



**Tarsco**<sup>®</sup>  
a TF Warren Company

**Full service provider for  
storage tanks and terminals**

Tarsco has developed an extensive and efficient procedure to build tank dome and elliptical roofs near the bottom of the tank and then air raise them into final position. This procedure allows most of the roof erection work to be constructed at a low elevation, resulting in a high quality roof as well as limiting personnel exposure to dangerous heights. Large tank dome and elliptical roofs in the range of 75' to 350' diameter, weighing up to 1,000 tons, with heights over 150' often utilize this air raising procedure.

These large roofs are built in pieces or utilize sub-assemblies on temporary structures in the low position. Fig. 3 illustrates the roof in the low position as a suspended insulation deck is being constructed. While in this position, a cable leveling system is installed to assist roof stabilization as it travels from the bottom of the tank to its final top position.

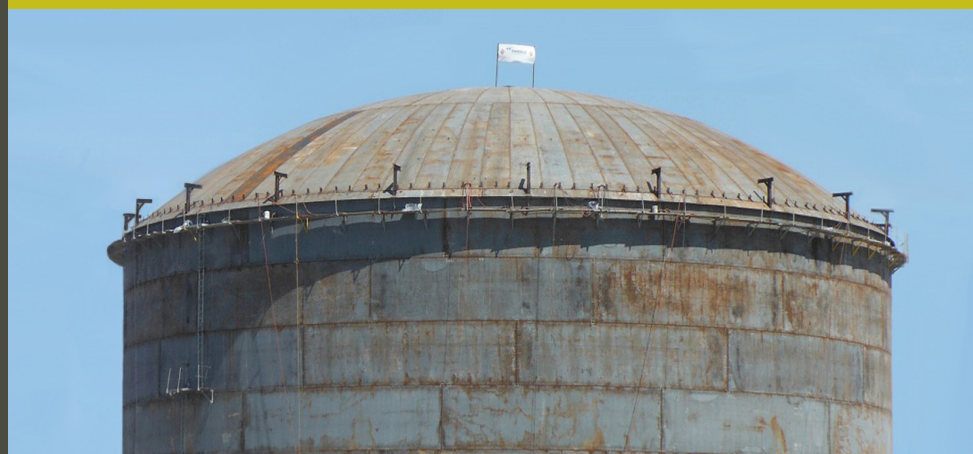
A seal system is installed along the periphery of the lower edge of the roof which seals the roof to the shell. Extensive shell plumb and roundness checks are made to insure a smooth traverse from the low position to the final position.

Once all this work has been completed and all of the checklists verified, temporary fans are installed and the roof is raised with a small air pressure of 3" to 8" of water column measured using a monometer. When the roof reaches the top position (Fig. 2), Tarsco crews temporarily attach the roof to the top of the tank and then fit and weld the final connection. The entire air raise takes between 15 to 120 minutes. Watch the air raise video on our website [www.tarsco.com](http://www.tarsco.com).



## Building Large Tank Roofs Utilizing Air Raising

When your project requires large or complex roofs, air raising the roof is efficient and safer than roof construction at the top of the tank.



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