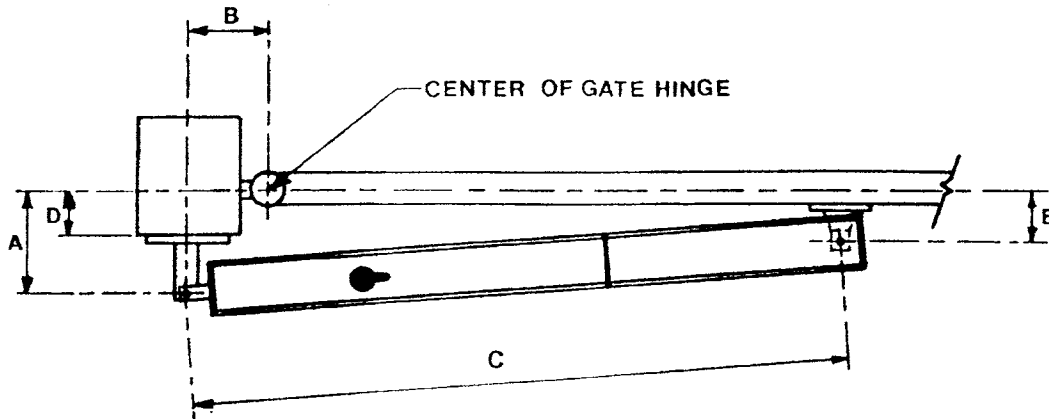


MOUNTING GEOMETRY

For FAAC Swing Gate Operators

The most important thing is to achieve the proper "A" & "B" dimensions



It is ideal to use the dimensions listed in the installation manual for your operator. However, some of the following things can cause you to have to alter these dimensions slightly:

- Size of the gate post or pillar
- Location of the hinge point
- Thickness of the gate leaf
- Degree of swing

The dimensions in the manual are maximum dimensions. You can decrease them, but to increase one (A or B), you must decrease the other.

For example: If the manual states that A should equal 5 inches and B should equal 5 inches, but you need A to be 5 ½ inches, then you must reduce B to 4 ½ inches.

This is because:

A + B = the amount of piston stroke needed for a 90° swing.

For example: The 400 Operator has a 10 ½ inch total stroke. We subtract ¼ inch for each end so that the piston does not bottom out. This leaves us with 10 inches of useable stroke. Considering the above formula, we can now decide our A and B dimensions. They could be 5" and 5" or 6" and 4" or 5 ½" and 4 ½" (Anything that adds up to 10"). However, you do want to keep them within reason. If the dimensions differ more than 2 inches, you will not have a consistent speed throughout the swing. So, 6" and 4" would be alright, but 7" and 3" would not.

The other thing to consider when deciding the A and B dimensions is how the speed of the gate will be affected. We specify the "90° opening time" in our manuals, as the time it takes an operator to travel it's entire stroke. Because the piston moves at a constant speed, the less stroke you use to achieve the desired amount of swing, the less time it will take to travel the full swing.

For example: We specify that a 400 Rapid Operator will run 90° in 12 seconds. If your A and B dimensions were only 4" and 4", you would only be using 8" of stroke for a 90° swing. If the piston takes 12 seconds to go 10 inches, it will take less than 10 seconds to go 8 inches.

As you may have noticed, another thing we can do by reducing the specified A and B dimensions is achieve a swing of more than 90°.

For example: Using the same scenario as above, if you are only using 8 inches of stroke to go 90°, you could get more than 110° of swing with the full 10 inches of stroke.

The "C" dimension is the distance from the rear pivot point to the pivot point of the front bracket (gate bracket). Typically, rather than measure this distance, most people will mount the operator on the rear bracket and manually pull the piston out all the way and push it back ¼". If you mount the bracket at this point, you will ensure that you are utilizing all of the useable stroke.

The "D" dimension should always be at least 2 inches less than the "A" dimension. This is to ensure that the operator body will not come in contact with the corner of the post.

The "E" dimension should always be less than "A" in the closed position and less than "B" in the open position. This way the operator will not be at a mechanical disadvantage when it goes to open or close the gate.

If you cannot achieve the proper A and B dimensions, consider the following:

- **Use a different operator-** If the 10 inch stroke of a standard 400 is not enough, a 400 EG has 15 inches of useable stroke. Sometimes one of our in-ground operators may solve a mounting problem.
- **Swing the gate out-** When you mount an operator to swing out rather than in, the B dimension is measured from the hinge point toward the driveway. Therefore the size of the gate post or pillar is no longer an issue.
- **Notch the pillar-** If you have a large pillar, you may have to notch it out and install a recessed liner to mount the rear bracket and achieve the proper A and B dimensions.
- **Use the pantograph-** The optional pantograph allows you to have up to a 24 inch post with a 402 and up to an 36 inch post with a 400 (assuming the hinges are centered on the post).