AMETank
Field Erected and Shop Built Storage Tanks
Engineering Application Software

Tank Design Calculations
3D Production Detailed Models
Layout and Fabrication Drawings
Production List and Bill of Material
Fabrication Details for Cost Reports
AMETank enables the rapid configuration, design, and detailing of above-ground shop-built and field-erected storage tanks. Design calculations conforming to API 650, API 620, AWWA, and EN 14015 are supported. Design calculations for shell courses, floors, roofs, structures, anchors, nozzles, manways, and cleanout doors are supported. Calculations include seismic, internal and external pressures, and wind loading for new as well as corroded conditions. Design reports include calculation formulation and details in US or SI units.

Throughout the system minimum sizes are calculated for various conditions and used for defaults as well as validation of user inputs.

Easy to use Graphical User Interface

AMETank supports a fully interactive 3D graphical user interface. The configuration and layout of the tank shell, floor, roof and structure, and subsystems is facilitated through intuitive menus with options customized specifically for tank design.

A complete design can be configured and detailed in less than two hours including the automatic generation of:

- Tank 3D geometry with production details.
- To-scale drawings including general arrangements, fabrication details, assembly layout, weld and X-Ray maps.
- Components fabrication list, bill of material, weight reports, and cost data.
**Tank Design Layouts and Configurations**

A wide range of storage tank designs and configurations are supported.

Roof layouts include self and structurally supported, single and multi-bay flat, cone, umbrella, and dome with knuckle design. Roofs with stiffeners welded on plates are supported.

Roof structures include various configurations for columns, girders, rafters, and brackets. Single and double deck, external and internal floating roofs are supported.

Shell courses, stiffening rings, and anchor chairs can be configured with various dimensions and types.

Bottom types include sloped or shoveled with staggered or ribbon layout with optional annular ring. Plates can be lap or butt welded with or without backing bars.

**Stairs, Ladders, Platforms, & WindGirders**

Configuration and detailing of radial and spiral stairways with intermediate platforms are supported. Single and double stringers designs, and various types of hand railings and posts are included.

Ladders with cages, climbing devices, safety cables, gates, removable start ladders, and intermediate platforms, with bolted or welded clips are supported. Internal rolling and hinged ladders for floating roof access can be configured.

Wind girders with variable sections and different structural attachments are supported. Wind girder railings and integration with optional access from stairways are supported.

Roof walkways and platforms with different railing configurations and attachments are supported.
Internal and External Appurtenances

Piping subsystems for multi-level sampling, overflow, draw-off, diffusers, foaming, and pumping are supported. The subsystems include various configurations and options for weirbox, structural attachment, end flanges, among others.

Manways with optional davit arm, hinges, handles attached to shells and roofs are provided. Rectangular and circular hatches, cleanouts, vents, couplings, and nozzles with flanges, elbows and other attachments and configurations are supported.

Liquid level gauges and gauge poles can be integrated. Scaffolding cable supports, lifting lugs, grounding lugs, tray supports, baffles, and hundreds of other internal and external appurtenances are supported.

Layout Fabrication Drawings and Reports

The plates layout and fabrication details for shells, floors, and all roof types including designs with knuckle edge plates are provided. Details include plate dimensions, overlaps, and welds types. Output for NC machines is supported.

Shell weld maps, and shell roll out drawings, with details including appurtenances, stairs, ladders, and other systems are supported.

Detailed assembly and components fabrication drawings for all substructures, appurtenances, ladders, platforms, stairs, and any other subsystems are supported.

3D geometry, drawings, bill of material, weights, and cost data can be edited within AMETank or exported.
**Tank Rapid Design and Detailing Environment**

From configuration and design to 3D geometry, detailed bill of material, purchase list, cost data, and to-scale fabrication and layout drawings, in two hours.

Within minutes design changes can be made to modify, add, or delete features. The 3D geometry, drawings, bill of material, plate cut data, and cost reports are automatically updated.

Custom and easy to use graphical interface. **AMETank** can be mastered in two days of training.
**AMETank and AMPreVA**

AMETank is developed by TechnoSoft and is marketed globally through a network of reseller. In addition to API 650, API 620, AWWA, and API 653 AMETank Release 11, planned for end of 2017, will support API 579.

For Pressure Vessels design and detailing refer to AMPreVA, a TechnoSoft product. Visit amperva.technosoft.com

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