



## PRODUCT SHEET

# Octave Aspect Pressure Vessel

Vessel and heat exchanger design, analysis and evaluation

### Capabilities

Vessel design and analysis

Exchanger design and analysis

Tubesheet design and analysis

Rectangular and non-circular vessel analysis

Individual component analysis

Comprehensive error checking

Saddle, leg, lug, trunnion and skirt design

Analysis for horizontal shipping of vertical vessels

User-definable reports

International wind analysis

International seismic analysis

International vessel codes

Links to Forte 3DWorx (formerly CADWorx) and Aspect Pipe Stress (formerly CAESAR II)

Transportation analysis

3D PDF generation

Generation of retirement limits and maximum allowable corrosion allowance

Aspect Pressure Vessel (formerly PV Elite) is your complete solution for vessel and heat exchanger design, analysis and evaluation. Users of Aspect Pressure Vessel have confidently designed equipment for the most extreme uses and have done so quickly, accurately and profitably.

### Data collection

Aspect Pressure Vessel makes defining pressure boundary conditions for vessels and exchangers easy, even for load sets that require significant data input. Aspect Pressure Vessel streamlines data entry by breaking the input down into sensible subsets; help on any input item is only a keystroke away.

### Cutting-edge graphics

Aspect Pressure Vessel's graphical representation of analysis models helps ensure confidence in the input and results. With Aspect Pressure Vessel, you can view and manipulate analysis models with complete ease.

### Advanced analysis and reporting

To simplify inspection requirements, Aspect Pressure Vessel lists the most important equations such as required thickness and maximum allowable working pressure (MAWP) and also groups results by type (e.g. internal pressure, external pressure, bending stress, nozzles and flanges). Overall results are summarized where the element or detail controlling the overall vessel MAWP is identified. Quickly send analysis results to output reports or export results to the file format of your choice (Word or PDF).



### Materials and codes

Aspect Pressure Vessel is a global package with international code rules plus extensive region-specific content. Vessel material definitions, piping and steel component data, local wind loads, and local seismic loads of many regional markets are all included.

### Powerful integration capabilities

Aspect Pressure Vessel shares a bi-directional link to Equipment for Forte 3DWorx (formerly CADWorx Equipment) allowing the flow of data and model from design to analysis and back. Aspect Pressure Vessel also creates VUE files for use with Forte 3D (formerly Smart 3D).

For the generation of fabrication drawings, the free Aspect Pressure Vessel plugins provide a path to import an Aspect Pressure Vessel model into 3D Solid Modelers, including all analysis data to easily generate 2D drawings, including annotations with data directly from the analysis model. Plugins are available for Dassault SOLIDWORKS® and Autodesk Inventor®.

Aspect Pressure Vessel also interfaces with other popular software packages for finite element analysis, Heat Transfer thermal design, foundation design and drafting.

## Codes

- ASME Section VIII Divisions 1 & 2
- API 579 FFS
- WRC 107, 297, 537, 538
- EN 13445
- PD 5500
- EN 1591 Advanced Flange Design Standard
- STS-1 ASME Steel Stack Standard
- PCC-1 Appendix O Bolted Flange Joint Assembly

## Component design & evaluation

Aspect Pressure Vessel includes CodeCalc for quick and efficient component design and evaluation.

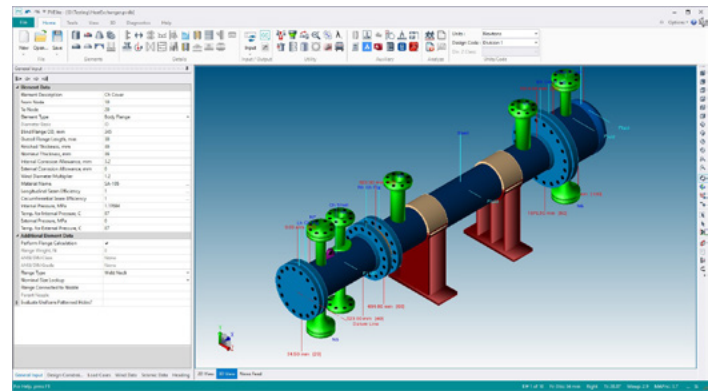
## User interface

The interactive user interface in Aspect Pressure Vessel presents only what is needed at each point of information gathering.

Therefore, the user is not burdened with "out of sequence" requirements of information needed for the analysis.

## Equations and substitutions

The software provides equations and substitutions, making it effortless for the user to verify the accuracy in the calculations presented in the reports.



Aspect Pressure Vessel is an efficient analysis tool for a wide range of applications.

## Application areas

- Beverage
- Brewing
- Chemical
- Equipment
- Food
- Offshore
- Petrochemical
- Pharmaceutical
- Piping
- Power
- Process and plant design
- Shipbuilding
- Water treatment
- and others



**CHEMPUTE  
SOFTWARE**

**Contact us on:**  
sales@chempute.com  
+27 11 803 6559  
www.chempute.com

## 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.

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