



ITT

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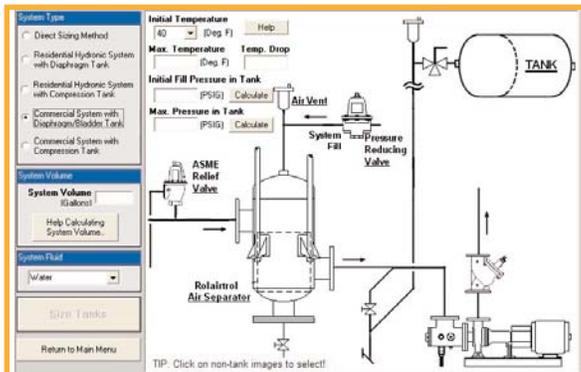
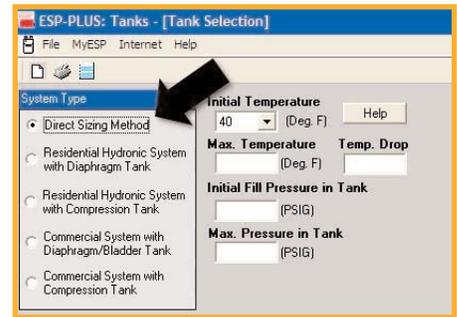
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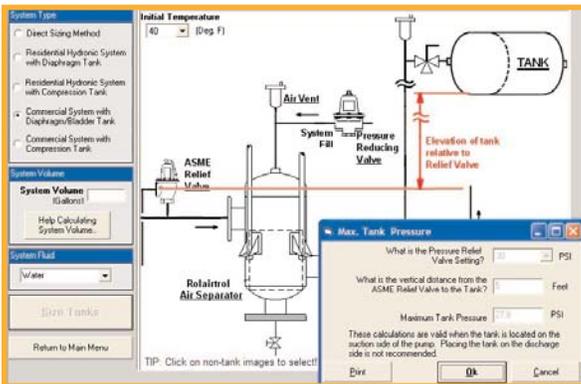
# Expansion Tank Selection Tips

When we redesigned Bell & Gossett's ESP-PLUS® tank selection program a few years ago, we sought comments from users about the program. The feedback came back in two camps. One group wanted a simpler program where the engineer could just enter the basic sizing parameters like other manufacturers' programs. The other group wanted even more design help than offered in the existing ESP-PLUS program. Our solution? Offer both.



## Direct Sizing Method

If the engineer knows the tank sizing parameters, he or she can enter them using the direct sizing method. Users who need more guidance in calculating the parameters can choose one of several methods that match their system type. In ESP-PLUS, each system type shows a sample system schematic to help the user answer questions that will lead to a proper tank size.



Each of the tank sizing parameters has a help option that guides the user. In addition to tank sizing, you can size any of the hydronic equipment by clicking on that item in the schematic. ESP-PLUS gives you the ability to spec out the entire system including the tank, pressure reducing valve, pressure relief valve, air separator and the new tank purge valve.

## Enhancements to ESP-PLUS CAD Library

ITT has announced the addition of a comprehensive new CAD library to its popular Bell & Gossett ESP-PLUS online pump selection program. The program now includes 3-dimensional drawings and other new, important features that allow engineers to:

- Download 2D and 3D files in several file formats, or directly insert into leading CAD systems like Inventor, Pro-Engineer, Solid Works, Mechanical Desktop, Catia and Solid Edge.
- Preview the drawings through a 3D viewer.
- Access a much larger number of drawings including the new VSX line of split-case centrifugal pumps, Series 80-SC and Series 60 close-coupled in-line pumps.



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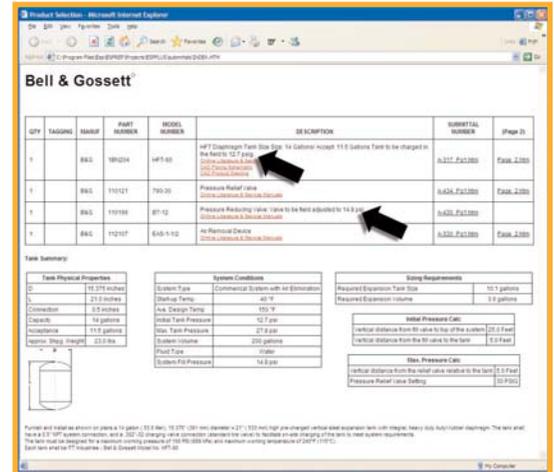
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# Expansion Tank Selection Tips (continued)

## Estimating System Volume

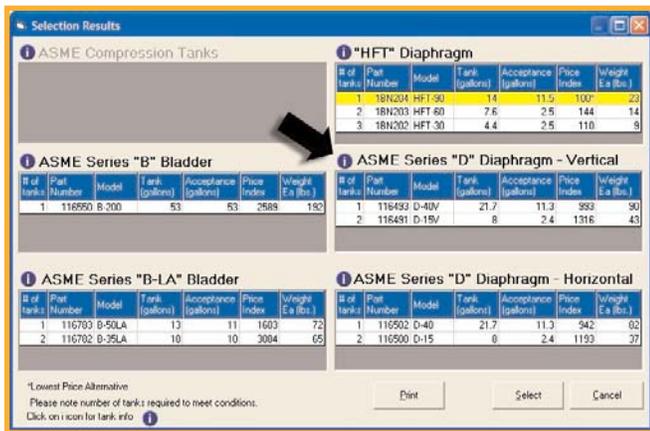
If the user doesn't know the total system volume – a required input for tank sizing – ESP-PLUS offers two methods for estimating the total: Component and Chiller Size. The component method works by entering the water volume for different system components. ESP-PLUS includes calculators to help. As an example, for pipe, a calculator allows you to enter the total length of each of the different pipe diameters.

After the user clicks on the 'Size Tanks' button, ESP-PLUS will display all the possible tank selections and show their cost ranking. Information screens are available to describe the features of each of the different tank types.



A final report is available that shows each of the components for the air control system. The report includes the proper field settings for tank and fill valve pressures and links to product information and CAD drawings.

ESP-PLUS is available online at [www.bellgossett.com](http://www.bellgossett.com) and also from ITT. For more information please contact your ITT HVAC Representative or visit [www.bellgossett.com](http://www.bellgossett.com)



When sizing a new diaphragm or bladder type expansion tank to replace an old compression tank, use the ESP-PLUS program to simplify the process. Just input all of the requisite information – system size, pressure, etc., and ESP-PLUS will help make the selection. And, once you install the new tank, make sure you properly dispose of the old compression tank.

### Proper Disposal of Tanks

Tank installations, removals, and reinstallations should be conducted by a trained professional and in accordance with the accompanying installation manual. When replacing a tank, air pressure must be relieved to 0 psig prior to disassembly to eliminate any safety hazards. Failure to follow these instructions may cause personal injury and/or property damage. Contact a local commercial or industrial waste disposal company or a metal recycling company to properly dispose of replaced tank.

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