

Raising the roof ON TANK 903

In September 2005, Tank Storage magazine had the opportunity to view the installation of an aluminium dome and internal floating roof (IFR), on a 60m diameter petroleum products storage tank, just before completion.

The project, carried out by Netherlands-based dome and IFR specialist CTS, involved Tank 903 at Vopak's Europoort terminal in Rotterdam.

In the first stage of the project, the tank's existing steel external floating roof was taken out of service and dismantled in the tank. The dome was then constructed inside the tank and, after a little more than 3 weeks, was ready to be lifted into place and finalised.

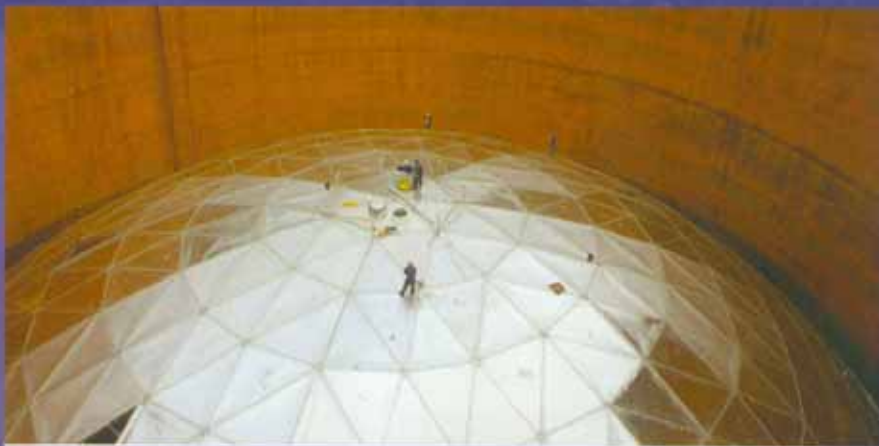
When the dome was in place, the internal floating roof was assembled inside the tank on temporary legs. Cables were lowered from the dome and attached to the floating roof. Finally, the supports were removed and the IFR hung suspended from the dome.

"The materials for the project were delivered in less than 12 weeks and installation took only 7 weeks," says CTS Managing Director Gert van Meijeren. "This conversion will not only result in lower maintenance costs, but will also significantly reduce emissions of volatile organic carbons." ■

THE PROJECT IN PICTURES



BEFORE: tank 903 at the start of the project.



The new 60m aluminium dome is constructed inside the tank.



The dome is ready to be lifted using grip hoists.



The lift in progress...



...an inside view.



The dome reaches its final position at the top of the tank.



The dome's sliding supports are welded into place. The dome will slide within these supports to allow for expansion and contraction as a result of temperature change.



The internal floating roof is assembled inside the tank, on temporary legs.



Guests of CTS and Vopak get a close up view of the IFR during assembly.



AFTER: the new dome in place.