

Installation of Fold Over Kit's Screw Actuator System

The Acme Screw System consists of the following sequence of parts, as installed with the handle or gearmotor below the Folding Plates:

- 1) THREADED ACME SCREW ROD, 6 ft. long, either 1" or 1 1/4" dia. depending on the size system purchased.
- 2) THREADED TRAVELLER NUT, with 3/4" pivot bolt – holes to bolt into the top Folding Plate.
- 3) TOP RETAINING NUT, with set screws
- 4) Washer, 1" or 1 1/4"
- 5) UNTHREADED YOKE NUT, with 3/4" pivot bolts to bolt within Fold Over Kit side-plates.
- 6) Washer, 1" or 1 1/4", depending on system size
- 7) THRUST BEARING, ring shaped
- 8) BOTTOM RETAINING NUT, with set-screws
- 9) DRIVE SOCKET for manually operated winch or GEARMOTOR COUPLER for motorized system. Either one will be bolted on end.

To INSTALL the Acme Screw System in the set of Folding Plates:

- 1) Bolt the top aluminum Nut block into the top Folding Plate by threading one 3/4" pivot bolt (supplied with your Screw Actuator) through one of the 1" (3/4" in old steel versions) holes on the side of the Fold Over Kit plates into one of the two 3/4" pivot holes in the Yoke or Traveller Nuts. You will have to hold the Screw System vertical and in place or have another person hold it while you are threading the pivot bolt into a aluminum Nut blocks' side holes.
- 2) Keep a hold on the Screw System and thread a pivot bolt through the other side of the top Traveller Nut. Continue to hold the Screw System and proceed to the next step.
- 3) Position the bottom Yoke Nut to thread the pivot bolts. If the bottom aluminum Yoke Nut is too high to permit threading, twist the Acme Screw in the proper direction to align the aluminum Yoke Nut bolt-holes with the 1" side holes in the bottom Folding Plate. Thread the 3/4" holes as done for the above aluminum Nut.

- 4) Make sure the top and bottom Retaining Nuts snugly sandwich the top and bottom of the Unthreaded Yoke Nut with the washers and bearings sandwiched in between, however they should not be pressing the Bearing so tight that you are unable to rotate them by hand before pressure is applied to the Screw System. Make sure the set-screws in the top and bottom Retaining Nuts are now tightened down so that they will hold the Retaining Nuts in place when the Screw-system is operation.
- 5) If the handle of the Screw-system is about 6.25" inches below the Fold Over Kit Yoke Nut (see diagram), you are now ready to grease the screw and crank it over. If you need to readjust the level of the handle or Gearmotor Coupler, then loosen the set-screws on the Retaining Nuts and twist the Acme Screw up or down to the desired level. With the level issue resolved, go back to Step 4 to reset the screws. Also, please read the Instruction sheet accompanying this one titled, "Gearmotor Mounting Instructions".
- 6) Completely grease the length of the exposed Acme Screw rod with a molybdenum-fortified, lithium-based grease. The lithium-based, #2 grade, molybdenum fortified grease is preferred. 14 oz. cartridges of this type of grease are available for purchase from Heights Tower Systems. Current price is \$6.85 a cartridge.
- 7) If you have a Gearmotor & Mount kit to attach, see separate installation instructions for the Motor & Mount. Otherwise, attach the breaker bar handle for manual operation. You are now ready to crank the screw on your Screw Actuator System and fold over or fold up the tower.

For weather protection of the Screw System, many customers have cut off a piece of PVC tube, approx. 5 ft. long, taped over its end with duct taped and sheathed the extended end of the Screw System.

Thank you for selecting our products for your tower installation. If you have any further questions or comments on the Heights' Screw Actuator System for Fold-Over-Kits, please call or write:

Heights Tower Systems, Inc.
1529 Gulf Beach Hwy.
Pensacola, FL 32507
Phone: 1-850-455-1210
Fax: 1-850-455-4355
info@heightstowers.com