





## **BUCON industries**

### DUTCH QUALITY IN CORRUGATED STEEL TANKS



The need to save water is increasing dramatically worldwide. All sectors are looking for reliable and affordable tank systems for the storage of, among other things, drinking water, waste water, irrigation water, manure, seawater and sludge. Our modularly built corrugated steel tanks offer the solution.

BUCON has implemented ground-breaking innovations on a wellknown concept and can offer the best and cheapest solution.

#### THE IMPROVEMENTS ARE:

- Higher S 350 GD steel quality for more strength and tank heights of up to 6.10 meters
- Newly developed galvanising layer means 70% less zinc use and much higher corrosion resistance. It also prevents white rust
- The most modern machines of their kind deliver perfect uniformity and quality
- Environmentally-friendly color coating in light grey (RAL 7038) and dark green (RAL 6009)

- Patented bolt set provides 2x stronger connections and fewer bolt sets per tank
- An improved corrugated profile measuring 76 x 20 mm ensures, even with low steel thickness, greater dimensional sheet stability
- Available in easy to transport sheet lengths of 2300 mm and 3048 mm

## **BUCON: ironclad**

The strength of the tank construction is determined by the steel quality, corrugated profile and bolt sets.

### IN THE BUCON DESIGN, THESE PARTS HAVE BEEN IMPROVED:

- S350 GD steel quality, which is stronger than usual
- The corrugated profile is increased from 18 to 20 mm, which makes our tanks considerably firmer and more rigid
- The patented bolt set can handle a much greater tensile strength and provides twice as strong a connection

### THE PATENTED BOLT SET DESIGN

The bolts and rings of BUCON tanks have the same shape as the corrugation of the steel sheets. This achieves a much larger contact surface with the sheets. As a result, the tensile strength that the connection is able to handle is twice as large as with normal bolts. The BUCON bolt sets also ensure faster assembly as they cannot continue running.

## Unique galvanisation method

#### **BUCON ZINC/MAGNESIUM/ALUMINUM GALVANIZATION**

The S350 GD steel is galvanised on both sides to provide protection against rust. The steel's corrosion resistance is not only determined by the thickness of the coating, but also by the composition. Studies at various

universities have clearly shown that 3% magnesium provides greatly improved corrosion protection compared to other products on the market. That is why the BUCON tanks have a unique Magnelis<sup>®\*</sup> galvanising layer that



BUCON galvanisation after 34 weeks in a salt spray test

includes 3% magnesium and 3.5% aluminum in addition to zinc. Magnelis® offers the best available protection against rust, even under the most challenging conditions.

The patented Magnelis<sup>®</sup> galvanising method for corrugated steel tanks is available exclusively from BUCON.



Conventional galvanisation after 6 weeks in a salt spray test

\*Magnelis® is a registered trademark of ArcelorMittal Flat Carbon Europe S.A.

### **BUCON** in colour

### CHROMATE-FREE ORGANIC COLOUR COATING



The BUCON colour coating is organic and is applied immediately after galvanisation. This guarantees perfect adhesion of the coating and a very uniform layer thickness of 55 µm.

This high-quality coating ensures long-term protection in aggressive environments.

- Highest level of rust protection (RC5)
- Highest level of UV resistance (RUV4)
- High scratch resistance (40 N)
- Excellent forming characteristics (1.5T)
- Extremely reliable and durable
- Available as standard in light grey (RAL 7038) and dark green (RAL 6009)



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### **BUCON** square

### SQUARE OR RECTANGULAR

The machines at BUCON are able to make very sharp corners/bends in corrugated sheets without damage. BUCON is therefore the only manufacturer able to make 'square' tanks. These are extremely suitable as a drip tray or buffer tank for ancillary water installations.



### **BUCON roof**

### CORRUGATED STEEL ROOFS

The BUCON patented corrugated steel roof is a very good and easy to install cover for new and existing silos with a diameter of up to 10 meters. The roof is sufficiently lightproof, draining and so sturdy that it can even be walked on. No extra reinforcements are required on the tank wall for the corrugated steel roof.



## **Tank liners**

The metal tank construction is made liquid-tight with a prefabricated plastic liner.

All tank liners are made to measure for the tank. Different plastics can be used depending on the liquid. The most common used material is FPP (Flexible Polypropylene). Of course are other liners as PVC (Poly Vinyl Chloride) and EPDM (Ethylene Propylene Diene Monomer) available by BUCON.

The material thicknesses vary from 0.5 to 1.0 mm and are dependent on the liquid and application.



### Tank wall and bottom outlet

The inlet and outlet pipes are preferably connected via the bottom. This is done by means of conical outlet placed in the bottom of the sail. If desired, pipes can also be fed through the tank wall using tank wall connectors.

#### **Conical outlet**



#### Flange outlet



Tank wall connector



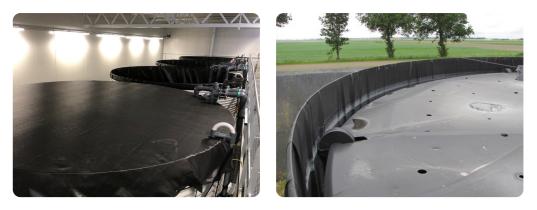
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## Anti-algae covers

High temperatures can accelerate algae growth in the water, especially if residues of fertilizers are still present in the water. To prevent algae growth, we use tension covers (for smaller diameters or when the tanks are inside) and floating covers.

Anti-algae tensioned cover

Anti-algae floating cover



### **Floating closed cover**

If no water is allowed to enter the tank from the outside, a closed cover is a solution. This prevents incoming debris such as leaves, sand or dust from entering the stored water.



**Closed floating cover, insulated** 



## **BUCON size chart**

#### Long panel

H (m)	0,85	1,55	2,35	3,10	3,85	4,60	5,35	6,10
Ø (m)	m <sup>3</sup>							
1,82	2	4	6	8	10	12	14	16
2,73	5	9	14	18	22	27	31	36
3,64	9	16	24	32	40	48	56	64
4,55	13	25	38	50	62	75	87	99
5,46	19	36	54	72	90	107	125	143
6,37	26	49	74	98	122	146	170	195
7,28	34	65	96	128	159	191	223	254
8,19	43	82	122	162	202	242	282	322
9,10	53	101	150	200	249	298	348	397
10,01 10,92	65 77	122 145	182 216	241 287	301 358	361 430	421 501	481 572
11,83	90	145	216	337	356 421	430 504	501 588	671
12,75	105	198	295	392	489	586	683	780
13,66	120	227	338	450	561	672	783	895
14,57	137	258	385	511	638	765	891	1.018
15,48	154	291	434	577	720	863	1.006	1.149
16,39	173	327	487	647	807	968	1.128	
17,30	193	364	542	721	900	1.078	1.257	
18,21	214	403	601	799	997	1.194	1.392	
19,12	235	444	662	881	1.099	1.317		
20,03	258	488	727	966	1.206	1.445		
20,94	282	533	795	1.056	1.318	1.579		
21,85	307	580	865	1.150	1.435			
22,76	334	630	939	1.248	1.557			
23,67	361	681	1.015	1.350	1.684			
24,58	389	734	1.095	1.455	1.816			
25,49 26,40	418 449	790 847	1.177	1.565	1.953			
26,40 27,31	449 480	847 907	1.263 1.352	1.679 1.796				
28,22	400 513	907 968	1.443	1.918				
29,13	546	1.031	1.538	2.044				
30,04	581	1.097	1.635	2.044				
30,95	617	1.164	1.736	2.307				
50,55	017	1.104	1.150	2.007				

#### 2,35 5,35 Ø (m) 1,34 2,02 2,69 3,36 4,03 4,71 5,38 6,05 6,72 7,39 8,07 8,74 9,41 10,08 10,76 11,43 12,10 12,77 13,45 14,12 14,79 1.049 15,46 1.004 1.147 16,13 1.094 1.249 16,81 1.018 1.187 17,48 1.283 1.101 18,15 1.187 1.384 18,82 1.065 1.277 19,50 1.143 1.370 20,17 1.223 1.466 20,84 1.047 1.306 1.565 21,51 1.115 1.392 1.668 22,18 1.186 1.480 22,86 1.259 1.571 23,53 1.004 1.334 1.665 24,20 1.062 1.412 1.761 24,87 1.122 1.491 1.860 25,55 1.183 1.573 1.962 26,22 1.246 2.067 1.657 26,89 1 743 1 311 27,56 1.377 1.831 28,24 1.445 1.921 28,91 1.016 1.515 2.014 29,58 1.064 1.586 2.109 30,25 1.113 1.659 2.205 30,92 1.163 1.734 2.305

Short panel



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