

Installation

These instructions are intended only to provide assistance and as a guide to obtain the most appropriate and satisfactory installation of Champion Strut™ fiberglass channel framing systems.

These instructions are not intended to replace the responsibilities of engineers, customer representatives, owners or other persons responsible in establishing engineering design practices and procedures that are best suited for individual job site conditions.

The installation of fiberglass channel and accessories doesn't differ greatly from the installation of metallic channel and accessories. General installation practices will still apply. The procedures for cutting, drilling and sealing can be found below.

Labor Savings

Just as with Champion Fiberglass conduit, Champion Strut can be installed much faster than traditional steel channels. The lightweight fiberglass components weigh less than half of their steel channel counterparts and can be cut, drilled and fabricated in half the time. The result is a substantial labor savings.

Field Cutting, Drilling and Sealing

To make fiberglass channel field cuts, the tools required are a fine-tooth hand-held hack saw, porta-band saw or a chop saw with a diamond cutting blade. In order to drill fiberglass channel, any standard battery-powered drill will work. It's recommended to use carbide-tipped drill bits as they last longer. Marking the fiberglass channel for cutting or drilling will require a contrasting colored marker. Remove any cutting/drilling burrs or ridges with 60-grit emery cloth. All field cut sections of strut should be sealed with Champion Seal field cutting sealant (PN# CS-SEAL-C).

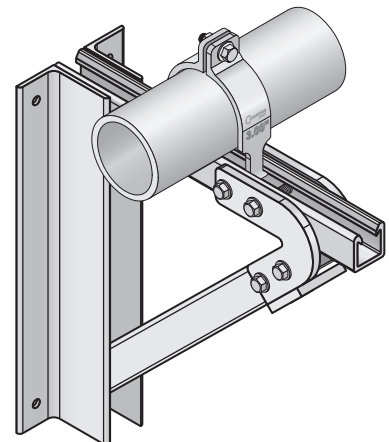
Proper field cutting and drilling PPE to include:

- Long sleeve clothing
- Gloves
- Safety glasses
- Particulate respirator (#N95 or equivalent)



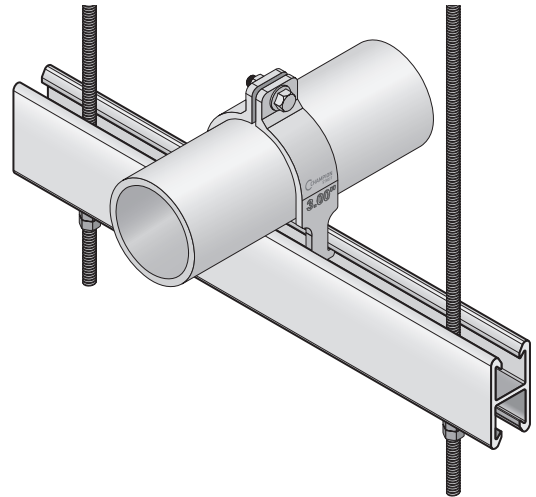
CHAMPION STRUT™ WALL BRACKETS

Champion Strut wall brackets are typically used to support piping, electrical conduits or cable trays that will be wall mounted. Each wall bracket has a maximum load rating of 750 lbs with a 3:1 safety factor on a uniformly distributed load. Bracket spacing may be determined by dividing 750 lbs by the piping, electrical conduit or cable tray load by the total load in lbs/ft of piping, conduit or cable tray including its intended material load (fluid or cable).



TRAPEZE HANGING SYSTEMS

Champion Strut trapeze hanging systems may be used to support piping, electrical conduits or electrical cable trays in areas where the building structure doesn't allow direct placement or supporting (I-beams, wall mounting, pipe racks, etc.). Trapeze hangers are field assembled using components that are contained within this catalog. The trapeze hanger should be constructed as shown and care should be taken to ensure that the load is equally distributed on the hanger and that threaded rods are completely inserted fully into the beam clamps to achieve maximum thread engagement and threaded rod pull-out strength.

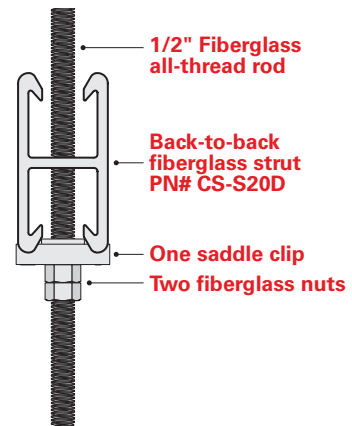
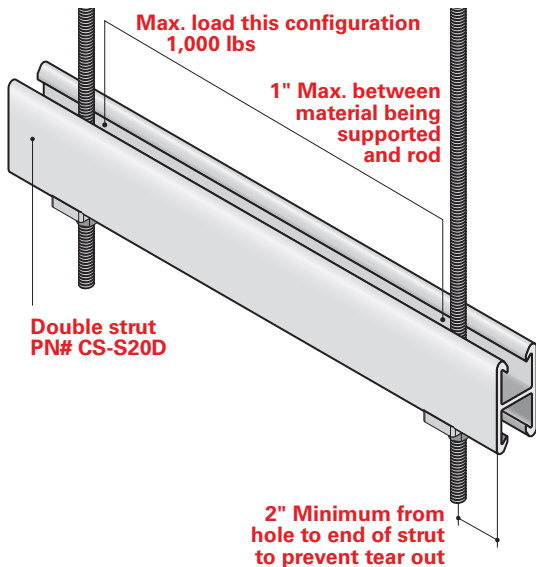


CHAMPION STRUT™ TRAPEZE TYPES

The Champion Strut trapeze systems can be designed in three different styles; utilizing the single back-to-back Champion Strut CS-Series profile CS-S20D, with the CS-S Series 1-5/8" x 1-5/8" profile CS-S10D with the strut opening facing down or the CS-S Series 1-5/8" x 1-5/8" profile CS-S10D with the strut opening facing up. Each type of trapeze hanging system has different loading capacities.

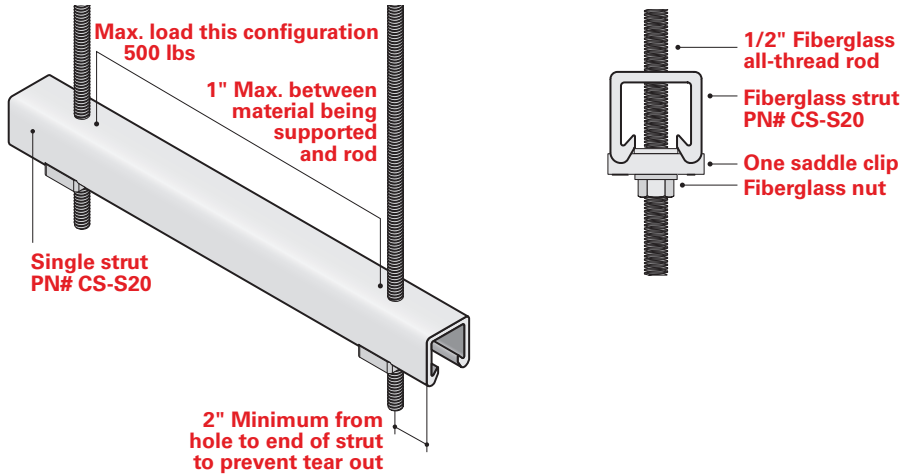
BACK-TO-BACK STRUT TRAPEZE

When utilizing this design and supporting a 100 lb/ft load, the spacing between each trapeze should not exceed 10 ft. Under these conditions, each trapeze will be supporting 1,000 lbs and yielding a support system safety factor of 3. When using the Champion Strut heavy-duty fiberglass beam clamps (PN# CS-BCH-500), care should be taken to ensure that the 1/2" threaded rod is fully engaged within the beam clamp. The fiberglass hex nuts should not be over-torqued (8 ft/lbs max) and the load should be equally distributed over the trapeze hanger.



SINGLE STRUT (CS-S20) WITH OPEN END FACING DOWN TRAPEZE

When utilizing this design and supporting a 100 lb/ft load, the spacing between each trapeze should not exceed 5 ft. Under these conditions, each trapeze will be supporting 500 lbs and yielding a support system safety factor of 3. When using the Champion Strut™ heavy-duty fiberglass beam clamps (PN# CS-BCH-500), care should be taken to ensure that the 1/2" threaded rod is fully engaged within the beam clamp. The fiberglass hex nuts should not be over-torqued (8 ft/lbs max) and the load should be equally distributed over the trapeze hanger.



SINGLE STRUT (CS-S20) WITH OPEN END FACING UP TRAPEZE

When utilizing this design and supporting a 100 lb/ft load, the spacing between each trapeze should not exceed 4 ft. Under these conditions, each trapeze will be supporting 400 lbs and yielding a support system safety factor of 3. When using the Champion Strut heavy-duty fiberglass beam clamps (PN# CS-BCH-500), care should be taken to ensure that the 1/2" threaded rod is fully engaged within the beam clamp. The fiberglass hex nuts should not be over-torqued (8 ft/lbs max) and the load should be equally distributed over the trapeze hanger.

