, brackets and support ring are optional.

Jacket nozzles

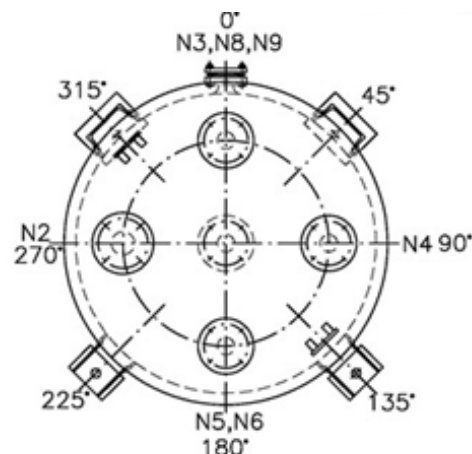
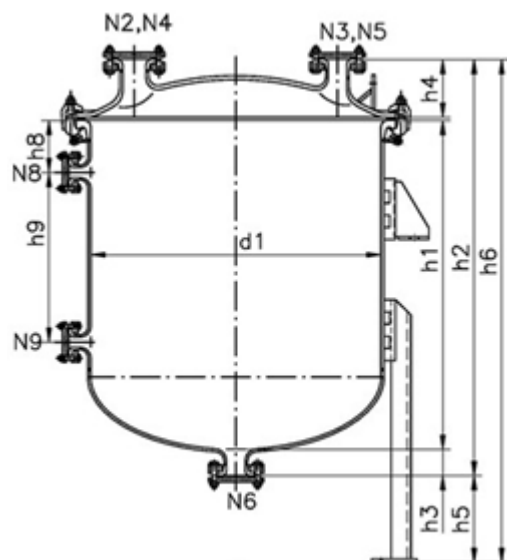
With integrated agitating nozzle.

Painting

2 ground paint and 1 cover paint after sand blasting.

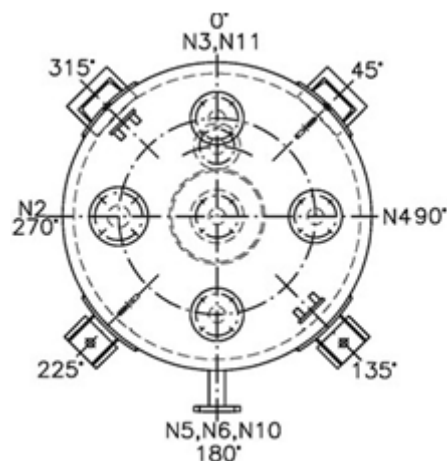
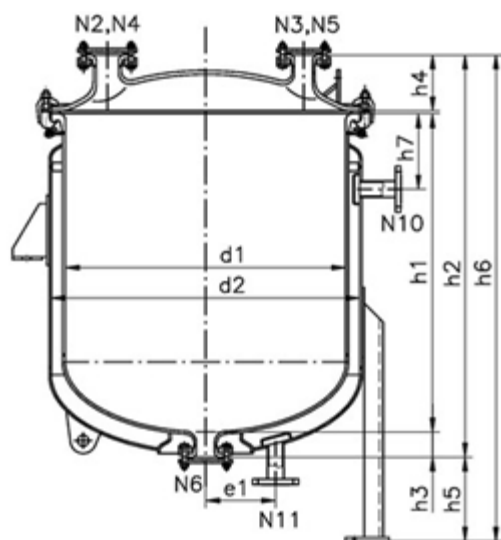


Flanged Receivers CSZ 50-1000 Litres



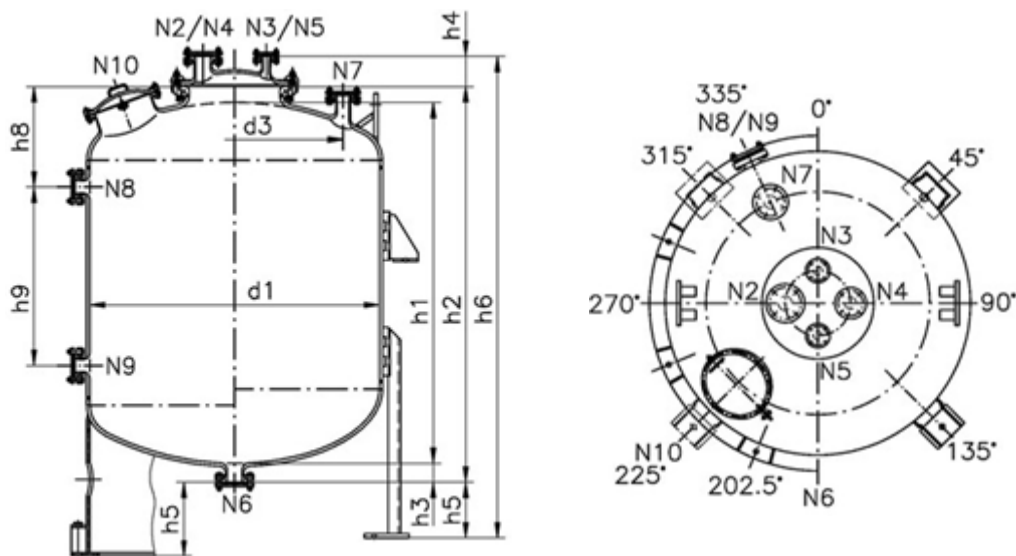
Spec. & Type			Ltrs.	50	100	200	250	300	400	500	800	1000
Full Capacity			Ltrs.	59	110	218	286	324	469	585	877	1112
Dimensions	d1	mm	400	500	600	700	700	800	800	1000	1000	
	h1	mm	500	600	820	800	900	1000	1230	1200	1500	
	h2	mm	750	850	1080	1070	1170	1270	1500	1500	1800	
	h3	mm	90	90	90	90	90	90	90	90	90	
	h4	mm	150	150	160	170	170	170	170	200	200	
	h5	mm	300	300	300	300	300	300	300	300	300	
	~h6	mm	1050	1150	1120	1370	1470	1570	1800	1800	2100	
Nozzles	d3	mm	280	320	360	440	440	540	540	660	660	
	N2	DN	50	100	100	100	100	100	100	100	100	
	N3 N5	DN	50	50	50	50	50	80	80	80	80	
	N4	DN	50	80	80	80	80	80	80	80	80	
	N6	DN	50	80	80	80	80	80	80	80	80	
Optional	N8 N9	DN	-	-	50	-	50	50	50	50	50	
	h8	mm	-	-	170	-	170	180	180	180	180	
	h9	mm	-	-	400	-	450	500	750	650	950	
Weight			Kg	180	250	300	450	480	500	650	820	920

Flanged Receivers with Jacket CSZA 50-1000 Litres



Spec. & Type			Ltrs.	50	100	200	250	300	400	500	800	1000
Full Capacity			Ltrs.	59	110	218	286	324	469	585	877	1112
Dimensions	d1	mm	400	500	600	700	700	800	800	1000	1000	
	h1	mm	500	600	820	800	900	1000	1230	1200	1500	
	h2	mm	750	850	1080	1070	1170	1270	1500	1500	1800	
	h3	mm	90	90	90	90	90	90	90	90	90	
	h4	mm	150	150	160	170	170	170	170	200	200	
	h5	mm	300	300	300	300	300	300	300	300	300	
	~ h6	mm	1050	1150	1120	1370	1470	1570	1800	1800	2100	
Nozzles	d3	mm	280	320	360	440	440	540	540	660	660	
	N2	DN	50	100	100	100	100	100	100	100	100	
	N3 N5	DN	50	50	50	50	50	80	80	80	80	
	N4	DN	50	80	80	80	80	80	80	80	80	
	N6	DN	50	80	80	80	80	80	80	80	80	
Jacket	d2	mm	500	600	700	800	800	900	900	1000	1000	
	N10 N11	DN	25	25	25	40	40	40	40	50	50	
	h7	mm	215	215	215	250	250	260	260	270	270	
	e1	mm	200	200	200	240	240	240	240	250	250	
Weight			Kg	235	350	420	630	670	700	930	1150	1285

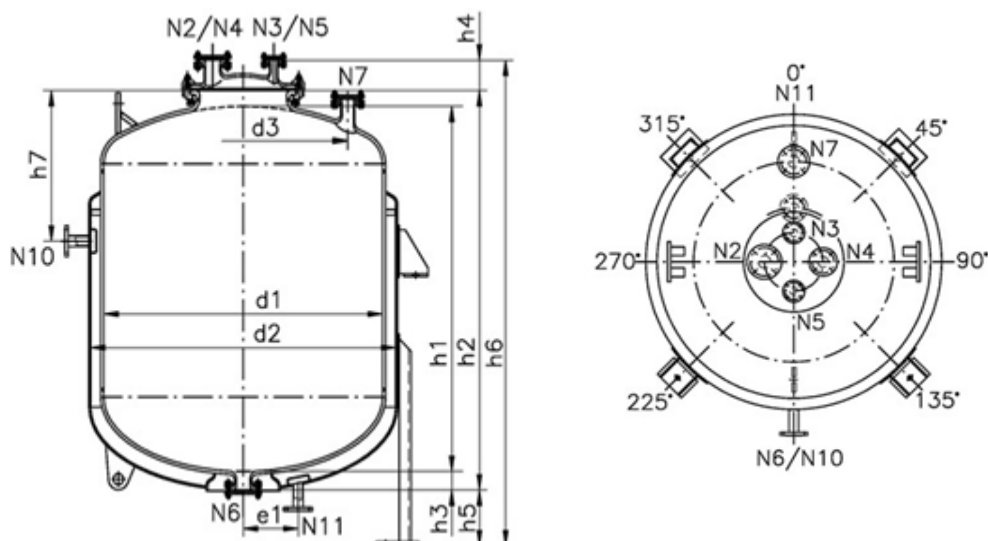
One Piece Storage Tank CSE 8000-30000 Liters



Spec. & Type		Ltrs.	8000	8000	10000	12500	12500	16000	16000	20000	20000	25000	30000
Full Capacity		Ltrs.	8700	8695	11300	13500	13700	17320	17555	21440	21800	26410	30670
Dimensions	d1	mm	1750	1900	2000	2200	2400	2400	2600	2500	2600	2800	3000
	h1	mm	3880	3345	3890	3875	3385	4185	3695	4740	4495	4665	4745
	h2	mm	4100	3565	4115	4110	3620	4420	3935	4980	4735	4910	4990
	h3	mm	110	110	110	110	110	110	110	110	110	110	110
	h4	mm	200	220	220	220	220	220	220	220	220	220	220
	h5	mm	400	400	400	400	400	400	400	400	400	700	700
	~h6	mm	4705	4190	4740	4740	4250	5050	4560	5610	5360	5840	5920
Nozzles	N1	DN	500	600	600	600	600	600	600	600	600	600	600
	N2	DN	100	150	150	150	150	150	150	150	150	150	150
	N3 N5	DN	50	80	80	80	80	80	80	80	80	80	80
	N4	DN	80	100	100	100	100	100	100	100	100	100	100
	N6	DN	150	150	150	150	150	150	150	150	150	150	150
Option 1	N7	DN	100	100	100	100	100	100	100	100	100	150	150
	~d3	mm	1320	1420	1600	1600	1600	1600	1600	1600	1600	2000	2000
Option 2	N8 N9	DN	100	100	100	100	100	100	100	100	100	150	150
	h8	mm	600	630	650	700	750	750	800	780	800	870	910
	h9	mm	2800	2200	2700	2600	2000	2800	2200	3300	3000	3200	3200
Option 3	N10	DN	-	-	-	-	-	-	-	-	-	500	500
	E1	mm	-	-	-	-	-	-	-	-	-	950	1050
Weight~		Kg	3500	3580	4100	5480	6280	7200	7090	8000	8100	10300	12500

* Volume in bolder as first recommended.

One Piece Storage Tank With Jacket CSEA 1000-4000 Liters



Spec. & Type	Ltrs.		1000	1500	2000	2000	2500	3000	4000	4000
Full Capacity	Ltrs.		1190	1765	2250	2430	2740	3205	4280	4260
Jacket Capacity	Ltrs.		230	248	458	500	557	643	842	730
Heat Transfer Area	m2		5.07	6.32	7.42	7.49	8.38	9.73	12.87	11.43
Dimensions	d1	mm	1000	1200	1300	1400	1400	1400	1400	1600
	d2	mm	1100	1300	1450	1550	1550	1550	1550	1750
	h1	mm	1650	1730	1880	1780	1980	2280	2980	2360
	h2	mm	1840	1925	2080	1985	2185	2485	3185	2565
	h3	mm	100	100	100	100	100	100	100	100
	h4	mm	200	200	200	200	200	200	200	200
	h5	mm	300	300	300	300	300	300	300	300
	~h6	mm	2345	2430	2585	2490	2690	2990	3690	3070
	~h7	mm	300	350	380	400	400	400	400	450
	~e1	mm	300	300	300	300	300	300	300	300
Nozzles	N1	DN	500	500	500	500	500	500	500	500
	N2	DN	100	100	100	100	100	100	100	100
	N3 N5	DN	50	50	50	50	50	50	50	50
	N4	DN	80	80	80	80	80	80	80	80
	N6	DN	100	100	100	100	100	100	100	100
	N10 N11	DN	50	50	50	50	50	50	50	50
Option 1	N7	DN	-	50	50	80	80	80	80	80
	~d3	mm	-	920	980	1040	1040	1040	1040	1200
Weight ~	Kg		930	1130	1350	1380	1520	1660	2060	2100

* Volume in bolder as first recommended.

One Piece Storage Tank With Jacket CSEA 5000-10000 Liters



Spec. & Type			Ltrs.	5000	6300	6300	8000	8000	10000
Full Capacity			Ltrs.	5460	6660	7015	8700	8695	11300
Jacket Capacity			Ltrs.	918	1106	1040	1271	1181	1397
Heat Transfer Area			m2	14.5	17.58	17	20.93	19.35	23.81
Dimensions	d1	mm	1600	1600	1750	1750	1900	2000	
	d2	mm	1750	1750	1900	1900	2050	2150	
	h1	mm	2960	3560	3180	3880	3345	3890	
	h2	mm	3165	3775	3400	4100	3565	4115	
	h3	mm	100	110	110	110	110	110	
	h4	mm	200	200	200	200	220	220	
	h5	mm	300	400	400	400	400	400	
	~ h6	mm	3670	4380	4005	4705	4190	4740	
	~ h7	mm	450	450	480	480	525	550	
	~ e1	mm	300	300	375	375	400	400	
Nozzles	N1	DN	500	500	500	500	600	600	
	N2	DN	100	100	100	100	150	150	
	N3 N5	DN	50	50	50	50	80	80	
	N4	DN	80	80	80	80	100	100	
	N6	DN	100	150	150	150	150	150	
	N10 N11	DN	50	50	50	50	80	80	
Option 1	N7	DN	80	80	100	100	100	100	
	~ d3	mm	1200	1200	1320	1320	1420	1600	
Weight ~			Kg	2400	2980	3190	3500	3580	4100

* Volume in bolder as first recommended.

Horizontal Tank CLE 12500-25000 Liters



Spec. & Type			Ltrs.	12500	12500	16000	16000	20000	20000	25000	25000
Full Capacity			Ltrs.	13140	13240	16870	16980	20940	21230	25680	26410
Dimensions	d1	mm		2200	2400	2400	2600	2500	2600	2700	2800
	h1	mm		3750	3250	4050	3550	4600	4350	4850	4665
	L1	mm		1050	1100	1100	1150	1150	1150	1200	1200
	L4	mm		2400	1800	2600	2000	3100	2800	3200	3000
	L5	mm		675	725	725	775	750	775	825	825
	L6	mm		800	800	800	800	800	800	800	800
	L7	mm		1750	1750	1750	2050	2050	2050	2050	2050
	h10	mm		1350	1450	1450	1550	1500	1550	1600	1650
	h11	mm		2800	3000	3000	3200	3100	3200	3300	3400
Nozzles	N1	DN		500	500	500	500	500	500	500	500
	N2	DN		100	100	100	100	100	100	100	100
	N3 N5	DN		50	50	50	50	50	50	50	50
	N4	DN		80	80	80	80	80	80	80	80
	N6	DN		150	150	150	150	150	150	150	150
Option 1	N7	DN		150	150	150	150	150	150	150	150
	L2	mm		600	600	600	600	600	600	600	600
	h9	mm		100	100	100	100	100	100	100	100
Option 2	N8 N9	DN		100	100	100	100	100	100	150	150
	h8	mm		1750	1900	1900	2100	2000	2100	2200	2300
Weight~			Kg	5100	5200	6100	6200	8200	8300	9700	10300

* Volume in bolder as first recommended.