



Young Regulator Co.

7100 Krick Rd • Walton Hills, OH 44146
 P: 440-232-9700 • F: 440-232-8266
www.youngregulator.com

Submit 4000-RDB – 1-10

Model 4000-RDB

*Energy Saving Exhaust Damper with Time Delay
 In Ceiling Box Fitting*

Application and Design

The 4000-RDBOX damper is an energy efficient exhaust damper installed inside a convenient ceiling box. This ceiling box is flanged for a standard 8" x 8" grille.

It generates substantial energy savings by stopping the exhaust of conditioned air by rooftop ventilators from hotel, condo and high-rise bathrooms, kitchens and conference rooms when the room is unoccupied.

The damper is wired in-line with the light switch. In occupied rooms, (light switch on), the damper opens to permit the rooftop exhaust fan to exhaust stale, humid air. The damper remains open for approximately fifteen minutes after the light switch is turned off. In unoccupied rooms (light switch off), the damper is closed to prevent the rooftop exhaust fan from exhausting conditioned air. This reduces energy use and saves operating expenses.

For relief, a bypass loop of outdoor air can be installed. Optionally, a variable speed fan controlled by a pressure sensor can be used.



| STANDARD CONSTRUCTION | |
|---|-------------------------|
| Box | 24 ga. Galvanized Steel |
| Shell | 24 ga. Galvanized Steel |
| Blade | 20 ga. Galvanized Steel |
| Shaft | 1/2" Plated Steel |
| Bushing | Oil Impregnated Bronze |
| SIZE INFORMATION | |
| Inlet | For 8" x 8" Grille |
| Outlet Diameter | 4", 6" and 8" |
| ACTUATOR | |
| UL listed electro-thermal linear actuator in an aluminum enclosure. Accessible by removing the grille (by others). Up to 15-minute time delay to fully close. | |

| Volts | 120V |
|---|---|
| Watts | 9 |
| AMPS | 1 AMP On Startup, 80 mA Running |
| Timing | Energized Damper Opens in 30 Sec. 15 min. to Fully Close |
| Torque | 4 lb. |
| Enclosure | Aluminum |
| Built in Motor Stop for Minimum Air | |
| OPTIONS | |
| 120V Motor with Time Delay | 24V Motors without Time Delay |
| Stainless Steel and Aluminum Construction | |

| QUANTITY | GRILLE OPENING | OUTLET DIAMETER | NOTES |
|----------|----------------|-----------------|-------|
| | | | |
| | | | |
| | | | |

| | |
|-------------------|-------------------------|
| PROJECT | LOCATION |
| CONTRACTOR | DESIGN SPECIFIER |



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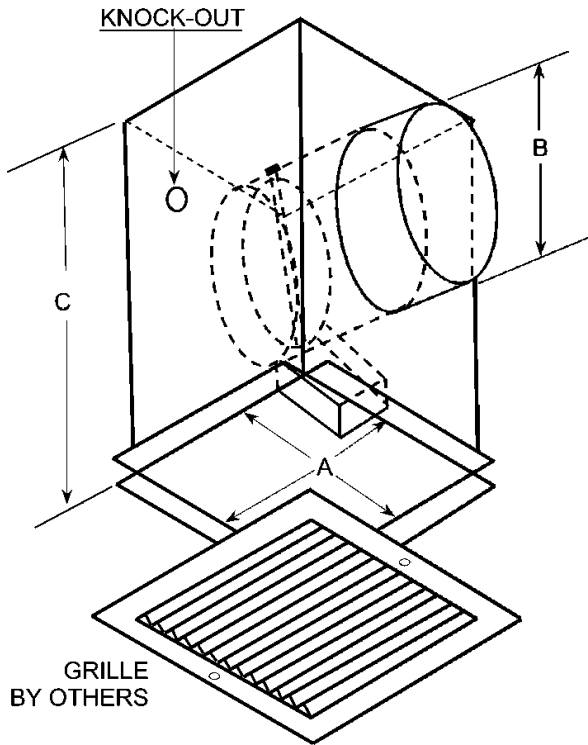
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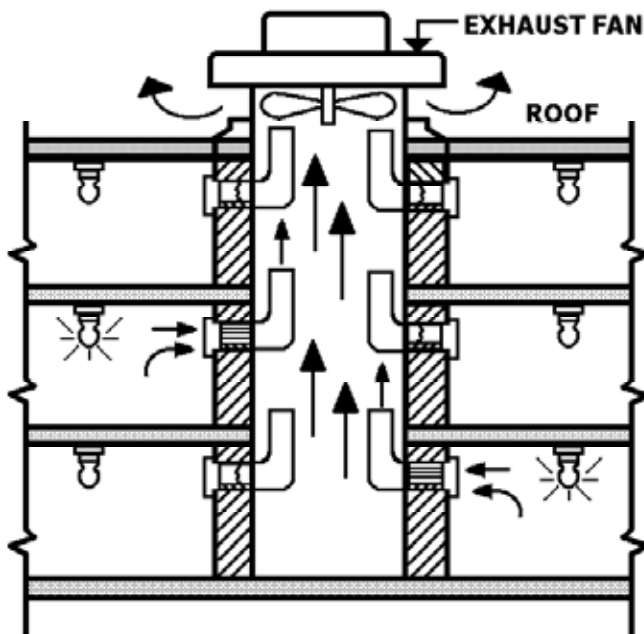
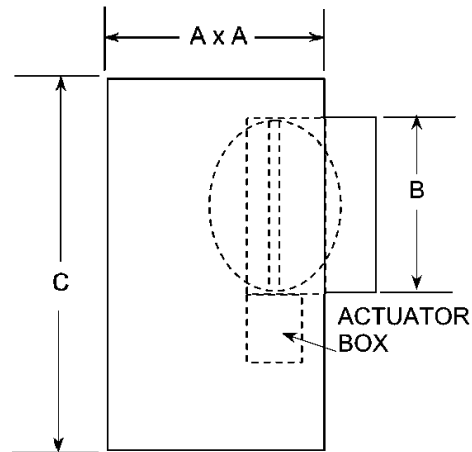
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| Inlet | Outlet Dia. | Height |
|--------|-------------|--------|
| A | B | C |
| 8-1/4" | 4" | 11" |
| | 6" | 11" |
| | 8" | 13" |



TYPICAL APPLICATION

In occupied rooms, the damper opens to permit the rooftop exhaust fan to exhaust stale air. The damper remains open for approximately fifteen minutes the light switch is turned off.

In unoccupied rooms, the damper is closed to prevent the rooftop exhaust fan from exhausting conditioned air. This reduces energy use and saves operating expenses.

The rooftop exhaust fan no longer has to pull air from every room for 24 hours a day, 7 days a week. The fan can be downsized by as much as 20%. This will save on the initial fan cost and reflect significant savings with ongoing operating expenses.