

Application

The SD-25R smoke damper employs a single round blade for point-of-origin control of smoke in static and dynamic smoke management systems. The SD-25R is qualified to 3,000 ft/min (15.3 m/s) and 4 in.wg. (1.0 kPa) and may be installed in, or adjacent to vertical walls or partitions, or horizontally in, or adjacent to floors or assemblies.

Standard Construction

Sleeve/Frame: Integral 16" × 20 gauge (203 × 1.0) galvanized steel with reinforcing beads.

Retaining Plates: Dual sided system suitable for round or square penetrations.

Blade: 14 gauge (2.0) equivalent galvanized steel — round.

Axles: 1/2" (13) diameter plated steel.

Linkage: In the air-stream.

Bearings: Stainless steel oilite, sleeve-type.

Seal: Silicone blade edge seal.

Actuator: 120 VAC, power-open, spring-close, external mount.

Minimum Size: 6" Ø (152 Ø)

Maximum Size: 24" Ø (610 Ø)

Options

- Alternate actuator:
 - 24 VAC 230 VAC Pneumatic
- Alternate sleeve/frame length:
 - 20" (508) 24" (610)
- Remote control stations:
 - RCP-1 (single) RCP-1K (single, key controlled)
 - RCP-1M (single, momentary switch)
- Type-304 stainless steel construction.

Ratings

UL 555S Leakage Class: 2 [8 cfm/sq.ft. @ 4 in.wg.]
 [(0.04 m³/s/m² @ 1.0 kPa)]

Maximum Dynamic Closure Velocity: 3,000 fpm (15.3 m/s)

Maximum UL555S Rated Pressure: 4 in.wg. (1.0 kPa)

Maximum Temperature: 350°F (177°C)

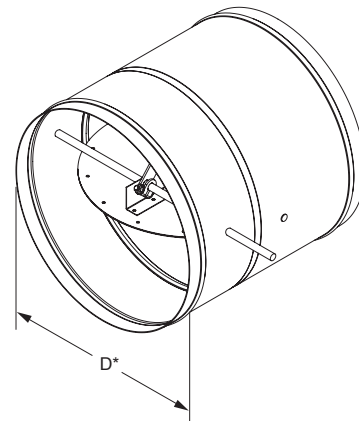
Listings

UL 555S listing: R14981

CSFM listing: 3230-1404:111

Meets NFPA Standards: 90A, 92A, 92B and 101

Meets Building Code Standards: IBC, NBC, NFPA, SBC and UBC



Model SD-25R
(standard)

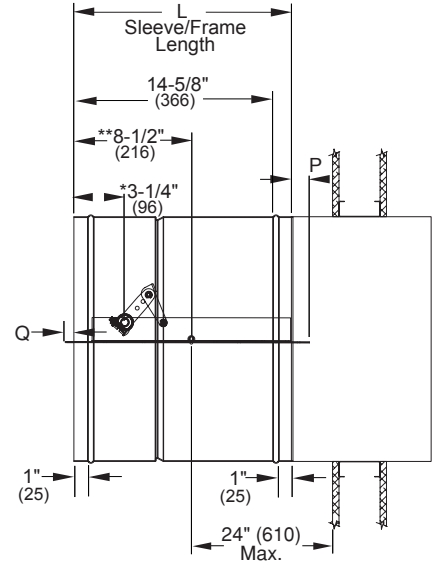
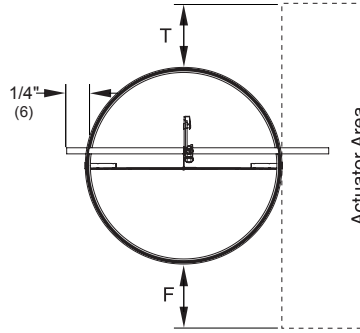
*Damper dimensions furnished approximately 1/8" (3) undersize. Outside diameter including reinforcing beads is approximately $D + 1/8$ (3), and at axle center line diameter including axle heads is approximately $D + 3/8$ (10).

Actuator and Sleeve Dimensional Data

The drawings and corresponding table illustrate the position of the damper and the relative space required for a given actuator. The standard mounting locations provide enough space for installation of retaining plates and duct connections.

	Damper Height	Actuator Model					
		FSLF120 FSLF24	FSNF120 FSNF24	GGD221 GGD121	ML4115 ML8115	331-4826	331-2998
F	8"	2-1/2"	4"	6"	2-1/2"	6"	10"
	10"	2-1/2"	3"	5"	2-1/2"	5"	9"
	12"	2-1/2"	2-1/2"	4"	2-1/2"	4"	8"
	14"	2-1/2"	2-1/2"	3"	2-1/2"	3"	7"
	16"	2-1/2"	2-1/2"	2-1/2"	2-1/2"	2-1/2"	6"
	18"	2-1/2"	2-1/2"	2-1/2"	2-1/2"	2-1/2"	5"
	20"	2-1/2"	2-1/2"	2-1/2"	2-1/2"	2-1/2"	4"
	22"	2-1/2"	2-1/2"	2-1/2"	2-1/2"	2-1/2"	3"
24"	2-1/2"	2-1/2"	2-1/2"	2-1/2"	2-1/2"	2-1/2"	
T	All	0"	0"	0"	0"	0"	0"
S	All	6"	6"	6"	6"	6-1/2"	8-3/4"
P	8"-14"	0"	0"	0"	0"	0"	0"
	16"	1/2"	1/2"	1/2"	1/2"	1/2"	1/2"
	18"	1-1/2"	1-1/2"	1-1/2"	1-1/2"	1-1/2"	1-1/2"
	20"	2-1/2"	2-1/2"	2-1/2"	2-1/2"	2-1/2"	2-1/2"
	22"	3-1/2"	3-1/2"	3-1/2"	3-1/2"	3-1/2"	3-1/2"
24"	4-1/2"	4-1/2"	4-1/2"	4-1/2"	4-1/2"	4-1/2"	
Q	8-16"	0"	0"	0"	0"	0"	0"
	18"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"
	20"	1-1/4"	1-1/4"	1-1/4"	1-1/4"	1-1/4"	1-1/4"
	22"	2-1/4"	2-1/4"	2-1/4"	2-1/4"	2-1/4"	2-1/4"
24"	3-1/4"	3-1/4"	3-1/4"	3-1/4"	3-1/4"	3-1/4"	

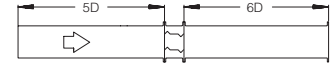
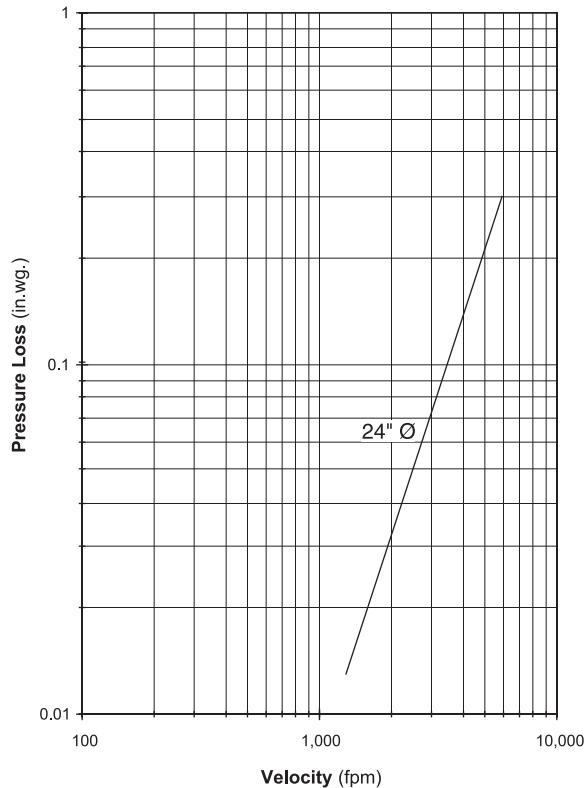
NOTE: 1. Standard sleeve length "L" = 16" (406).
2. Dimensions for ML-4115/ML-8115 apply to MS-4209/MS-8209.



*3-3/4" (95) D<8"(203)
**8-5/8" (219) D<8"(203)

Pressure Drop Performance Data

Pressure drop testing was performed in accordance with AMCA Standard 500-D. All data has been corrected to represent air density of 0.075 lb/ft. Actual pressure drop in any ducted HVAC system is a combination of many elements. This information, along with analysis of other system influences, should be used to estimate actual pressure losses for a damper installed in a given HVAC system.



Ducted Inlet and Outlet
AMCA Figure 5.3 illustrates a fully ducted damper. This configuration represents the low pressure drop because entrance and exit losses are minimized by straight duct runs upstream and downstream of the damper.