

Smoke Damper

KR1

Class I • 250°F or 350°F • Galvanized Steel • Single Thickness Blade • UL Classified Damper

STANDARD CONSTRUCTION

- FRAME:** 20-GA galvanized steel flat by 18" long integral sleeve
- BLADES:** 16-GA galvanized steel single thickness; Parallel action
- AXLES:** Plated solid steel stub
- BEARINGS:** Oil impregnated bronze
- LINKAGE:** Galvanized steel angle interconnect, with plated steel brackets and pivots located on blade
- STOPS:** 18-GA galvanized steel at head and sill
- BLADE SEALS:** Silicone
- JAMB SEALS:** Stainless steel
- SLEEVE:** Integral 20-GA galvanized steel by 18" long
- RETAINING ANGLES:** 7/8" x 1 1/2" x 16-GA adjustable perimeter mounting angle for dampers > 10"W x 10"H; dampers ≤ 10"W x 10"H retaining angles shipped loose
- CAULKING:** Hardcast Irongrip 601 or UL-listed equivalent
- FINISH:** Mill on galvanized steel
- ACTUATOR:** Electric with heat response device (EHRD) or pneumatic with heat response device (PHRD); Factory-installed for Power-Open/Spring-Close (fail close) operation; External left hand mounted as viewed from jackshaft side of damper

UNDERWRITERS LABORATORIES INC.®

CLASSIFIED SMOKE DAMPER
LEAKAGE RESISTANCE CLASS I



FILE #R4708



This combination fire/smoke damper meets the construction and performance requirements of:

- Underwriters Laboratories Inc. Standards 555 and 555S
- National Fire Protection Association Standards 90A, 92A, and 92B
- ICC's International Building Code
- California State Fire Marshal Listing #3225-1328:120
- Underwriters Laboratories Inc. Approved for dual direction airflow and dynamic conditions.
- Underwriters Laboratories Inc. Classified for use in smoke control systems for Leakage Class I and 250°F or 350°F.
- Actuators must be arranged to operate automatically, must fail closed upon loss of power, and must be controlled by a smoke detection system.

OPTIONS

- Right hand actuator mounting location
- Integral Dual Position Indication (IDPI) switches
- Model SM-501 Flow-rated smoke detector (10" minimum damper height) ship loose only
- Model 2151 No-flow smoke detector (12" minimum damper height) ship loose only
- Tab-Lock retaining angles
- Stainless steel bearings
- Copper tubing (for pneumatic actuators)
- Sleeves of various depths
- Round or oval transitions
- Short-width (<6") and/or short-height (<6") transitions

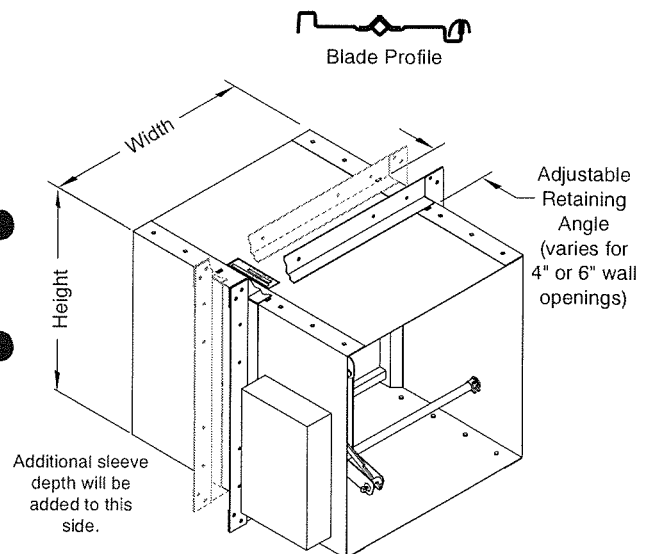
NOTES

1. "A" width and "B" height are opening dimensions. Damper frames are provided approximately 1/4" undersized.
2. Dampers are available in 1" increments only.

LOUVER SIZE

Orientation	Horizontal & Vertical	
	Minimum Panel	Maximum Panel
Rectangular	4"W x 4"H (16"W x 6"H frame)	24"W x 24"H
Round	4" dia. (16"W x 6"H frame)	22" dia.
Oval	4"W x 4"H (16"W x 6"H frame)	22"W x 22"H

*Dampers smaller than minimum frame size require a transition. Reference SD-TRFS.



Louvers Dampers

A Weslock Company

SD-KR1-08.12

P.O. Box 606 • 7435 Industrial Rd • Florence, KY 41042 • Phone (859) 647-2299 • Fax (859) 647-7810

December 2008

KR1

Smoke Damper

Class I • 250°F or 350°F • Galvanized Steel • Single Thickness Blade • UL Classified Damper

Operations Ratings:

Maximum Differential Pressure: 4 in. wg
Maximum Velocity: 2000 fpm

Leakage Ratings:

UL Class II
8 cfm per sq. ft. maximum @ 4 in. wg

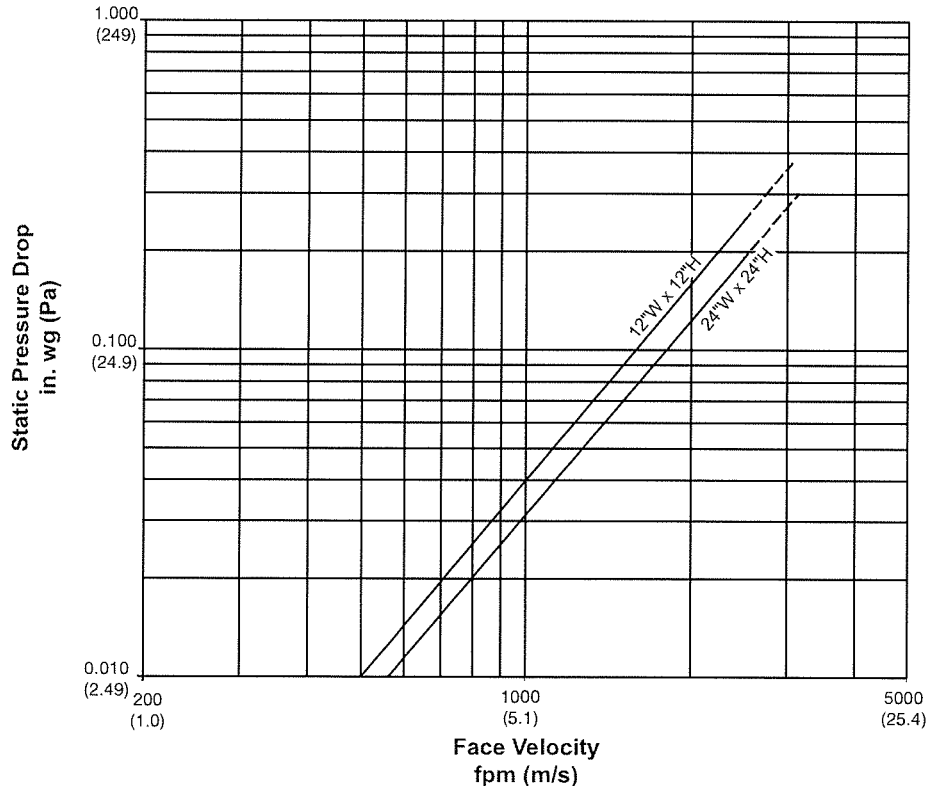
Sound Ratings:

The Noise Criterion data below was tested in accordance with ASTM E477.99 in the center octave band.

Damper Size	Noise Criterion (NC)			
	Velocity fpm (m/s)			
	1000 (5.08)	2000 (10.16)	3000 (15.24)	4000 (20.32)
12"W x 12"H (305mm x 305mm)	22dB	44dB	55dB	62dB
24"W x 24"H (610mm x 610mm)	30dB	50dB	62dB	not available

Pressure Drop Ratings:

The pressure drop data shown below is based on laboratory conditions. The test setup does not take into account elbows or other duct fittings that are part of every actual duct system. The configuration of the actual duct system immediately upstream and downstream of the damper often contributes more pressure loss than the damper itself.



Louvers & Dampers certifies that the model KR1 damper shown here is licensed to bear the AMCA seal. The ratings shown are based on tests and procedures performed in accordance with AMCA Publication 511 and comply with the requirements of the AMCA Certified Ratings Program. The AMCA Certified Ratings Seal applies to Air Performance Ratings only.

Louvers  Dampers
A KATKO COMPANY

AMCA Figure 5.3

In the interest of product development, Louvers & Dampers reserves the right to make changes without notice.

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December 2008

Smoke Damper

KR2

Class II • 250°F or 350°F • Galvanized Steel • Single Thickness Blade • UL Classified Damper

STANDARD CONSTRUCTION

- FRAME:** 20-GA galvanized steel flat by 18" long integral sleeve
BLADES: 16-GA galvanized steel single thickness; Parallel action
AXLES: Plated solid steel stub
BEARINGS: Oil impregnated bronze
LINKAGE: Galvanized steel angle interconnect, with plated steel brackets and pivots located on blade
STOPS: 18-GA galvanized steel at head and sill
BLADE SEALS: Silicone
JAMB SEALS: Stainless steel
SLEEVE: Integral 20-GA galvanized steel by 18" long
RETAINING ANGLES: 7/8" x 1 1/2" x 16-GA adjustable perimeter mounting angle for dampers > 10"W x 10"H; dampers ≤ 10"W x 10"H retaining angles shipped loose
CAULKING: Hardcast Irongrip 601 or UL-listed equivalent
FINISH: Mill on galvanized steel
ACTUATOR: Electric with heat response device (EHRD) or pneumatic with heat response device (PHRD); Factory-installed for Power-Open/Spring-Close (fail close) operation; External left hand mounted as viewed from jackshaft side of damper

UNDERWRITERS LABORATORIES INC.®

CLASSIFIED SMOKE DAMPER
LEAKAGE RESISTANCE CLASS II



FILE #R4708

This combination fire/smoke damper meets the construction and performance requirements of:

- Underwriters Laboratories Inc. Standards 555 and 555S
- National Fire Protection Association Standards 90A, 92A, and 92B
- ICC's International Building Code
- California State Fire Marshal Listing #3225-1328:120
- Underwriters Laboratories Inc. Approved for dual direction airflow and dynamic conditions.
- Underwriters Laboratories Inc. Classified for use in smoke control systems for Leakage Class II and 250°F or 350°F.
- Actuators must be arranged to operate automatically, must fail closed upon loss of power, and must be controlled by a smoke detection system.

OPTIONS

- Right hand actuator mounting location
 Integral Dual Position Indication (IDPI) switches
 Model SM-501 Flow-rated smoke detector (10" minimum damper height) ship loose only
 Model 2151 No-flow smoke detector (12" minimum damper height) ship loose only
 Tab-Lock retaining angles
 Stainless steel bearings
 Copper tubing (for pneumatic actuators)
 Sleeves of various depths
 Round or oval transitions
 Short-width (<6") and/or short-height (<6") transitions

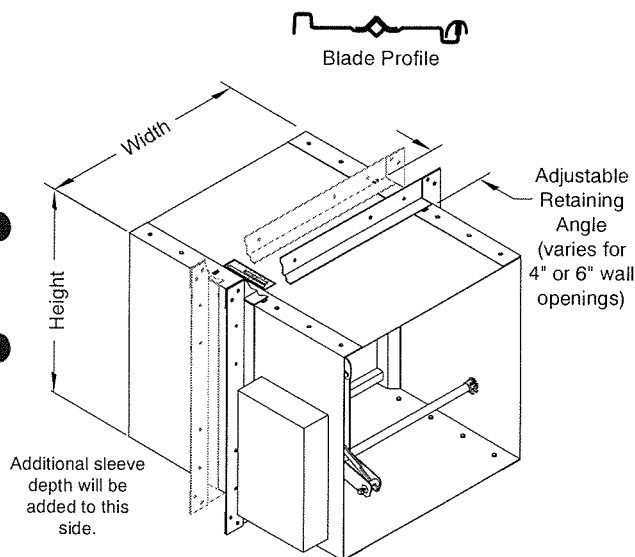
NOTES

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2. Dampers are available in 1" increments only.

LOUVER SIZE

Orientation	Horizontal & Vertical	
	Minimum Panel	Maximum Panel
Rectangular	4"W x 4"H (6"W x 6"H frame)	24"W x 24"H
Round	4" dia. (6"W x 6"H frame)	22" dia.
Oval	4"W x 4"H (6"W x 6"H frame)	22"W x 22"H

*Dampers smaller than minimum frame size require a transition. Reference SD-TRFS.



Louvers Dampers

SD-KR2-08.12

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December 2008

KR2

Smoke Damper

Class II • 250°F or 350°F • Galvanized Steel • Single Thickness Blade • UL Classified Damper

Operations Ratings:

Maximum Differential Pressure: 4 in. wg
Maximum Velocity: 2000 fpm

Leakage Ratings:

UL Class II
20 cfm per sq. ft. maximum @ 4 in. wg

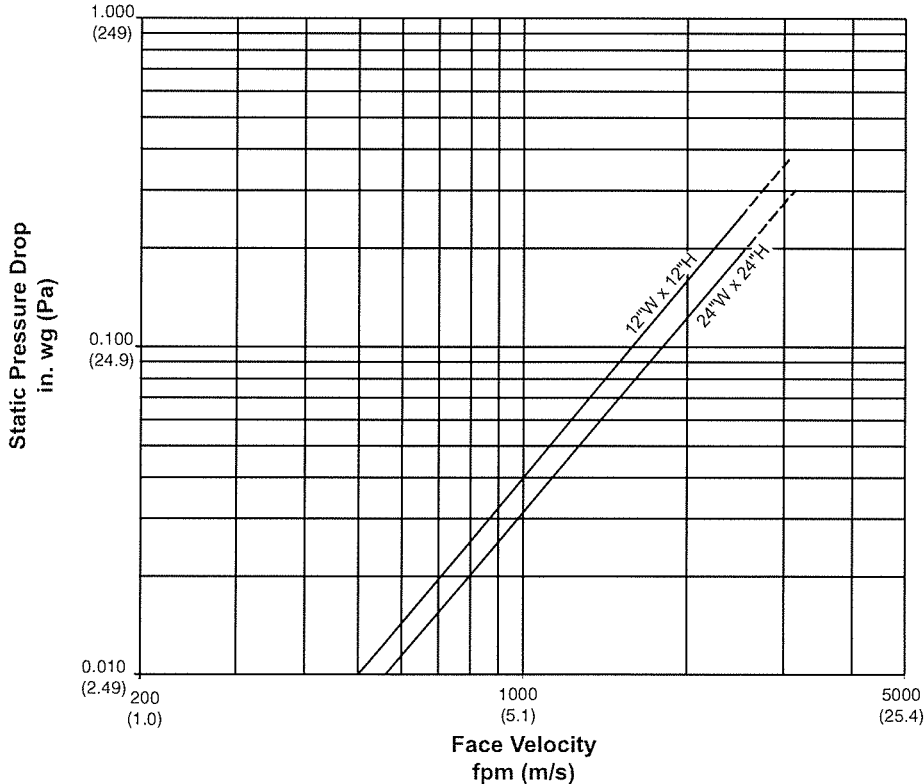
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Pressure Drop Ratings:

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Louvers & Dampers certifies that the model KR2 damper shown here is licensed to bear the AMCA seal. The ratings shown are based on tests and procedures performed in accordance with AMCA Publication 511 and comply with the requirements of the AMCA Certified Ratings Program. The AMCA Certified Ratings Seal applies to Air Performance Ratings only.

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AMCA Figure 5.3

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