



Case Study

Low-cover, heavy-duty sprinkler tank for Norlys HQ, Aalborg

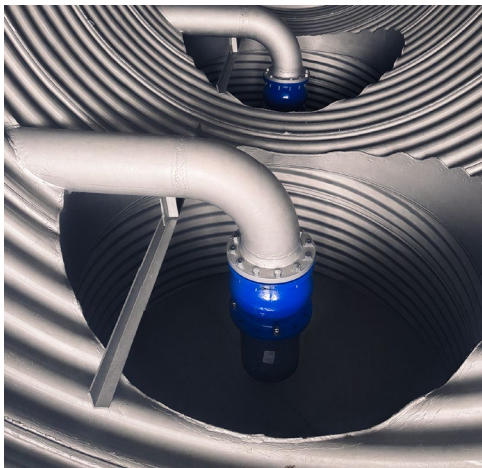
Ultra-low installation height delivers a 60-ton drivable surface with minimal excavation, and a five-hour install

The Challenge

For the new Norlys headquarters in Aalborg, Denmark, the project team needed an underground sprinkler water tank beneath areas with very limited build-up height. The solution had to provide a drivable surface capable of carrying heavy traffic loads while keeping excavation depth to a minimum and avoiding complex on-site works. Vertical clearance was the defining constraint, alongside stringent quality and testing requirements for fire protection systems.

The Solution

ViaCon engineered, manufactured, and installed a prefabricated corrugated steel sprinkler tank optimized for ultra-low cover without compromising structural capacity. In close collaboration with main contractor and subcontractor, we delivered a DN2400 tank in Z600 galvanized steel with D3 corrugation, verified to support a 60 t traffic load with as little as 0.3 m soil cover.



Configured for reliability and fast tie-in, the tank includes two Ø250 check valves integrated in sumps, a manhole brought to surface for full inspection access, and DIN-flanged nozzles for rapid PE pipe connections at grade. Quality was assured through factory pressure testing by an independent third party in Mülheim and re-testing on site in accordance with DBI guidelines.

Installation on site took just five hours: the customer craned the unit directly from the truck into the prepared excavation and our team completed the final fit-out. The minimal build-up height reduced excavation volumes and program time, while the prefabricated approach limited site interfaces and disruption.

The Advantage

- Ultra-low cover, high load capacity: 60 t drivable surface with just 0.3 m soil cover.
- Fast, low-disruption delivery: Prefabricated unit installed in five hours, minimizing downtime and interface risks.
- Assured performance: Independent factory pressure testing and on-site testing per DBI guidelines.

- Simple connections and access: DIN-flanged nozzles for quick PE tie-in; manhole to grade for full inspection and maintenance.
- Optimized site logistics: Reduced excavation depth and straightforward placement limited spoil, truck movements, and on-site complexity.
- Collaborative execution: Close coordination with A. Enggaard A/S and Henning Mortensen A/S ensured a smooth, on-schedule installation.

Specifications

- Pipe diameter: DN2400
- Corrugation: D3
- Length: 41.3 m
- Storage volume: 187 m³ (gross); 173 m³ (net)
- Corrosion protection: Z600 galvanization
- Minimum cover: 0.3 m soil
- Load rating: 60 t drivable surface at minimum cover
- Valves: 2 x Ø250 check valves (integrated in sumps)
- Access: Manhole brought to surface
- Connections: DIN-flanged nozzles for PE pipe tie-in
- Pressure testing: Factory tested by independent third party (Mülheim); site-tested per DBI
- Installation time: 5 hours

Read more at

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