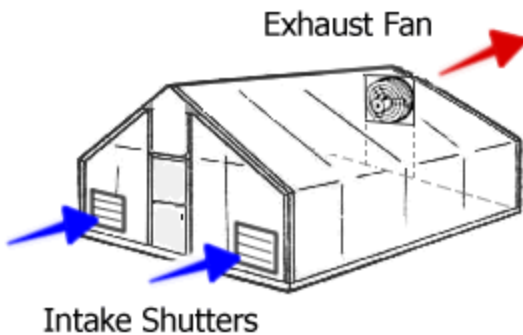
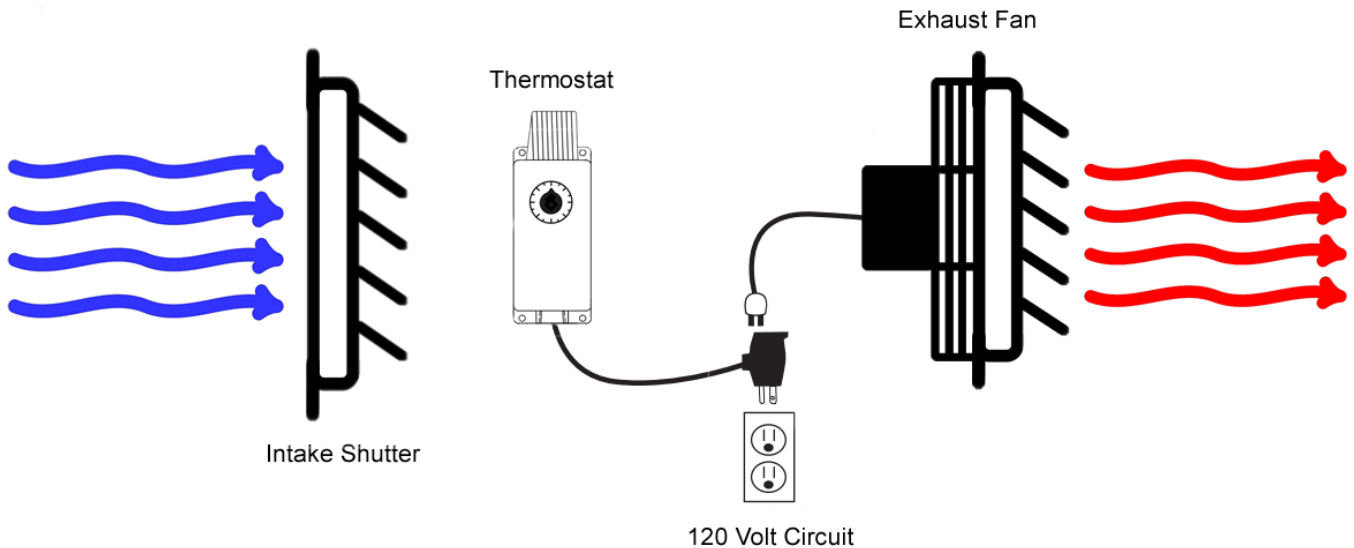




## Basic Plug-in Fan System Installation Guide



The picture to the left shows optimal fan and shutter placement in a greenhouse. The exhaust fan should be mounted near the peak so that it is exhausting the hottest air in the greenhouse. The intake shutters should be mounted on the opposite end of the greenhouse so that the cooler fresh air travels across the entire structure minimizing hot spots.

### Exhaust Fan Installation

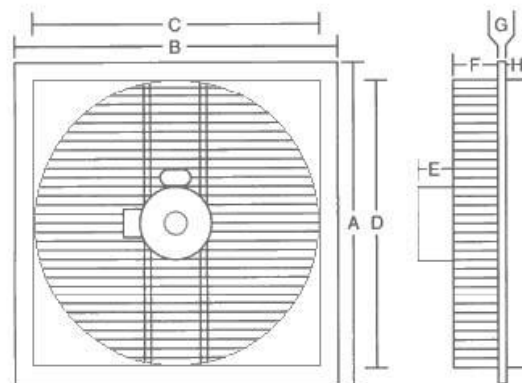
1. Select a location on the greenhouse to insert the fan.
2. Draw an outline of the area to be cut in the plastic panel. Dimensions for fans are included with these instructions.
3. Use a drill or a razor to create an opening large enough to insert a fine saw blade inside the outlined area of the wall panel.



4. Cut out the remainder of the outlined area with the saw, and repeat for each shutter and/or fan.
5. Fasten the fan frame to the greenhouse frame. **DO NOT** mount the fan to the covering because it will not support the fan's weight. You can make mounting brackets if needed out of 1/8" thick 1" x 1" aluminum angle available at most hardware stores.
6. Insert the fan into the opening cut in the plastic panel and attach the mounting brackets to the greenhouse. The fan should be mounted so that the louvers open to the outside of the greenhouse.



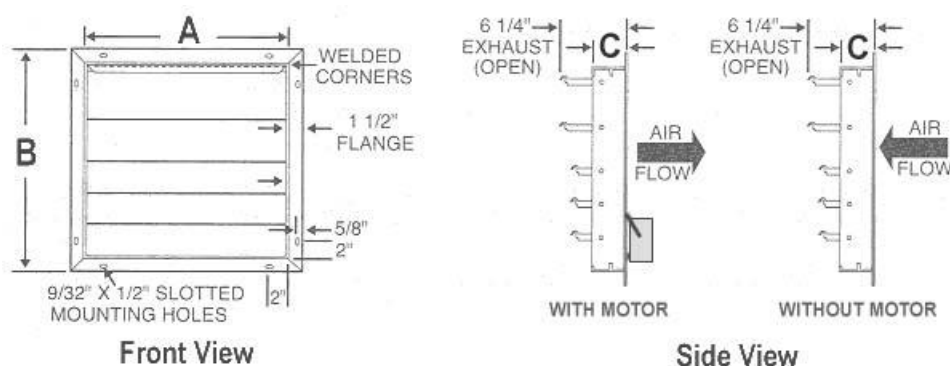
## Exhaust Fan Dimensions



**3 Speed Fan Dimensions**

Fan Size	A	B	C	D	E	F	G	H	Opening Size
12"	15"	15"	12 1/8"	12 1/8"	1 1/2"	5 1/2"	1/8"	2"	12 1/4" sq.
16"	19"	19"	16 1/8"	16 1/8"	2"	5 1/4"	1/8"	2"	16 1/4" sq.
20"	23"	23"	20 1/8"	20 1/8"	2"	5 1/4"	1/8"	2"	20 1/4" sq.
24"	27"	27"	24 1/8"	24 1/8"	2 1/8"	5 3/4"	1/8"	2"	24 1/4" sq.

## Intake Shutter Dimensions



Intake Shutter Dimensions

Shutter Size	A	B	C	Opening Size
12"	12 1/16"	15 1/8"	2 5/16"	12 1/4" sq.
16"	16 1/16"	19 1/8"	2 5/16"	16 1/4" sq.
20"	20 1/16"	23 1/8"	2 5/16"	20 1/4" sq.
24"	24 1/16"	27 1/8"	2 5/16"	24 1/4" sq.
30"	30 1/16"	33 1/8"	2 5/16"	30 1/4" sq.

## Gravity Intake Shutter Installation

- Mounting of the intake shutter(s) is the same as the fan except they will be mounted so that the louvers open to the inside of the greenhouse.
- The suction of the fan will open the louvers as much as needed when it comes on.
- Intake shutters can be mounted to the inside of the greenhouse around the opening or outside of the greenhouse and inserted through the covering (whichever works best in your application).
- If later you decide to upgrade the intake shutter(s) by mounting a motor to them, you will need reverse the shutter(s) so that the louvers open to the outside. This is done to protect the motor from the outdoors.