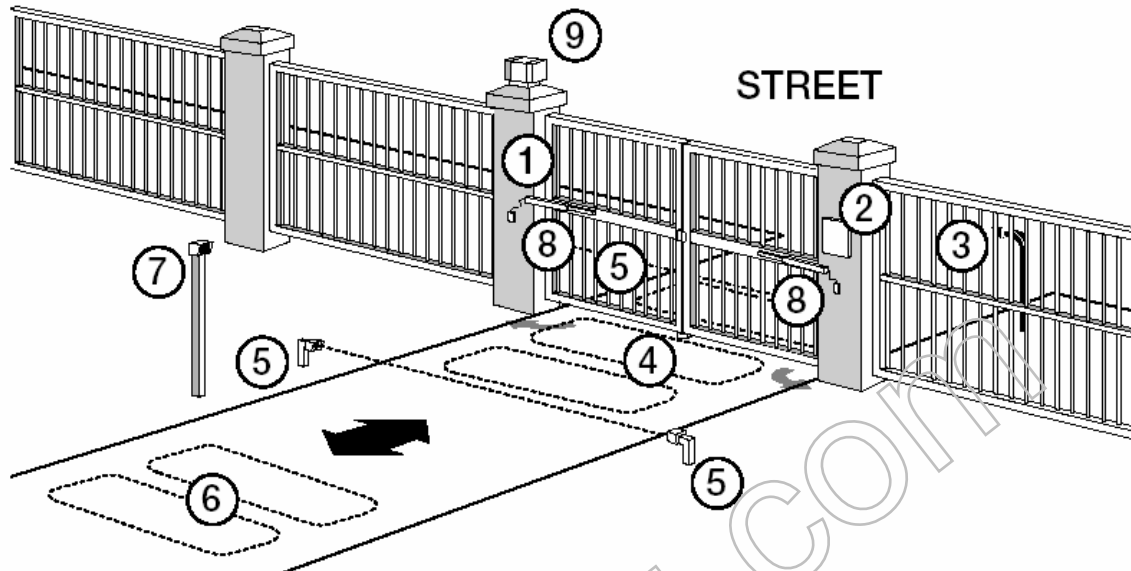


Example of a Complete Swing Gate System



No.	Description	More Information
1	The swing gate operator automates the gate.	Model 412, page 11 Model 402, page 21 Model 422, page 21 Model 400, page 27 Model 750, page 45 Model 760, page 53
2	The weather resistant accessory interface box houses the motor control panel and accessory devices.	Control panels, page 61 Prewired control panel enclosures, page 65
3	An entrance switch opens the gate for entry.	Entry systems and devices, pages 125-134
4	Reversing loops to prevent the gate from closing on a car. Loop under gate path is active only when gate is open.	Loop detectors and loops, pages 141-145
5	Photobeam sets help prevent vehicular or personal entrapment.	Photobeams, pages 138-140 Other reversing devices, page 141-145
6	Inductive loops activate the operator to open the gate. Loop sequence prevents the gate from being re-opened by inbound traffic.	Loop detectors & loops, pages 142-145
7	An exit switch opens the gate for exit.	Entry systems and devices, pages 125-133
8	Gate stops (positive stops) limit the travel of the gate leaf and protect the operator. Positive gate stops are required for all swing gates.	Positive stops, page 39
9	The warning light can alert anyone near the gate of its imminent movement and can light the gateway.	Warning lights, page 148

Selecting the Correct Operator for the Application

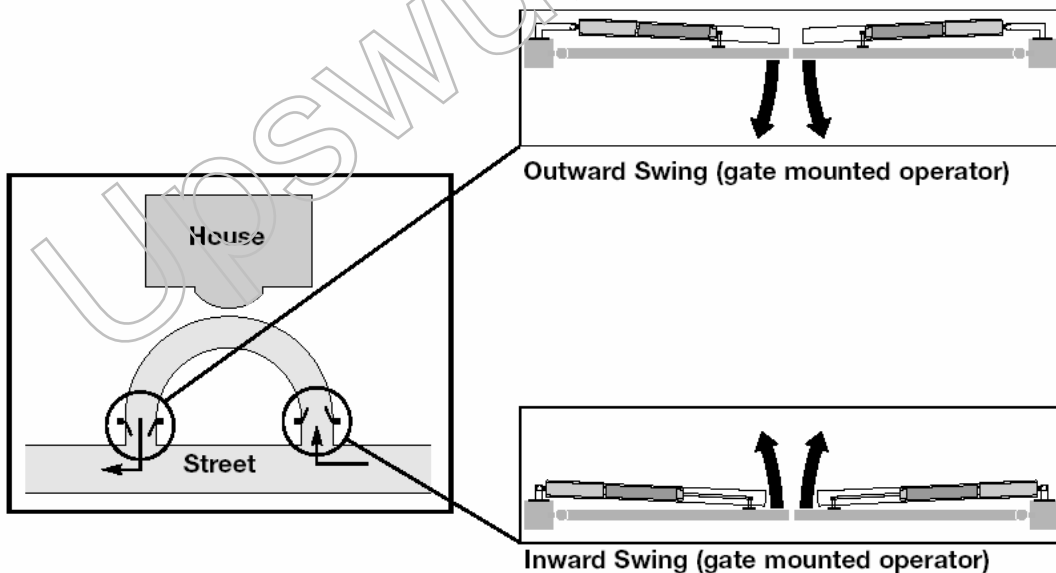
THERE ARE SIX “DECISIONS” THAT YOU NEED TO MAKE BEFORE SELECTING A GATE OPERATOR.

FAAC offers many different models of swing gate operators. Models are designed to fit certain applications.

The following pages provide background information to help you select the best operator for your application.

DECISION #1: WHICH DIRECTION TO SWING THE GATE?

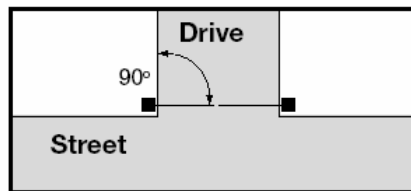
FAAC gate mounted and in-ground operators can swing gates either inward or outward. Gate mounted operators can be kept inside the property, while the direction of gate swing is best for traffic flow. In-ground operators are mounted beneath the gates. These options reduce opportunities for vandalism and improve appearance.



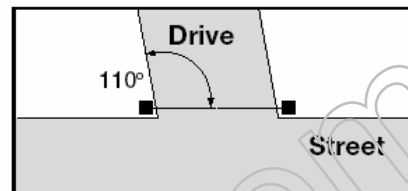
* If you have any questions regarding your application, please call FAAC's technical department at 1-800-221-8278.

DECISION #2: HOW MANY DEGREES OF SWING ARE REQUIRED?

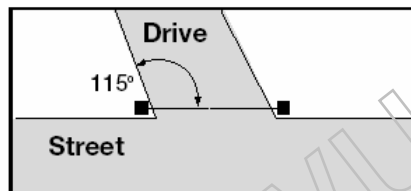
- One FAAC gate operator (Model 750) can swing a gate up to 180°.
- All models of FAAC operators can swing a gate at least 90°.
- Openings which require swings greater than 90° will need certain FAAC operator models.
- The swing of an operator applies equally to inward or outward swinging gates.



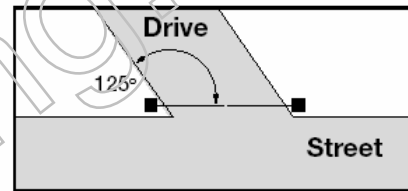
All FAAC operators:
Models 412, 402, 422, 400, 750, 760



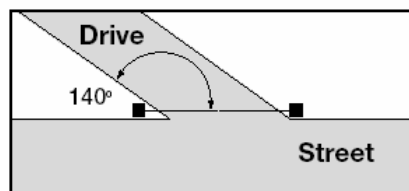
Models 412, 400, 750, 760.



Models 400, 750, 760.



Models 400 EG (extended geometry),
750, 760.



Models 750 (up to 180°),
760 (up to 148° with "soft stop")

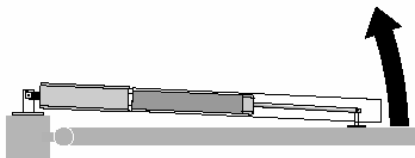
DECISION #3: WHAT TYPE OF MOUNTING GEOMETRY?

Decisions regarding mounting geometry apply to gate mounted operators: Models 412, 402, 422 and 400.

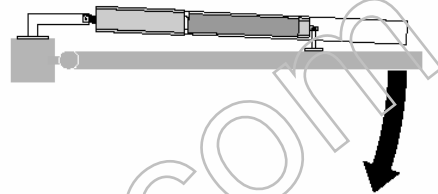
As shown in the diagrams below, the operators must be mounted at an angle to the gate. Correct mounting geometry assures that the desired degrees of swing are achieved, that the gate speed is correct, and that the operator and gate will operate properly and have a long life.

Mounting geometry measurements for linear operators can be found beginning on Page 156.

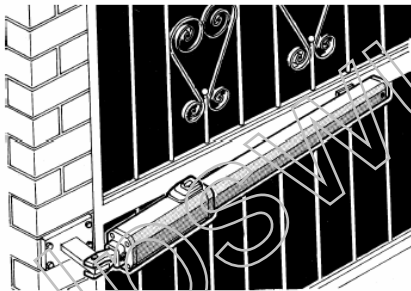
- 1.** Example of a mounting for an inward swinging gate.



- 2.** Example of a mounting for an outward swinging gate.

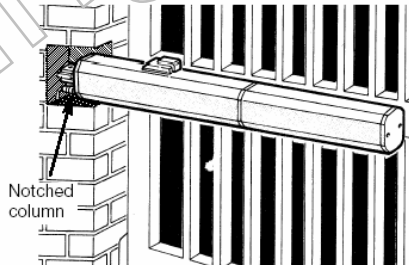


- 3.** Sometimes the mounting measurements will result in a flush mounting



Special Situations

- 4.** Sometimes a column must be notched in order to accommodate the correct mounting geometry.



Note: If, in your installation, notching a column is not practical, other solutions are available:

1. Install operators using an outward swing.
2. Upgrade to an operator with more mounting flexibility (see dimensions, page 158).
3. Use a Pantograph (see page 35).
4. Use an in-ground operator (see Model 750 on page 45 or Model 760 on page 54).

**DECISION #4:
INTERNAL LOCKING...WILL THE OPERATOR
HOLD THE GATE IN POSITION?**

You will need to choose whether the gate operator will lock the gate in the opened position, closed position, both the opened and closed positions, or neither the opened or closed positions.

One of the elements of your decision concerns whether a "fail safe" or "fail secure" installation is appropriate.

- In a "fail safe" installation, the gate is held closed with a magnetic lock (see page 147). In the event of a power outage, the magnetic lock will automatically release the gate to permit access or exit.
- In a "fail secure" installation, the gate is held closed by the operator and/or with an external electric lock (see page 147). In the event of a power outage, the gate will not move until it is released with a key.

Note: internal locking on all operators can be released with a key, however you must have access to the operator to do so.

The following chart shows standard configurations of operators.

Standard Internal Locking Configurations Available				
Operator Model	No Hold (SB)	Holds Open Only (CBA or CBC)	Holds Closed Only (CBA or CBC)	Holds Open and Closed
412	N/A	N/A	N/A	mechanical locking
402		available	available	
422	available	available	available	available
400	available	available	available	available
750	available	available	available	available
760	available	available	available	available

WARNING: External locking (SB, CBA, or CBC version) should be used if:

- Your gate is longer than 12 feet (3.7 meters).
- When tight security is required.
- If the gate is likely to be rammed.
- When the gate is subject to strong or gusty winds.
- When A SB, CBA or CBC version is used.

DECISION #5: SPEED AND LEAF LENGTH

Some thought should be given to the speed at which the gate will travel. The longer the gate leaf, the faster the traveling edge must move to clear an area in a given amount of time.

A speed of 40 feet/minute (12.2 meters/minute) is a "bench mark" velocity. It permits efficient operation while limiting the energy in the moving gate leaf. The lower the energy, the less chance of damage to property or injury to people in the event of accidental contact with the moving gate.

Examples illustrating the relationship between
operator speed, gate leaf length,
and the velocity of the leaf's traveling edge

Speed options available with FAAC Operators (in seconds needed to swing a gate 90°)	EXAMPLE: Velocity of the traveling edge of an 8 ft (2.4 m) leaf [in feet/m and (meters/m)]	Longest leaf which can be used if the velocity of the traveling edge is not to exceed 40 fpm (12.2 mpm)
6 sec.	126 fpm (38 mpm)	2.5 ft (0.8 m)
12 sec.	63 fpm (19 mpm)	5 ft (1.5 m)
15 sec.	50 fpm (15 mpm)	6 ft (1.9 m)
17 sec.	44 fpm (14 mpm)	7.5 ft (2.3 m)
23 sec.	33 fpm (10 mpm)	10 ft (3 m)

DECISION #6: DUTY CYCLE

The duty cycle achieved by a swing gate operator in terms of "operations per hour" is, in large part, a function of the installation. For example, an operator swinging a leaf through 125° will be able to complete fewer operations per hour than the same operator swinging only 90°.

The duty cycles shown below reflect expected performance at an ambient temperature of 72° F (22° C) and at nominal voltages of 115 VAC and 230 VAC. Changes in environmental conditions, voltage and gate condition will affect achievable duty cycle.

Operator Model	Cycles per hour
412	residential
402	30
422	30
422 VHS	30
400	80
750	30
760	30

10 * Measurements and weights stated in this Price List are approximate and subject to change without notice. For exact specifications, please refer to the Installation Manual or contact our technical department at 1-800-221-8278.
* If you have any questions regarding your application, please call FAAC's technical department at 1-800-221-8278.