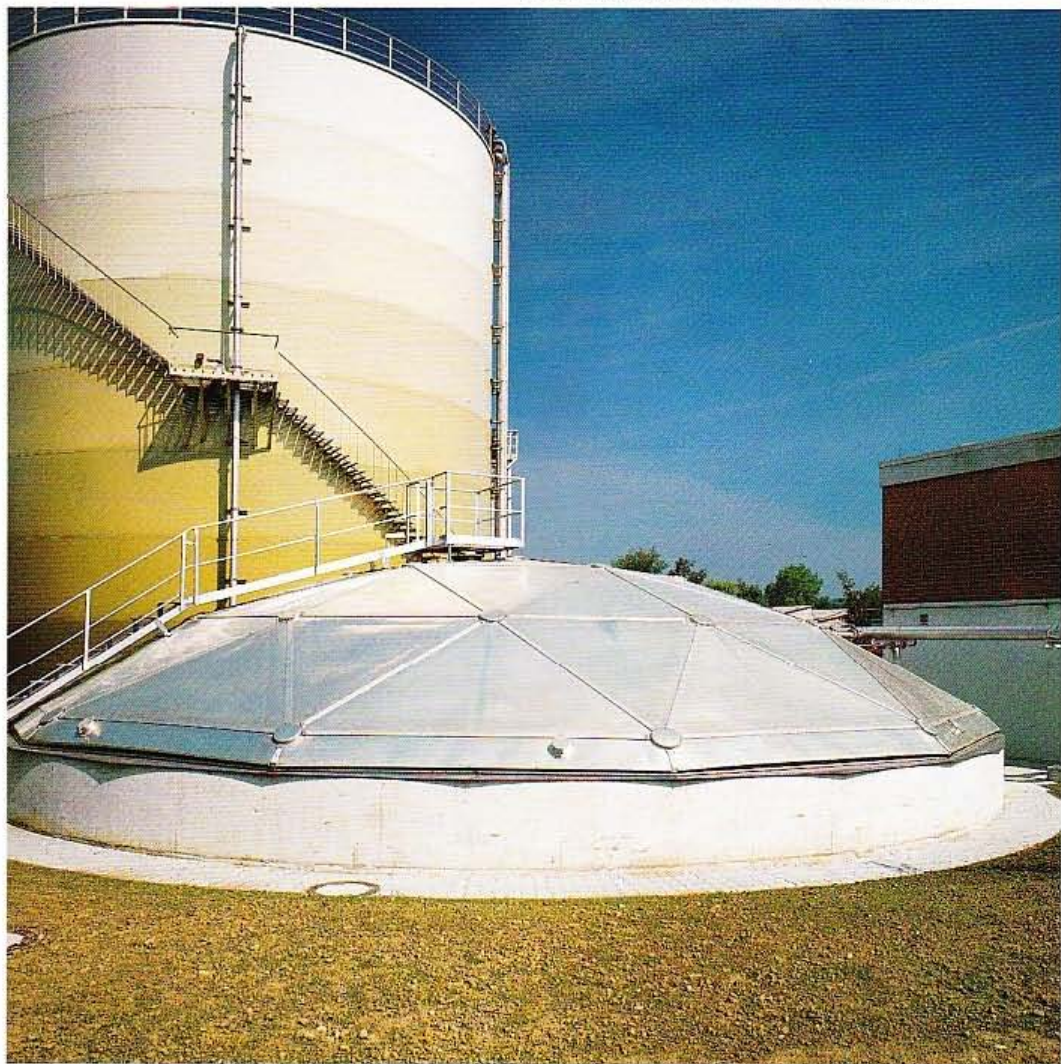


VACONODOME®

**Aluminium Domes for Waste
Water Treatment Plants**

VACONODOME® covering an 16,8 m diameter Aeration tank



Aluminium Rheinfelden GmbH

VACONO 

VACONODOME®

Aluminium Domes for Waste Water Treatment Plants

ALUMINIUM for Waste Water Treatment Plants

ALUMINIUM is not a new material for sewage work installations. As early as the 1930's systematic experiments were made in the USA with ALUMINIUM in drainage systems/waste water systems and ALUMINIUM was used for rotating sprinklers and baffles. In England in the fifties large-scale constructions were erected in above water treatment basins.

ALUMINIUM was also used early on in Germany in purification applications. In Duisburg a floating sludge scraper which has been in operation for about 40 years was recently replaced. In 1976 ALUMINIUM was used to a large extent in the Karlsruhe Sewage Plant, including covers.

In Germany today one increasingly comes across slide plates, guttering, submersible walls, railings, supporting structures for sludge scraper and covers made of ALUMINIUM and ALUMINIUM alloys.

ALUMINIUM and Corrosion

ALUMINIUM is generally held to be a metal with very good corrosion resistance, as in most cases it can be used without any kind of protective coating. Unlike other materials the good corrosion behaviour of ALUMINIUM is due to the effect of oxidic layers which adhere to surface and inhibit corrosion.

Only high concentrations of acids, caustic solutions and heavy metal salts in waste water can damage these oxidic layers and thus lead to corrosion.

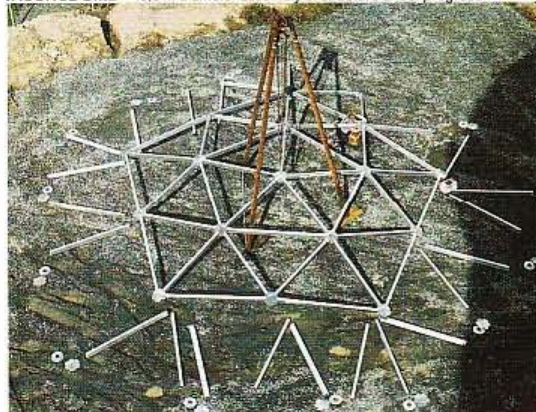
In the atmosphere either above or below the cover ALUMINIUM is extremely resistant to corrosion, even in contact with the gases and fumes found in a sewage works, such as methane, carbon dioxide, ammonia, hydrogen sulphide and other sulphur compounds.

Corrosion Resistance and ALUMINIUM

Vital pre-requisites for the corrosion resistance of ALUMINIUM in sewage plant installations are:

- the right choice of materials,
- a construction method which takes account of corrosion,
- suitable corrosion protection at connecting points with other metals,
- clean workmanship and the avoidance of crevices,
- avoidance of contact with concrete and reinforced concrete (prevention of electrolytical corrosion, formation Fe/Al).

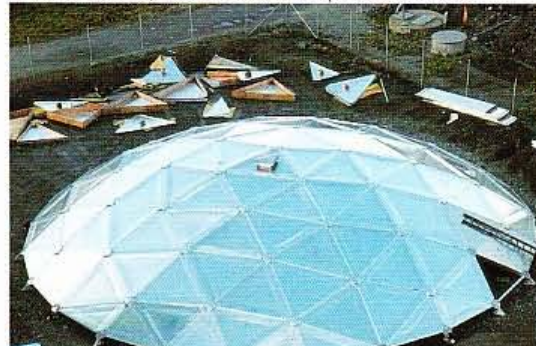
VACONODOME® 19,5 m diameter assembly of structure under progress



VACONODOME® 19,5 m diameter supporting structure completed



VACONODOME® 19,5 m diameter covered with prefabricated sheets



VACONODOME®

No more unwanted odours!

VACONODOME®

is suitable for the covering of

- settling tanks
- sludge silos
- trickle filters
- water storage tanks

VACONODOME®

- prevents odour emission
- reduces heat loss
- keeps storage media clean
- is economic and resistant to corrosion
- has a long life
- can be easily erected and dismantled
- gives the construction an elegant appearance

VACONODOME®

is designed and manufactured as a unitized construction system. It consists of carrying, connecting, covering and sealing elements which are joined together with rivets and bolts. All parts are made of corrosion resistant aluminium alloys.

VACONODOME®

can be used for round or rectangular/square/four-sided constructions of virtually any size.

VACONODOME®

can be fitted – on construction or at a later date – with accessories. For example: inspection hatch, inspection window, railings, pipe connections, etc.

VACONODOME®

can also be supplied coated in a choice of various colours.

VACONODOME®

can be erected simply and quickly even under severe weather conditions thanks to the unitized construction system. Construction can take place on the tank or next to it. The plant does not need to be stopped. There is also nothing to prevent dismantling for revision work at a later date.

VACONODOME® 16,8 m diameter covering an aeration tank

