



## GLASS COATED TANKS



**VÍTKOVICE ENVI**

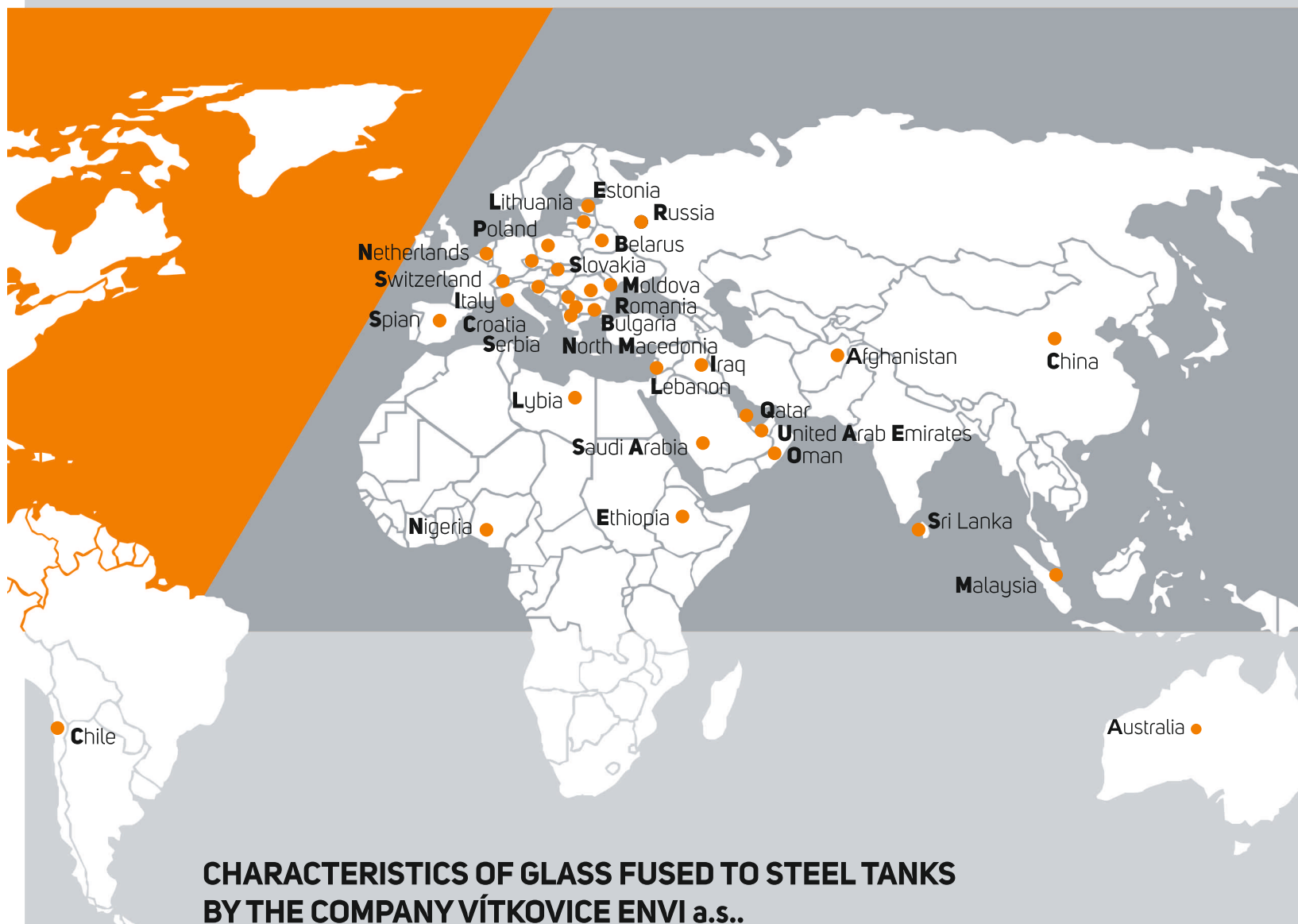


# VÍTKOVICE ENVI



## GLASS COATED TANKS

Aboveground Glass Coated Bolted Tanks from enameled plates are manufactured in VÍTKOVICE since 1966. With the high quality of production technology, rich experience and good references exports Company VÍTKOVICE ENVI a.s. our products and technologies to worldwide market. The Enameling process is a very good form of corrosion protection. Enamel is a silicon melt, which forms on the steel sheet integral protective coating smooth and glossy character. The Glass Coated Bolted Tanks might be used for storage of liquid or loose materials. The Tanks are also a fundamental building element of environmental technological facilities such as Waste Water Treatment Plants (WWTP) and biogas stations. Tank shell is constructed of double-sided coated plates bolted joints connected and sealed permanently elastic sealant. The Tank shell is reinforced by angles. The bottom consists mostly from reinforced concrete or/and bottom is steel welded or bolted from enameled plates. Accessory of the tank, which is the intended purpose of the tank are Manholes, Ladders, Platforms, Stairs, auxiliary and technological structures, piping, mixers, pumps, insulation, ground etc. The tank may be covered by a different type of roofs. The tanks are designed in accordance with standards of EN and ISO.

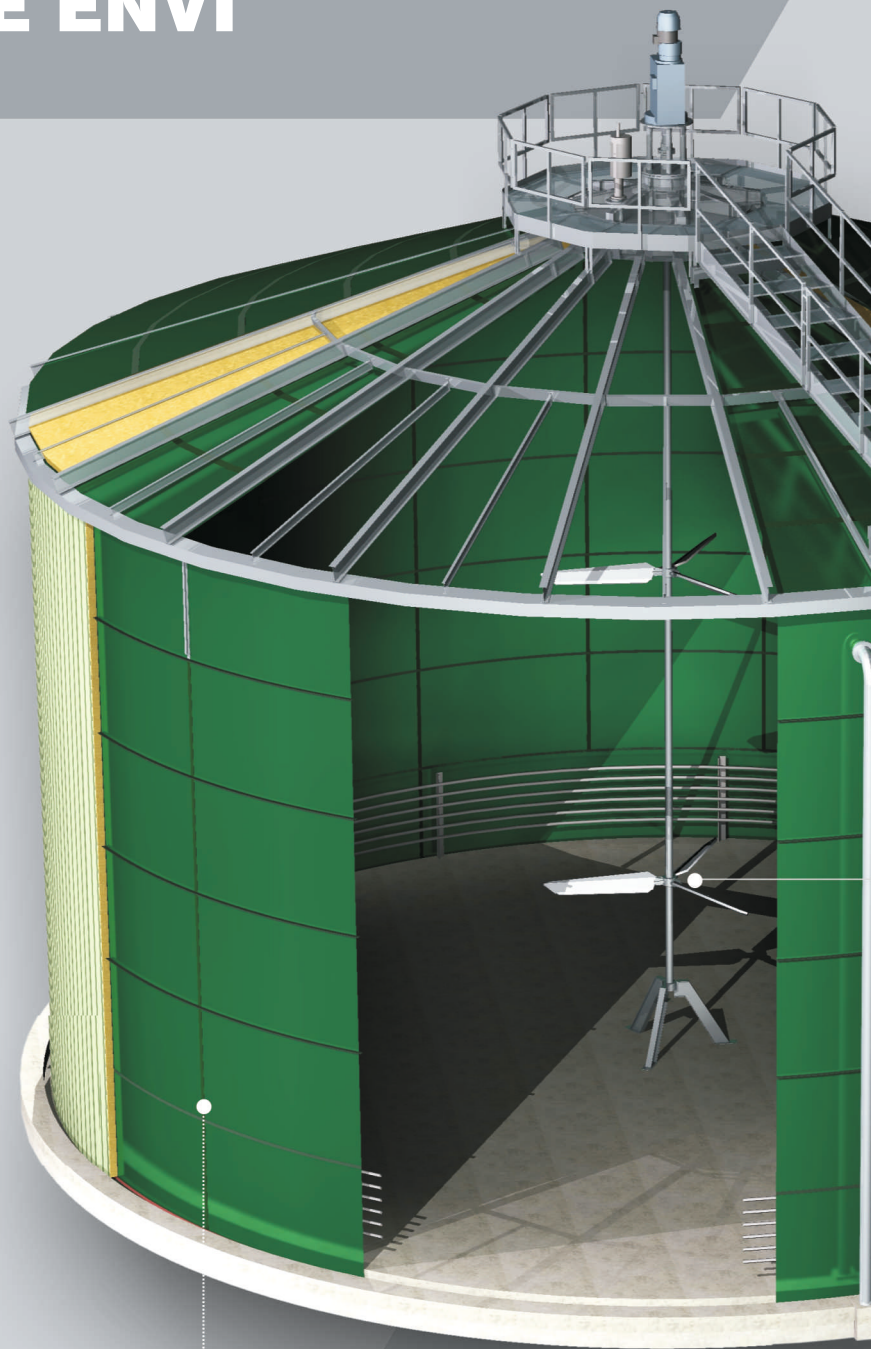


## CHARACTERISTICS OF GLASS FUSED TO STEEL TANKS BY THE COMPANY VÍTKOVICE ENVI a.s..

- **Excellent anti-corrosion properties of the enamel**
  - Unparalleled durability
  - Proven durability of tanks for more than 40 years
  - High abrasion resistance and chemical resistance
  
- **High variability of design solutions of Tank shell (diameter, height, pipe connections) and the placement of technological equipment (pumps, mixers, heating ...)**
  - Very fast construction and Installation
  - The possibility of rebuilding or relocating already built tanks
  - A simple and inexpensive dismantling and recycling of end of life or usage
  - Permanent visual inspection condition and tightness
  - Small footprint, light weight tank
  - Easy disassembled tanks transport at the destination
  - Experience with installations around the world, even in extreme conditions

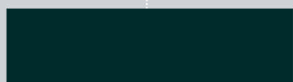


# VÍTKOVICE ENVI



## COLOR OF ENAMELED

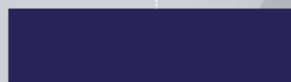
Standard colours are:



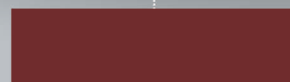
green RAL 6009



white RAL 9001



blue RAL 5013



brown RAL 8017

If a customer requires, any other RAL color can be provided and tank surface can be highlighted with any text or logo.



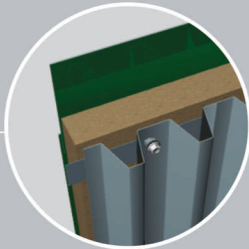
## TYPE OF ROOFS

- self-supporting glass-fused
- plastic
- textile
- aluminum
- trapezoidal
- with integrated gasholder



## AUXILIARY STRUCTURES

- ladders
- platforms
- trafficable bridges
- other technical structures



## INSULATIONS

- glass Coated Tank can be supplemented with thermal insulation covered with trapezoidal



## BOTTOM

- an integral watertight
- concrete slab steel welded
- bolted from Glass Coated steel sheet



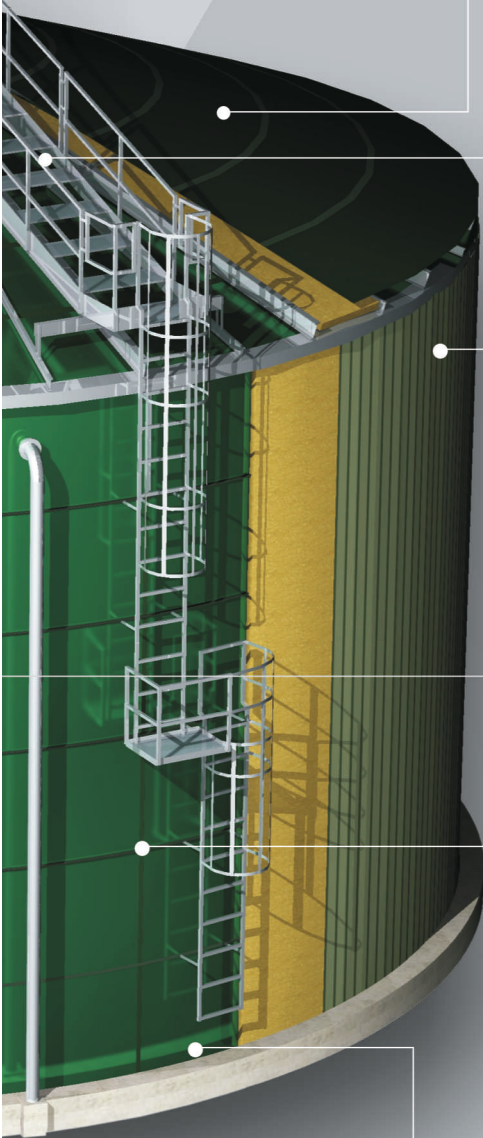
## JOINT

- sheet are connected by special high-grade bolts with a plastic covered head
- All bonds of sheets are sealed by special elastic silicone or polyurethane sealant



## ACCESSORIES

- manholes
- pipe
- agitators
- pumps and others



## APPLICATION OPTIONS:



### Loose materials

- limestone
- cement
- fly-ash
- wood waste
- sand and gravels
- granules
- salt
- soot

### Liquid

- potable water
- drinking water
- waste water
- fire water
- desalted water
- brine oil

### Agriculture

- cereals
- liquid manure
- dung water
- liquid fertilizers
- feed mixture
- silage

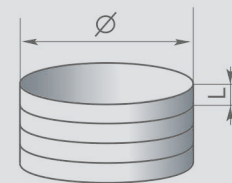
### Other Application

- tanks for WWTPs
- tanks for Biogas station
- gasholder
- fermenters

# GLASS COATED TANKS

THE NUMBER OF LINES ABOVE EACH OTHER	1	2	3	4	5	6	7	8	9	10	11	12
HEIGHT [m]	1,51	2,94	4,37	5,80	7,23	8,66	10,09	11,52	12,95	14,38	15,81	17,24

TANK DIAMETER [m]	THE NUMBER OF SHEETS IN A LINE	TANK VOLUME [m <sup>3</sup> ]											
2,04	5	5	9	14	19	23	28	33	37	42	47	51	56
2,45	6	7	13	20	27	34	40	47	54	61	67	74	81
2,86	7	9	18	28	37	46	55	64	73	83	92	101	110
3,27	8	12	24	36	48	60	72	84	96	108	120	132	144
3,67	9	15	30	45	61	76	91	106	121	136	152	167	182
4,08	10	19	37	56	75	94	112	131	150	168	187	206	225
4,29	5	21	41	62	83	103	124	144	165	186	206	227	248
5,14	6	30	59	89	119	149	178	208	238	267	297	327	356
6,00	7	40	81	121	162	202	243	283	323	364	404	445	485
6,86	8	53	106	158	211	264	317	370	422	475	528	581	634
7,71	9	67	134	201	267	334	401	468	535	602	668	735	802
8,57	10	83	165	248	330	413	495	578	660	743	825	908	990
9,43	11	100	200	300	399	499	599	699	799	899	998	1 098	1 198
10,29	12	119	238	356	475	594	713	832	951	1 069	1 188	1 307	1 426
11,14	13	139	279	418	558	697	837	976	1 116	1 255	1 395	1 534	1 684
12,00	14	162	323	485	647	809	970	1 132	1 294	1 456	1 617	1 785	1 953
12,86	15	186	371	557	743	928	1 114	1 300	1 485	1 671	1 864	2 057	2 249
13,71	16	211	422	634	845	1 056	1 267	1 479	1 690	1 901	2 121	2 340	2 567
14,57	17	238	477	715	954	1 192	1 431	1 669	1 908	2 155	2 403	2 651	2 898
15,43	18	267	535	802	1 069	1 337	1 604	1 871	2 139	2 416	2 694	2 972	3 249
16,29	19	298	596	894	1 192	1 489	1 787	2 085	2 394	2 704	3 013	3 323	3 632
17,14	20	330	660	990	1 320	1 650	1 980	2 310	2 653	2 996	3 339	3 681	4 024
18,00	21	364	728	1 092	1 456	1 819	2 183	2 547	2 925	3 317	3 681	4 059	4 451
18,86	22	399	799	1 198	1 597	1 997	2 396	2 811	3 226	3 640	4 055	4 470	4 885
19,71	23	437	873	1 310	1 746	2 183	2 619	3 072	3 526	3 979	4 432	4 886	
20,57	24	475	951	1 426	1 901	2 376	2 852	3 345	3 839	4 332	4 826	5 320	
21,43	25	516	1 031	1 547	2 063	2 576	3 114	3 650	4 185	4 721	5 256		
22,29	26	558	1 116	1 673	2 231	2 789	3 368	3 948	4 527	5 106	5 685		
23,14	27	602	1 203	1 805	2 406	3 008	3 632	4 257	4 882	5 506	6 131		
24,00	28	647	1 294	1 941	2 588	3 235	3 906	4 578	5 250	5 922			
24,86	29	694	1 388	2 082	2 776	3 470	4 190	4 911	5 632	6 352			
25,71	30	743	1 485	2 228	2 971	3 713	4 484	5 284	6 027	6 798			
26,57	31	793	1 586	2 379	3 172	3 995	4 819	5 642	6 466				
27,43	32	845	1 690	2 535	3 380	4 257	5 135	6 012	6 890				
28,29	33	899	1 797	2 696	3 594	4 528	5 461	6 394	7 327				
29,14	34	954	1 908	2 860	3 816	4 806	5 797	6 787					
30,00	35	1 011	2 022	3 032	4 043	5 093	6 143	7 192					
30,86	36	1 069	2 139	3 208	4 278	5 388	6 499	7 609					
31,71	37	1 130	2 259	3 389	4 519	5 692	6 865	8 038					
32,57	38	1 192	2 383	3 575	4 812	6 049	7 287	8 524					
33,43	39	1 255	2 510	3 765	5 069	6 372	7 675						
34,29	40	1 320	2 640	3 961	5 332	6 703	8 074						
35,14	41	1 387	2 774	4 161	5 602	7 042	8 483						
36,00	42	1 456	2 911	4 367	5 878	7 390	8 901						
36,86	43	1 526	3 051	4 577	6 162	7 746	9 330						
37,71	44	1 597	3 195	4 792	6 451	8 110	9 769						
38,57	45	1 671	3 342	5 013	6 748	8 483	10 218						
39,43	46	1 746	3 492	5 238	7 051	8 864							
40,29	47	1 823	3 646	5 468	7 361	9 254							
41,14	48	1 901	3 802	5 703	7 678	9 652							
42,00	49	1 981	3 962	5 944	8 001	10 135							



**Individually tanks are addressed:**

- If the desired roofing
- If the stored media assumes an increase in chemical or thermal load
- If snow loads are expected
- Wind speed is higher than 110 km / h
- Location of the tank is in a seismically active area



1. WWTP Kamień, Poland
2. Storage tanks of Liquid Fertilizer, Katusice, Czech Republic
3. Storage tanks of Liquid Fertilizer Dobre Miasto, Poland
4. Gasholder , 5000 m<sup>3</sup>, Poznan, Poland
5. Distillery Zbiersk, Poland
6. Fermenters Skawina , Poland



**VÍTKOVICE ENVI**

VÍTKOVICE ENVI a.s.  
Ruská 1142/30, 703 00 Ostrava-Vítkovice, Czech Republic  
T + 420 595 954 315, E sales.envi@vitkovice.cz  
<http://www.vitkovice-envi.cz>