

TFD30

Motorized Combination Fire/Smoke Damper

The Model TFD30 Motorized Combination Fire/Smoke Damper is designed specifically for applications where high velocity and elevated temperatures are present. The TFD30 has been tested to ULSS55 for leakage (smoke) and is certified to British Standard 476:20 as a 4 hour fire damper.

STANDARD CONSTRUCTION

FRAME

229 x 51 x 2.0mm galvanized steel channel. Stainless steel optional, consult Ruskin. Other frame thickness available, consult Ruskin.

BLADES

Airfoil shape double-skin construction, 2.0mm thick galvanized steel. Stainless steel optional, consult Ruskin.

BLADE ACTION

Opposed.

BEARINGS

Stainless steel sleeve, pressed into frame, maintenance-free.

JAMB SEALS

Stainless steel, flexible metal compression type, top, bottom, and sides.

BLADE SEALS

Silicone tadpole extrusion. Other materials are available, consult Ruskin.

LINKAGE

Plated steel concealed in frame. Stainless steel optional, consult Ruskin.

AXLES

19mm dia. Plated steel stub type. Stainless steel optional, consult Ruskin.

FINISH

Mill.

MOUNTING

Vertical or Horizontal.

ACTUATORS/ACCESSORIES

Electric actuators – Honeywell MS4620 (MS4620F1005); MS4620-S (MS4620F1203); and limit switches – Ruskin RLS2502; rated for elevated temperature, as required by the specification.

TEMPERATURE RATING

Tested to 250 deg. C for 1 hours with all accessories. For special customer-required testing, consult Ruskin.

MINIMUM SIZE

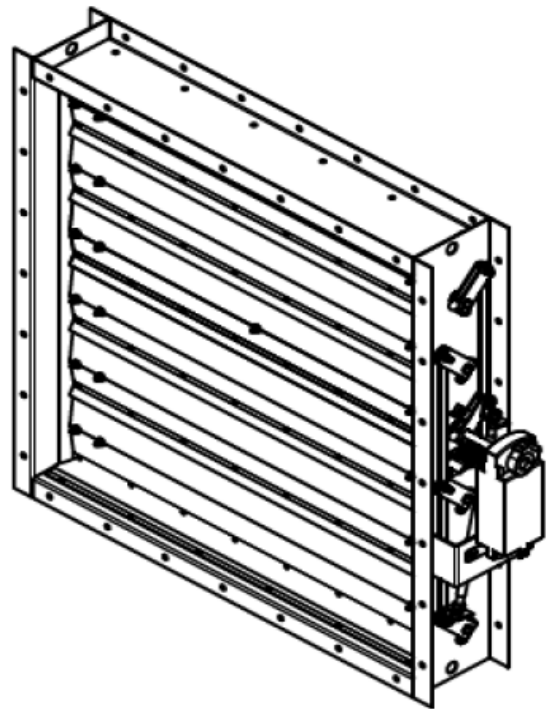
200mm x 200mm.

MAXIMUM SINGLE SECTION SIZE

Vertical or Horizontal, 1000 x 1000.

MAXIMUM MULTI-SECTION

Vertical or Horizontal, 2200 x 2200 (200mm mullion).



QUALIFICATIONS

- Tested and Certified to BS476:20 as a 4 hour fire rated damper, galvanized steel or stainless steel construction.
- Tested to 250 deg. C for 1 hours and meeting Class 1 leakage per ULSS55.
- Maximum velocity of 20m/s.
- Maximum pressure of 2000Pa.

FEATURES

- The TFD30 Motorized Combination Fire/Smoke Damper offers:
- World –Class performance in a fire rated damper.
- Optional stainless steel construction.
- High performance actuator, direct-coupled to the drive axle, mounted out of the airstream. Optional mounting available.
- ULSS55 Class 1 Leakage.
- Tested to 250 deg. C for 1 hours with all accessories.
- UL Listing File Number R5531

SUGGESTED SPECIFICATION AND PERFORMANCE DATA

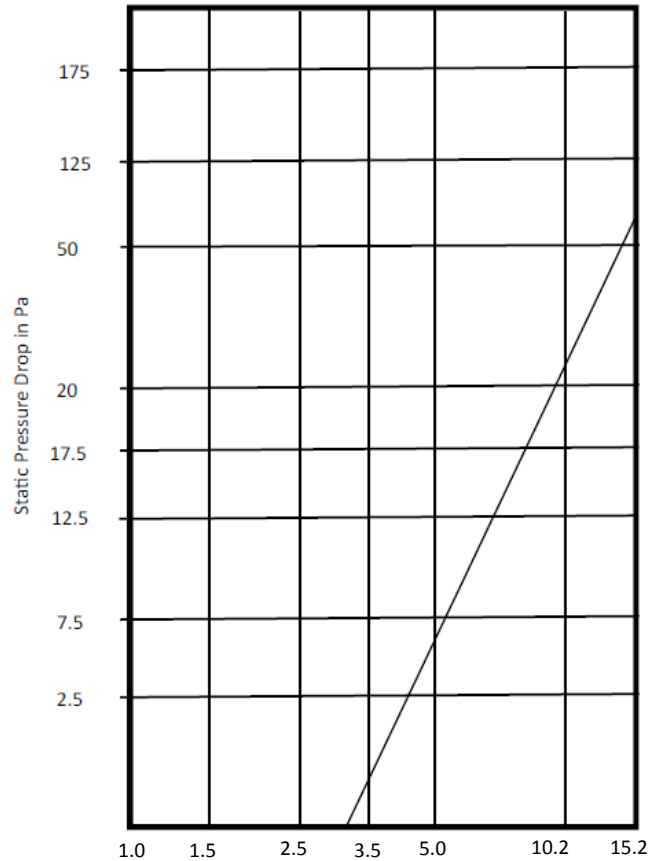
Furnish and install at locations shown on plans, or as described in schedules, combination fire/smoke dampers meeting or exceeding the following specifications:

- Damper shall be of light industrial construction with frame a minimum of 229 x 51 x 2 mm galvanized steel channel.
- Bearings shall be stainless steel sleeve type pressed into frame and maintenance-free.
- Blades shall be airfoil shaped double-skin construction of minimum 2.0mm galvanized steel.
- Axles shall be 19mm diameter plated steel minimum, stub type.
- Blade seals shall be silicone tadpole extrusion, mechanically fastened to the blade edge.
- Jamb seals shall be of stainless steel full-perimeter type, top, bottom, and both sides. Angle-type blade stops are not acceptable.
- Linkage shall be concealed in jamb; exposed (blade-face mounted) linkage is not acceptable.
- The TFD30 damper type shall be rated to British Standard 476:20 as a 4 – hour fire damper.
- The TFD30 damper type shall be tested to ULSSS5 for leakage to Class 1 minimum.

As a part of the damper qualification, dampers shall have demonstrated a capacity to operate (open and close) under HVAC system operating conditions, with pressures of at least 2000Pa in the closed position and 20m/s air velocity in the open position.

In addition to the leakage ratings already specified herein, the combination fire/smoke dampers and their actuators/accessories shall be tested and exhibit operation at 250 deg. C for a period of not less than 1 hours. Appropriate actuators/accessories shall be installed by the damper manufacturer at time of damper fabrication. Dampers and actuators shall be supplied as a single entity. Damper and actuator assembly shall be cycled 10 times at the factory to ensure operation.

Pressure Drop—Damper Open (610 x 610)



Air Velocity in M/S through FACE AREA.
 Tested per AMCA Standard 500-D, Figure 5.3, ductwork upstream and downstream.

TFD30 PERFORMANCE DATA				
DAMPER BLADE WIDTH mm	MAX. SYSTEM PRESSURE (kPa)	MAX. SYSTEM VELOCITY (m/s)	Leakage with Seals *	
			% of Max. Flow	% of Max. Flow
1000	2.0	20.3	0.025	0.05
750	2.5	20.3	0.025	0.05
600	3.0	20.3	0.025	0.05
500	3.0	20.3	0.025	0.05
200	4.0	20.3	0.025	0.05

Leakage rating shown is at 1.0" w.g. (250Pa).

Maximum System Pressure is for structural reference only, based on 2.0mm blade material thickness and 19mm dia. stub type axles.

Consult Ruskin for leakage at higher pressures.



515/1 Moo 9 Kabinburi-Korat Road,
 Kabinburi, Prachinburi 25110
 (+66) 37 204 312
 (+66) 37 204 313