

## Capacitors

All PSC motors are designed to be used with an external capacitor. This capacitor operates in the circuit continuously. It is commonly referred to as a run capacitor. The most common capacitor for fan/blower motors is 5 MFD, 370V. However, other ratings will also be used, depending on the model.

**FACT:** A capacitor is a device capable of storing and releasing and electric charge.

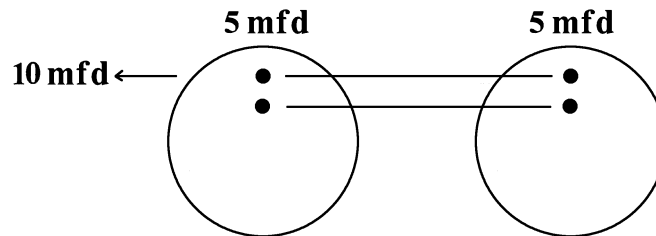
**FACT:** Always discharge a capacitor before removing it from an installation.

**FACT:** The capacitor used with a capacitor start motor is called a start capacitor because it is only used while the motor is starting.

**FACT:** The capacitor rating is printed on the capacitor itself, the motor nameplate, or the system wiring diagram. You must know this rating to properly choose the replacement capacitor.

**FACT:** Capacitors are rated by both capacity (2 MFD, 5 MFD, etc.) and voltage (370V, 440V, etc). The rated capacitor size should not be changed, since the motor operates at maximum efficiency when using the specified capacitor size. If necessary, the replacement capacitor voltage rating can be high then specified, but not lower without impairing capacitor life.

**FACT:** Capacitors can be hooked up in parallel to increase capacity. For example, two 5 MFD, 370V capacitors connected in parallel are the equivalent of a 10 MFD, 370V capacitor. See illustration below.



**FACT:** If the ground lead is present, it will be green or green with a yellow tracer. The wiring diagram for all FASCO motors is shown on the motor nameplate.

**FACT:** To reverse rotation of FASCO electrically reversible models, switch the four external connectors (two female receptors and two male plugs). It's impossible to plug the male plugs together, and it's impossible to plug the female receptors into each other. One plug goes into each receptor, and if rotation is wrong, simply reverse the plugs.

**FACT:** The current FASCO reversing lead system consists of two yellow and two purple leads.

**FACT:** On multi-speed motors, always connect the common (white) lead to the power first.

**FACT:** Connecting like-color leads (yellow to yellow, purple to purple) will give clockwise rotation (shaft end). Connecting unlike-color leads will give counterclockwise rotation (shaft end).

**FACT:** When the original motor does not have two separate capacitor leads and the original wiring pattern is desired, the following diagram can be used for most FASCO motors.

