

In recent years, customers have become more and more conscious of the price per square foot of storage space, energy efficiency, and the ease of installation. As engineering firms have become more involved with environmental chamber purchases, these issues have become critical to the review of options.

When a situation arises where the chamber is small, i.e. a 'step-in' chamber less than 8' x 8' in footprint, ES recommends consideration of a large reach-in chamber in lieu of the step-in. For information on both products, refer to the website tabs on walk-in chambers and reach-in chambers.

For a specific comparison, let's consider the following step-in chamber scenario:

- Overall size: 7' wide x 6'-6" deep x 8'-6" high, 4" insulated panels; 345 cu ft interior
- Left and right wall shelving (usable): 41.5" long x 17.5" deep x 6 tiers spaced at 12"
- Back wall shelving (usable): 71.5" long x 17.5" deep x 6 tiers spaced at 12"
- Overall shelving area: $(41.5" \times 17.5" \times 6) \times 2 + 71.5" \times 17.5" \times 6 = 16,222$ sq in. = 113 sq ft.

Notes:

- *Usable shelving is slightly smaller than nominal size due to end posts and shelf edging.*
- *There is an allowance of approximately 38" width x 48" depth for the user to enter the room and move product into place.*

Let's compare this to a triplewide reach-in chamber:

- Overall size: 10'-3" wide x 3' deep x 7'-8" high, 2.5" insulated walls; 114 cu ft interior (usable)
- Shelving (usable): 116" long x 28" deep x 5 tiers spaced at 12"
- Overall shelving area: (116" x 28" x 5) = 16,240 sq in. = 113 sq ft.

This example shows that a triplewide reach-in chamber, at a nominal 114 cu ft, can provide the same shelf storage area as a step-in chamber, at a nominal 345 cu ft.□

Note that the step-in chamber requires field erection, meaning that site construction and site start-up and testing is required. The reach-in chamber, on the other hand, is factory assembled, factory tested, then shipped to site.

Between the two options, the triplewide reach-in chamber is considerably less overall cost (materials and labor), and is a much faster installation (simply unload and roll into the final location). Both options are energy efficient, but the cost and installation considerations make the triplewide reach-in chamber a highly favorable choice for small to medium volume storage needs.