



Installation Guide

PS-4000 FLAT WALL

GETTING STARTED

Plan Ahead. You will need the proper tools, supplies, forming materials, concrete, and rebar to complete the job successfully. Below is a list of recommended items to consider before starting your project.

Tools. Most of the tools needed to install PolySteel Forms are the same as those used in other construction applications. The list below is designed to supplement a basic set of construction tools (hammers, saws, levels, pliers, tape measures, ladders, etc.) to make the installation of PolySteel go more smoothly.

Circular Saw (8 1/4")	4-Foot Level
Reciprocating Saw	String Line
Bi-metal Blades	Electric Hot Knife
Band Saw	Plumb Bob
Drywall (keyhole) Saw	Sledge Hammer
Tin Snips	Foam Applicator
3/8" Electric Drill & Bits	Gun
Extension Cords	Rebar Bender/Cutter
Chalk Line	Rebar Twist Tool
Framing Square	Transit or Laser Level
Concrete Hand Tools	Wall Alignment System*
Top Rail	Small Bolt or Wire Cutters

* Lumber, turnbuckles, or Reechcraft's Panel Jack Wall Alignment System.

Supplies. Some of the supplies you will need are unique to working with expanded Polystyrene and/or concrete, in addition to the typical supplies you might find in your vehicle for any job.

Rebar Saddles	Sun Screen
Nylon Electrical Ties	Rebar Twist Ties
Deck Screws	Tie Wire
Nails	Permanent Markers
Foam2Foam Adhesive	Carolina Clippers
Foam Applicator Gun	Reinforced Filament Tape

Forming Materials. Forming the walls requires PolySteel Forms, materials for window and door rough openings, and sleeves for utility penetrations. To estimate the number of PolySteel Forms needed, complete the Estimating Worksheet in the back of this guide.

We recommend VBuck® for forming the rough openings for windows and doors, and the Estimating Worksheet indicates how to calculate the material requirements for this product. You may also use pressure-treated, or felt-protected, lumber for this application and should estimate accordingly for the lumber, screws, and anchors required.

PVC or metal pipe should be used to form and line the wall penetrations for utility access.

Concrete and Rebar. The number of PolySteel Forms and the structural design of the walls will determine the amount of concrete and rebar required. The Estimating Worksheet includes calculations for the proper amounts of these items.

THE ARC OF SUCCESS

Throughout the installation process, it is important to keep in mind three key elements of the PolySteel building system and how they relate to each and every procedure you execute.

Alignment. From aligning the stud markings on the outside of the forms as you stack them, the cuts you make in fitting the walls together, keeping things level as you progress, and plumbing the walls with your alignment system, keeping things in alignment both horizontally and vertically is critical to your overall success.

Reinforcement. Reinforcing the cuts made in the forms is as important as the proper selection, spacing, and placement of reinforcing steel in your PolySteel walls, with particular emphasis on openings and lintels.

Concrete. Proper design strength, slump, placement and consolidation of the concrete you use will ensure that all of your efforts result in the superior structural performance of your PolySteel project.

