ZONEFIRST®
Controlling Your Comfort Room by Room

Round Take-Off Damper

With MSS Spring Return Motor

Model: RTS

The RTS series are galvanized steel, single blade dampers compete with a 24 Volt spring return motor actuator. This Round Take-Off Damper combines both a take-off collar and motorized damper into one unit and is shipped complete and ready for installation. The RTS can be installed in any position on any properly sized duct. All RTS dampers are rated for duct systems less than 1.0" W.C.

Dampers are available in 6", 8", 10", 12", 14" and 16" diameters. Dampers are ordered as RTSdd, using 2 digits for each dimension.

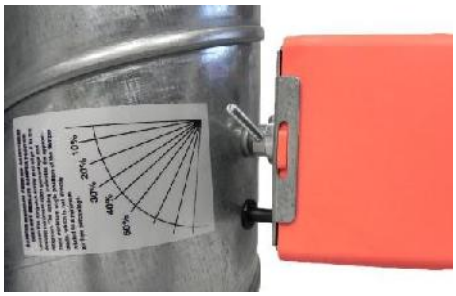
All RTS dampers are typically shipped as Power Close dampers that are powered close and spring returned opened. The RTS is also unique in that it can be field converted from powered closed to powered open in less than a couple of minutes.

A 24 Volt AC, 50/60 Hz, spring return damper motor, powers the RTS. The motor powers the damper closed and spring returns the damper open for fail-safe operation. Providing power to the damper drives the damper closed. Removing power from the motor allows the motor to spring back to the open position.

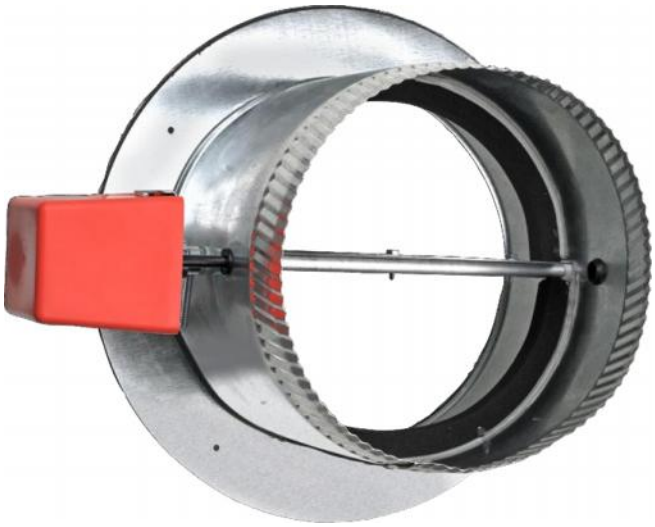
The 24 Volt, hysteresis, synchronous motor has been tested to over 250,000 cycles to provide long life. Even replacing the motor is a simple less than one (1) minute change by loosening the setscrew holding the motor onto the damper.

The RTS motor also has a simple adjustment for setting the damper to a minimum position. A minimum position allows for excess by-pass air. To set a minimum position, loosen the setscrew, align the setscrew to the minimum position label and re-tighten.

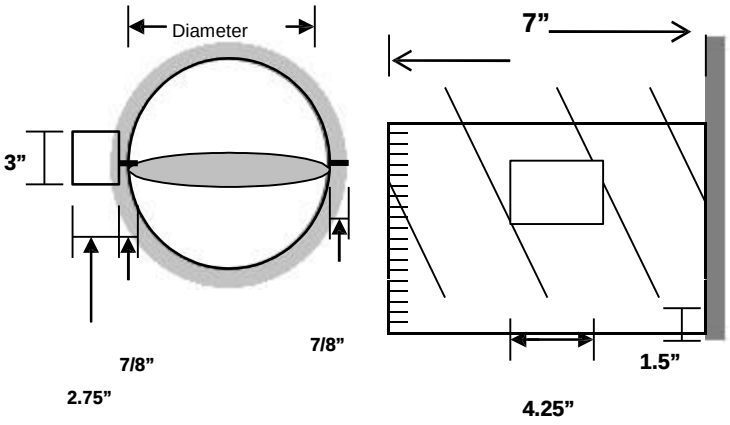
Minimum Position Adjustment



The minimum position screw can also be used to determine the damper position. The setscrew is aligned with the position of the damper blades. When the setscrew is in line with the duct, pointed at the Closed on the minimum position label, the damper is actually open. When it is hidden behind the motor and stopped against the anti-rotation post on the motor, it is Closed or at the minimum position.
Note: Damper minimum position adjustment does not indicate damper position.



Dimensional Drawing



All dimensions are nominal.

Damper Specifications

Construction – 26 Ga. Galvanized Steel
Linkage – Direct Drive
Sizes – 6", 8", 10", 12", 14", 16"
Motor Voltage – 24 Volts AC, 50/60Hz, 6.5 Watts, 7VA
Torque – 35in/oz. to 55in/oz.
Temperature Rating - - 0ϟF to 150ϟF Operating, -20ϟF to 175ϟF Storage
Damper Timing – Nominal 30 Sec. Powered, 8 Sec. Spring Return
Humidity – 5% to 95% Non-Condensing
Connection: 4" Wire Leads
Duct Pressure – Maximum 1.0" W.C.

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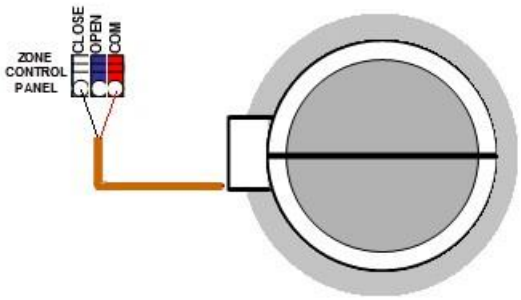
Installation

When you haven't got room to run a second trunk duct, or already have an existing system with a single trunk, the RT series of dampers allows you to easily zone any system.

1. Ensure the RTS is correctly sized to the branch run and opening in the square air duct.
2. Remove the old leaky spin-in or tab collar take off. If attaching new branch run, cut out desired hole size on squared air duct supply.
3. Remove adhesive cover on back of new Take-Off Damper.
4. Adhere RTS Damper to the side of the duct directly over the hole.
5. Apply four (4) screws to metal duct to ensure seal.
6. Re-connect the branch duct.
7. Hook up damper motor to control panel.

Wiring Diagram

Powered Closed



Converting to Powered Opened, Normally Close

All RTS dampers are shipped as Normally Open, Power Close dampers. The RTS can be field converted in less than a minute by the following steps:

1) Before applying any power to the damper leave the damper in the normally open position.

2) Loosen the set screw and remove motor from the blade shaft.

3) Pinch inside of positioning hole grommet and push grommet from hole to remove.

4) Push out plastic hole plug on opposite side of damper.

5) Switch holes for the grommet and plug.

6) Move damper blade to the Close.

7) Place motor on opposite side of damper blade shaft and placing the anti-rotation shaft into the hole grommet.

8) Tighten the set screw (Make sure the blade is still in the CLOSED position).

9) Wire the damper accordingly.
To convert back just reverse this procedure.

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