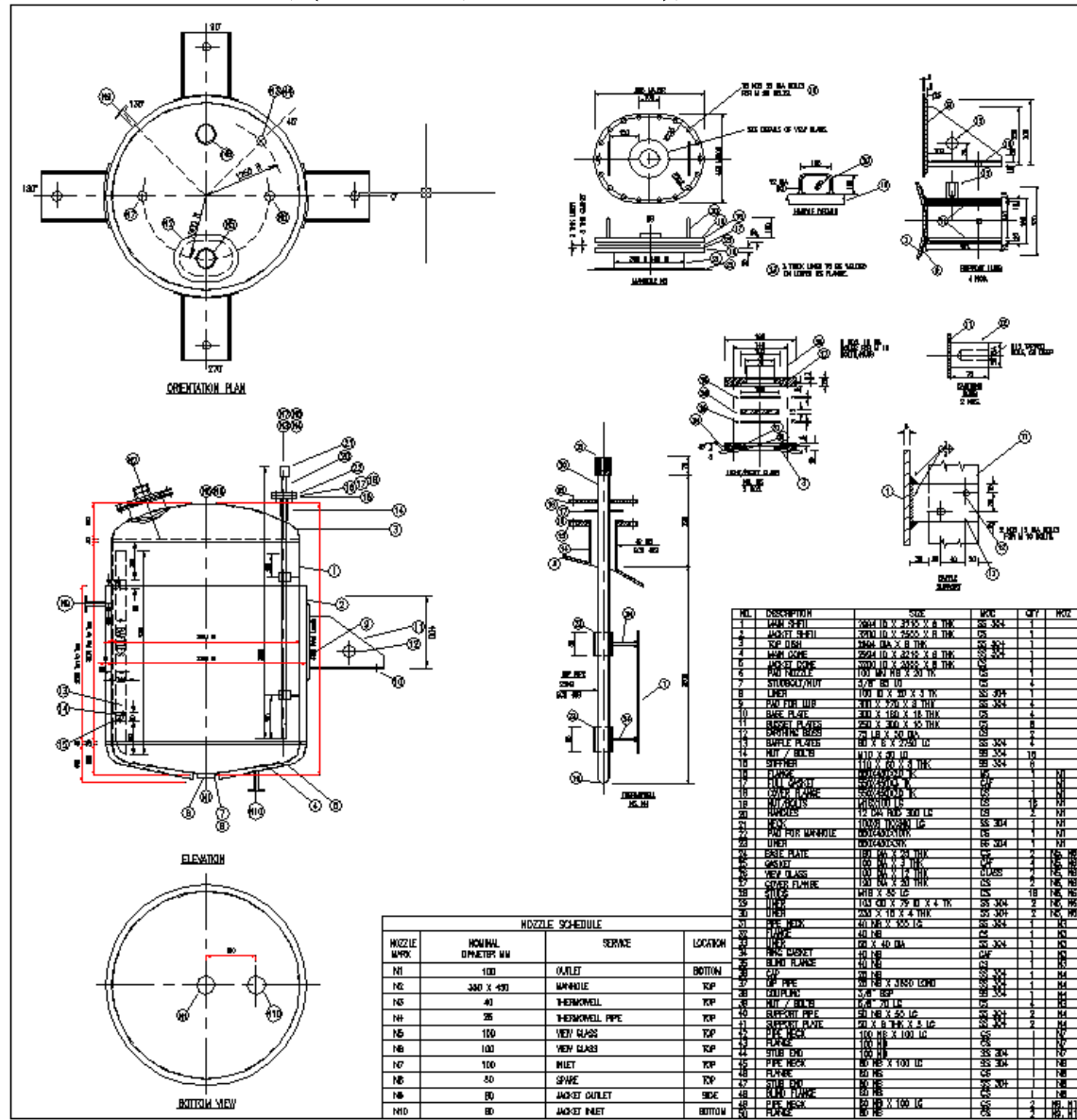Satish Lele
leleequip@gmail.com
91-9403405715
91-9820277283

▶ I offer drawing services for Process Vessels. Charges for Single Drawing of Chemical Process Vessel : US$ 60 OR ₹ 4,000.

Drawing of Pressure Vessels, (Receivers, Feed Vessels), Vertical / Horizontal Storage Tanks

How to draw a Chemical Process Vessel using this program?

I offer a Drawing program which Draws a detailed drawing of Chemical Process Vessel, with user friendly dialog boxes, which is an add-on for any inexpensive CAD program like BricksCAD, ProgeCAD or ZWCAD program. It is for Developing GA drawing for Chemical Process Vessel. The Program for Drawing of Chemical Process Vessel asks for some parameters and draws Chemical Process Vessel. Program for Drawing of Chemical Process Vessel draws the GA

drawing and components. Program for Drawing of Agitator / Mixer gives all minor details (even weight of each component and total weight) at Quotation Stage itself and this helps to quote in most competitive manner.

To run the program, unzip vessel.zip and copy files in one folder on hard disk (and not on desk top), say vessel. While running inexpensive CAD program like BricksCAD, ProgeCAD or ZWCAD program, click on tools ->Options (or Preferences) -> Files -> + of Support File Search Path -> Add -> Browse -> Select the folder (vessel), and click on apply. The vessel.zip file contains ves.lsp, ves.dcl and ves.slb, other lsp files, vesa1.dwg and vesa1_det.dwg (Border drawing) and trial.dwg (dummy drawing).

In a inexpensive CAD program like BricksCAD, ProgeCAD or ZWCAD Program, first open trial.dwg. It is a blank drawing. It is in the same folder where program files are located. It automatically defines the path (folder) to search the program files. At command prompt type (load "ves.lsp"). Chemical Process Vessel program will be loaded. Next type ves and press <enter>.

The total drawing program can be divided in two parts. In first part draw GA of the vessel. Then draw add-on items like Lugs or Legs on vessel drawing. You can then draw details of parts in second drawing. You should then write the nozzle table. When you do these, the bill of material is automatically calculated and written in a text file, which is the used to write BOM table in drawing. These should be done together to get complete Bill Of Materials. In most drawings, location of nozzles is not indiated intially and it can be added any time later. If no dialiog box is shown, type ves and press <enter> to get first dialog box and continue.

You can draw either in Foot-Inch units or in Metric Units. In Metric system it asks for all values in millimeters and in Foot-inch systems it asks for all values in Foot-inch.

Vessel Program by
Satish Lele
91-98202 77283, 94034 05715
leleequip@gmail.com
www.svlele.com/vessel.htm

System of Drawing

◉ Metric System

○ Foot-Inch System

OK

With the program you can draw either vertical vessels or horizantal vessels (mostly storage tanks). Select vessel type and continue. Other options are explained later.
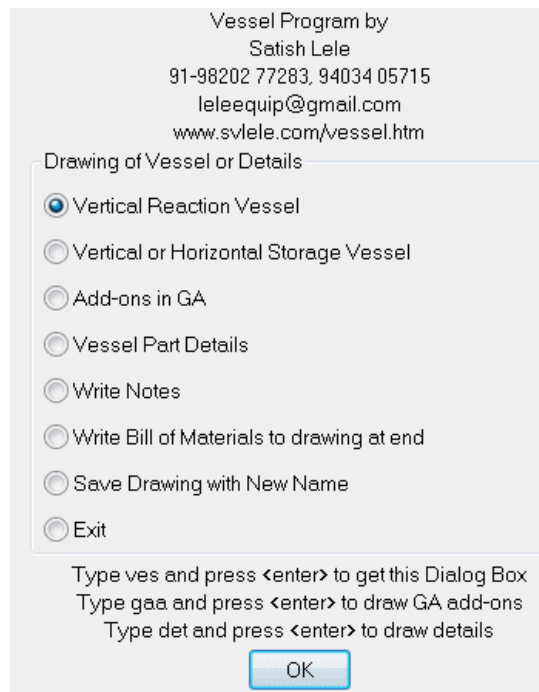
With this program you can draw following Vertical Reaction Vessels.

1. Only vessel without any Jacket or Limpet. These can also be vertical storage tanks or recievers.

2. Vessel the external jacket.

3. Vessel with Limpet coil.
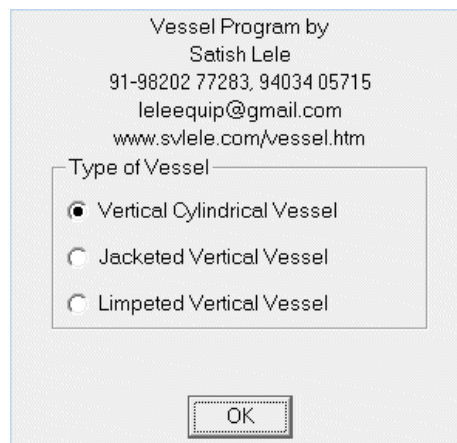
If you select any one of these options, next five dialog booxes will appear to get type of end conections, vessel sizes and material of construction.

Select Top End. It can be Dished End, Flat End, Conical End, Toriconical End or Open (none).

Vessel Program by
Satish Lele
leleequip@gmail.com
www.svlele.com/vessel.htm

Top End
- ⦿ Dished End
- ○ Flat End
- ○ Conical End
- ○ Toriconical End
- ○ None

[OK]

Select Bottom End. It can be Dished End, Flat End, Conical End, Toriconical End or Open

Vessel Program by
Satish Lele
leleequip@gmail.com
www.svlele.com/vessel.htm

Bottom End
- ⦿ Dished End
- ○ Flat End
- ○ Conical End
- ○ Toriconical End
- ○ None

[OK]

(none).
Select Bottom End. It can be Dished End, Flat End, Conical End, Toriconical End or Open
(none).

Vessel Program by
Satish Lele
91-98202 77283, 94034 05715
leleequip@gmail.com
www.svlele.com/vessel.htm

Vessel with Both Dished Ends

Shell Weld to Weld Length:	1000
Shell Inside Diameter:	500
Shell Thickness:	4
Dish End Thickness:	5
Dish straight length:	30

[OK]

Specify Weld to Weld (Tan to Tan) Shell Length, Shell Inside Diameter, Shell Thickness. Specify thickness of Dish or Flat or Cone or ToriCone. Specify straight length for Dish or Toricone.

Select Material of construction for vessel. It can be Carbon Steel or Stainless Steel.

Select appropriate material standard and specific gravity.
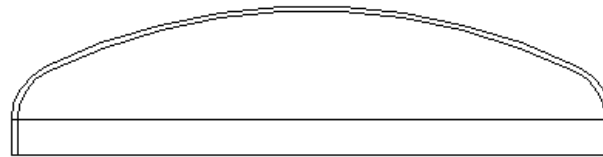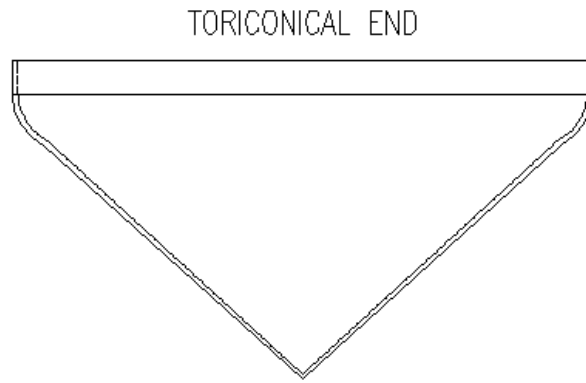

DISHED END
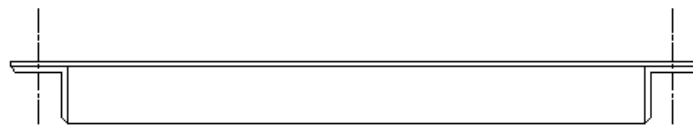
FLAT TOP END
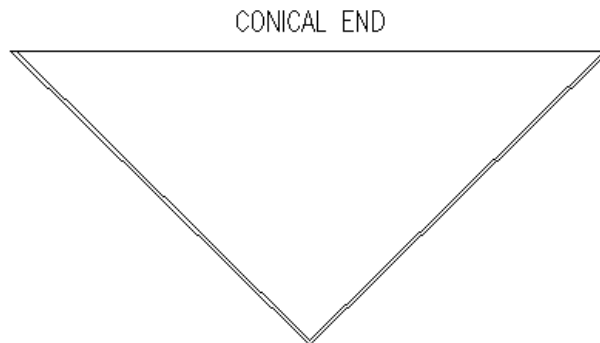
CONICAL END

TORICONICAL END

End Connections for Vertical Reaction Vessels

If you select Jacketed Vertical Vessels, five dialog booxes will appear to get type of end conections, vessel sizes and material of construction. (Same as in case of Vertical Reaction Vessels).


Carefully enter distances of Jacket top and bottom line, from respective tan lines. Jacket inside diameter decides the gap between Shell and Jacket. Dialog boxes to select the MOC for Jacket will be shown. (MOC of Jacket can be different than that of Shell in case of SS vessels). Two dialog boxes to fill title block will be shown. When these are filled, two drawings will be set up with GA of vessel in first one.

ELEVATION
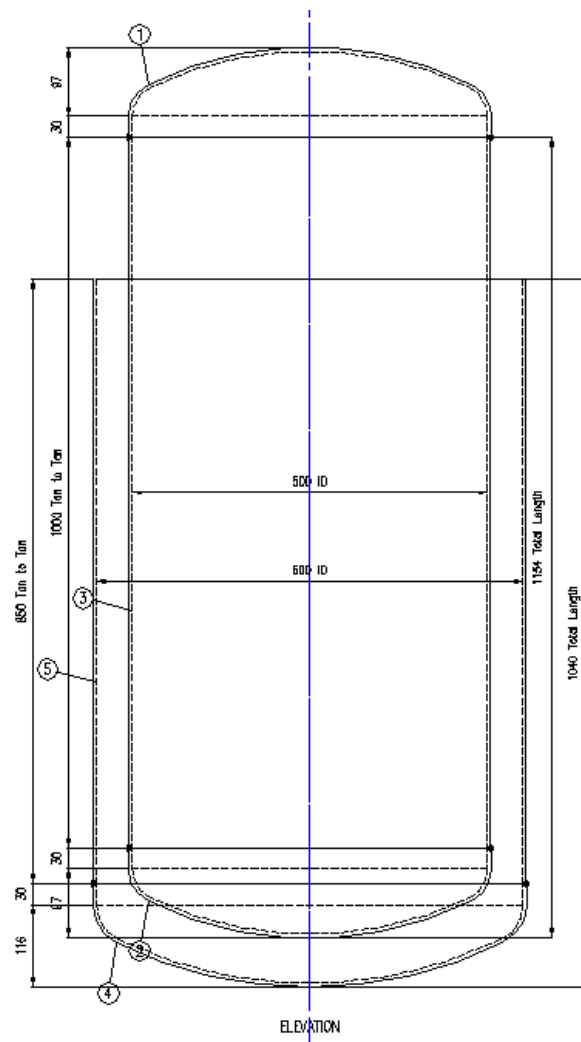
If you select Limpeted Vertical Vessels, five dialog boxes will appear to get type of end conections, vessel sizes and material of construction. (Same as in case of Vertical Reaction Vessels).

Carefully enter distances of Limpet top and bottom line, from respective tan lines. Two dialog boxes to fill title block will be shown. When these are filled, two drawings will be set up with GA of vessel in first one.

ELEVATION

DESIGN CODE :		ASME SECT VIII DIV-1, ED-2019	
SEISMIC CODE (ZONE III) :		IS 1893 (PART 2 AND 4)-2015	
WIND CODE :		IS 875 (PART 3)-2015	
INSPECTION BY :		BY CLIENTS / TPI	
FLUID HANDLED :	LIQUID	INSULATION (BY OTHERS) mm :	40
DENSITY (Kg/cm2) :	1050-1200	HYDROTEST PRESSURE (VERT) (Kg/cm2)g :	4.5
DESIGN PRESSURE (INT / EXT) (Kg/cm2)g :	3.5/FV	HYDROTEST TEMP deg C :	15-50
DESIGN TEMP deg C :	100	CORROSION ALLOWANCE mm :	2
OPERATING PRESSURE (INT / EXT) (Kg/cm2)g :	ATM	CAPACITY (GROSS / OPERATING) M3 :	20/18
OPERATING TEMP (MIN/NOR/MAX) deg C :	35/65/85	EMPTY WEIGHT (Kg.) :	0
JOINT EFFICIENCY (SHELL / HEAD) % :	0.85/0.85	OPERATING WEIGHT (Kg.) :	0
RADIOGRAPHY (SHELL / HEAD) :	SPOT/SPOT	HYDROTEST WEIGHT (Kg.) :	0

OK

Select entries in Design Table of Drawing.

Vessel Program by
Satish Lele
91-98202 77283, 94034 05715
leleequip@gmail.com
www.svlele.com/vessel.htm

Please enter Drawing data:

Clients Name :	ABC ENGINEERS	Drawn by:	GSD
End User:	ABC ENGINEERS	Checked by:	AKK
Consultant:	ABC CONSULTANTS	Appd by:	HVR
Company Job No:	XYZ 001	Date:	05-06-2021
Project No:	PROJECT 123	Drawing No:	001
Equipment No:	EQUPT 123	Rev No:	0
Client's Purchse Order No:	VES-123	Sheet No:	1 OF 1

OK

Select entries in Title Block of Drawing.
Two template drawings will be drawn. The GA will be drawn in first drawing. Second is for details.

Once basic drawing is done you can add some Accessories. Run vessel program again by typing ves and press <enter>. Select Add on GA option.

Vessel Program by
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Add on in GA Drawing

- ◉ Lug Support, (3 or 4)
- ○ Leg Support, (3 or 4) of Angle or Channel
- ○ Nozzles
- ○ Body Flange
- ○ Outer Limpet Coil
- ○ Inner Coil
- ○ Baffles
- ○ Exit

Double click to select option
Type ves and press <enter> to run main program
Type gaa and press <enter> to draw GA add-ons
Type det and press <enter> to draw details

OK

You can add these in GA Drawing one by one. Once you finished drawing one option, select exit. This dialog box will be shown again.

Vessel Program by
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Number of Support
- ○ 3
- ◉ 4

OK

If you select Lug option, You will asked to select number of Lugs, 3 or 4.

Vessel Program by
Satish Lele
91-98202 77283, 94034 05715
leleequip@gmail.com
www.svlele.com/vessel.htm
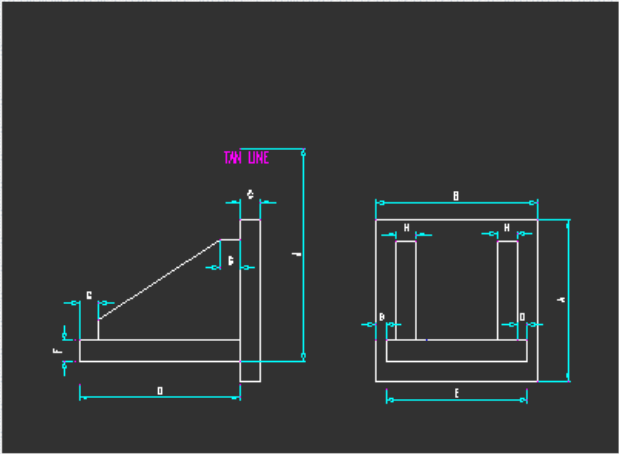
Elevation / Plan
- ● Elevation
- ○ Plan
- ○ Finish

OK

You can Draw Elevation or Plan. Once options of Elevation are completed, this dialog box will be shown again. You can select plan option. Once options of plan are completed, this dialog box will bw shown again. Select finish to retun to add-on dialog box.

Vessel Program by
Satish Lele
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leleequip@gmail.com
www.svlele.com/vessel.htm

A = Pad Plate Length :	130
B = Pad Plate Width :	95
C = Pad Plate Thickness :	4
D = Base Plate Length :	65
E = Base Plate Width :	85
F = Base Plate Thickness :	15
G = Side Gap :	10
H = Rib Thickness :	5
J = Lug Bottom Position from Top Weld Line :	250

OK

Based on the weight to Vessel and its contents (as water) it will suggest sizes of different components. You can change the values, if you wish. Choose value J properly, which is distance of bottom of Lug from Top Weld Line. It will then asks you to pick up center point of top weld line GA. (Osnap mid is automatically set). Once you pick the point, lugs will be drawn, and its

bill material is written to text file. old dialog box will appear, and you can select plan or finish option.

If you do the insertion of components, after some time, Program will reconfirm the size and material of construction.

Vessel Program by
Satish Lele
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www.svlele.com/vessel.htm

Length and Diameter of Vessel

Weld to Weld Length: 1000

Inside Diameter: 500

Shell Thickness: 4

OK

Vessel Program by
Satish Lele
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leleequip@gmail.com
www.svlele.com/vessel.htm

Material of Construction

◉ Carbon Steel

○ Carbon / Stainless Steel

○ Stainless Steel

OK

Vessel Program by
Satish Lele
91-98202 77283, 94034 05715
leleequip@gmail.com
www.svlele.com/vessel.htm

Material of Construction and Specific Gravity of Supports

Pad Plate   Other Parts

Pad Plate Material: IS 2062 Gr.B   Support Material: IS 2062 Gr.B

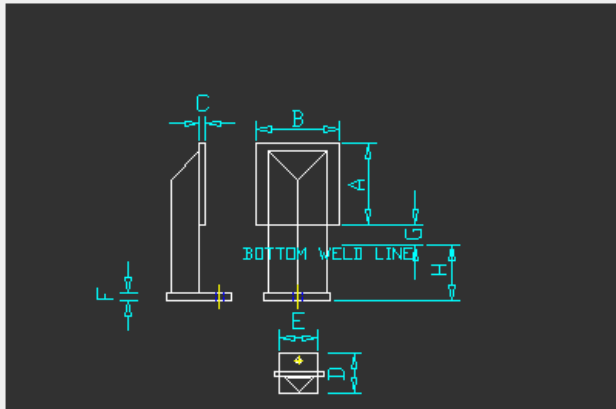Pad Plate Sp Gr: 7.85   Support Material Sp Gr: 7.85

OK

If you select plan option, it will again confirm size of vessel, material and its Specific Gravity, lug size and will ask you to select center point of vessel in plan drawing. Click on Finish to end

drawing of Lugs.

PLAN VIEW

If you select 3 lugs, it will draw lugs like this.
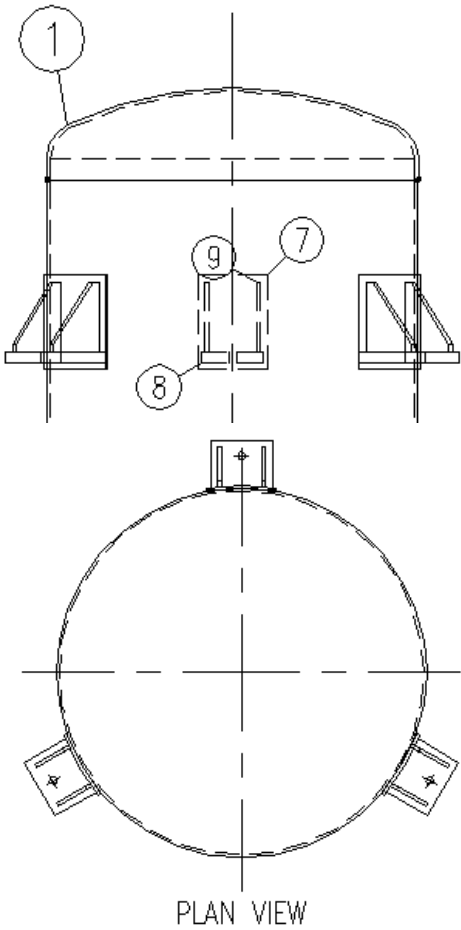
PLAN VIEW

If you select Leg option, You will asked to select number of Legs, 3 or 4

Vessel Program by
Satish Lele
91-98202 77283, 94034 05715
leleequip@gmail.com
www.svlele.com/vessel.htm
Number of Support

○ 3

⦿ 4

OK

You will be asked to select Legs of Angles or Channels

Vessel Program by
Satish Lele
91-98202 77283, 94034 05715
leleequip@gmail.com
www.svlele.com/vessel.htm
Leg Support

⦿ Angle Leg Support

○ Channel Leg Support

OK

Vessel Program by
Satish Lele
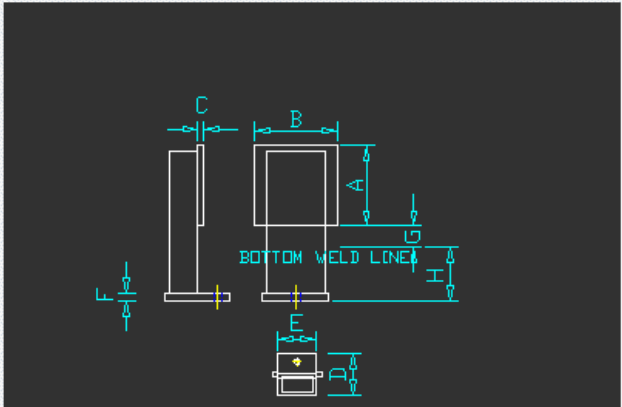91-98202 77283, 94034 05715
leleequip@gmail.com
www.svlele.com/vessel.htm
Elevation / Plan

⦿ Elevation

○ Plan

○ Finish

OK

You can Draw Elevation or Plan.
If you select elevation or plan, it will confirm the size of the vessel.

Vessel Program by
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www.svlele.com/vessel.htm
Length and Diameter of Vessel

Weld to Weld Length: 1000

Inside Diameter: 500

Shell Thickness: 4

OK

It will confirm Material of contstruction for Lug. It can be CS for SS Vessel.

Material of Construction

- ⦿ Carbon Steel
- ◯ Carbon / Stainless Steel
- ◯ Stainless Steel

OK

You can change material and its Specific Gravity as per your requirements.

Material of Construction and Specific Gravity of Supports

Pad Plate | Other Parts

Pad Plate Material: | IS 2062 Gr.B | Support Material: | IS 2062 Gr.B

Pad Plate Sp Gr: | 7.85 | Support Material Sp Gr: | 7.85

OK

As per the weight of vessel and its content (assumed as water), it will recommend size of Angle.

- ◯ ISA 50X50X5
- ◯ ISA 50X50X6
- ⦿ ISA 65X65X5
- ◯ ISA 65X65X6
- ◯ ISA 75X75X6
- ◯ ISA 75X75X8
- ◯ ISA 100X100X6
- ◯ ISA 100X100X8
- ◯ ISA 100X100X10
- ◯ ISA 100X100X12
- ◯ ISA 150X150X10
- ◯ ISA 150X150X12
- ◯ ISA 150X150X16
- ◯ ISA 150X150X20

OK

It will show Leg Dimensions. However, you can change any value. Choose value H properly, which is distance of bottom of Leg from bottom Weld Line.

A = Pad Plate Length :	100
B = Pad Plate Width :	100
C = Pad Plate Thickness :	4
D = Base Plate Length :	130
E = Base Plate Width :	130
F = Base Plate Thickness :	8
G = Leg Plate gap from Bottom to Weld Line :	6
H = Height of Leg :	250

OK

If you have selected to draw Elevation, it will ask you to select bottom weld line in GA drawing. It will draw legs accordingly. if you have selected 4 legs, it will draw 4 legs. It will also draw tags, with sequential number, which will be reflected in Bill of Material.
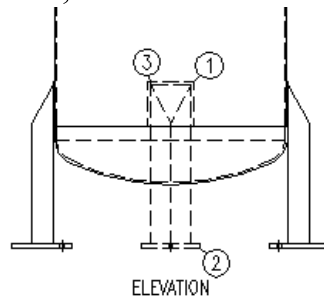
If you select plan option, it will again confirm size of vessel, material and its Specific Gravity, lug size and will ask you to select center point of vessel in plan drawing. Click on Finish to end drawing of Lugs.
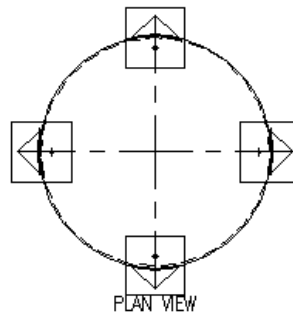
If you select 3 legs of Angles, it will draw legs like this.

ELEVATION

PLAN VIEW
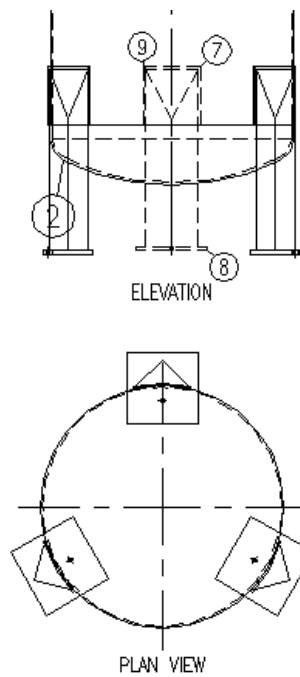
As per the weight of vessel and its content (assumed as water), it will recommend size of Channel.

Vessel Program by
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www.svlele.com/vessel.htm

- ISMC 75
- ISMC 100
- ISMC 125
- ISMC 150
- ISMC 175
- ISMC 200
- ISMC 225
- ISMC 250
- ISMC 300
- ISMC 350
- ISMC 400

OK

It will show Leg Dimensions. However, you can change any value. Choose value H properly, which is distance of bottom of Leg from bottom Weld Line.

A = Pad Plate Length :	100
B = Pad Plate Width :	100
C = Pad Plate Thickness :	4
D = Base Plate Length :	150
E = Base Plate Width :	100
F = Base Plate Thickness :	8
H = Leg Plate gap from Bottom to Weld Line :	6
H = Height of Leg :	250

OK

If you select 3 legs of Channels, it will draw legs like this.

ELEVATION

PLAN VIEW
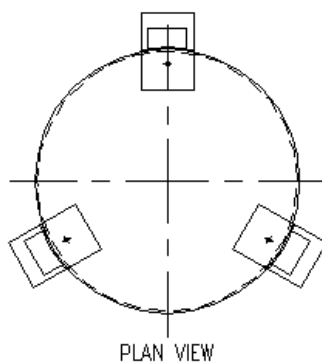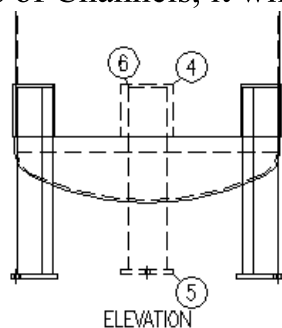
If you select 4 legs of Channels, it will draw legs like this.

ELEVATION

PLAN VIEW
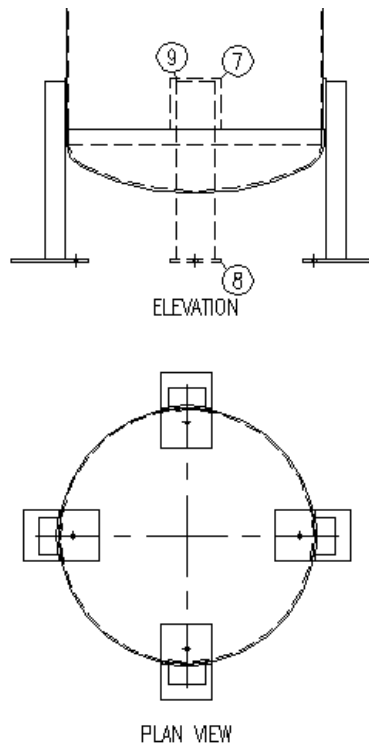
With Draw Nozzles option you can draw these

Vessel Program by
Satish Lele
91-98202 77283, 94034 05715
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www.svlele.com/vessel.htm

Add on in GA Drawing

- ◉ Lug Support, (3 or 4)
- ○ Leg Support, (3 or 4) of Angle or Channel
- ○ Nozzles
- ○ Body Flange
- ○ Outer Limpet Coil
- ○ Inner Coil
- ○ Baffles
- ○ Exit

Double click to select option
Type ves and press <enter> to run main program
Type gaa and press <enter> to draw GA add-ons
Type det and press <enter> to draw details

OK

Vessel Program by
Satish Lele
91-98202 77283, 94034 05715
leleequip@gmail.com
www.svlele.com/vessel.htm

Flat or Circular View

- ◉ Draw Nozzles
- ○ Pad Nozzles
- ○ Man Hole
- ○ Coupling / Plug
- ○ View Glass
- ○ Nozzle Table
- ○ Tag for Nozzle
- ○ Finish

OK

If You select Draw Nozzles option, you can draw Flat View or Circular View.
To draw nozzles locate the point of insertion by a line from that point (for flat or circular view).
For circular view in plan draw PCD circle and centerlines of nozzle to locate intersection point.

Select Pipe NB and Flange Class. You can have raised face or flat face.

Please indicate Nozzle Number, Length of nozzle and angle. For horizontal nozzle angle is 0, 90 for vertical etc. Select insertion point on shell, or dish for flat and circular nozzles. Nozzles and flanges will be drawn to scale as per size, class and type (Raised or Flat face). When done, click on Finish to exit.

With draw Man Hole Option, you can draw either Oval or Circular Manhole.

Vessel Program by
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Flat or Circular View

- Draw Nozzles
- Pad Nozzles
- ◉ Man Hole
- Coupling / Plug
- View Glass
- Nozzle Table
- Tag for Nozzle
- Finish

OK

Vessel Program by
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www.svlele.com/vessel.htm

Oval or Circular Manhole

- ◉ Oval Manhole
- Circular Manhole
- Finish

OK

Oval Manhole

Vessel Program by
Satish Lele
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leleequip@gmail.com
www.svlele.com/vessel.htm

Sizes for Oval Manhole:

Manhole Number :	N
Major OD :	450
Minor OD :	350
Flange Thickness :	10
Liner Thickness :	3
Gasket Thickness :	3

OK

Select Manhole Number and all Dimensions. Also select

Vessel Program by
Satish Lele
91-98202 77283, 94034 05715
leleequip@gmail.com
www.svlele.com/vessel.htm

Elevation / Plan

- ◉ Elevation
- Plan
- Finish

OK

Then select center point of man hole in elevation and plan.

Circular Manhole

Select Manhole Number and all Dimensions. Also select

Then select center point of man hole in elevation and plan.
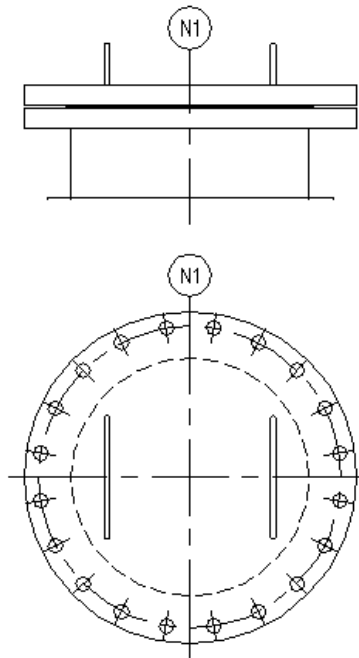
With draw Coupling and Plug option, select rating of coupling

Select Coupling Number, angle and Coupling size. Also select

Then select center point of Coupling in elevation and plan.
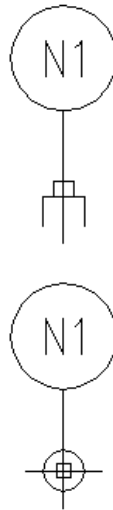
With draw View Glass option

Select View Glass Number, angle and View Glass size. Also select

Elevation / Plan

◉ Elevation

◯ Plan

◯ Finish

[OK]

Then select center point of View Glass in elevation and plan.
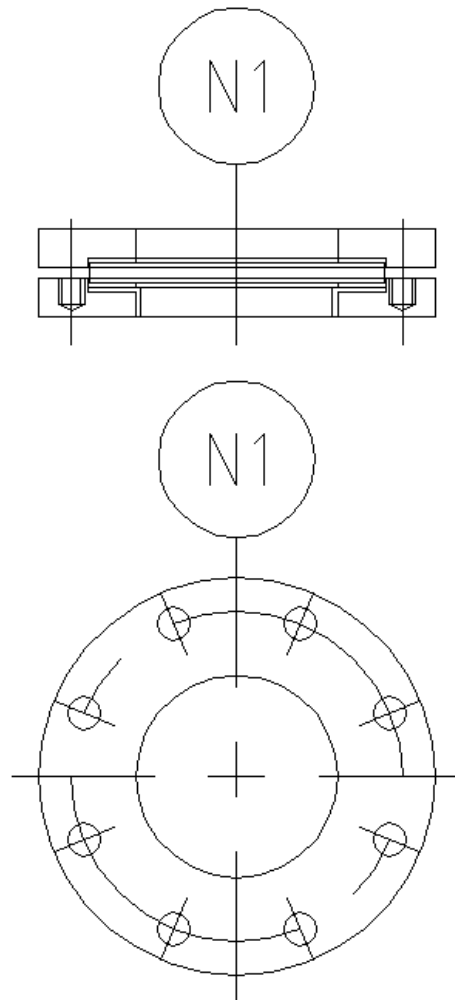
With draw Pad Flange option

Pad Nozzle Number   [N]

Side Angle :   Pad Nozzle Size

Side Angle	Pad Nozzle Size
0	40
30	50
45	65
60	80
90	100
120	125
135	150
150	200

OK   Cancel

Glass View sizes are of 150# Flange

Bore size	116	Gasket OD	171
Flange OD	228		
Flange PCD	190	Gasket ID	116
Flange Thickness	22		
Number of Bolt Holes / Bolts	8	Gasket Thickness	3
Bolt Hole Dia	19	Liner OD	171
Nut / Bolt Dia	15		
Nut / Bolt Length	88	Liner Thickness	3

OK   Cancel

Select Pad Flange Number, angle and Pad Flange size. Also select flange dimensions

Elevation / Plan

(•) Elevation
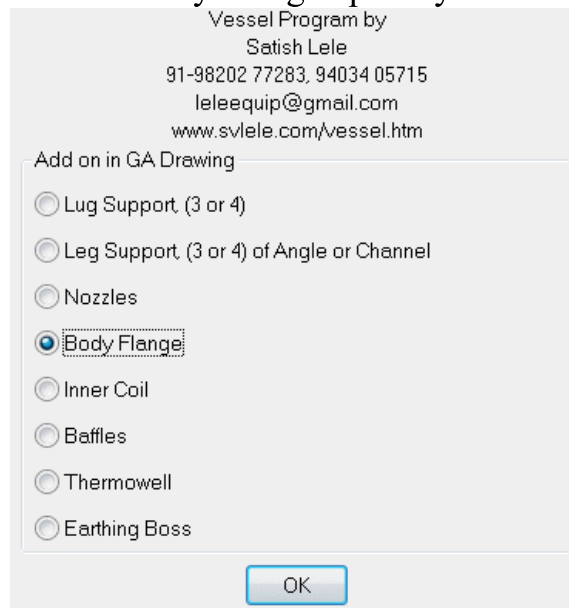
( ) Plan

( ) Finish

OK

Then select center point of Pad Flange in elevation and plan.
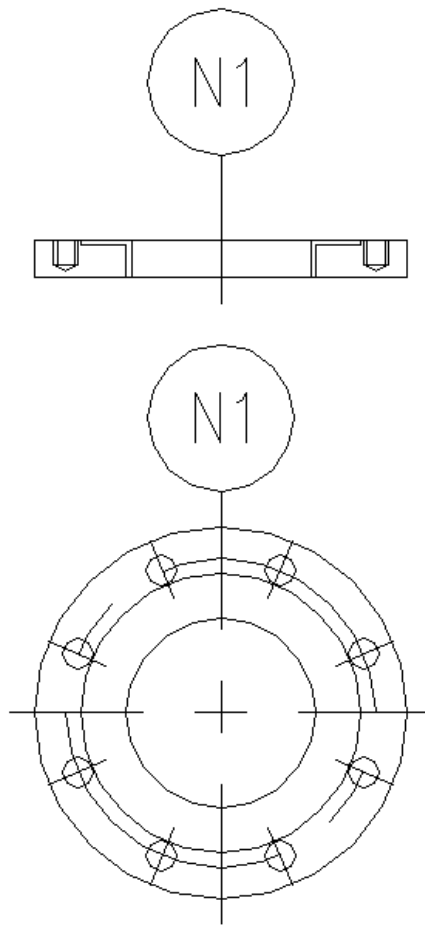
With Draw Body Flange option you can draw

Add on in GA Drawing

- Lug Support, (3 or 4)
- Leg Support, (3 or 4) of Angle or Channel
- Nozzles
- ● Body Flange
- Inner Coil
- Baffles
- Thermowell
- Earthing Boss

OK

With respect to the diameter of vessel, it will show dimensions and details of Body Flange. You can change Flange Thickness, Nut/Bolt diameter and length, gasket thickness and Bolt hole diameter. All other dimensions are as per flange standards.

Body Flange sizes are of 150# Flange

Lower Body Flange ID	508	Nut / Bolt Dia	28
Upper Body Flange ID	510	Nut / Bolt Length	158
Flange OD	698	Number of Bolt Holes / Bolts	20
Flange PCD	635	Gasket OD	607
Bolt Hole Dia	31	Gasket ID	508
Flange Thickness	41	Gasket Thickness	3

OK   Cancel

Select the view

Elevation / Plan

⦿ Elevation

◯ Plan

◯ Finish

OK

Select mid point of top weld line in elevation and center point of vessel in plan
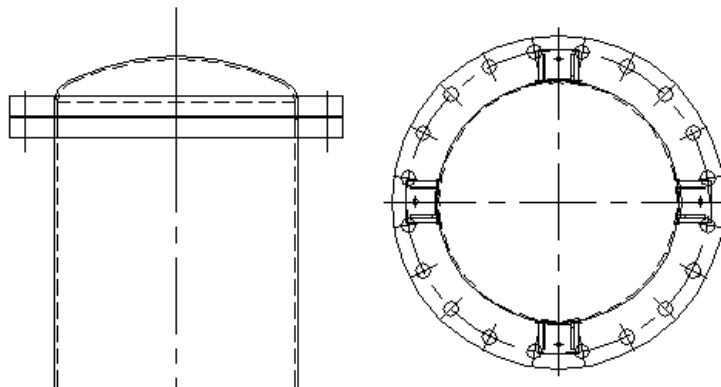
In GA Drawings dimensions are not shown. These are indicated in detail drawings.
You can draw the details of, Normal size (1:1), Double (2:1) or Triple (3:1) scale as well.
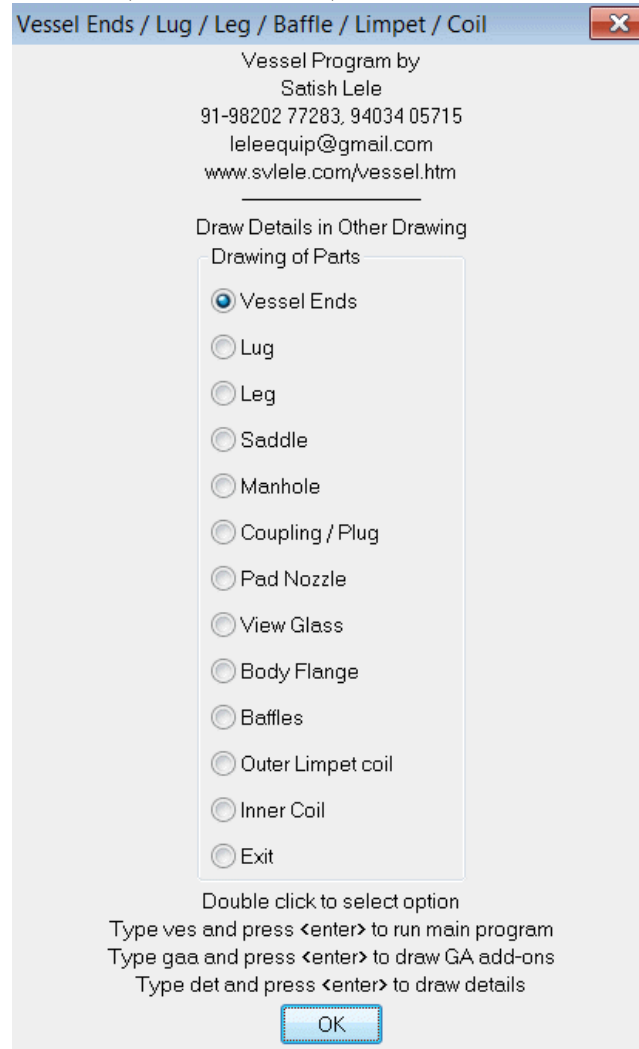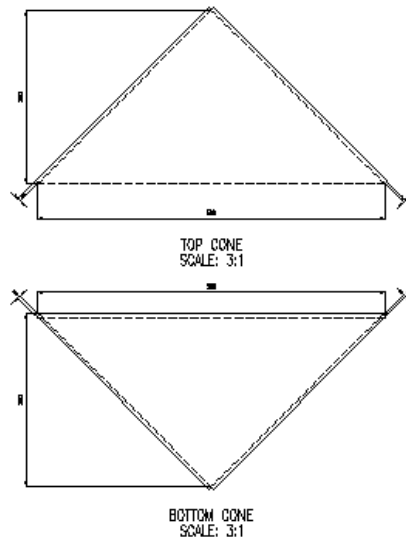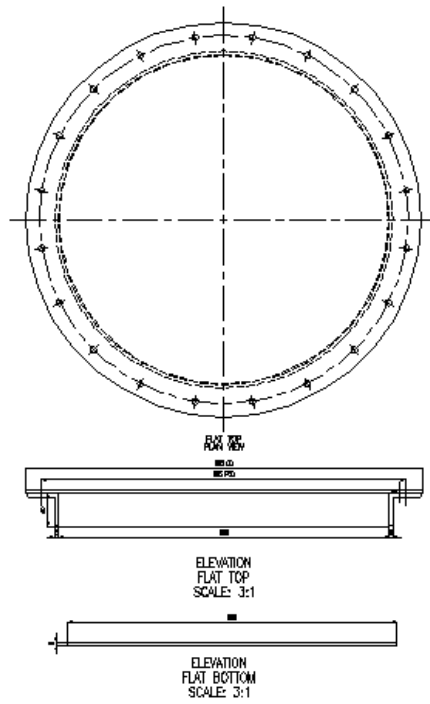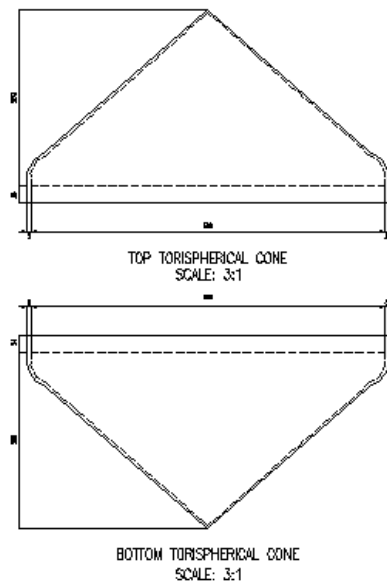
Detail Scale

◯ Detail Scale 1:1

◯ Detail Scale 2:1

⦿ Detail Scale 3:1

OK

You can draw these in detail, where dimensions will be shown. These can be Dished End, Flat End, Conical End, Toriconical End.

TOP DISH
SCALE: 3:1

BOTTOM DISH
SCALE: 3:1

FLAT TOP
PLAN VIEW

ELEVATION
FLAT TOP
SCALE: 3:1

ELEVATION
FLAT BOTTOM
SCALE: 3:1

TOP CONE
SCALE: 3:1

BOTTOM CONE
SCALE: 3:1

TOP TORISPHERICAL CONE
SCALE: 3:1

BOTTOM TORISPHERICAL CONE
SCALE: 3:1
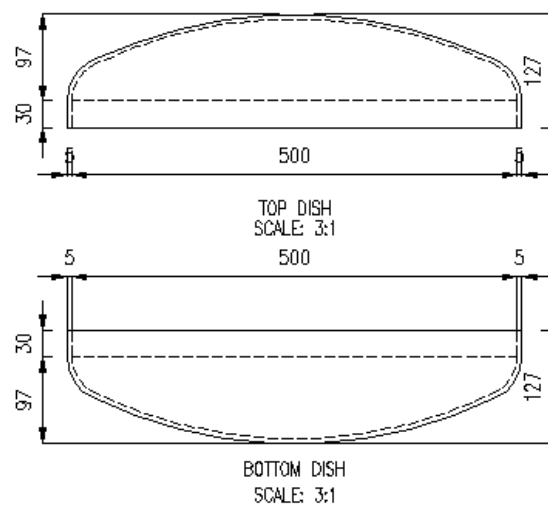
Detail Drawings of End Connections for Vertical Reaction Vessels

---

You can draw Lugs in detail, where dimensions will be shown

Select location for elevation and plan it will draw like this for 3 lugs.

LUG SUPPORTS
SCALE: 1:1
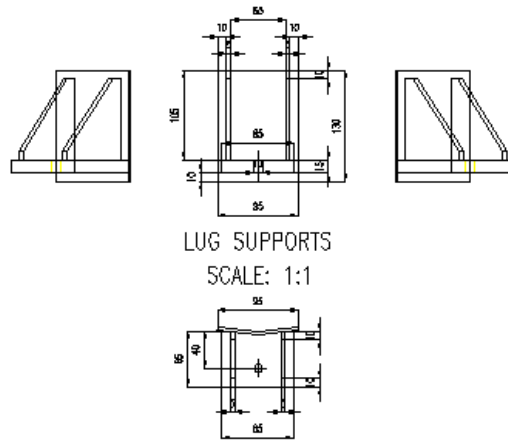
It will draw like this for 4 lugs.

LUG SUPPORTS
SCALE: 1:1

If you select Leg option, You will asked to select number of Legs, 3 or 4

Vessel Program by
Satish Lele
91-98202 77283, 94034 05715
leleequip@gmail.com
www.svlele.com/vessel.htm
Number of Support
○ 3
◉ 4
OK

Vessel Program by
Satish Lele
91-98202 77283, 94034 05715
leleequip@gmail.com
www.svlele.com/vessel.htm
Elevation / Plan
◉ Elevation
○ Plan
○ Finish
OK

You can Draw Elevation or Plan.
If you select elevation or plan, it will confirm the size of the vessel.

Length and Diameter of Vessel

Weld to Weld Length: 1000

Inside Diameter: 500

Shell Thickness: 4

OK

It will confirm Material of contstruction for Leg. It can be CS for SS Vessel.

Material of Construction

◉ Carbon Steel

◯ Carbon / Stainless Steel

◯ Stainless Steel

OK

You can change material and its Specific Gravity as per your requirements.
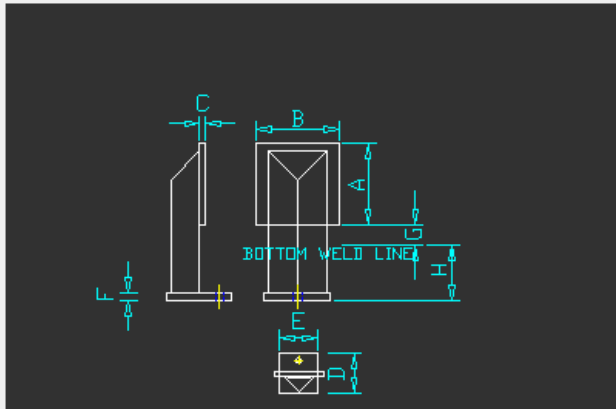
Material of Construction and Specific Gravity of Supports

Pad Plate

Pad Plate Material: IS 2062 Gr.B

Pad Plate Sp Gr: 7.85

Other Parts

Support Material: IS 2062 Gr.B

Support Material Sp Gr: 7.85

OK

As per the weight of vessel and its content (assumed as water), it will show Leg Dimensions. However, you can change any value. Choose value J properly, which is distance of bottom of Leg from bottom Weld Line.
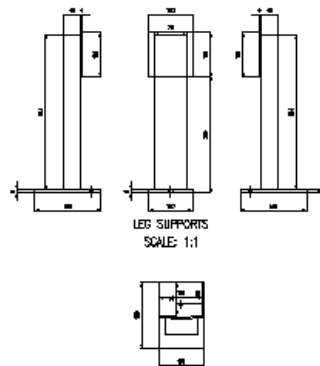
Vessel Program by
Satish Lele
91-98202 77283, 94034 05715
leleequip@gmail.com
www.svlele.com/vessel.htm

|		
A = Pad Plate Length :		100
B = Pad Plate Width :		100
C = Pad Plate Thickness :		4
D = Base Plate Length :		130
E = Base Plate Width :		130
F = Base Plate Thickness :		8
G = Leg Plate gap from Bottom to Weld Line :		6
H = Height of Leg :		250

OK

If you have selected to draw Elevation, it will ask you to select bottom weld line in GA drawing. It will draw legs accordingly. if you have selected 4 legs, it will draw 4 legs. You can select either Angle or Channel. It will also draw tags, with sequential number, which will be reflected in Bill of Material.
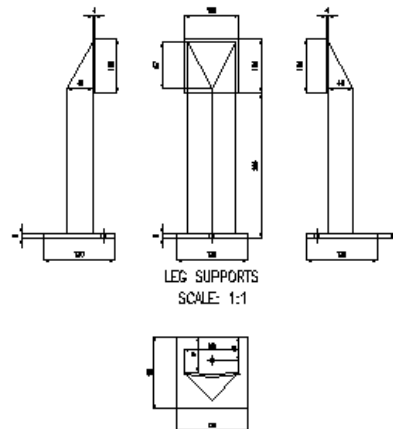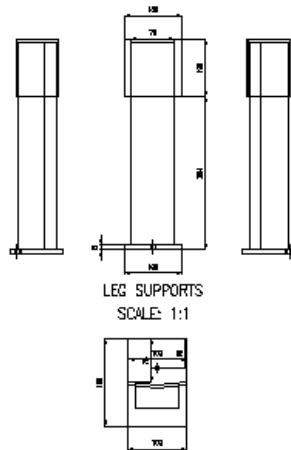

4 Legs with Angle as Structural Member.

4 Legs with Channel as Structural Member.
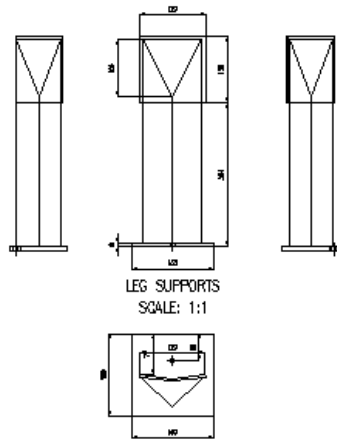
3 Legs with Angle as Structural Member.

3 Legs with Channel as Structural Member.

If you select Manhole option you can draw Oval or Circular Man Hole
Oval Manhole

Sizes for Oval Manhole:

Manhole Number : N

Major OD : 450

Minor OD : 350

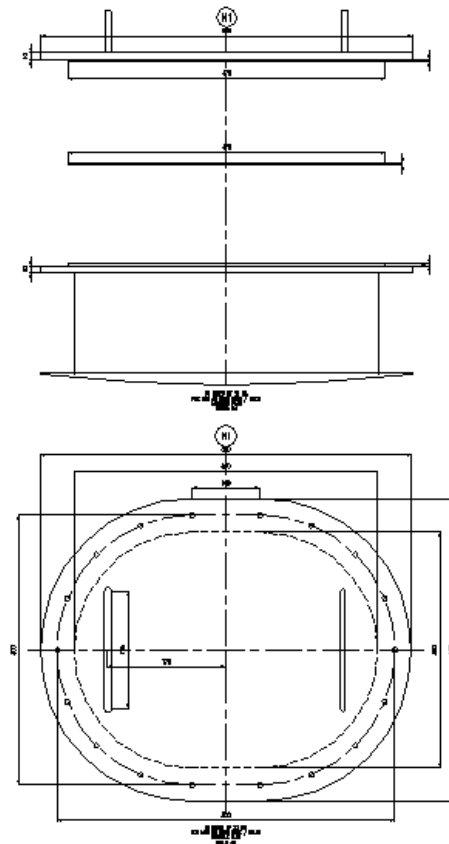Flange Thickness : 10

Liner Thickness : 3

Gasket Thickness : 3

OK

Elevation / Plan

⦿ Elevation

○ Plan

○ Finish

OK

Circular Manhole

Oval or Circular Manhole

○ Oval Manhole

⦿ Circular Manhole

○ Finish

OK

Detail Scale

○ Detail Scale 1:1

○ Detail Scale 2:1

⦿ Detail Scale 3:1

OK

Nozzle Table

To draw Nozzle Table indicate total nozzle entries. You can have some spare spaces in Nozzle Table.

Vessel Program by
Satish Lele
91-98202 77283, 94034 05715
leleequip@gmail.com
www.svlele.com/vessel.htm

Mark No. :	N1
	Flange Facing :
	WELD NECK
Quantity No. :	1
	SLIP ON
Purpose :	Purpose of Nozzle
	RF Pad Width : 50
Nozzle Size DN :	150
Nozzle Length :	150
	RF Pad Thickness : 4
Nozzle Schedule :	40
You can select 40, 80, 120, 160	
	Weld Type : W2
Flange Type :	ASME B16.5
	Weld Thickness (Nozzle) : 4
Flange Class :	150
You can select 150, 300 or 600	
	Weld Thickness (RF Pad) : 4

OK

Select Proper data to be written in Nozzle Table for each nozzle

NOZZLE	QTY	NOZZLE			FLANGE			RF PAD		NOZZLE	WELD DET (TYPE / THK)		
No	No	SERVICE	SIZE	SCH	TYPE	CLASS	FACE	OD	THK	LENGTH	TYPE	NOZZLE THK	RF PAD THK
N1	1	MANHOLE	500	40	ASME B16.5	150	WELD NECK	600	4	150	W2	4	4
N2	1	INLET	50	40	ASME B16.5	150	WELD NECK	100	4	150	W2	4	4
N3	1	OUTLET	50	40	ASME B16.5	150	WELD NECK	100	4	150	W2	4	4
N4	1	THERMOWELL	40	40	ASME B16.5	150	WELD NECK	100	4	150	W2	4	4
N5	1	PRESSURE GAUGE	15	40	ASME B16.5	150	WELD NECK	70	4	150	W2	4	4
N6	1	SOLID FEED	150	40	ASME B16.5	150	WELD NECK	250	4	150	W2	4	4
N7	1	SPARE	50	40	ASME B16.5	150	WELD NECK	100	4	150	W2	4	4
N8	1	VAPOUR	150	40	ASME B16.5	150	WELD NECK	250	4	150	W2	4	4
N9	1	STEAM INLET	50	40	ASME B16.5	150	WELD NECK	100	4	150	W2	4	4
N10	1	CONDENSATE OUTLET	25	40	ASME B16.5	150	WELD NECK	50	4	150	W2	4	4

Nozzle Table will be written like this.

Vertical Vessel
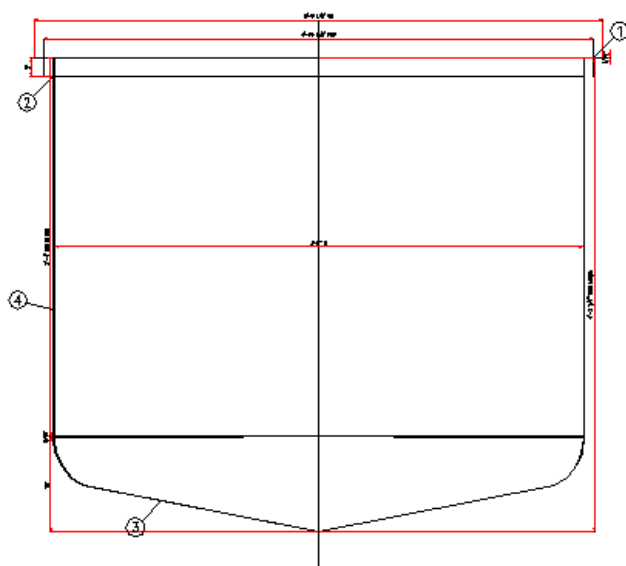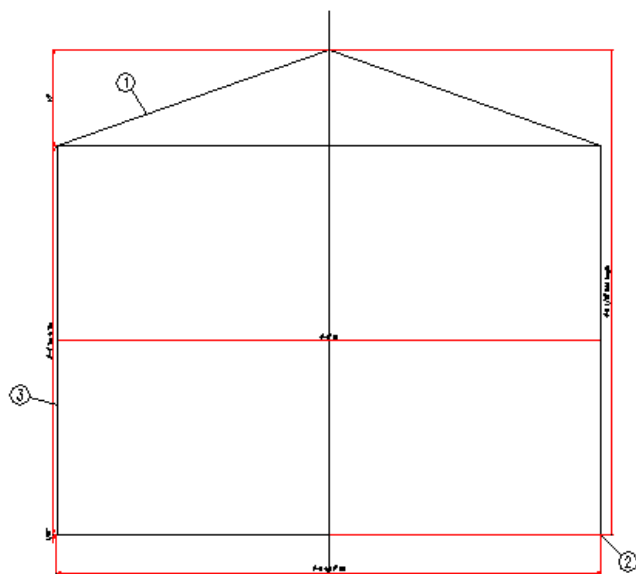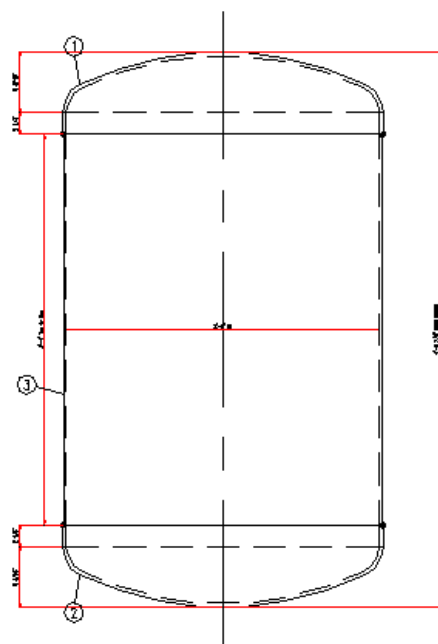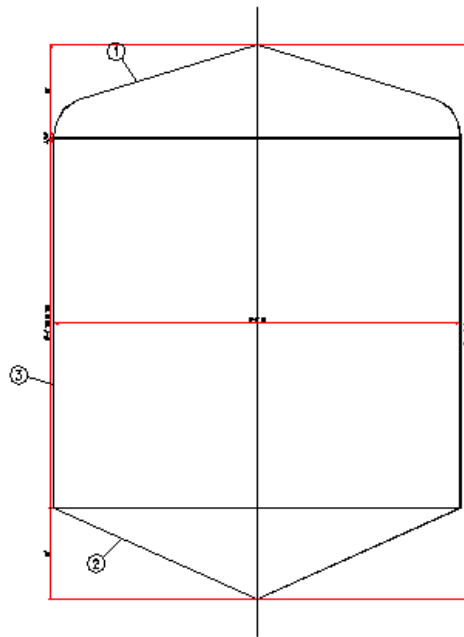
Program will draw Vertical Vessel like this.

Vessel Program by
Satish Lele
leleequip@gmail.com
www.svlele.com/vessel.htm

○ Dished Ends
○ Flat Ends
○ Hemispherical Ends

OK

Vessel Program by
Satish Lele
leleequip@gmail.com
www.svlele.com/vessel.htm

Horizontal Storage Tank with Dish Ends

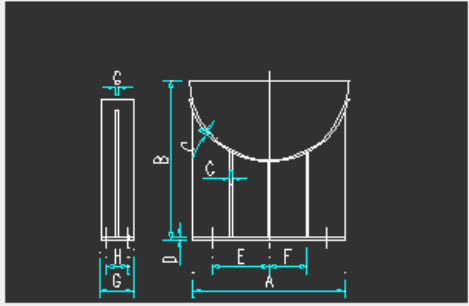| Tan to Tan Length of Vessel: | 3'-4" |
Diameter of Vessel:	1'-8"
Shell Thickness:	1/4"
Dish Thickness:	3/8"
Width of Plate:	4'

OK

You can not change
values in trial mode

Vessel Program by
Satish Lele
leleequip@gmail.com
www.svlele.com/vessel.htm

Saddle Required

○ Steel Saddle
○ No saddle

OK

Vessel Program by
Satish Lele
leleequip@gmail.com
www.svlele.com/vessel.htm

Dimesion A :	1'-6"		Dimesion H :	3 1/2"
Dimesion B :	1'-8"		Bolt Dia :	7/8"
Dimesion C :	1/2"		No. of Bolts :	8
Dimesion D :	5/8"		Weld Size :	1/2"
Dimesion E :	4 1/2"		Rib Width :	3 1/2"
Dimesion F :	6 3/4"		Rib Thickness :	1/2"
Dimesion G :	8"		No of Ribs :	6

OK

Dialog Boxes for Horizontal Storage Tank

DISH ENDS   FLAT ENDS   HEMISPHERICAL ENDS

SADDLE
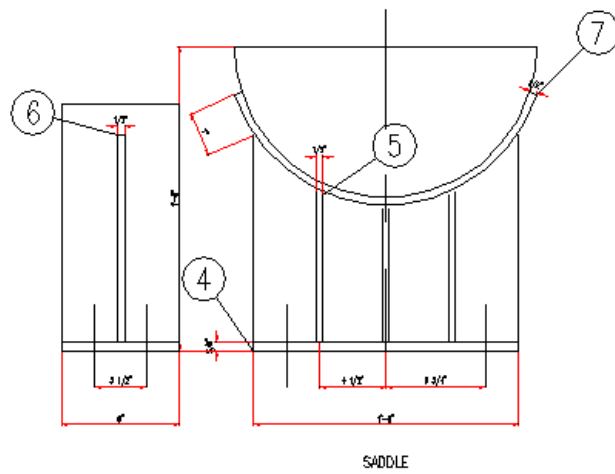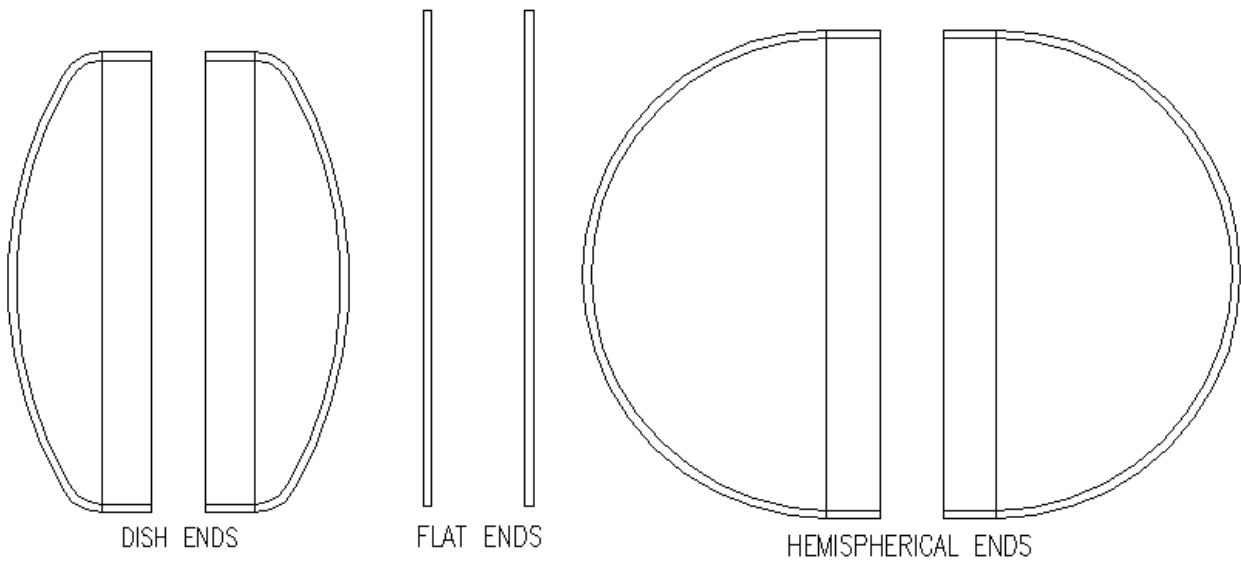
End Connections for Horizontal Storage Tank

ELEVATION
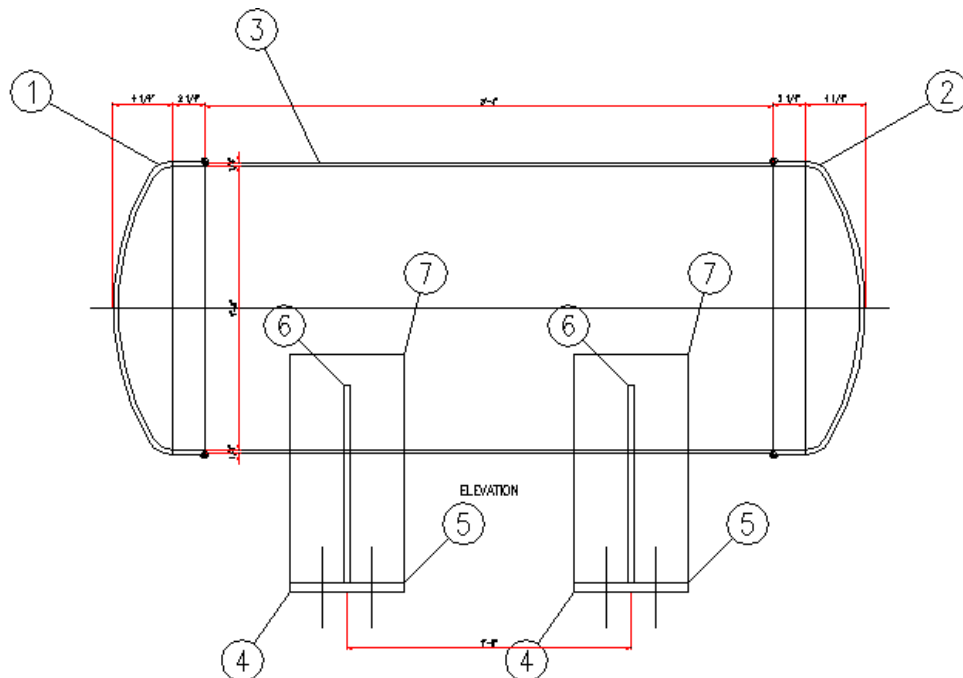
Program will draw Horizontal Vessel like this.
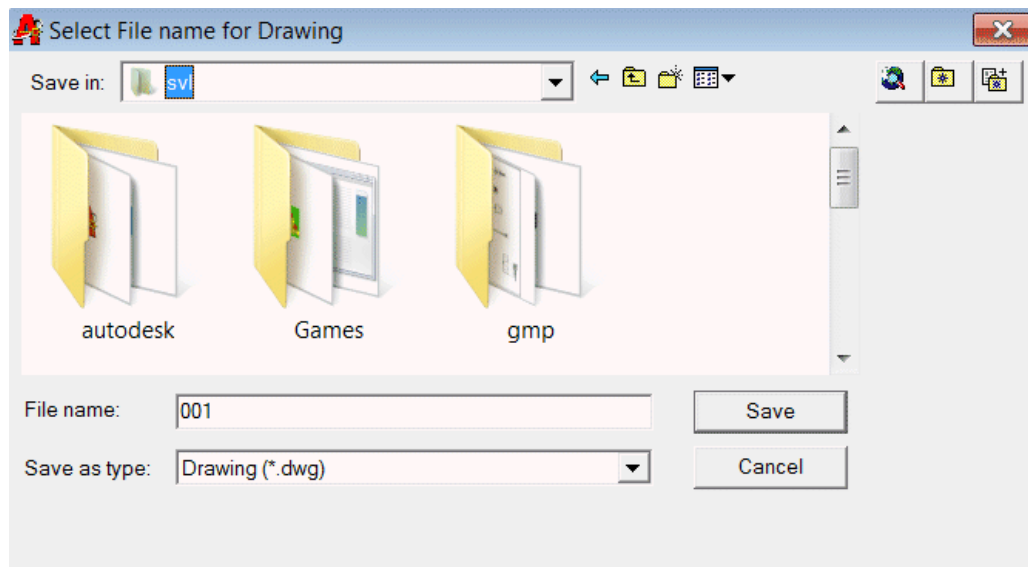
Select drawing name to be saved and its proper folder.