

# SPECIFICATIONS



TAMCO® Series 1000 SM SW meets the requirements for smoke dampers established by:

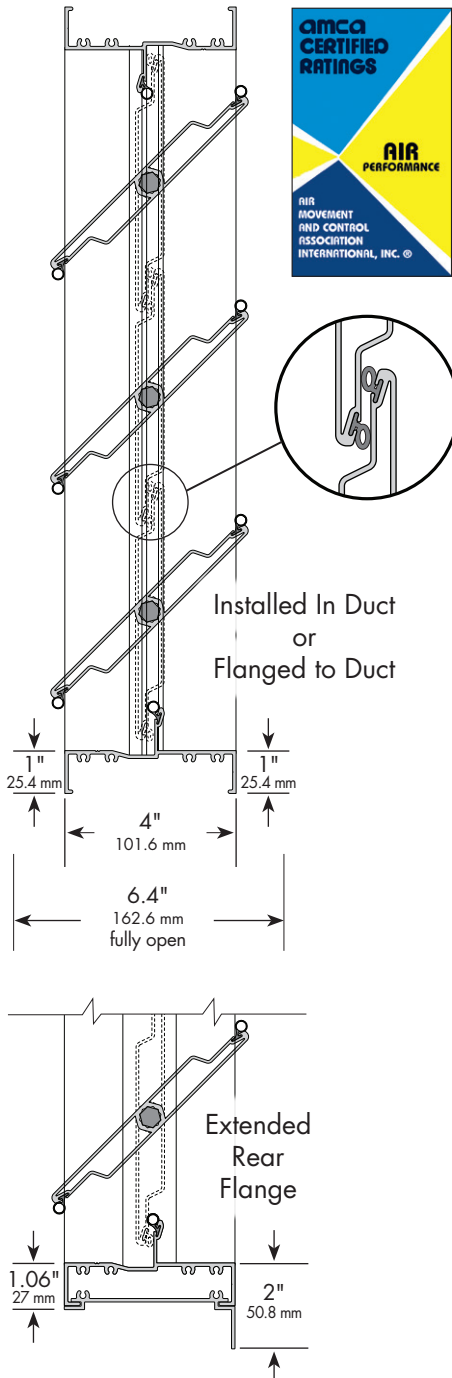
UL 555S/ULC-S112.1 File R16679

National Fire Protection Association: NFPA Standards 80, 90A, 92, 101, 105

California State Fire Marshall Listing#: 3230-2116-0100

## S E R I E S 1 0 0 0 S M UL/ULC APPROVED SMOKE DAMPER

<b>Leakage Rating:</b>	Class 1
<b>Operational Rating:</b>	Airflow: 2000 fpm (10.2 m/s). Rated for airflow in either direction.
	Temperature: 250°F (121°C)
	Pressure: 4" w.g. (1 kPa) static pressure differential
	Two position
<b>Fail Position:</b>	Closed



### Construction:

- Extruded aluminum (6063-T5) damper frame is not less than .080" (2.03 mm) in thickness. Damper frame is 4" (101.6 mm) deep x 1" (25.4 mm), with mounting flanges on both sides of frame. Damper frame has a 2" (50.8 mm) mounting flange on the rear of the damper, when ordered as Extended Rear Flange install type.
- Blades are extruded aluminum (6063-T5) airfoil profiles.
- Blade and frame seals are specially designed and engineered extruded silicone. Seals are secured in an integral slot within the aluminum extrusions. Blade and frame seals are mechanically fastened to prevent shrinkage and movement over the life of the damper.
- Bearings are composed of a bronze oilite inner bearing fixed around a 7/16" (11.11 mm) aluminum hexagon blade pivot pin, rotating within a bronze oilite outer bearing inserted in the frame.
- 7/16" (11.11 mm) hexagonal aluminum drive rod and zinc-plated steel U-bolt fastener and hexagonal retaining nuts provide a positive connection to blades and linkage.
- Linkage hardware is installed in the frame side, and constructed of aluminum and corrosion-resistant zinc-plated steel, complete with cup-point trunnion screws for a slip-proof grip.
- Smoke dampers are designed for operation in temperatures ranging between -40°F (-40°C) and 250°F (121°C).
- Smoke dampers are available with parallel blade action.
- Smoke dampers are custom made to required size, without blanking off free area.

### Installation:

- Smoke dampers may be mounted vertically (standing/horizontal airflow) with blades running horizontally, or mounted horizontally (lying down/vertical airflow).
- Smoke dampers are available in three install types: Installed In Duct, Flanged to Duct, and Extended Rear Flange (EF).
- Multi-section smoke dampers may require field assembly of sections.
- Installation of dampers must be in accordance with TAMCO's current UL/ULC Approved Smoke Damper Installation Guidelines, provided with each smoke damper shipment. (Note that all technical information available on TAMCO's web site at [www.tamcodampers.com](http://www.tamcodampers.com) supersedes and takes precedence over all information contained within the printed catalog.)

### Actuators:

- UL 555S/ULC-S112.1 requires that all actuators for smoke dampers be factory mounted. Approved actuators are Belimo and Honeywell.
- Voltage: 24 vac, 120 vac, 230 vac, single phase.
- Mounting: Internal or external actuator mounting.  
(All smoke dampers with internally mounted actuators, will be mounted on a jack shaft. Smoke dampers with internally mounted actuators will have to be installed in a sleeve.)
- Options: Auxiliary switches.
- Actuator quantity and location requirements are described in and must be in accordance with TAMCO UL/ULC Approved Smoke Damper Configurations.

### MINIMUM OPENING SIZE:

11" w x 6" h (280 mm x 153 mm)

### MAXIMUM SINGLE-SECTION OPENING SIZE:

36" w x 48" h (915 mm x 1220 mm)

### MAXIMUM MULTI-SECTION OPENING SIZES:

144" w x 96" h (3658 mm x 2439 mm)

288" w x 48" h (7316 mm x 1220 mm)

### Note:

- To reduce pressure drop, use Flanged to Duct mount type for sizes under 9 ft² (.83 m²).
- Dampers sized for duct openings exceeding 37½" (953 mm) in height are equipped with a stiffener bar at mid-height to strengthen and maintain air leakage tolerances.

### For additional information, refer to:

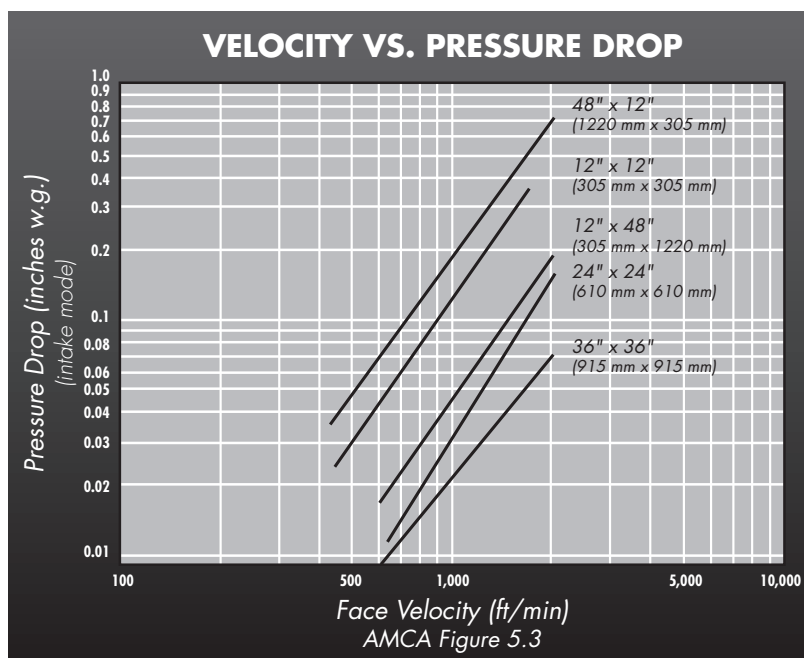
- Series 1000 SM SW Specifications
- Series 1000 SM/1000 SM SW Free Area Charts
- TAMCO UL/ULC Approved Smoke Damper Configurations
- TAMCO UL/ULC Approved Smoke Damper Installation Guidelines

# PERFORMANCE DATA

## S E R I E S 1 0 0 0 S M UL/ULC APPROVED SMOKE DAMPER



*T.A. Morrison & Co. Inc. certifies that the TAMCO® Series 1000 SM UL/ULC Approved Smoke Damper shown herein 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.*



# INSTALL TYPES

## S E R I E S 1 0 0 0 S M UL/ULC APPROVED SMOKE DAMPER

*Always provide duct or wall opening width and height dimensions, when ordering.*

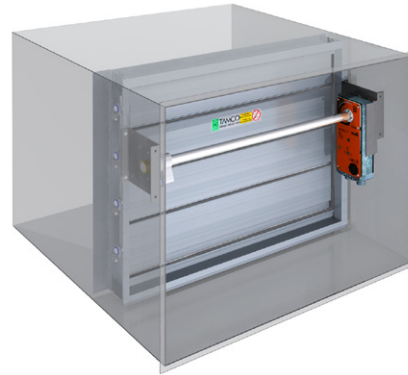
*Width dimension is always parallel to blades.*

*Height dimension is always perpendicular to blades.*

### INSTALLED IN DUCT TYPE

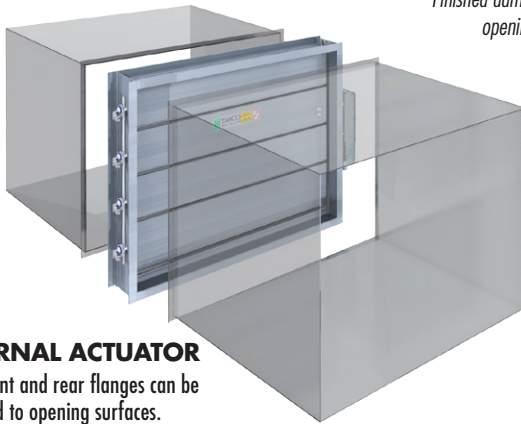
*Finished damper O.D. is  $\frac{1}{4}$ " (6.4 mm) less than opening width & height dimensions.*

*Must be inserted in a sleeve, or opening.*



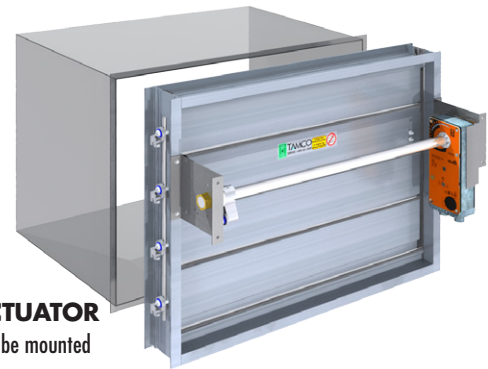
### FLANGED TO DUCT TYPE

*Finished damper O.D. is 2" (50.8 mm) greater than opening width & height dimensions.*



#### EXTERNAL ACTUATOR

Both front and rear flanges can be mounted to opening surfaces.



#### INTERNAL ACTUATOR

Only rear flange can be mounted to opening surface.

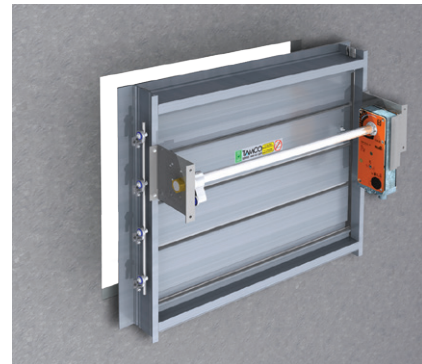
### EXTENDED REAR FLANGE TYPE

*Finished damper O.D. is 4" (101.6 mm) greater than opening width & height dimensions*



#### EXTERNAL ACTUATOR

Both front and rear flanges can be mounted to opening surfaces.



#### INTERNAL ACTUATOR

Only rear flange can be mounted to opening surface.

*Extended Rear Flange install type dampers are not designed so that the front of the damper may be inserted into an opening, as the side frame members extend to the full height of the rear flange.*

# INSTALL TYPES

## S E R I E S 1 0 0 0 S M UL/ULC APPROVED SMOKE DAMPER

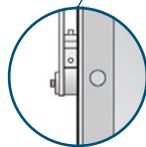
*Always provide duct diameter dimension when ordering.*

### SQUARE TO ROUND TRANSITION

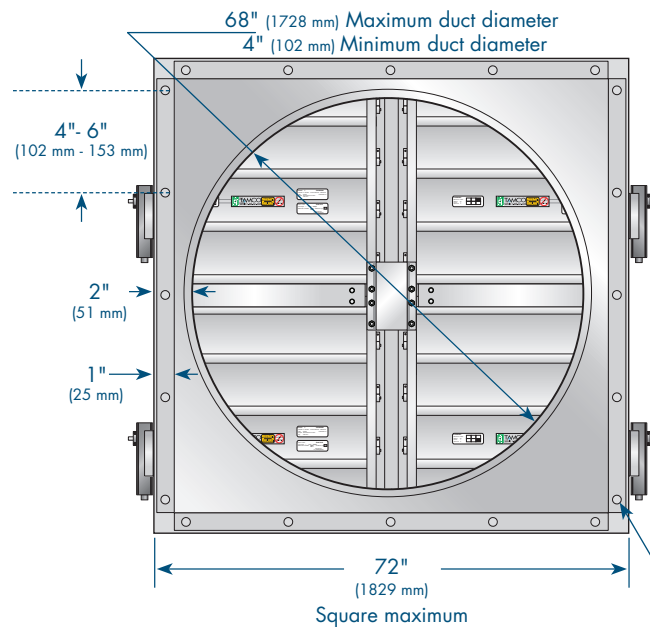
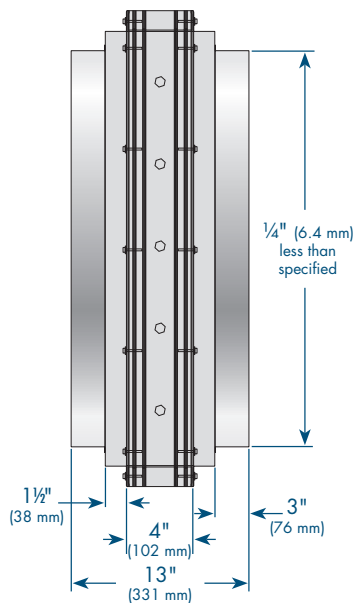
- Transition pieces are a minimum of 18 ga. galvanized steel.
- Transition pieces and damper are sealed together.
- Dampers are built 4" (102 mm) larger than specified duct diameter. (Dampers are fabricated square.)
- Finished transition diameter is 1/4" (6.35 mm) less than specified duct diameter, providing clearance for mating duct which slides over round transition. This ensures free movement of damper blades.
- Minimum duct diameter: 9" (229 mm)  
Maximum duct diameter: 58" (1474 mm)  
Maximum section size: 25 ft<sup>2</sup> (2.3 m<sup>2</sup>)  
Maximum finished OD: 62" w x 62" h (1575 mm x 1575 mm)
- For duct diameter sizes less than 9", contact TAMCO Customer Service.
- Actuators can only be mounted externally when smoke dampers are ordered as square to round install type.
- Multi-section dampers assemblies can only be connected using jumpers when smoke dampers are ordered as square to round install type. Jack shafts are not available for this install type.



**EXTERNAL ACTUATOR ONLY**



Linkage may extend up to 1 5/16" beyond the outer edge of the transition.



Transition attaches to damper frame or sleeve with minimum #8 sms screws, 1/4" bolts, 3/16" rivets, or welds.