



# Fermentation and storage tanks

Large tanks to precisely meet your requirements



# For a fresh product



Do you give everything for the high quality of your product? Do you also agree that therefore only the best tanks are good enough? We believe in any case that your products not only deserve perfect conditions during manufacture, but also during storage. And that is precisely what you get with Steinecker fermentation and storage tanks.

## At a glance

- Large tanks for all industries and every intended purpose
- The tanks are manufactured on site, directly at the place of installation
- Comprehensive know-how, as well as advice and service from a single source



# One tank for every requirement



It is our goal to meet your product's requirements one-hundred percent. Which is why we manufacture our products precisely in accordance with your individual specifications:

<b>Size</b>	Maximum height of up to 28,000 mm, maximum diameter of up to 7,500 mm
<b>Construction /shape</b>	Cylindroconical tanks, flat-bottom tanks or tanks with dished bases
<b>Material</b>	Stainless steel, austenitic or duplex steel also available on request
<b>Surface</b>	Weld seams ground on the inside (Ra 0.8 µm), surface quality = 2B or to be individually clarified
<b>Regulations</b>	ASME, RTN, Gost-R, ML-China, DIN EN ISO 3834-2, consistent with DGRL 97/23/EG
<b>Peripherals</b>	Adjustable platforms and substructures
<b>Coating</b>	Can be primed and painted
<b>Insulation</b>	PIR and PU foam, mineral wool
<b>Guards</b>	Gastight or riveted



# One tank for every requirement



## Other design parameters:

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- Height-to-diameter ratio that has been optimally designed to suit the respective process requirement (layering or mixing)
- Efficient heat transfer with heating or cooling surface, designed as pillow plates with forced convection
- Flexible operation with different fill levels thanks to subdivided heating or cooling surfaces over the entire height of the tank
- Individual design option for operation with overpressure or atmospheric pressure



# Expertise in on-site tank construction



From a particular size upwards, it makes sense to manufacture the tanks on site. Especially when the limited transport conditions caused by this factor are taken into considerations, it is often a worthwhile alternative compared to the delivery of already pre-manufactured tanks.

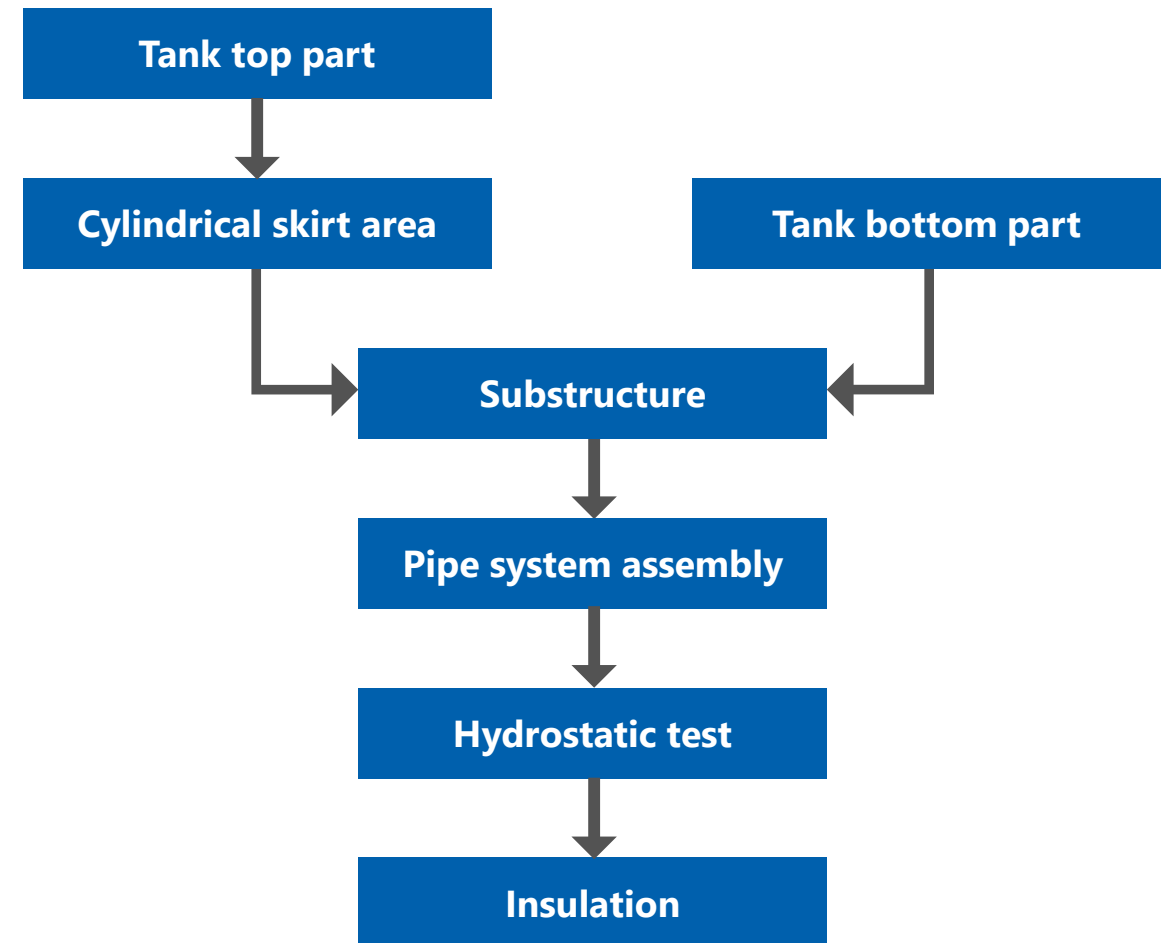
- The components are manufactured and the tanks are assembled directly at the place of installation.
- As an option, the use of a Tank Production System (TPS) can allow individual production steps to be automated and thus fast and effective welding and grinding procedures can be guaranteed.
- An individually planned layout for the assembly location ensures a smooth tank construction sequence and makes it possible to have a central power supply for the machines needed for manufacturing.



# On-site tank construction explained step by step



- The dome entry skirt and the dished head form the top part of the tank.
- This is then connected to the cylindrical skirt area, which is manufactured out of cylindrical rings and cooling skirts.
- The bottom part of the tank is made up of the knuckle, support skirt, cooling cone and run-off cone.
- Once the bottom part of the tank has been fastened to the substructure, the top part of the tank is set on together with the cylindrical skirt area.
- The assembly of the pipe system then finishes off the tank.
- Once a successful hydrostatic test has been performed, the tank is insulated.



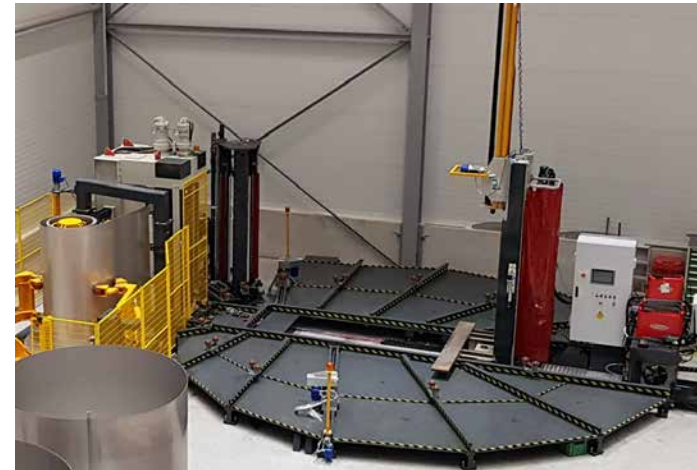
# Tank Production System (TPS)



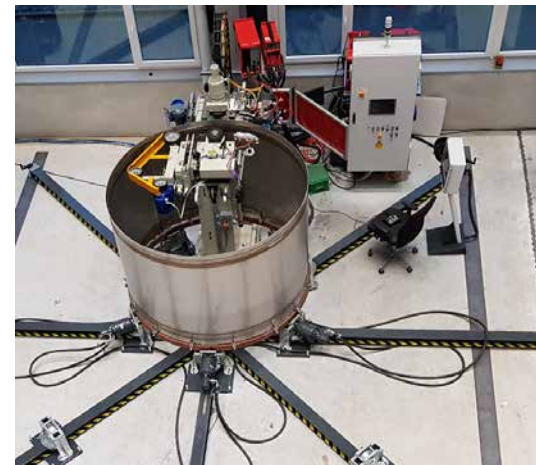
The TPS consists of:

- Bending machine with vertical welding machine
- Horizontal welding machine with grinder and leveller

Multiple tanks are always manufactured simultaneously thanks to the TPS. The optimum number depends on the size of the tanks. This is made possible by the automated work steps which can be optimally adjusted in line with one another.



Bending machine for the manufacture of the skirt elements



Welding machine for cylinder manufacture

# Tests performed during acceptance



- Pressure testing of the interior and cooling pockets with water
- X-ray images for a specified percentage of weld seams
- Endoscopy of all of the pipe system's weld seams
- Measurement and documentation of the wall thickness and roughness of the weld seams
- Checking of the volumetric weight of the insulating foam





# Benefits to you



## Quick execution

The temporal and logistical effort required in the construction of the tank farm is reduced thanks to on-site manufacturing. Steinecker guarantees the shortest assembly times on site through optimised and proven work sequences.

## Individual design

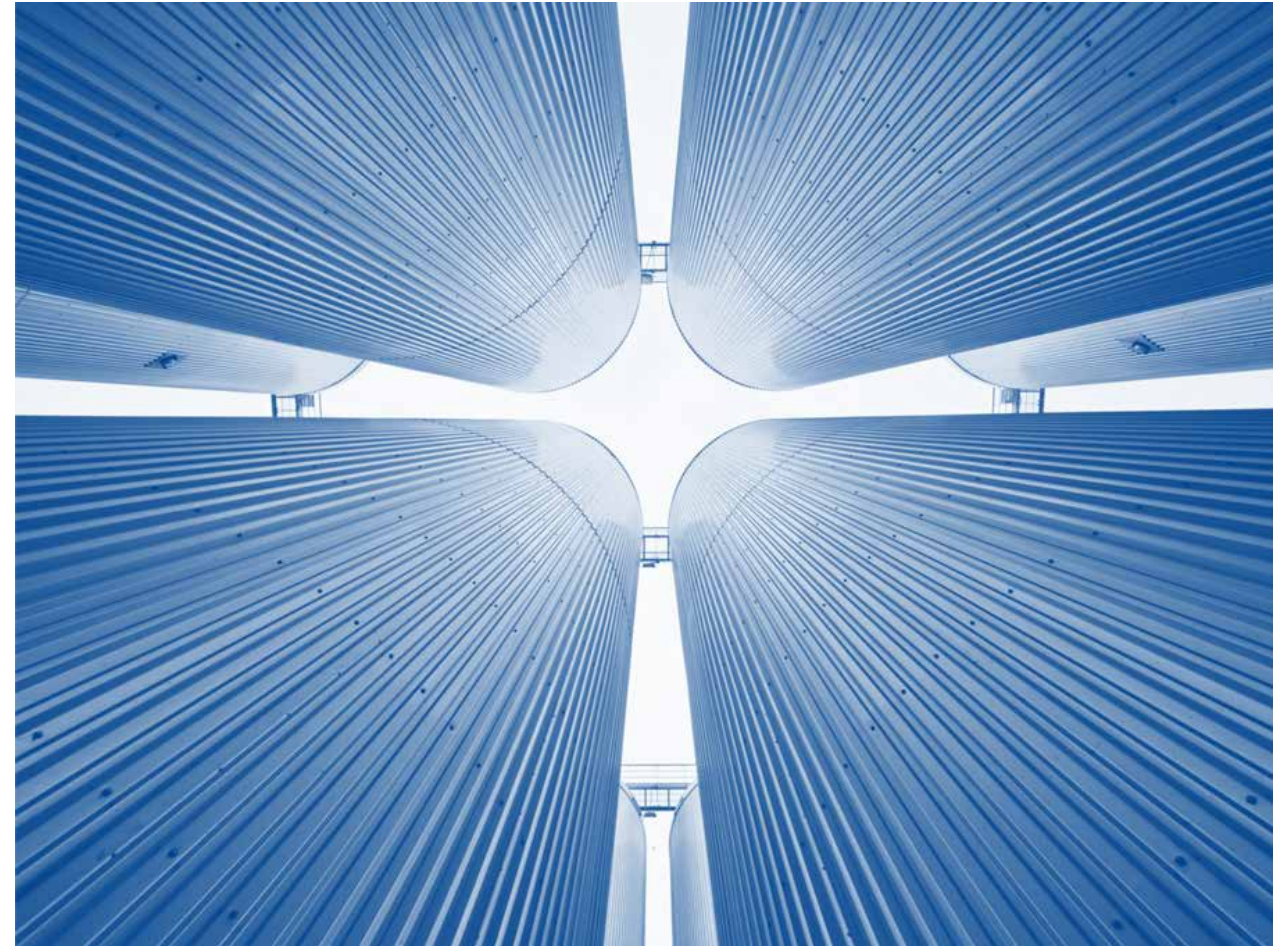
We manufacture our pressure tanks to precisely suit your requirements – and in compliance with all current regulations.

## Efficient heat transfer

Our pillow plate technology ensures highly efficient heat transfer during the heating or cooling processes.

## Brewery technology from a single source

Would you like a partner who will accompany you from the consultancy phase, through to manufacture and then on to after-sales service? Steinecker supplies you with everything you need from a single source.



# Everything from a single source



## KIC Krones cleaning agents make your machine shine

Only if the production environment is immaculate, can your product be brilliant. KIC Krones provides you with the optimum cleaning agents and disinfectants for each individual production step.

## Evoguard - excellent valve technology all along the line

The valve series of Evoguard comprises a modular system with hygienic and aseptic components which contributes to every point of the production line with increased performance and which has the perfect solution for every process step.

## Evoguard – pumps for absolute process safety

In addition to separation and shutting off, one thing is particularly important for a plant: the reliable feeding of your product. This is why Evoguard also offers innovative centrifugal pumps in addition to high-quality valves.



**SOLUTIONS  
BEYOND  
TOMORROW**

 **STEINECKER**