AMETank
Field Erected and Shop Built Storage Tanks

Tank Design Calculations
3D Production Detailed Models
Layout and Fabrication Drawings
Production List and Bill of Material
Fabrication Details for Cost Reports

Rapid Design and Detailing

AMETank enables the rapid configuration, design, and detailing of above-ground shop-built and field-erected storage tanks.

Design calculations conform to API 650. API 620, UL142 and AWWA will be supported in upcoming releases.

Design calculations for shell courses, floors, roofs, and structures for multi-bay configurations are supported.

Calculations include seismic, internal and external pressures, and wind loading.

Design reports include calculation formulation and details. 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 elevations, fabrication details, and assembly layout.
- Components fabrication list, bill of material, weight reports, and cost data.
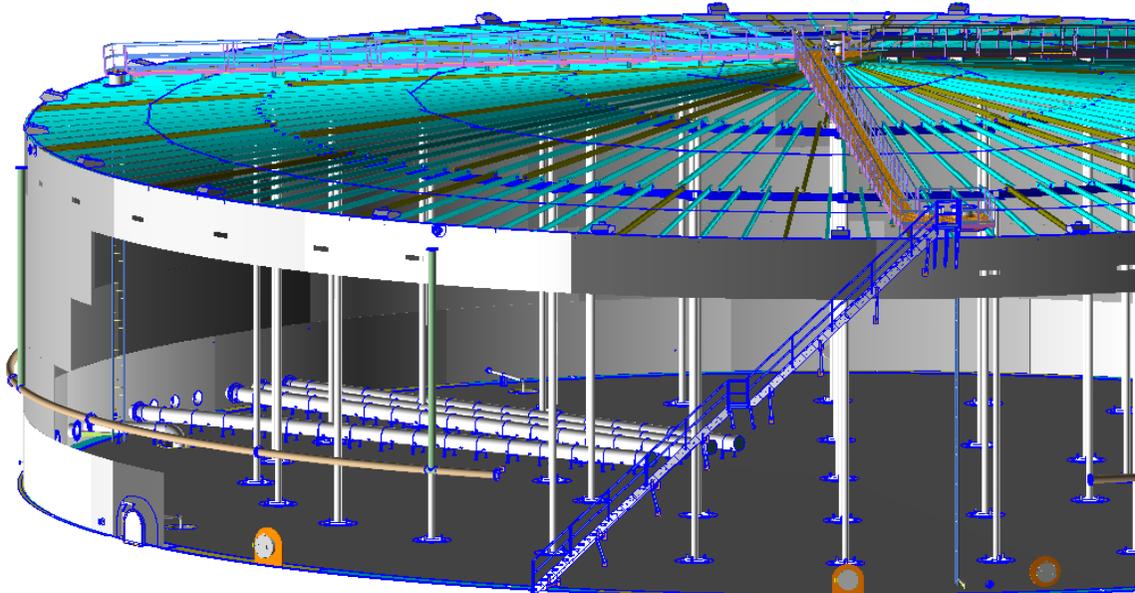
Tank Design Layouts and Configurations

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

Roof layouts include self and structurally supported, single and multi-bay flat, cone, and umbrella with knuckle design. Roof structures include various configurations for columns, girders, rafters, and brackets. 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 or bearing ring. Plates can be overlapped or butt welded with or without backing bars. Various foundation designs are supported.

Stairs, Ladders, Platforms, and Wind Girders

AMETank supports configuration and detailing of radial and spiral stairways with intermediate platforms. 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 as well as 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.

Diagram labels (partial): 11'–11", 4'–0" 270°, BS26, BS27, BS25, BS23, BS21, BS19, BS17, BS15, BS05, 59'–11", 61'–6", 58'–4", 49'–11", 38'–1 1/2", 20'–0", 21'–7", 18'–5", 10'–0", 1'–10 1/2", BR01, BR02, BR03, BS01, BS02, BS03, BS04, BS05, BS06, BS07, BS08, 180°

TACK WELD, C, D, B, A, FIELD CUT CORNER AS SHOWN, 2", EQUAL, D (TYP. FILLET), PLATE PREPARATION DETAIL (FOR 3 PLATE BOTTOM LAP), SECTION D–D
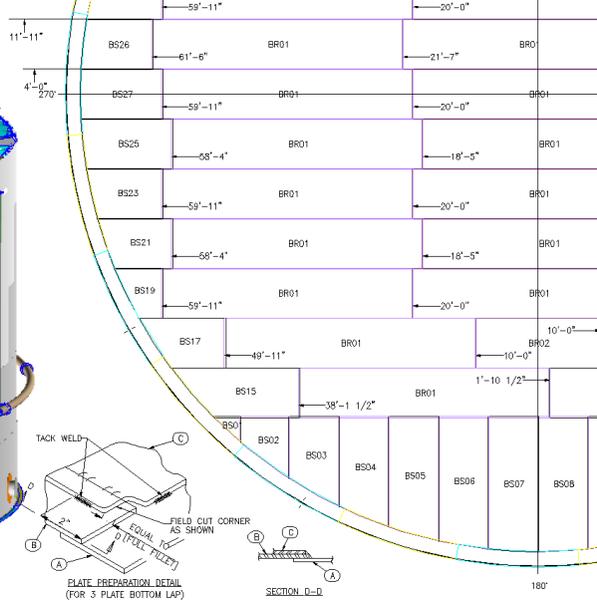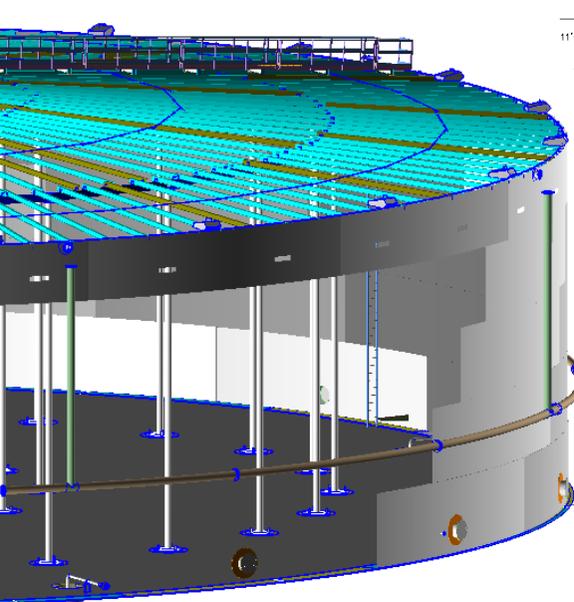
Internal and External Appurtenances

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 gages and gage 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.
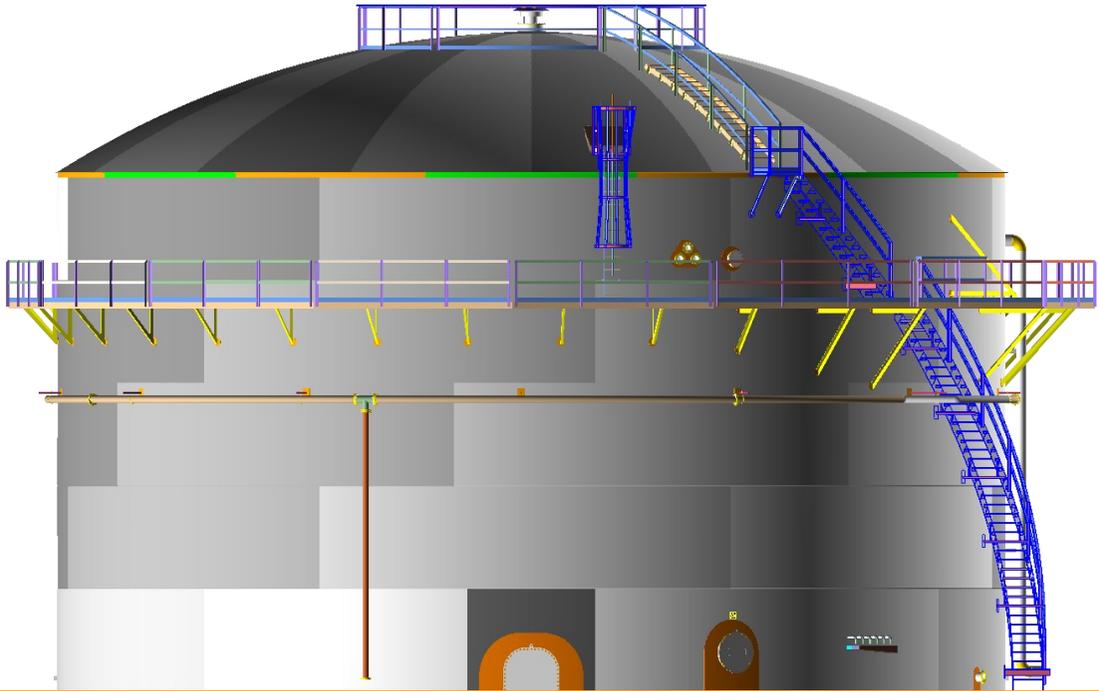
Tank Rapid Design and Detailing Environment

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 materials, 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

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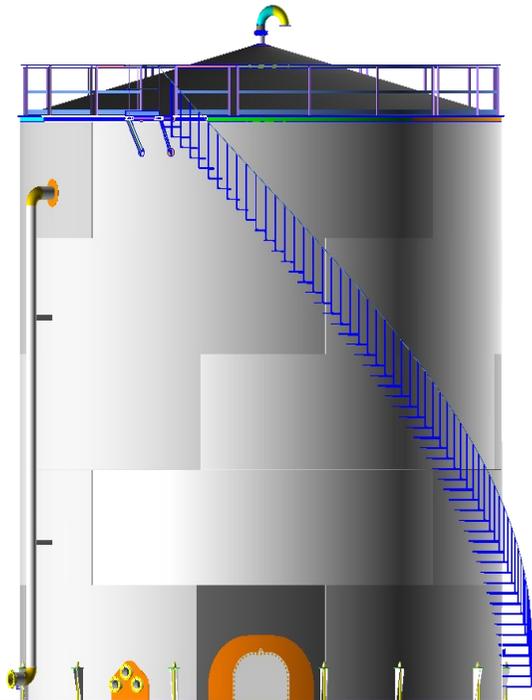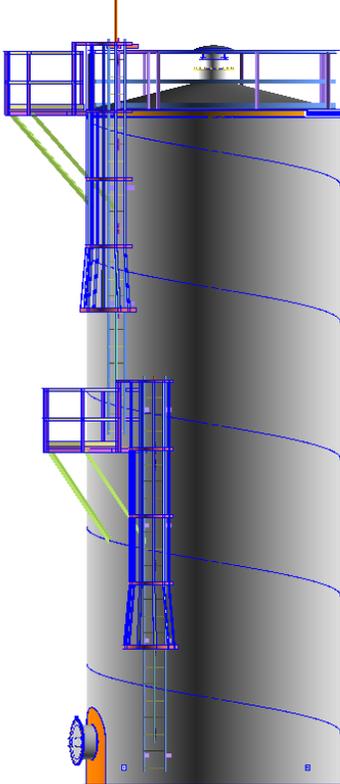
AMETank, AMTank, and ETank

AMETank is developed by TechnoSoft in technology partnership with EWare. **AMETank** integrates **AMTank** from TechnoSoft and **ETank** from EWare.

For Pressure Vessels configuration and detailing refer to **AMPreVA**, a TechnoSoft product.

For the past 20 years TechnoSoft has successfully deployed engineering software applications in various industries ranging from aerospace to automotive and capital equipment.

Sales and Contact Information

For more information about **AMETank** contact:

TECHNOSOFT
11180 Reed Hartman Hwy.
Cincinnati, OH 45242

EWARE
4611 Broad River Rd.
Columbia, SC 29210

Phone: 1-513-985-9877
AMETank@technosoft.com
www.technosoft.com

Phone: 1-803-750-9055
esales@etank.com
www.etank.com