



Dimensional Solutions, Inc.

Foundation3D™

Advanced software for
foundation design

VertVesselTemplate

Restore Backup Analysis Design Save Save As Calculate Footing Calculate All Create Report Export Outputs Export to CAD Email Support

Inputs

- WORKSPACE SETTINGS
- EQUIPMENT GEOMETRY**
- FOOTING GEOMETRY
- PIER GEOMETRY
- LOAD CASES
- LOAD COMBINATIONS
- ANCHOR BOLTS

Analysis Outputs

- CALCULATION RESULTS
- LOAD VALUES
- LOAD TOTALS
- SOIL ANALYSIS
- ULTIMATE SOIL ANALYSIS
- MOMENTS
- REINFORCEMENT
- BEAM SHEARS
- PUNCHING SHEARS
- MATERIALS
- PLAN/ELEVATION SKETCHES

Final Outputs

- REINFORCEMENT
- CONCRETE CAPACITY
- TIEBARS
- SKETCHES

VESSEL

Diameter = 8 m
Height = 65 m
POS EL = 101 m
BED = 0.73 m

General

Vessel Number: 12-D-102
Vessel Orientation: north

Geometry

Diameter (m): 8
Height (m): 65
Effective Diameter (m): 0
Effective Height (m): 0
POS/TOG Elevation (m): 101
Bolt Circle Diameter (m): 8.73

Loads

Shipping Weight (kN): 174
Operating Weight (kN): 311
Test Weight (kN): 324

Consider Program Calculated Wind Loads

Wind Shear at Base (kN): 19.74
Wind Moment at Base (kN-m): 768.27
Seismic Shear at Base (kN): 28.7
Seismic Moment at Base (kN-m): 1307

% Shipping Weight Added to Operating Weight: 0

Foundation design completed
in **Foundation3D™**

If you are in the business of designing foundations for plant equipment such as exchangers, drums, vessels, towers, stacks, and other similar plant equipment, you will definitely want to consider **Foundation3D™**.

Foundation3D™ is a comprehensive, integrated, single program software solution that will generate loads and load combinations automatically, simply based on equipment geometry input, and it will complete soil and pile supported equipment foundation design in minutes.

Through interfaces with industry-standard CAD engines and modeling environments such as *AutoCAD*, **Foundation3D** generates 2D construction drawings and 3D models seamlessly.

To experience the significant time savings that our customers have, visit our website www.dimsoln.com and download your free trial software today.

**DIMENSIONAL
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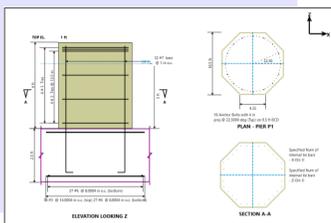
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Foundation3D™ is a spread and combined footing analysis / design software tool that completes soil or pile supported foundation with minimal input. This tool is perfect for designing foundations for industrial equipment such as horizontal exchangers and vessels, vertical vessels or towers, pipe racks and other plant supports.

Key Benefits

Foundation3D™ is an ideal solution for completing plant equipment foundation designs because it:

- ◆ **Automates load cases and combinations for plant equipment foundations, saving significant foundation design time.** Because foundations of plant equipment such as exchangers, vessels, drums, towers and other similar equipment must be designed for special load cases such as thermal forces, friction forces, and bundle pull forces, in addition to the standard load cases such as dead, live, wind, earthquake, etc., **Foundation3D** automatically generates these load cases and combinations with the appropriate load values, saving significant modeling time and allowing you to focus more on the design.
- ◆ **Completes both soil and pile supported foundation designs in an integrated environment, allowing you to consider many “what-if” scenarios for an optimal solution.** Many projects today require different types of foundations depending on the soil conditions, client needs and other parameters. **Foundation3D** provides this flexibility in a single, integrated environment so you can optimize your foundation design for the same given set of conditions.
- ◆ **Supports various international concrete design codes to help you complete your global projects.** **Foundation3D** supports various international codes such as American ACI, British BSI, Canadian CSA, Euro EN, IBC, Indian IS and Singapore CP so that you can not only complete but share your design work on your global projects with your customers and your company colleagues worldwide.
- ◆ **Supports many user-specified options, assisting you in meeting various types of project specifications.** To meet today’s ever-changing and challenging project needs, **Foundation3D** allows many user-specified options such as concrete cover, formwork dimensions, and many other parameters to not only cater to various project demands but also help with project constructability.
- ◆ **Generates detailed, customizable reports in Excel to use for your internal or client needs.** **Foundation3D** generates different types of reports, such as individual foundation design report or consolidated report containing key information from all foundations, which include construction-quality sketches displaying plans, elevations, sections, and material quantities for your internal or client use.
- ◆ **Generates 2D drawings and 3D models in popular CAD and modeling engines to enable you to complete the design process from input to construction.** **Foundation3D** interfaces with popular CAD engines such as *AutoCAD* to generate 2D construction drawings. **Foundation3D** also interfaces with 3D modeling solutions such as *AutoCAD*, to enable you to complete the foundation design process seamlessly.

Saving time is saving money. Nowhere is this more true than in an engineering project. If you have ever exceeded your budgeted hours, you know the value of reducing the hours or days required to complete an engineering project. With **Foundation3D™** you will save hours of foundation design, drafting and modeling work, which typically comprise a large part of the overall engineering budget. To experience significant time savings and productivity through automation, please call us or visit our website at www.dimsoln.com to download your free trial software.