

## SDRS25 SMOKE DAMPER UL555S Leakage Class 1 Classified

### APPLICATION

The SDRS25 is a true round single bladed UL555S Leakage Class 1 smoke damper for use in ducts that penetrate smoke rated barriers. It is designed for use in systems with airflow in either direction and rated for maximum velocity up to 4000 fpm (20.3 m/s) and 4" w.g. (1 kPa). The SDRS25 may be installed vertically (with blades running horizontal) or horizontally and is rated for airflow and leakage in either direction. When installing the SDRS25 the center line on the blades can be installed up to 24" (610) away from the smoke partition and may be installed with the axle up to 30° from the horizontal plane. The SDRS25 can be operated with either electric or pneumatic actuator that power the damper open and spring closed (Fail Closed) operation.

### UL555S LEAKAGE RATING

Leakage Class 1

### OPERATIONAL RATING

Velocity: 4000 fpm (20.3 m/s)  
Pressure: 4 in. wg (1 kPa)  
Temperature: 250°F (121°C) or 350°F (177°C)

### OPERATION OPTIONS

Fail Position: Power Open/Spring Close

### STANDARD CONSTRUCTION

#### FRAME

6" (152) long, 20 (.9) gage galvanized steel with reinforcement beads rolled into the frame.

#### BLADE

Two-piece 14 (1.9) gage equivalent thickness galvanized steel.

#### AXLE

1/2" (12) diameter plated steel.

#### BEARINGS

Stainless steel sleeve type, pressed into frame.

#### SEALS

Silicone rubber mechanically fastened to damper blades and fully encompasses blade edge.

### DAMPER SIZES

#### MINIMUM SIZE

5" (127) diameter.

#### MAXIMUM SIZE

24" (610) diameter.

### OPTIONS

- **Stainless steel** construction (See model SDRS25)
- **FM Approvals** as Specification Tested Product
- **DSDF Flow Duct Smoke Detector**
- **DSDN No-Flow Duct Smoke Detector**
- **SP100 Switch Package** to allow remote indication of damper blade position
- **DTS-SD (Damper Test Switch)** - Push Button test switch
- **MCP** control panels for test purposes or smoke management systems. Shipped loose
- **Actuators** 120/24V electric or pneumatic

### NOTES

1. Dampers furnished approximately 1/8" (3) smaller than given diameter.
2. Dimensions shown in ( ) indicate millimeters.

Model SDRS25 meets the requirements for smoke dampers established by:

- **National Fire Protection Association** NFPA Standards 90A, 92A, 92B and 101
- **ICC International Building Codes**
- **CSFM California State Fire Marshal** Smoke Damper Listing (#3230-245:110)

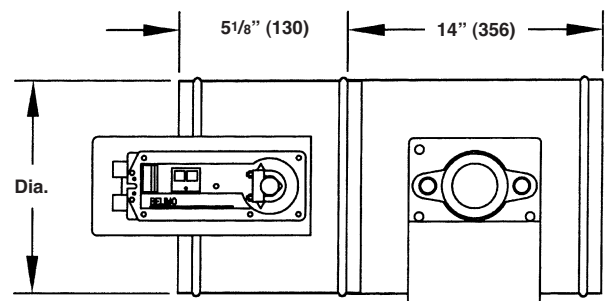
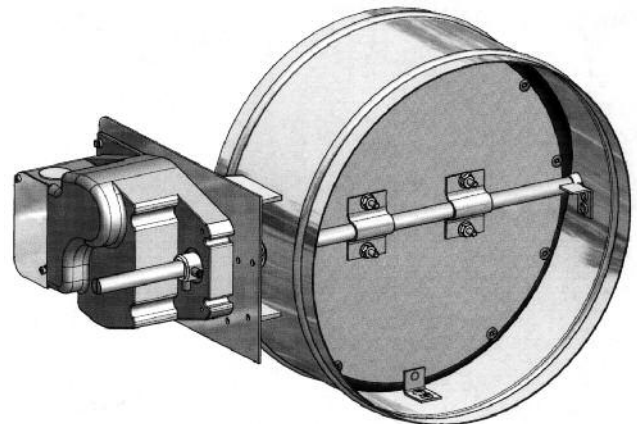


SEE COMPLETE  
MARKING  
ON PRODUCT

UL555S Classification R5531

### FM Approvals

Specification Tested Product  
(Option)

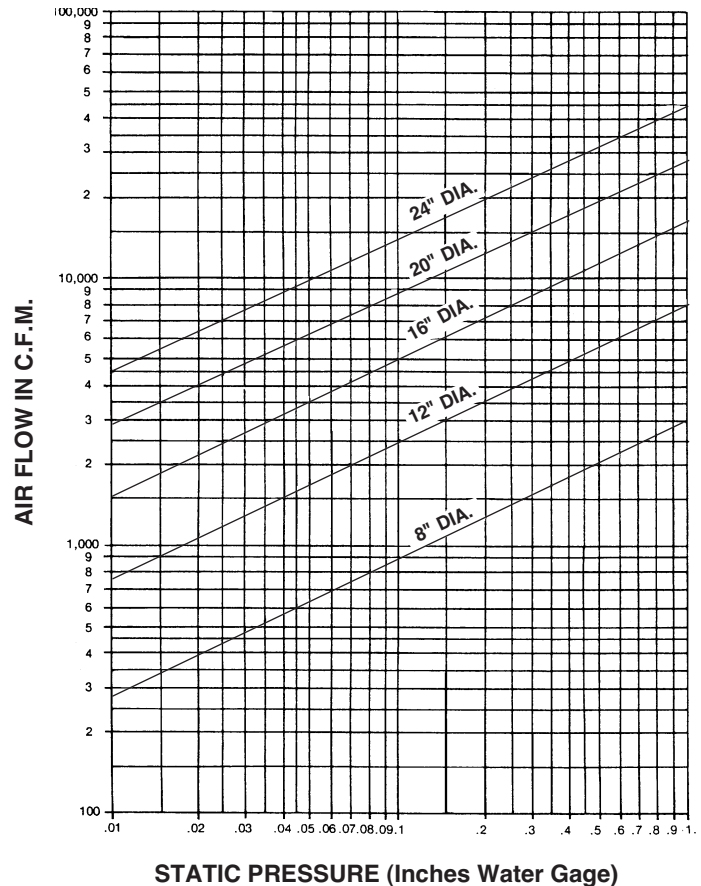


SDRS25 with Optional DSDF Smoke Detector

## PERFORMANCE DATA FOR SDRS25

### To determine the pressure drop:

1. Select the damper size.
2. Determine the airflow in CFM.
3. The pressure drop is the point at which the horizontal, airflow line intersects the diagonal, damper size line. For example, a 12" (305) damper with an airflow of 2000 CFM will have a pressure drop of .07 inches w.g.



## SPECIFICATION

Smoke dampers meeting or exceeding the following specifications shall be furnished and installed at locations shown on plans or as described in schedules. Smoke dampers shall meet the requirements of NFPA80, 90A, 92A and 92B and shall be classified as Smoke Dampers in accordance with the latest version of UL555S. The leakage rating under UL555S shall be Leakage Class 1. Smoke dampers shall be produced in an ISO 9001 certified factory.

Damper frame shall be a minimum of 20 (.9) gage galvanized steel and blade shall be two piece 14 (19) gage equivalent thickness galvanized. Bearings shall be stainless steel, permanently lubricated sleeve type pressed in the frame.

Damper seals shall be silicone rubber mechanically fastened between damper blades.

Smoke dampers and their actuators shall be qualified in accordance with UL555S to an elevated temperature of 250°F (121°C) or

350°F (177°C) depending upon the actuator. Appropriate electric or pneumatic actuators (**specifier select one**) shall be installed by the damper manufacturer at time of damper fabrication. Electric actuators, factory installed on dampers, shall have been tested for prolonged periods of holding (minimum 1 year) with no evidence of reduced spring return performance. Each damper shall be rated for leakage and airflow in either direction through the damper. In addition to the leakage ratings already specified, the dampers shall be AMCA licensed for Air Performance.

### Optional FM Approvals Specification

Each fire damper shall be listed in Factory Mutual (FM) Approvals Specification Tested Product and labeled accordingly. Smoke dampers shall be Ruskin model SDRS25.

(Consult [www.ruskin.com](http://www.ruskin.com) for electronic version of this "Quick" spec as well as for complete 3-part CSI MasterFormat Specifications).

# RUSKIN®

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