

### Design Automation

### Productivity tool for Modeling & drafting

#### Standards:

SEG® supports different standards

- Flanges according to ASME B16.5
- Flanges according to ASME B16.47 A/B
- Flanges according to BSEN1092-1 2007.
- Gaskets.
- Valves.
- Couplings according to ANSI B16.11 AND BS3799.
- Fittings.
- Pipes.



### ABOUT SE CAD Solutions

SE CAD Solutions Deals With Design And Engineering Solutions In Various Sectors. The Company Was Initially Started In 2018 By Eng. Ahmed Hegazy and his An Eminent Team Of Engineers Having Specialized Knowledge Of Engineering Solutions.

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### APPLICATION AREAS FEATURES INCLUDE:

- Process and Plant Design
- Equipment
- Pressure Vessels
- Slug Catcher
- Petrochemical
- Chemical
- Power
- Offshore
- Food
- Beverage
- Brewing
- Pharmaceutical
- Water Treatment
- Building Services
- Shipbuilding

#### 3D Modeling and Detailing

- Pressure Vessel.
- TEMA Heat Exchanger.
- Storage Tanks with Fixed Roof .
- Columns with different Diameters.
- Spherical Tanks.
- Slug Catcher.
- Ducts.
- Equipment Piping.

#### Integration Tools

- PV Elite Access Database File.
- HTRI \*.CSV File
- Compress \*.xml3d File

#### Sheet Metal Features

- Sheet metal flat Pattern.
- Exporting to DXF, DWG and IPT.

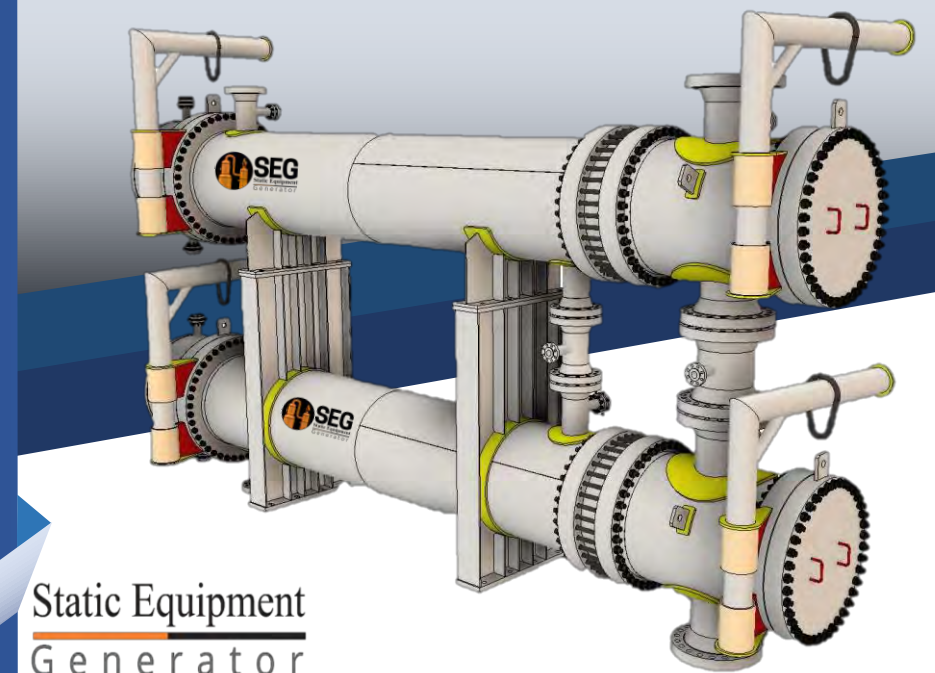
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#### Bill of Material

- Auto creation of BOM.
- Ability to export in xlsx format.
- Estimated Material Cost report.

#### Advanced Features

- Tube Pattern Arrangement.
- Roof and Bottom Plates Arrangement.



### Static Equipment Generator

SE CAD Solutions® SEG® offers advanced tool for the accurate and speedy production of 3D digital prototype and workshop drawings deliverables of pressure vessels, Towers, TEMA Heat exchange, Storage Tanks with fixed roof, spherical tanks, ducts, equipment piping and Slug catchers. Linked to Intergraph PV Elite™ Access file and Compress \*.xml3d file, SEG delivers significant savings over existing 3D CAD modeling and drafting methods.

#### Rapid Modeling and Detailing

Feature based environment enables the rapid configuration and detailing of static equipment automating the generation of:

- 3D detailed geometry models
- Nozzle, Coupling, Pipe, Flange and fitting list.
- Nozzle and coupling openings.
- Sheet Metal flat pattern for all plates.
- Wide range for supports (Saddle, Skirt, Leg, Lug, Cradle etc.)
- Elevation, fabrication, and assembly drawings
- Production component lists, and purchased bill of material
- End cuts for nozzles and legs.
- Cost Report.

Export of 3D model and drawings to AutoCAD® and other CAD systems, bill of material to business applications, and import of Mechanical design calculations from PVElite® Access file and the exported \*.xml3d file from compress are supported.

#### Easy to Select Between Different Configurations.

SEG® supports a different configuration and layout of the shell, heads, support structure, nozzles, manways, and other internal as well as external features and appurtenances is facilitated through intuitive menus.

Fabrication details for shell courses, plate sizes, edge preparations, weld types, and other production details are quickly and easily specified.

A complete vessel design can be configured and detailed in less than two hours including the automatic generation of drawings, bill of material, Material Cost Report, and all other reports.

#### Ease of Modeling

SEG® can be mastered in one day of training.

# Vessel Designs and Configurations

SEG® supports a wide range of vessel designs and configurations

- Horizontal, Sloped and Vertical vessels with multi sectional shells with different diameters and concentric or eccentric transitional sections. Various supports including saddles Skirt, Lug and legs are provided.
- Columns with multi sectional shells with different diameters and transitional sections.
- Vessels with half pipe jackets and coil on shells.

# Internal and External Appurtenances

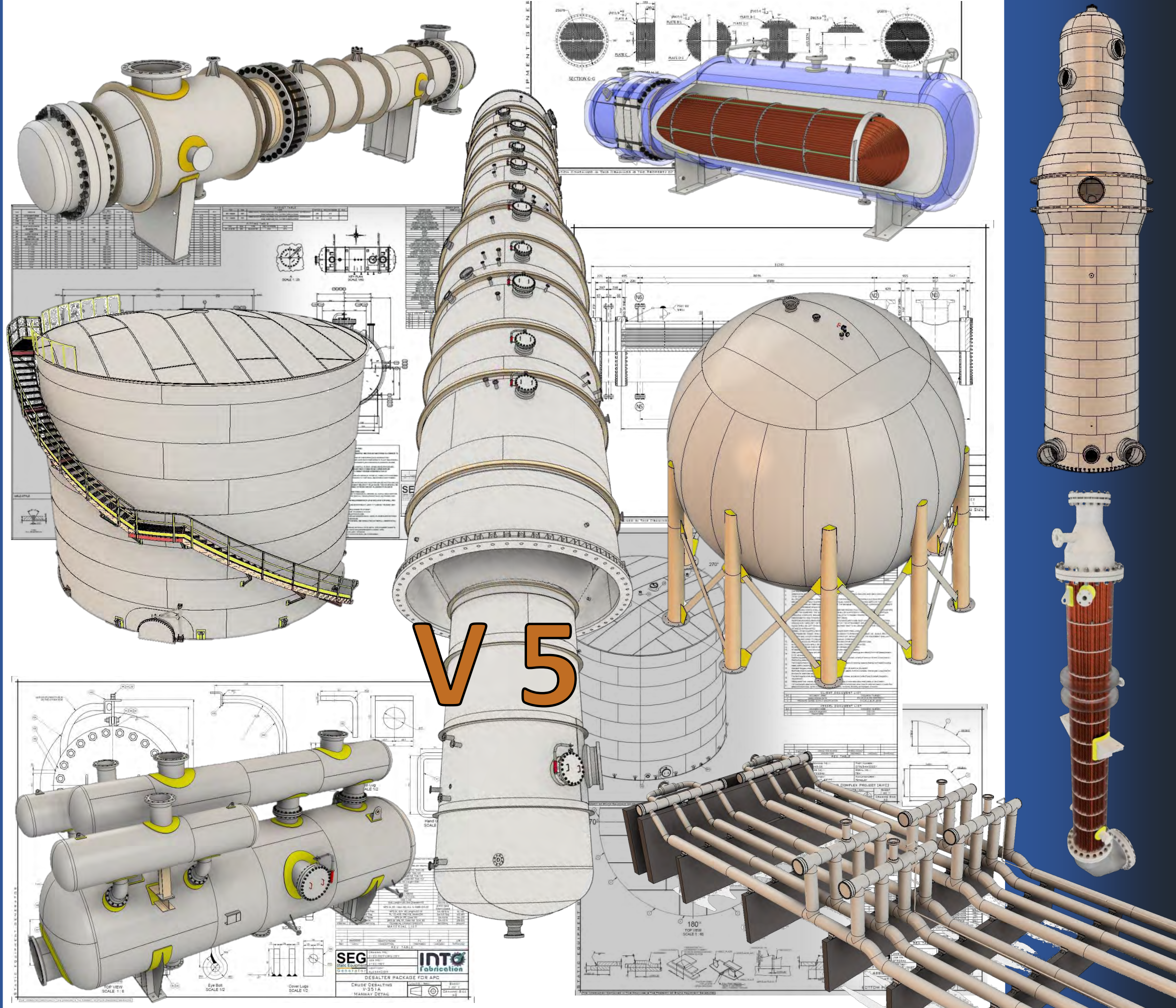
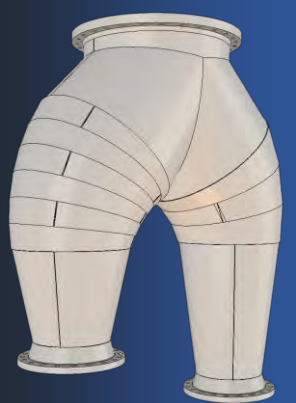
SEG® supports a wide range of appurtenance features and configurations

Internal components including tray rings, baffles, Deflector, and other features.

External components including lugs, clips, and vacuum rings.

Opening closure, Manways, Agitator and Couplings.

Nozzles with Tee, flanges, elbows, reinforcement pads, insert pads, and other attachments and configurations.



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SEG Basic Equipment  
DESALTING PACKAGE FOR APC  
CRUDE DESALTING W-SOLA  
MANWAY DETAIL

INTO fabrication

