



FREQUENTLY ASKED QUESTIONS

Aspect Tank



Contents

3	General information
5	Installation
6	Licensing
7	Purchasing
7	Training
8	Maintenance
8	Q.A./Certification
8	Key functionality
10	Deliverables
11	Software upgrades
11	Online resources



General information

What is Aspect Tank?

Aspect Tank is a comprehensive, easy-to-use tank designer software for the design, analysis and evaluation of oil storage tanks. It provides for the design and analysis of wall and bottom plate thickness, supported cone roofs, service and maintenance considerations and other factors affecting tank design and safety, such as internal pressure, shell settlement, seismic and wind.

Who uses Aspect Tank?

Companies who design, operate and maintain storage facilities containing oil storage tanks.

What are the major features of Aspect Tank?

Aspect Tank incorporates the major considerations of API-650 Section 5 and other information from the appendices, including:

- Shell course thickness and fluid height computations according to either the variable point method or the one-foot method
- Wind girder computations for the top and up to five intermediate girders
- Minimum metal temperature reporting
- Shell course thickness and fluid height computations according to Appendix A
- Seismic computations according to Appendix E
- Internal pressure considerations according to Appendix F
- Grillage computations according to Appendix I
- Material modifications due to temperature according to Appendix M
- Cycle Life computations according to Appendix M
- Nozzle flexibilities and limiting loads according to Appendix P, including the limiting load interaction diagrams
- Stainless steel considerations according to Appendix S
- External pressure computations according to Appendix V
- Duplex stainless steel considerations according to Appendix X
- An alternate nozzle stiffness calculation routine according to PVP-1279
- Tank sizing/costing scratchpad
- A material database editor

Aspect Tank also incorporates the following considerations from API-620:

- Shell course thickness computations according to Section 5.10
- Maximum compressive stress calculations according to Section 5.5
- Roof analysis according to Section 5.10
- Analysis of nozzles on the roof of a tank
- Vacuum analysis
- Seismic design of storage tanks to Appendix L is considered equivalent to API-650 Appendix E

Aspect Tank also incorporates the following considerations from API-653:

- Material modifications according to Section 2.3
- Shell settlement evaluation according to Appendix B
- Retiring thicknesses and remaining corrosion allowance
- Corroded hydrotest case
- Shell thickness evaluations using individual joint efficiencies and "L" locations
- Bottom Plate minimum thickness determinations
- Hydrotest heights
- Aspect Tank can design or analyze a supported cone roof according to the procedures outlined in Brownell & Young
- Aspect Tank also incorporates venting computations from API-2000

Installation

What are the hardware and software requirements?

See the Aspect Tank [installation guide](#).

Is a specific version of the Windows operating system required?

Refer to the link [Compatibility Matrix](#). Select product Aspect Tank and select the version from the dropdown to view its requirements.

In what languages is Aspect Tank available?

Aspect Tank's user interface is in English, but Mandarin help is also available.

Does it work on Linux or Mac OS?

No, only Windows.

Does it work on 32- and 64-bit platforms?

64-bit Windows platforms only are supported.

Is it possible to install it silently?

Yes. See the Aspect Tank installation guide.

Can it be installed on multiple computers and used concurrently?

Yes, Aspect Tank can be installed on any number of computers/workstations as required. Concurrent access and use of the software is controlled by licensing (Octave Licensing).

If only a single license is purchased, can this be used on more than one computer?

Yes, but only one license can be used at any one time.

Are licenses named user?

No. Aspect Tank licenses can be used by any user, maximizing license use.

Can new and old versions be run in parallel on the same computer?

It is not recommended to run multiple versions of the software on a system at the same time, but multiple versions can be installed on the same system.

Is it backward compatible?

Yes.

Can it be installed on a virtualized system?

Yes, providing the system offers the required resources and meets the minimum software and hardware requirements that Aspect Tank needs to work efficiently.

Note: The use of Aspect Tank on virtualized systems is not officially supported by Octave.

Licensing

How is it licensed?

All Octave products, Aspect Tank included, are licensed by Octave's cloud-based licensing solution – Octave Licensing.

Octave Licensing Client and a Configuration Connection Information (.CCI) file are installed on each workstation that needs to access licenses in the cloud. The Configuration Connection Information (.CCI) file provides a handshake between the software product, Octave Licensing Client and the cloud licensing server, enabling software users to request and return licenses when they start or exit the software product(s) they are using.

The initial .CCI file issued to a new customer is usually named 'Site ID.CCI', e.g., 00123456.CCI. This file is generated for a site-based Keystore, i.e., a Keystore containing all licenses of all products purchased. If product licenses need to be deployed differently, for example, some of the total licenses for various products held by the customer need to be allocated for use on a specific project, then a project-based configuration must be created in the Licensing Portal. Doing so results in additional keystores being created, and so two or more CCI files being used to access licenses in the cloud.

Consult online help for further information about Octave Licensing.

[Search Results](#) • [Documentation \(hexagonal.com\)](#)

What license options are available?

Aspect Tank licenses are 'CX' type, meaning they can be used 24 hours per day / 7 days per week / 365 days per year.

For further information about this, and other license types supplied by Octave, refer to the End User License Agreement (EULA) included in the software installation media.

How are licenses administered?

Octave Licensing works in parallel with the Licensing Portal. This is a self-service online system that IT personnel/license administrators use to manage the configuration and deployment of their Octave product licenses. Customers are encouraged to use the Licensing Portal to self-manage their licenses. Online help covering license administration, is provided inside the portal. You can request access to the Licensing Portal using the 'Request Access' link on the page.

Is an internet connection required to use the software?

Octave Licensing is cloud-based, so an internet connection is always needed to access licenses in the cloud when using a computer in the office, connected to the company's network. The exception is when licenses are to be used remotely, away from the office. Licenses temporarily checked out to a mobile computer will work without an internet connection.

Can the software be used outside the office on a mobile computer?

Yes. Offline Availability must be enabled for licenses in the licensing portal. This setting controls whether licenses can be checked out using the Octave Licensing Client and is configured directly within the portal.

Once Offline Availability is enabled, users can check out one or more product licenses through the Octave Licensing Client installed on their computer. Using the "Check-out" option, licenses can be assigned to a mobile computer for use without an internet connection. Available licenses, shown as product tags, appear on the "Check-out" tab.

Note: Offline Availability is not enabled by default for site-based configurations. An IT administrator or license administrator must enable this setting before licenses can be checked out for mobile use.

To return a license, use the "Check-in" option once the mobile computer is back in the office, connected to the network, and has internet access. This returns the license to the cloud license server.

While a license is checked out, it is unavailable to other users in the office. It becomes available again once it has been checked in.

Can license usage be reported?

Yes, license usage reporting is available inside the licensing portal. Reporting enables IT administrators/license administrators to understand how licenses are being used by your organization. Visibility of how licenses are used enables IT administrators/license administrators to determine who is using the licenses, check peak license usage, understand how to optimize use of licenses and identify if additional licenses are required.

Note: Due to GDPR, user details are encrypted inside the licensing Portal by default. The details can be decrypted on request.

Purchasing

What purchase options are available?

Perpetual licenses with or without maintenance, or lease licenses (minimum 3-month term) which include maintenance, can be purchased.

How is the software purchased?

Aspect Tank may be purchased through our reseller network and direct from Octave. To contact your local Octave sales office or reseller, visit www.octave.com/general-inquiry

Alternatively, contact us at:

5775 North Sam Houston Parkway W. Suite 500

Houston, Texas, 77086, United States

T: +1 281 671 1528

F: +1 281 671 1556

[Contact us](#)

What are Octave Global Network Dealers?

Global Network Dealers are the local face of Octave. They provide product sales and support in your local time zone and language. They have certified instructors and consultation specialists to help clients define and meet their requirements at all levels. Worldwide dealers work together to ensure that Octave multinational clients have access to the right products, training and consultation, anywhere around the globe.

What is an Octave Authorized Reseller?

Authorized Resellers are the local Octave software experts who provide sales and support to clients in their respective regions.

To contact your local reseller, visit www.octave.com/general-inquiry.

Is a free evaluation available?

No.

Can a local reseller or Octave provide a live presentation and demonstration?

Yes, Octave and its resellers have personnel that provide live product presentations that answer simple to complex technical questions and who understand project workflow specific questions. For more information, please contact your local distributor via www.octave.com/general-inquiry.

Training

What is the best way to learn how to use and get started with the software?

Work through the free e-Learning content available on Octave Institute.

How do users get access to Octave Institute?

Users can request access [here](#).

Is in-person training available?

Yes, instructor-led training can be purchased and provided either on site, delivered at an Octave training center or online over the web. Contact your local Octave sales office, sales account manager or reseller to request a quotation.

Maintenance

What does software maintenance provide?

Annual software maintenance covers the provision of technical support and software upgrades.

Does maintenance include training?

No, training is not part of maintenance.

How do users request technical support?

Maintenance customers receive technical support via Octave's support system - Octave Community.

What documentation is provided with the software?

User manuals and comprehensive reference documentation are provided and available to view online here.

How do users request enhancements to the software?

Octave interacts with and listens to customers, then responds by developing innovative solutions and enhancing current products to address customers' needs in ways that improve their work processes. This customer-centric focus helps us to grow our product line to serve an ever-broader base of users and applications, which in turn further increases opportunities for our clients to enjoy the benefits of interdisciplinary collaboration with other departments and organizations.

New feature/function/capabilities are submitted via Aha! Ideas, which is accessible to maintenance customers inside the [Octave Community](#).

How are the enhancement requests prioritized?

Enhancement requests are evaluated and prioritized based on a given industry and market. Octave prioritizes requests based on benefits delivered to the highest number of users.

QA/Certification

Is the software certified and how?

Yes. The software is tested in accordance with the established Octave Quality Assurance and technology compliance standards. Testing involves comparing published benchmark results with those produced by each software release to ensure accurate and consistent results are produced by the software.

Is a QA certificate provided with the software?

Yes.

Key functionality

What automation is available in the software to create a tank model?

Once the general tank data is input, Aspect Tank can design the necessary parameters to satisfy the API code or analyze the tank based on the input. Additional data can be included via various input commands.

Which roof types can be modeled and analyzed in the software?

- Supported Cone – The roof is supported by rafters, girders, and columns. For supported cone roofs, the software designs the rafters, columns, and girders.
- Rafter-Supported Cone – The roof is supported by rafters only. For rafter-supported cone roofs, the software designs the rafters.
- Cone
- Dome
- Umbrella

Is it possible to include ladders and stairs as part of a tank model?

No. Aspect Tank is not detailing software; it is analysis software used to make sure that a tank is API code compliant.

Does the software simulate and estimate rafters on API 620 tanks (self-supporting and supported roofs)?

Rafters can be included.

Which seismic and wind codes are available in the software?

Built-in use of the ASCE wind code (parameters) or users may enter a User Defined Wind Pressure vs. Elevation chart.

Earthquakes may be defined as Mapped as per Seismic mapped values from ASCE #7, or Site Specific as per ASP-650 Sections E.4.2 and E.4.3

Does the software perform seismic calculations per API 620, Appendix L (OLE/ALE/CLE)?

Aspect Tank uses the equivalent seismic computations according to API-650, Appendix E.

Is it possible to perform analysis according to API 579?

Yes, Aspect Tank includes API 579 Fitness for Service capabilities by adding API-579 Flaw/Damage Input/ Analysis information on the selected shell course. Aspect Tank includes Part 4 (General Metal Loss), Part 5 (Local thinning/Groove-like flaw) and Part 6 (Pitting). Levels 1 and 2 are available.

Can compression rings and compression bars be modeled?

Yes, details A through K from API-650, Figure F.2.

Does the software include any example/sample tank model files?

Yes. Example/sample files are supplied as part of the software.

Which API design codes are available in the software?

API-650, API-653 and API-620 standards.

What are the latest editions of tank design codes included in the software?

- API-650 13th Edition
- API-653 5th Edition
- API-620 12th Edition

Is the European code for Atmospheric tanks included?

Yes! EN 14015 is now included in Aspect Tank! The EN 14015 specification sets out the requirements for designing and manufacturing on-site constructed, vertical, cylindrical, flat-bottomed, welded, steel tanks for storing liquids above ambient temperature.

With this addition, factors like precise wall thickness calculations, accurate structural design - including shell reinforcement and wind girder requirements - are now at your fingertips.

Is it possible to change design codes?

Yes. As a minimum the Material Database must be checked in the configuration and materials reselected throughout the job. Older editions of codes are available in older Aspect Tank versions.

Does the software need an external database (Access, SQL, ORACLE) to work?

No. Aspect Tank uses its own file format (SQLite-based) which does not require any additional databases.

Can a user create their own units file?

Yes. Every unit (length, temperature, pressure, etc.,) can be adjusted to the user's requirements.

Does the software support the creation of customized materials?

Yes.

What loads can be applied to the analysis model?

The philosophy of Aspect Tank is as per the API code, meaning that you do not apply "loads" as such. However, design temperatures, pressures (internal/top & external), liquid density, attachment weights, wind and seismic data, insulation data, materials of construction, roof live load, snow load, nozzle external loads, etc., can all be specified.

Does the software support the creation of customized load cases?

Not directly, but various input and configuration options/switches will control how loads are dealt with by the API design codes/standards.

Is it possible to import the tank geometry from a 3D CAD tool?

No.

Does the software support the modeling of pipework connected to equipment nozzles?

Not explicitly. Assessments can be done for attachment loads on the tank and nozzle external loads.

Does the software incorporate nozzles according to ASME and EN standards?

Nozzle lookups can be done to ANSI Metric & Imperial and DIN / R64 Databases, and nozzle weight specified that can include a flange or flanges.

What wind and seismic codes are included?

Built-in use of the ASCE Wind Code (parameters) following the API standard.

Seismic computations according to API-650 Appendix E (Seismic Design of Storage Tanks to API-620 Appendix L equivalent) with mapped values from ASCE-7.

Which file formats can be imported into the Aspect Tank?

There are no import capabilities. Aspect Tank opens *.tki, *.tkdb and *.tk files created in the software.

Deliverables

What outputs does the software produce?

Aspect Tank can generate detailed reports of the calculations it performs. These reports can be exported to Microsoft Word or PDF format.

Aspect Tank's Output Processor displays various tabular reports, including equation references, organized by topic, used to generate highly customizable reports in .txt, .docx and .pdf formats.

Are reports customizable?

Yes.

Is it possible to generate drawings from the software?

No, but a 3D PDF tank model may be convertible to a suitable file format for a CAD application to use via a third-party application/converter.

Software upgrades

How often is an updated version released?

Octave, provides four types of software release.

Release Type	Numbering convention	Request from your local Octave sales office	Download from Octave Community
Major	XX.XX.XX.XXXX	Yes	No
Minor	XX.XX.XX.XXXX	Yes	No
Service Pack	XX.XX.XX.XXXX	No	Yes
Hotfix	XX.XX.XX.XXXX	No	Yes

A new major version is typically released every 12 months.

Service packs are provided as needed.

Hotfixes are produced as needed for critical issues that impact production work.

Who has access to upgrades?

All users with current maintenance contracts are entitled to use the latest software upgrades.

How are users informed that an upgrade is available?

If 'Subscriptions' are configured inside Octave Community, maintenance customers are automatically notified whenever a major, minor, service pack or hotfix version is released.

How are upgrades supplied?

Octave operates a "pull" system for supply of software upgrades, that is, major/minor upgrades are not shipped automatically to maintenance customers when the software is released; customers need to request upgrades themselves, when they need them, i.e., a release contains a fix/enhancement that the customer has been waiting for.

- U.S. customers can open a service case against product upgrade in [Octave Community](#).
- International customers should [contact](#) their local order administrator or contact their local [Octave sales office](#).

Online resources

How to keep informed?

Sign up for specific solution updates via the [Subscription Management Center](#) to stay up to date on the latest offerings, news, events, etc.

Other useful information?

Visit the [Resource Center](#) then filter resources using the 'Type' drop-down.

About Octave

Octave is a leader in enterprise software, turning data into decisive action and intelligence into your edge. Our software solves for and simplifies complexity, from the design and build to operations and protection of people, property and assets – for any scope, at any scale. For decades, we've partnered with customers to sharpen performance, elevate efficiency and amplify results. From factory floors to entire cities, our solutions are tuned to scale up what's possible from day one onward.

©2026 Intergraph Corporation and/or its affiliates. All rights reserved.