

# Smoke Damper

# KH1(SS)

Leakage Class I • Temperature 250°F • Stainless Steel • Single Thickness Blade

## STANDARD CONSTRUCTION

- FRAME:** 5½" x 7⁄8" x 16-GA 304 stainless steel hat channel
- BLADES:** 16-GA 304 stainless steel single thickness; Parallel action
- AXLES:** Plated solid steel stub
- BEARINGS:** 304 stainless steel
- LINKAGE:** 304 stainless steel angle and crank plates with stainless steel pivots; In-jamb type
- STOPS:** 18-GA 304 stainless steel steel at head and sill
- BLADE SEALS:** Silicone
- JAMB SEALS:** Stainless steel
- SLEEVE:** Minimum 20-GA stainless steel steel by 18" long (sizes greater than 84" wide or 84" high require minimum 18-GA)
- CAULKING:** Hardcast Irongrip 601 or UL-listed equivalent
- FINISH:** Mill on stainless steel
- ACTUATOR:** Electric or pneumatic; Factory-installed for Power-Open/Spring-Close (fail close) operation; External left hand mounted as viewed from jackshaft side of damper

## OPTIONS

- Type 316 Stainless Steel (where available)
- External right hand mounting locations
- Integral Dual Position Indication (IDPI) switches
- Model SM-501 Flow-rated smoke detector (10" minimum damper height)
- Tab-Lock retaining angles
- Copper tubing (for pneumatic actuators)
- Sleeves of various depths and gauge thicknesses
- Round or oval transitions
- Short-width (<16") and/or short-height (<8") transitions
- Power-Close/Spring-Open actuation (restrictions apply)

## NOTES



1. Damper frames are provided approximately ¼" undersized. The addition of a sleeve will increase the size of the assembly.
2. Damper with smoke detector must have a minimum sleeve of 19" (10.5" on the actuator side and 3" on the non-actuator side).

## DAMPER SIZES

Orientation	2000 fpm 4 in.wg			3000 fpm 4 in.wg	
	Horizontal & Vertical			Horizontal & Vertical	
Panels	Min Panel	Max Panel	Max Assy	Max Panel	Max Assy
Rectangular	4"W x 4"H (16"W x 8"H frame)	36"W x 36"H	108"W x 36"H	36"W x 36"H	108"W x 36"H
Round	4" dia. (16"W x 8"H frame)	34" dia.	not available	34" dia.	not available
Oval	4"W x 4"H (16"W x 8"H frame)	34"W x 34"H	106"W x 34"H	34"W x 34"H	106"W x 34"H

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

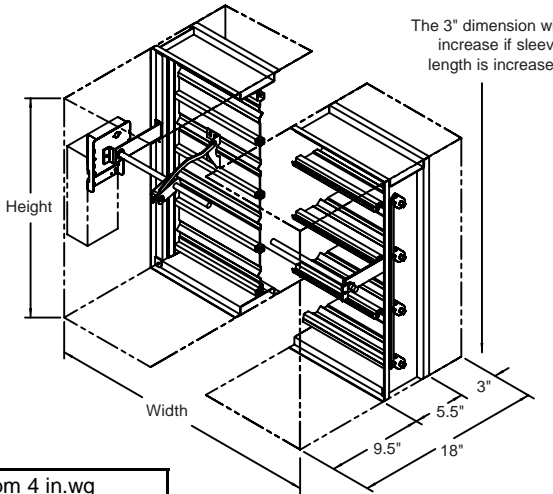
**UNDERWRITERS LABORATORIES INC.®**  
 CLASSIFIED DYNAMIC SMOKE DAMPER  
 LEAKAGE RESISTANCE CLASS I

FILE #R16591

This smoke damper meets the construction and performance requirements of:

- Underwriters Laboratories Inc. Standard 555S
- National Fire Protection Association Standards 80 and 90A
- ICC's International Building Code
- New York City MEA Listing #112-99-M
- California State Fire Marshal Listing #3230-1328:106
- 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.
- Actuators must be controlled by a smoke detection system.



**Operations Ratings:**

Maximum Differential Pressure: 4 in. wg  
 Maximum Velocity: 2000 fpm (3000 fpm for selected size/actuator combinations)

**Leakage Ratings:**

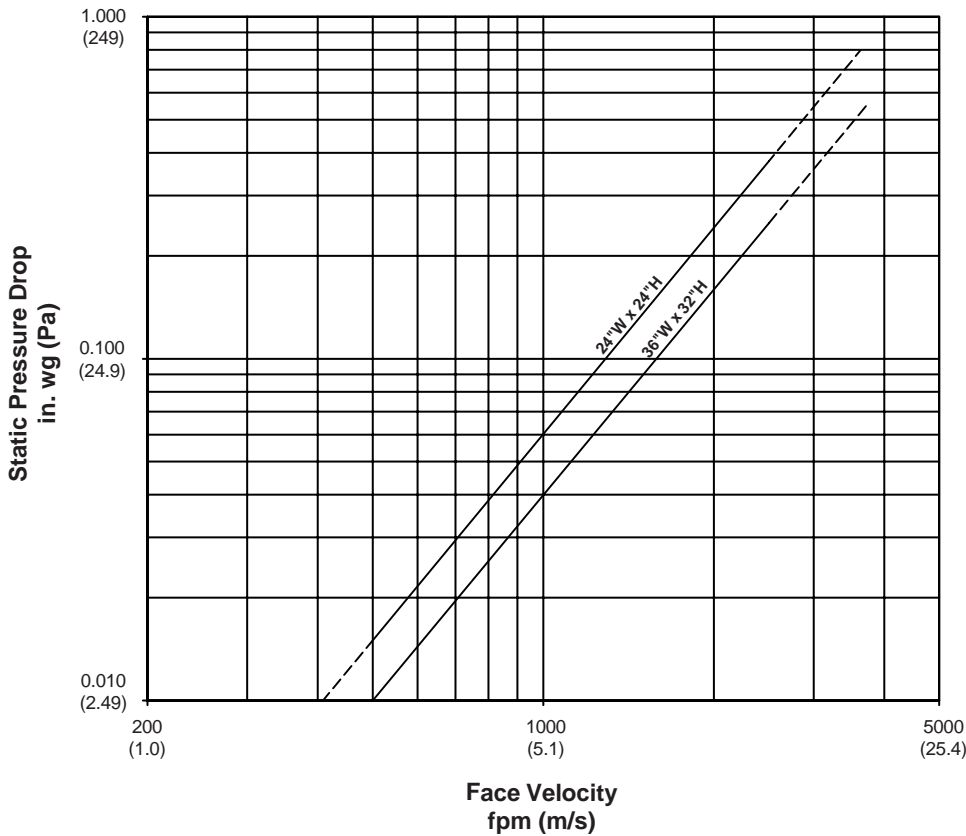
UL Class I  
 4 cfm per sq. ft. maximum @ 1 in. wg  
 8 cfm per sq. ft. maximum @ 4 in. wg

**Sound Ratings:**

None 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.



This product was tested in accordance with AMCA Standard 500D.

**AMCA Figure 5.3**