



IM-105
June 1997

General Installation, Operation and Maintenance Instructions For Aerovent Products

Shutter Types and Construction

Automatic

Automatic shutters are constructed with galvanized steel frames and drilled for ease of installation. Aluminum felt-edged blades open from fan pressure and close automatically when fan is off. All aluminum construction is available as an option.

Motor-Operated, End-Pivoted

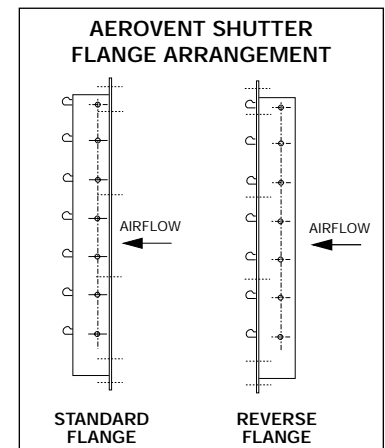
Used for exhaust only. Constructed of galvanized steel frames and aluminum felt-edged blades. Flanges are drilled for ease of installation. Motor-operated units are furnished with electric actuators. These actuators are not equipped with end switches. All-aluminum construction is available as an option.

Motor-Operated, Center-Pivoted

Can be used in either supply or exhaust applications. Constructed of galvanized steel frames and blades with stainless steel jamb seals. Blades are held in place with oil-impregnated bronze bushings. Motor-operated units are supplied with electric actuators that are furnished with end switches.

Manually-Operated

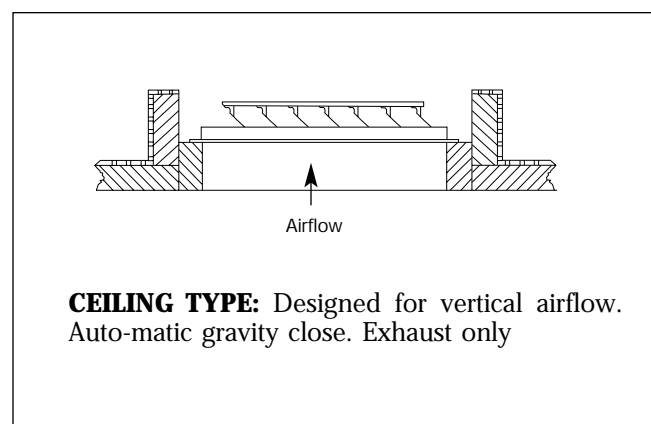
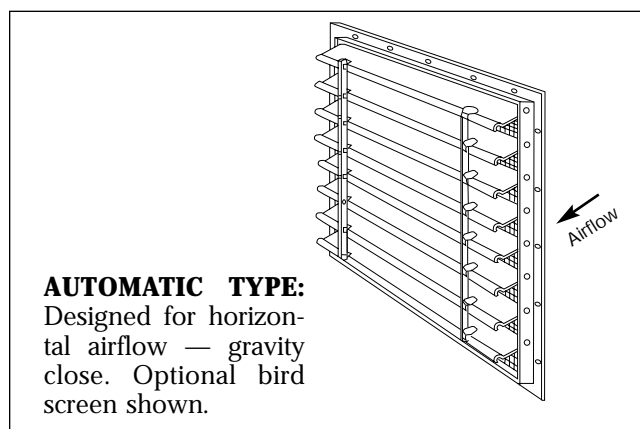
Manually-operated shutters are of the same rugged construction as the automatic shutter. This shutter is supplied with a six-foot pull chain connected through a pulley on the inside of the shutter. Spring arrangement holds louver tightly closed when unit is not in use. All aluminum construction is available as an option.

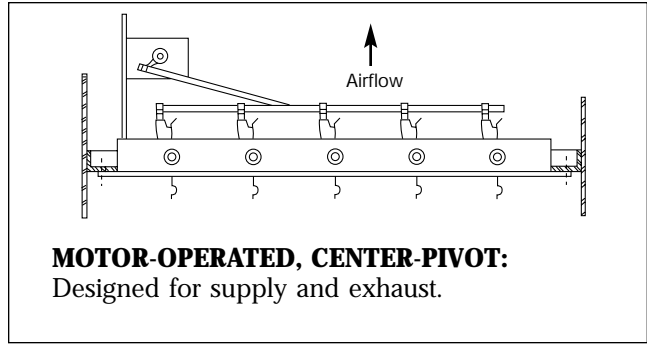
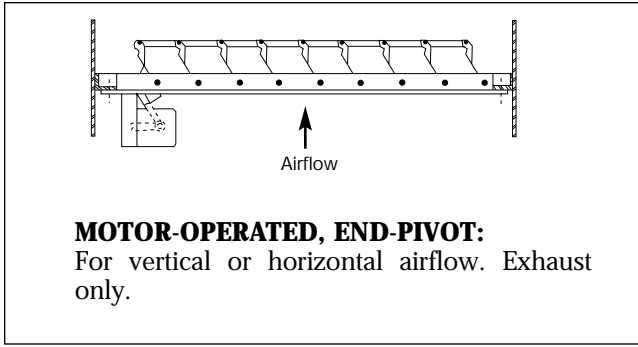


Extra Heavy-Duty

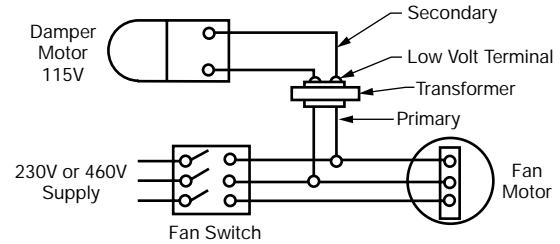
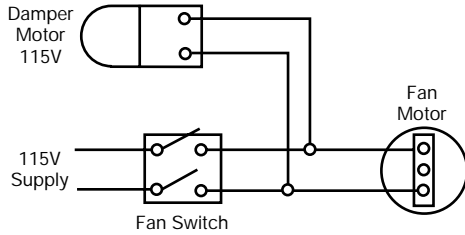
Extra heavy-duty shutters are recommended where discharge velocity exceeds 2400 FPM or where velocity is low and excessive fluttering action is a concern. All extra heavy-duty shutters have 16-gauge aluminum blades. Can be provided as automatic, manual or motorized operation.

Typical Shutter Installations





Shutter Motor



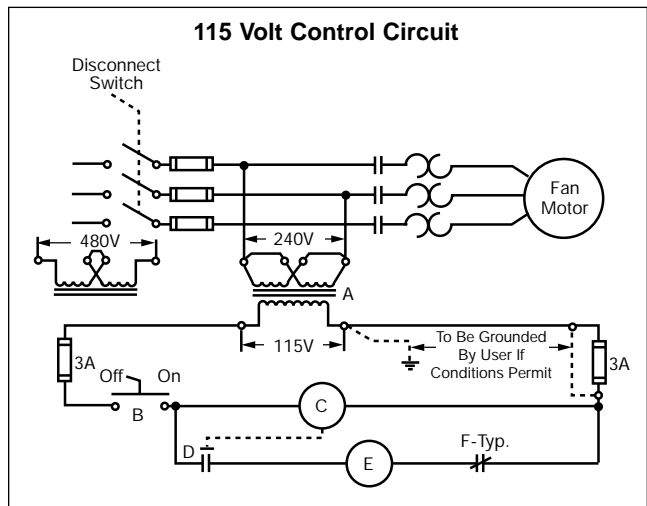
End Switch For Motor Operated Shutter

Motor operated shutters used in air-handling systems should be wired to allow the shutter to open before the fan is started. A shutter end switch should be mounted in the fan starter circuit. The shutter end switch may be one of two types:

- LEVER OR LINKAGE ACTUATED:** Allen Bradley 802TAW1 or equal. Mount switch to be actuated by shutter linkage or shutter leaf when shutter is approximately 80% to 90% open.
- MOTOR MOUNTED AUXILIARY SWITCH:** Switch mounts on side of motor opposite shutter linkage and is actuated by shaft. Set so cam actuates switch when shutter is 80% to 90% open.

The following end switches can be used on various motors.

END SWITCH	MOTOR
Allen-Bradley 802TAW1 (Not Furnished)	Multi-Products 2027
Built In	Honeywell M4182 (Single Shaft) Honeywell M4185 (Dual Shaft)
Built In	Barber-Colman MA418-500



- A. Control Transformer (115V Secondary)
 B. On-Off Selector Switch
 C. Shutter Motor (115V)
 D. Shutter End Switch
 E. Holding Coil — Fan Starter (115V)
 F. Thermal Overload Contactors
 All shutter motors operated on 115 volts.



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