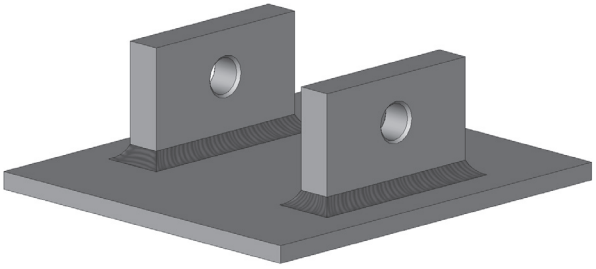
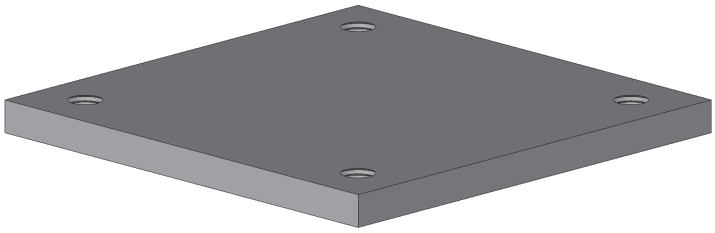
Part #500588-001

Installation Instructions & Guidelines:

FB Series Weld-On
Fall Arrest Tower Base Plates



#FB-SW1



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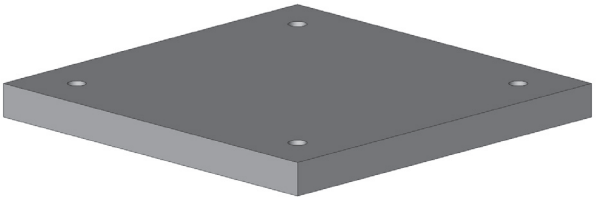

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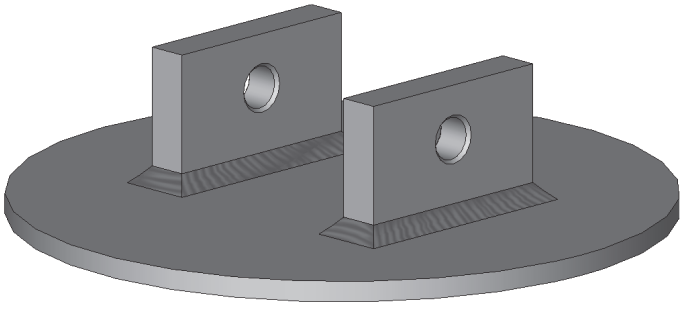

#FB-RW1

PELSUE®

ISO 9001 Certified

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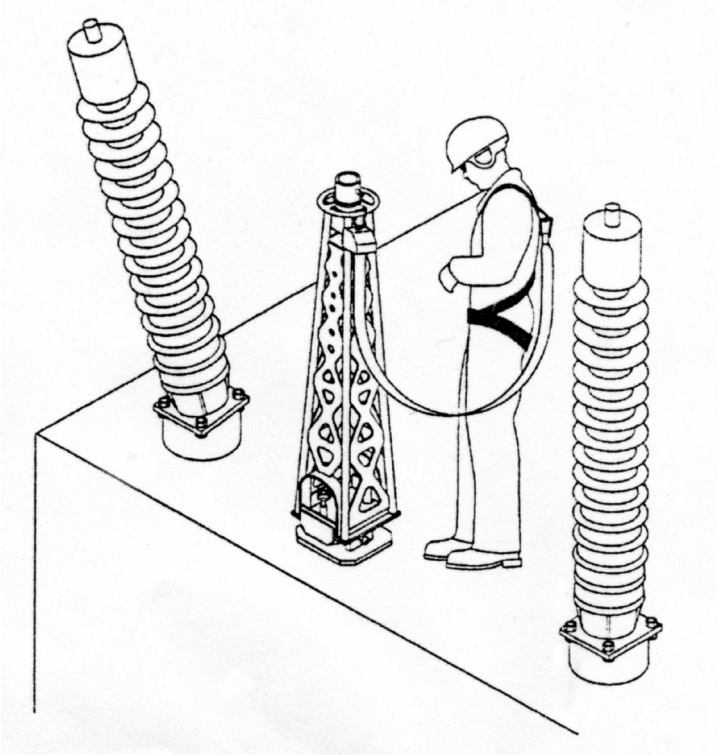
Introduction:



This document outlines the general procedure and guidelines for the installation of ***PELSUE*** Brand FB Series Weld-On Base Plates. The contents of this document are applicable to the following Pelsue Models:

#FB-SW1	#FB-BT1
#FB-BT2	#FB-RW1

These fabricated plates are designed to be permanently welded to a horizontal or nominally sloped surface in order to provide a mounting location for ***PELSUE*** Brand Fall Arrest Anchorage Towers (i.e. Model #FT-C70, and #TFAT Series. This procedure is intended to provide instructions that will result in the safe & secure installation of the fore-mentioned base plates, however, it is always the user's responsibility to ensure that the final installation is sufficient and compliant to local governing regulations relevant to the product's intended use.

Mounting Location Selection

The location at which the user chooses to mount the base plates is dependent upon several factors;

1. The fall arrest product to be used in conjunction with the base plate
2. The intended uses of the installed system
3. The equipment & obstructions surrounding the area of install

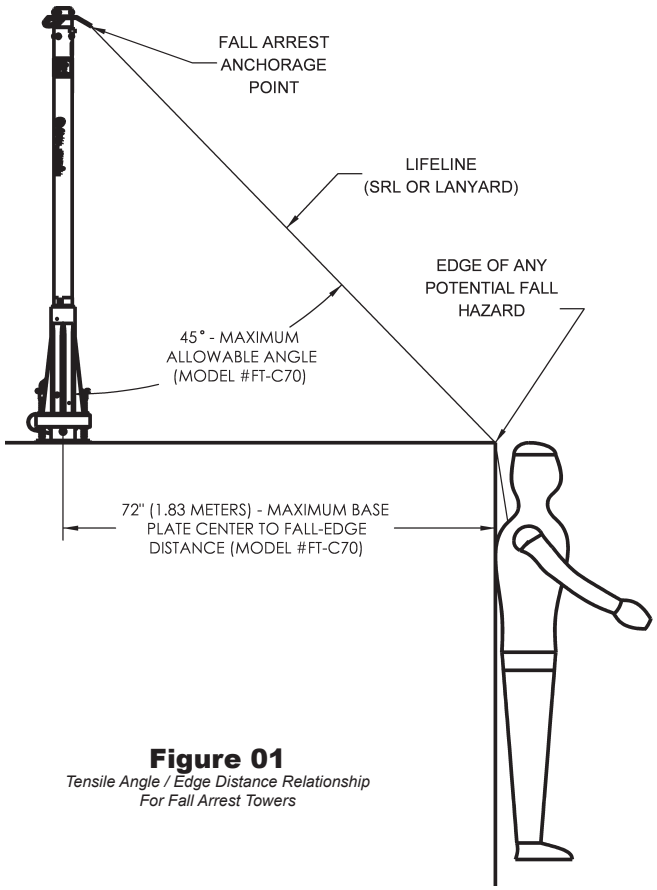


Figure 01
Tensile Angle / Edge Distance Relationship For Fall Arrest Towers

First & foremost, a location must be chosen to provide minimum interference due to surrounding equipment and/or structures. Any obstruction rising from the work surface will interfere with the travel of the fall arrest lanyard and/or SRL device. Whenever possible, place the base plate in a location where the desired working radius is free of any obstructions.

Edge Distance Considerations: When utilizing the base plates strictly for towers for use for fall arrest anchorages, the placement of the plate is restricted by the allowable angle on the connection point at the top of each tower (refer to Figure 01 at the left). A Pelsue, model #FT-C70 Carbon Fiber Fall Arrest Tower can only be mounted in a base plate where the center is located a maximum of 72 inches (1.83 meters) away from the work surface edge or any potential fall location. This maximum distance will limit the angle of pull, in the event of a fall, on the tower to 45 degrees off the vertical, the maximum allowable for that tower model.

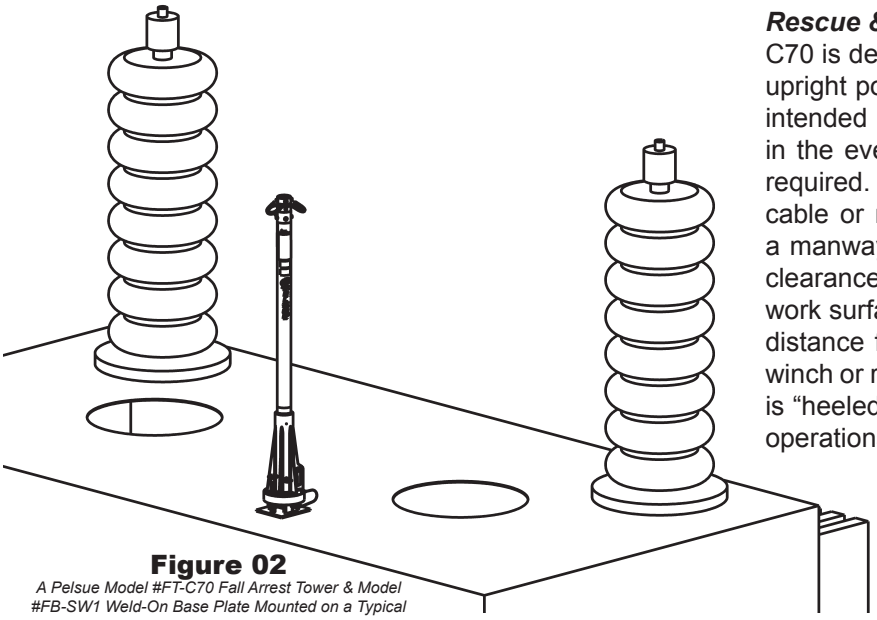


Figure 02
A Pelsue Model #FT-C70 Fall Arrest Tower & Model #FB-SW1 Weld-On Base Plate Mounted on a Typical Substation Transformer Top

Rescue & Retrieval Considerations: ***The Pelsue*** model #FT-C70 is designed to lean or "heel" over into "Rescue-Mode" from the upright position up to 23 degrees off of the vertical. This feature is intended to facilitate the attachment of a winch or retrieval device in the event that a vertical rescue, lifting, or lowering operation is required. In such a circumstance, it is desirable to have the winch cable or rescue system able to be lowered through the center of a manway or down from the work surface vertically with adequate clearance between the cable/rope and the vertical wall adjoining the work surface. *Figure 03* illustrates the relevant tower setup and the distance from the center of the base plate to the point at which a winch or rescue device would be lowered vertically when the system is "heeled-over" to its maximum 23 degrees. If lifting and lowering operations are anticipated in the use of the ***PELSUE*** base plates to be installed refer to *Figure 03* and ensure that the base plates are installed in a location that will provide adequate clearance from all surfaces and obstructions when used in the "Rescue-Mode" Configuration. ***Pelsue #TFAT Series towers are not approved or equipped for use in any other orientation than vertical*** and do not have a "Rescue Mode' Configuration.

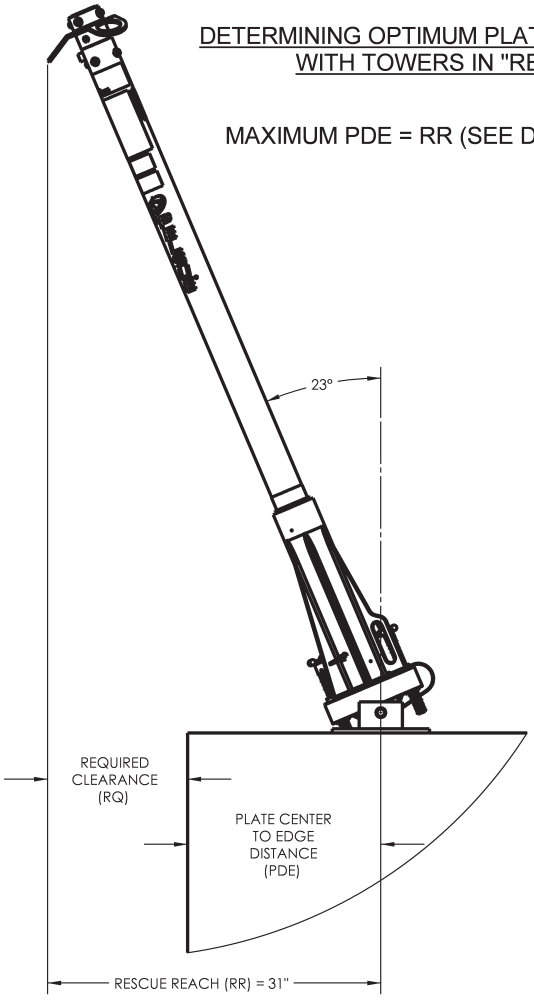


Figure 03
Fall Arrest Tower "Rescue-Mode" Dimensions & Plate Center to Edge Distance Recommendations

Welding

This section of the document will provide & discuss general welding guidelines and procedures for the installation of the FB series weld-on fall arrest tower base plates. All welding should be performed by a competent & qualified welder familiar with the procedure and protocol outlined by the American Welding Society (AWS), or your region's governing welding association.

1. Determine the desired locations for installation per the previous sections of this document.
2. Prior to installation, ensure that the structure to which the plate will be welded is sufficient in strength to support the reported proof loads of the base plate to be installed (Note: It is the user's responsibility to ensure that the structure will support the loads imparted to it by the fall arrest system).
3. Whenever possible, base plates should be installed prior to the application of any finish or paint to the surface to be welded to. If paint or finish has already been applied, remove the finish in the area to be welded. Clean a large enough area so that the finish or paint will not contaminate the welds around the base plate (Note: When removing lead-based paint, wear proper protection and dispose of removed paint debris according to local regulations).
4. Once the base plate is positioned where desired, weld in place with a continuous 5/16" (8 mm) leg fillet weld (see Figure 04). The weld must be continuous around the entire plate with no interruptions or gaps. Maintain sufficient penetration and cleanliness of the weld ***(Note: When welding on electrical transformers, follow special guidelines below).***
5. Following the welding process, the plate and weld area should be dressed appropriately.
6. The stripped area, base plate, and weld should be coated with a rust-inhibiting paint or primer shortly after welding is completed.

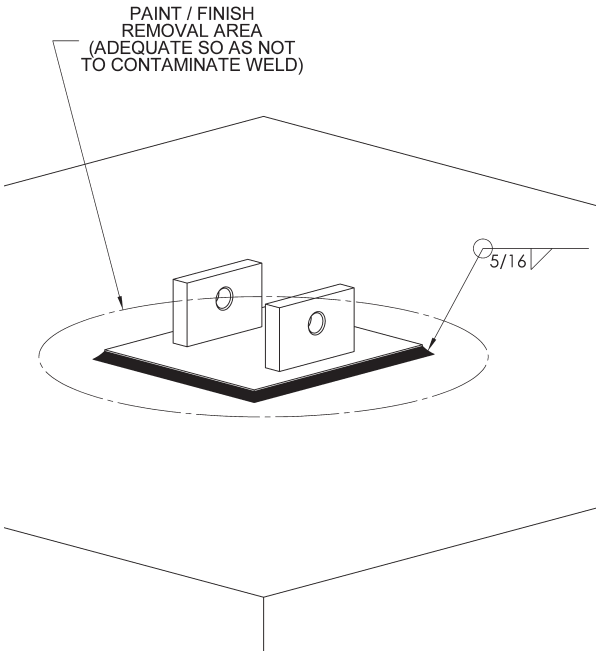


Figure 04
Welded Base Plate Detail

Electrical Transformer Welding - Special Guidelines:

When welding base plates on the tanks of substation transformers, special guidelines must be followed. It is the recommendation of the T.A. Pelsue Company that ***PELSUE*** base plates be welded on the transformer tanks by the manufacturer at the factory, however, this is often impractical, so the following guidelines have been provided to apply to field installations of weld-on base plates. The welding process generates intense heat, and precautions must be taken to protect the transformer and its components during welding. Welding on the topside of a transformer tank can transmit heat to the interior of the tank and cause the interior paint to chip and contaminate the contained insulating oil. The following guidelines apply to oil-filled transformers capped with inert gas and equipped with conservator tanks, and will aid to prevent the fouling of the transformer oil during installation.

Option 1 - Manway Installation: Oil-filled transformers are equipped with manways for internal access. If the removal of the manway covers is not required when the fall arrest systems are in use, ***PELSUE*** base plates can be welded to the covers while removed from the transformer tank, thereby eliminating any heat transfer to other parts of the transformer. The manway cover paint will likely require repair after welding. ***Note - If this method is chosen, the manway covers will be required to be bolted in place at all times when used as an anchorage for a PELSUE fall arrest system, use Option 2 if this is not a feasible option.***

Option 2 - Tank Top Installation: When welding directly on the transformer tank tops, it is recommended that the inert-gas space above the oil within the tank be removed by completely filling the transformer tank with oil. The oil will help act as a heat sink on the interior of the tank thereby preventing damage to the paint's surface. During welding, the conservator tank should be full of oil with the conservator valve open. After welding, the oil level within the tank can be drawn down, and the inert gas cap restored.

NOTE: Prior to any base plate installation upon transformer tanks the installer should verify this procedure with the particular manufacturer of the transformer. Each manufacturer may have special instructions regarding welding on the transformer tanks.

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