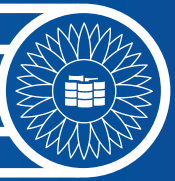


# Worldwide Biofuel Containment Solutions



**COST EFFECTIVE**  
**RAPID CONSTRUCTION**  
**LONG LIFE**



**BIOTANQ®**  
BIOFUEL-CONTAINMENT-SOLUTIONS

## THE COMPANY

BIOTANQ is the Biofuel division of Permastore Limited who are the market leaders in the manufacture and supply of Glass-Fused-to-Steel Tanks and Silos. Since 1959 the Company has been providing durable and cost effectively engineered containment solutions in Municipal and aggressive Industrial environments worldwide. In over 110 countries in excess of 90,000 structures have been installed each with the ability to withstand local environmental extremes, from the cold of the arctic to the heat of the desert.

**BIOTANQ®**  
**“The Product  
of Choice”**  
**for all your biofuel  
containment  
solutions around  
the world**

- **Production** – All controlled at one manufacturing site, thereby simplifying the supply chain and providing a seamless service to meet Customers’ requirements.
- **Technical Support** – An experienced team that interacts with our Customer base to ensure Customer demand is met.
- **Modern Manufacturing Facility** – A state of the art factory dedicated solely to the production of Glass-Fused-to-Steel product.
- **Advanced Glass-Fused-to-Steel Technology** – This provides the ultimate in corrosion resistance for the life of the structure.
- **ISO 9001:2000** – Accreditation of quality awarded since 1996 demonstrating our ability to consistently provide products and services that meet customer and regulatory requirements.
- **International Standards** – BIOTANQ’s quality systems meet or exceed the glass coating requirements of ISO 28765:2008, EEA 7.20 and AWWA D103-97 amongst others.
- **Approved and Verified by International Bodies** – Including DWI, NSF and MPA NRW.
- **In-house Engineering Design and Contract Management** – This provides reassurance that all structures arrive on schedule and are fit for purpose.

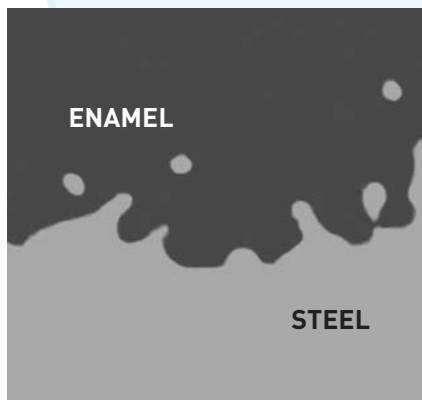


# THE SOLUTION

## WHAT IS GLASS-FUSED-TO-STEEL?

Glass-Fused-to-Steel is a unique tank finish. Two materials are fused together to achieve the best of both materials – the strength and flexibility of steel combined with the corrosion resistance of glass. Applied to both interior and exterior surfaces, Glass-Fused-to-Steel is able to provide many years of trouble free service in harsh environments.

- High performance and hard wearing
- As strong and flexible as steel
- Inert Silica Glass
- Colour fast / UV Stable

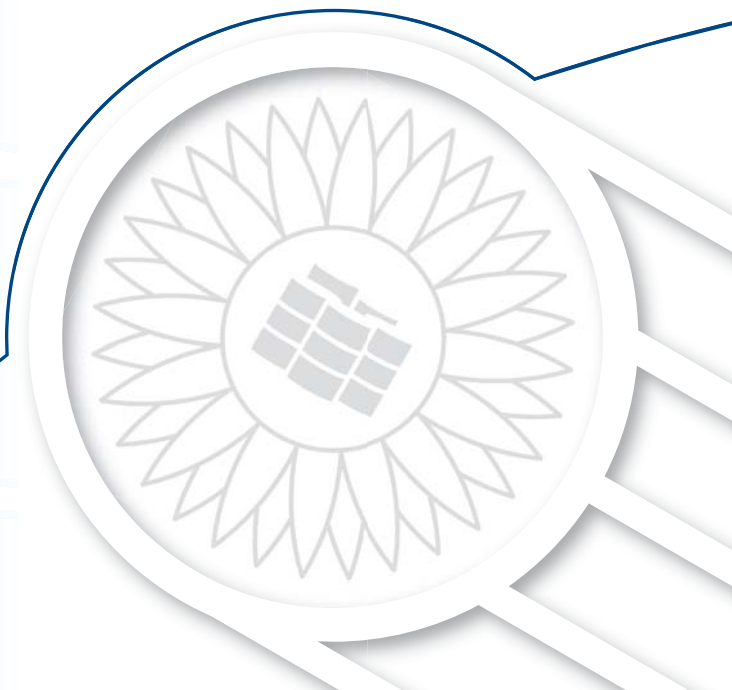


## THE QUALITY

Is guaranteed – long-lasting and durable.

A philosophy enshrined in BIOTANQ's procedures, which exceed the requirements of International Enamelling Standards. The industrial grade finish is subject to 100% inspection and electronic testing of the contact surface. Any panel having a discontinuity is rejected.

We have earned our reputation by dedication to the highest quality and commitment to ZERO DISCONTINUITY glass fusion.





## **BIODIESEL PRODUCTS**

- **Rapeseed Oil**
- **Soybean Oil**
- **Sunflower Oil**
- **Palm Oil**



## **BIOETHANOL PRODUCTS**

- **Wheat Grain**
  - **Milled Corn**
  - **Sunflower Seed**
  - **Sugar Cane Molasses**





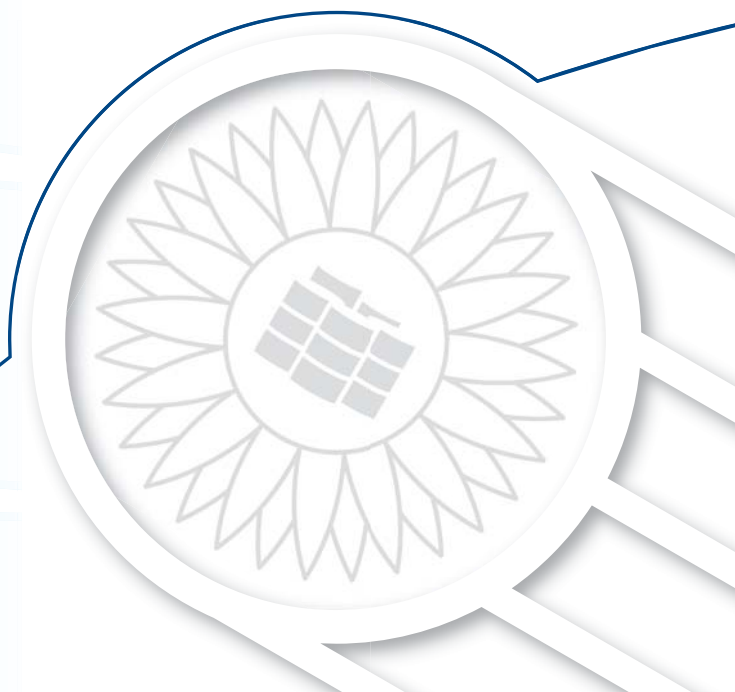
## BENEFITS FOR THE END USER

BIOTANQ's Glass-Fused-to-Steel finish combined with its modular design and build concept, offers an array of benefits to contractors and end users.

- Long Life
- Low Capital Cost
- Low Maintenance Costs
- Rapid Site Installation Times
- Economic Worldwide Shipments
- Flexibility to Re-model, Extend, Dismantle and Re-site
- Optimum Corrosion Resistance



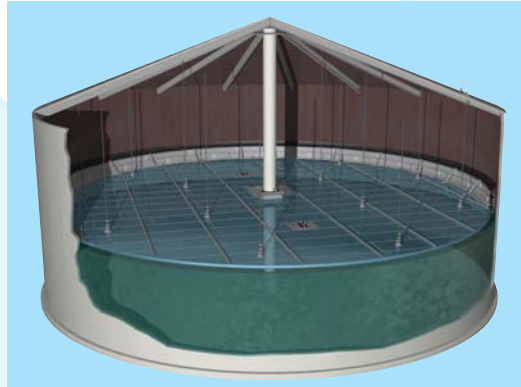
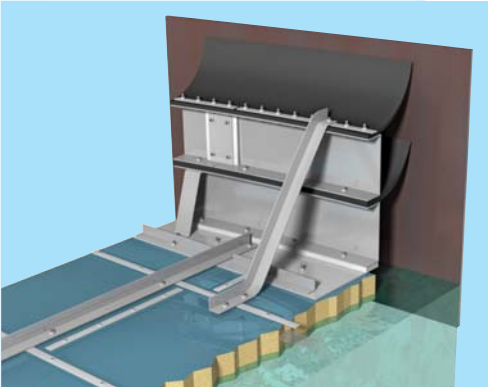
**The  
Complete  
Package**



## ROOF SOLUTIONS

There are a number of roof options available for the containment of Biofuels. These include:

- **Geodesic Dome**
- **Trough Deck Roof**
- **Floating Roof**
- **Glass-Fused-to-Steel Roof**



# CAPACITY CHART

| NOMINAL WALL HEIGHT 7.03m or 25ft (5 RINGS) |           |       |             |                        | NOMINAL WALL HEIGHT 8.43m or 30ft (6 RINGS) |           |       |             |                        |
|---|-----------|-------|-------------|------------------------|---|-----------|-------|-------------|------------------------|
| Model                                       | Tank Diam |       | Capacity    |                        | Model                                       | Tank Diam |       | Capacity    |                        |
|   | (feet)    | (m)   | Actual (m³) | (US Petroleum) Barrels |   | (feet)    | (m)   | Actual (m³) | (US Petroleum) Barrels |
| 3425  | 33.62     | 10.25 | 579         | 3,642                  | 3130  | 30.82     | 9.39  | 584         | 3,673                  |
| 4825  | 47.63     | 14.52 | 1,163       | 7,315                  | 4230  | 42.02     | 12.81 | 1,086       | 6,831                  |
| 5625  | 56.03     | 17.08 | 1,609       | 10,120                 | 5030  | 50.43     | 15.37 | 1,563       | 9,831                  |
| 6425  | 64.44     | 19.64 | 2,128       | 13,385                 | 5930  | 58.83     | 17.93 | 2,128       | 13,385                 |
| 7325  | 72.84     | 22.20 | 2,720       | 17,108                 | 6430  | 64.44     | 19.64 | 2,553       | 16,058                 |
| 7825  | 78.44     | 23.91 | 3,154       | 19,838                 | 7330  | 72.84     | 22.20 | 3,262       | 20,517                 |
| 8425  | 84.05     | 25.62 | 3,621       | 22,775                 | 7830  | 78.44     | 23.91 | 3,783       | 23,794                 |
| 9025  | 89.65     | 27.33 | 4,120       | 25,914                 | 8130  | 81.25     | 24.76 | 4,058       | 25,524                 |
| 9525  | 95.25     | 29.03 | 4,651       | 29,254                 | 8730  | 86.85     | 26.47 | 4,637       | 29,166                 |
| 10125                                       | 100.86    | 30.74 | 5,214       | 32,795                 | 9230  | 92.45     | 28.18 | 5,255       | 33,053                 |
| 10625                                       | 106.46    | 32.45 | 5,810       | 36,544                 | 9530  | 95.25     | 29.03 | 5,578       | 35,085                 |
| 10925                                       | 109.26    | 33.30 | 6,120       | 38,494                 | 10130                                       | 100.86    | 30.74 | 6,253       | 39,330                 |
| 11525                                       | 114.86    | 35.01 | 6,763       | 42,538                 | 10430                                       | 103.66    | 31.59 | 6,606       | 41,550                 |
| 11825                                       | 117.67    | 35.86 | 7,097       | 44,639                 | 10930                                       | 109.26    | 33.30 | 7,339       | 46,161                 |
| 12325                                       | 123.27    | 37.57 | 7,789       | 48,991                 | 11230                                       | 112.06    | 34.16 | 7,720       | 48,557                 |
| 12625                                       | 126.07    | 38.43 | 8,147       | 51,243                 | 11530                                       | 114.86    | 35.01 | 8,111       | 51,017                 |
| 13225                                       | 131.67    | 40.13 | 8,888       | 55,904                 | 11830                                       | 117.67    | 35.86 | 8,511       | 53,533                 |
| 13425                                       | 134.48    | 40.99 | 9,270       | 58,307                 | 12330                                       | 123.27    | 37.57 | 9,341       | 58,753                 |
| 13725                                       | 137.28    | 41.84 | 9,660       | 60,760                 | 12630                                       | 126.07    | 38.43 | 9,771       | 61,458                 |
| 14325                                       | 142.88    | 43.55 | 10,465      | 65,823                 | 12930                                       | 128.87    | 39.28 | 10,210      | 64,219                 |
| 17425                                       | 173.70    | 52.94 | 15,466      | 97,278                 | 16030                                       | 159.69    | 48.67 | 15,677      | 98,605                 |
| 19925                                       | 198.91    | 60.63 | 20,282      | 127,570                | 18230                                       | 182.10    | 55.50 | 20,386      | 128,224                |
| 22125                                       | 221.32    | 67.46 | 25,110      | 157,937                | 20530                                       | 204.52    | 62.33 | 25,713      | 161,730                |
| 24425                                       | 243.73    | 74.29 | 30,453      | 191,544                | 22430                                       | 224.13    | 68.31 | 30,880      | 194,229                |

| NOMINAL WALL HEIGHT 11.23m or 40ft (8 RINGS) |           |       |             |                        | NOMINAL WALL HEIGHT 14.03m or 50ft (10 RINGS) |           |       |             |                        |
|--|-----------|-------|-------------|------------------------|---|-----------|-------|-------------|------------------------|
| Model  | Tank Diam |       | Capacity    |                        | Model   | Tank Diam |       | Capacity    |                        |
|  | (feet)    | (m)   | Actual (m³) | (US Petroleum) Barrels |   | (feet)    | (m)   | Actual (m³) | (US Petroleum) Barrels |
| 2540   | 25.21     | 7.69  | 521         | 3,277                  | 3950  | 39.22     | 11.95 | 1,574       | 9,900                  |
| 3640   | 36.42     | 11.10 | 1,086       | 6,831                  | 4550  | 44.83     | 13.66 | 2,056       | 12,932                 |
| 4540   | 44.83     | 13.66 | 1,646       | 10,353                 | 5050  | 50.43     | 15.37 | 2,602       | 16,366                 |
| 5040   | 50.43     | 15.37 | 2,083       | 13,102                 | 5650  | 56.03     | 17.08 | 3,213       | 20,209                 |
| 5640   | 56.03     | 17.08 | 2,571       | 16,171                 | 5950  | 58.83     | 17.93 | 3,542       | 22,279                 |
| 6240   | 61.63     | 18.79 | 3,111       | 19,568                 | 6450  | 64.44     | 19.64 | 4,249       | 26,725                 |
| 6740   | 67.24     | 20.49 | 3,703       | 23,291                 | 6750  | 67.24     | 20.49 | 4,626       | 29,097                 |
| 7340   | 72.84     | 22.20 | 4,346       | 27,336                 | 7350  | 72.84     | 22.20 | 5,430       | 34,154                 |
| 7640   | 75.64     | 23.06 | 4,686       | 29,474                 | 7650  | 75.64     | 23.06 | 5,855       | 36,827                 |
| 7840   | 78.44     | 23.91 | 5,040       | 31,701                 | 7850  | 78.44     | 23.91 | 6,297       | 39,607                 |
| 8440   | 84.05     | 25.62 | 5,786       | 36,393                 | 8150  | 81.25     | 24.76 | 6,755       | 42,488                 |
| 8740   | 86.85     | 26.47 | 6,178       | 38,858                 | 8450  | 84.05     | 25.62 | 7,229       | 45,469                 |
| 9040   | 89.65     | 27.32 | 6,583       | 41,406                 | 8750  | 86.85     | 26.47 | 7,719       | 48,551                 |
| 9540   | 95.25     | 29.03 | 7,431       | 46,740                 | 9050  | 89.65     | 27.32 | 8,225       | 51,734                 |
| 9840   | 98.06     | 29.89 | 7,875       | 49,532                 | 9250  | 92.45     | 28.18 | 8,747       | 55,017                 |
| 10140  | 100.86    | 30.74 | 8,331       | 52,400                 | 9550  | 95.25     | 29.03 | 9,285       | 58,401                 |
| 10440  | 103.66    | 31.59 | 8,801       | 55,357                 | 9850  | 98.06     | 29.89 | 9,839       | 61,885                 |
| 10640  | 106.46    | 32.45 | 9,283       | 58,388                 | 10150   | 100.86    | 30.74 | 10,409      | 65,471                 |
| 10940  | 109.26    | 33.30 | 9,778       | 61,502                 | 12350   | 123.27    | 37.57 | 15,549      | 97,800                 |
| 11240  | 112.06    | 34.16 | 10,286      | 64,697                 | 14350   | 142.88    | 43.55 | 20,890      | 131,394                |
| 13740  | 137.28    | 41.84 | 15,435      | 97,083                 | 15750   | 156.89    | 47.82 | 25,188      | 158,428                |
| 15740  | 156.89    | 47.82 | 20,160      | 126,803                | 17450   | 173.70    | 52.94 | 30,874      | 194,192                |
| 17640  | 176.50    | 53.79 | 25,514      | 160,478                | 19950   | 198.91    | 60.63 | 40,489      | 254,668                |
| 19340  | 193.31    | 58.92 | 30,605      | 192,500                | 22450   | 224.13    | 68.31 | 51,404      | 323,321                |

= Most cost effective tank model for volume requirement

