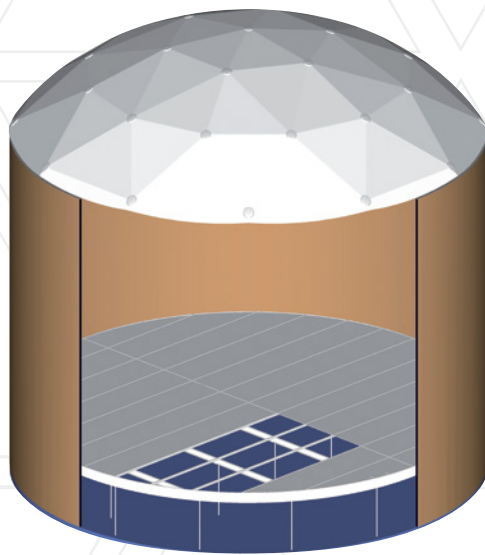


# **VACONO** *DECK*



**VACONODECK** is a compact and efficient internal floating roof to be used in vertical storage tanks.

By using **VACONODECK** to cover the stored product, evaporation can be reduced by up to 99 %. This allows an exceptionally short payback time compared to other vapour reducing technologies.

The system thereby not only ensures a substantial increase in tank operation profitability but also protects the atmosphere, thus making an effective contribution towards the elimination of environmental pollution.

## UNIVERSAL APPLICATION

**VACONODECK** can be installed in new or existing tanks. It is compatible with almost all known storage products as it is made either of aluminium, stainless steel or a mixture of both. The low construction guarantees minimal loss of tank capacity while still allowing personnel to pass over its entire surface during inspection.

A wide range of seals and accessories is available to suit all possible requirements.

## LOW ERECTION COSTS

The **VACONODECK** is designed as a modular system which can be easily erected on site by local crews in compliance with the provided erection documents – our specialists can supervise the on-site erection world-wide, if this is required.

No welding is required for any of the **VACONODECKs** during installation. Most variants will pass through a standard 24" tank manhole.

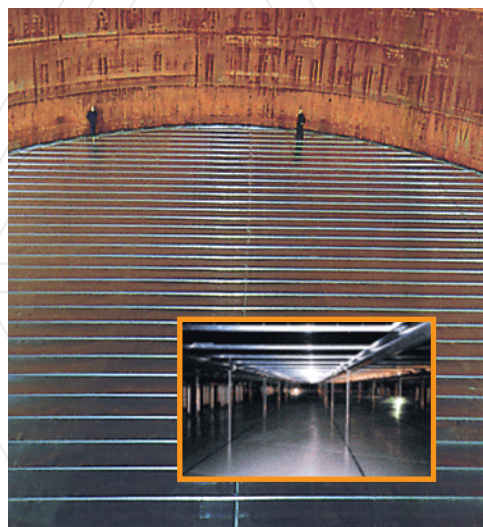
## MAINTENANCE FREE

Due to its unique design, the **VACONODECK** is practically maintenance free throughout its life cycle.

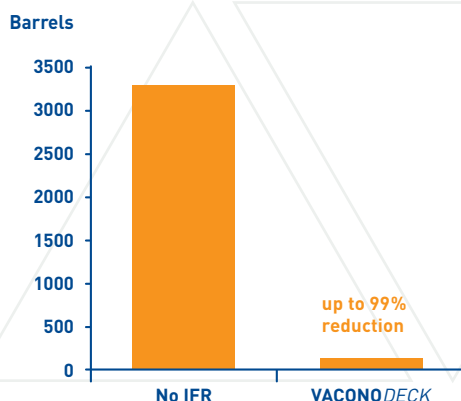
## NATIONAL AND INTERNATIONAL STANDARDS

Each **VACONODECK** is individually designed and tailor-made to fit the corresponding tank in compliance with national and international industrial standards, such as API 650 App.H, which are used within the petroleum and chemical industry.

It goes without saying that all the materials used have been carefully selected in accordance with the aspects of quality, duration and compatibility with the products to be stored.



**Evaporation Loss of a 30 m Tank p.a.  
based on MPMS 19.2 formerly API  
2517 and 2519**



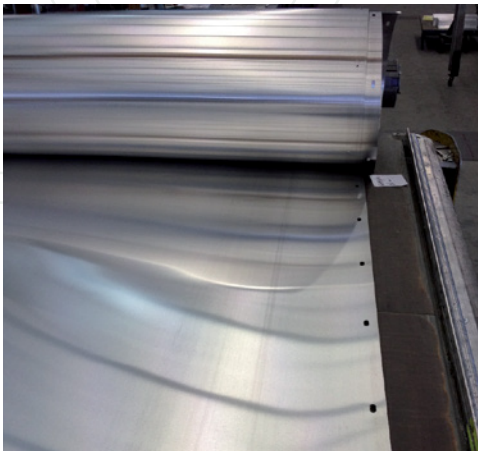


## **VACONO** *DECK*

### VACONO QE<sup>2</sup> - QUICKNESS AND EFFICIENCY, QUALITY AND EXCELLENCE

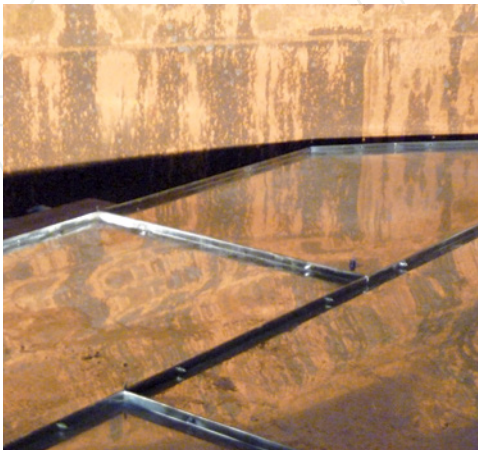
VACONO's new trademark when it is about exceeding international market levels and setting new standards in terms of Quick Assembly, Efficiency in the use of materials, Quality of Installation and Excellence in operation.

The **VACONODECK QE<sup>2</sup>** comes with a range of innovative and unique features that allow quick installation and most efficient operating conditions.



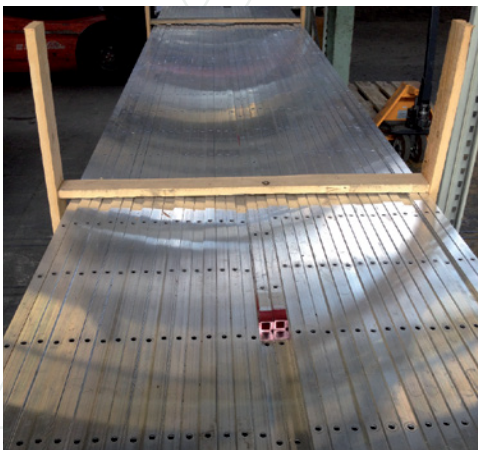
### QUICK ASSEMBLY AND QUALITY OF INSTALLATION

- Supporting beams perfectly cut to length and angle can be installed without field trimming
- SS bolts pressed into the supporting beams every 250 mm and pre-drilled clamp bars can be installed without drilling on site
- Cover sheets perforated on the edges can be rolled over the supporting structure like a red carpet quickly and safely by one person
- Extruded circumferential profiles, pre-bent to the required radius can be installed without adding extra angles etc.
- Framing spacers prefabricated and welded in the workshop do not need trimming in the field
- All floating compartments are prefabricated and pressure tested in the workshop
- Quality control in the field is easy as all connections are prefabricated
- Overall installation time of under 0,5 hrs/m<sup>2</sup> for AL-P QE<sup>2</sup> (> 20 m diameter) is world class and by far leading in the industry



### EXCELLENCE IN OPERATION AND EFFICIENCY IN THE USE OF MATERIALS

- Supporting legs in the structure every approx. 16 m<sup>2</sup> only and every 3,5 m on the edge deliver best-in-class weight distribution and stability
- The overall deck height is the lowest on the market for Aluminium pontoon type decks with only 8" (for Aluminium) float diameter that also ensure an optimal buoyancy distribution
- Optionally, Cladded Cover sheets can be used if the **VACONODECK QE<sup>2</sup>** is used in tanks with fixed steel roofs to avoid spot corrosion of rust particles falling from the steel roof and mixing with condensed water on the surface of the **VACONODECK QE<sup>2</sup>**





## OVERVIEW OF DESIGN FEATURES OF THE **VACONODECK**:

### 1. Choice of Materials:

- Aluminium (AL) for most storage products such as Gasoline or light crude
- Hybrid (MIX) for products with aggressive liquid phase or high water content (Alcohols, Bio Fuels). All wetted parts are made from Stainless Steel (PE Element optional)
- Stainless Steel (SS) for aggressive media (aromatics, chemicals)

### 2. Floater Design:

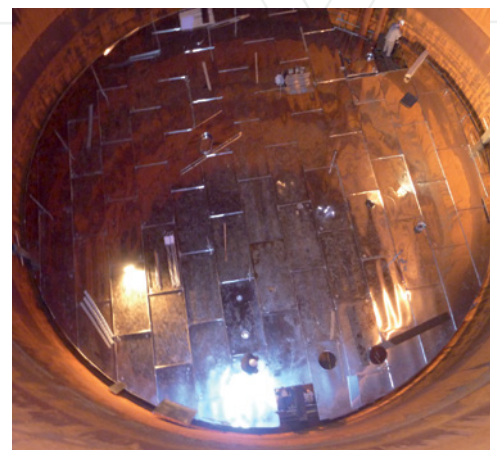
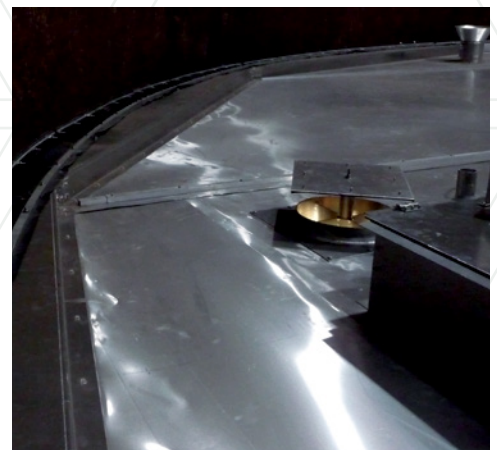
- Pontoon (P) for best cost/benefit ratio
- Full Contact (FC) for best efficiency and performance

### 3. Prefabrication and Efficiency of Use:

- Standard fabrication under QC systems according to industry standard
- QE<sup>2</sup> for **Q**uick assembly, **Q**uality of Installation, **E**fficiency in the use of materials and **E**xcellence in operation

### 4. Deck Skin:

- Standard AL mill finish 3003 grade for AL Decks
- CLAD: Cladded Skin to prevent spot corrosion from rust particles falling off the steel roof (if applicable) and the tank wall



## THE RESULT ARE 9 VARIANTS OF THE **VACONODECK**:

### **VACONODECK AL-P:**

VACONO's standard AL Deck that meets all relevant industry standards  
VACONO's best selling AL Deck with market leading installation time and unbeatable use efficiency

### **VACONODECK AL-P QE<sup>2</sup>:**

AL-P QE<sup>2</sup> for tanks with steel roofs to ensure a lifelong resistance to rust particles from the roof

### **VACONODECK AL-P QE<sup>2</sup> CLAD:**

VACONO's Full Contact AL Deck is the most cost efficient in the market from European production

### **VACONODECK AL-FC:**

VACONO's standard Mix type Deck that meets all relevant industry standards

### **VACONODECK MIX-P:**

VACONO's best selling Mix Deck with market leading installation time and unbeatable use efficiency

### **VACONODECK MIX-P QE<sup>2</sup>:**

MIX-P QE<sup>2</sup> for tank with steel roofs to ensure a lifelong resistance to rust particles from the roof

### **VACONODECK MIX-P QE<sup>2</sup> CLAD:**

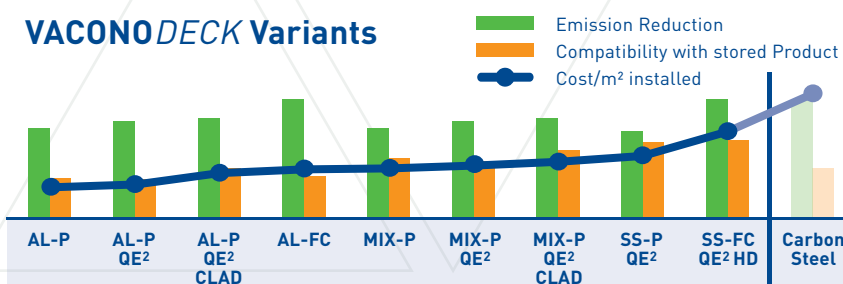
VACONO's stainless steel Pontoon Deck for cost efficient covering of aggressive storage media

### **VACONODECK SS-P QE<sup>2</sup>:**

Top of the line when it comes to product compatibility, efficiency and Heavy Duty Service. No more excuses not using a **VACONODECK**.

### **VACONODECK SS-FC QE<sup>2</sup> HD:**

## **VACONODECK Variants**





VACONOSEAL PE



VACONOSEAL  
DOUBLE PE



VACONOSEAL RTS



Valve Manhole  
Combination



Adjustable leg



Pipe negotiation



Gauging funnel



Anti rotation

## VACONODECK SEALS AND ACCESSORIES

- **VACONOSEAL PE / DOUBLE PE**

The most popular wiper seal for gasoline storage made from a closed cell polyethylene material

- **VACONOSEAL T / DOUBLE T**

A teflon wrapped PU wiper seal with high corrosion resistance

- **VACONOSEAL RTS**

A spring type light weight seal made from teflon

- **VACONOSEAL CSH**

A mechanical shoe seal for rough environments and the **VACONODECK** SS-FE QE<sup>2</sup>. Is available with PE secondary seal.

## ACCESSORIES for VACONODECK

In addition to basic features such as antirotation or antistatic systems the **VACONODECK** can be equipped with a large variety of accessories; the most common are described below.

- **Adjustable Legs:** Allows manual adjustment of the IFR from a safe erection and inspection level to a lower operating level maximizing the usable tank volume.
- **Hanging System:** Allows the deck to be hung from the tank for interim storage of an incompatible product or for tank cleaning operations. Available in stainless or galvanized steel.
- **Pipe Negotiations:** Allows effective and safe penetration of columns, pipes and ladders of all sizes, through the **VACONODECK**.
- **Gauging Funnels:** Allows safe manual gauging as well as sampling of the product from the tank roof through the IFR keeping vapour losses to a minimum at the same time.
- **Valve Manhole Combination:** Functions not only as a manhole to ease entry onto the IFR from the tank floor but also as a vacuum breaker in that it opens before the IFR supports touch the tank floor.
- **Pressure Vents:** Fitted on the IFR in the vicinity of the inlet pipe/diffuser, designed to pop up should a large volume of gas or air enter the tank thereby avoiding possible damage to the IFR itself.
- **Vacuum Breakers:** Ensuring that the **VACONODECK** is not harmed when product is let out of the tank.

PLEASE CONTACT US AT

**www.vacono.com**



GERMAN QUALITY WORLDWIDE