

## CD50SF ULTRA LOW LEAKAGE CONTROL DAMPER

Extruded Aluminum Blades/Galvanized Steel Frame

### STANDARD CONSTRUCTION

#### FRAME

5" x 1" x 16 gage (127 x 25 x 1.6) galvanized steel hat channel reinforced with corner braces for structural strength equal to 11 gage (3.05) channel frames. Low profile 3 1/2" x 3/8" x 16 gage (89 x 10 x 1.6) galvanized steel channel top and bottom frame on dampers under 12" (305) high.

#### BLADES

6" (152) wide, 6063T5 heavy gage extruded aluminum, airfoil shape.

#### LINKAGE

Concealed in frame.

#### AXLES

1/2" (13) plated steel hex.

#### BEARINGS

Stainless steel sleeve.

#### SEALS

Blade Edge – Extruded Santoprene for -72°F to +275°F (-58°C to +135°C).

Jamb – Flexible metal compressible type.

#### CONTROL SHAFT

6" (152) x 1/2" (13) diameter - removable. Out-board support bearing supplied with all single section dampers for field mounted actuators. Factory-installed jackshaft supplied with all multiple section dampers.

#### FINISH

Mill.

#### MINIMUM SIZE

Single blade, parallel action – 6"w x 5"h (152 x 127).

Two blade, opposed action – 6"w x 9"h (152 x 229).

#### MAXIMUM SIZE

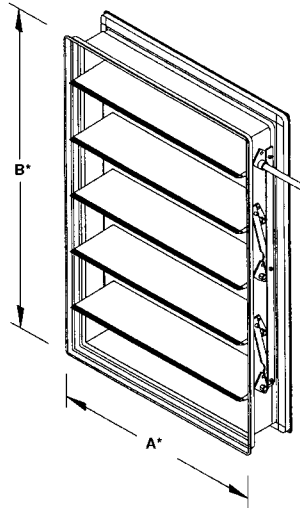
Single section – 60"w x 72"h (1524 x 1829).

Multiple section assembly – Unlimited size.

Dampers larger than the single section maximum are furnished in an assembly of 48" x 72" (1219 x 1829) or less equal sized individual sections.

\*Units furnished approximately 1/4" (6) smaller than given opening dimensions.

\*\*Jackshaft standard on multiple section dampers.



### FEATURES

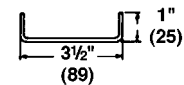
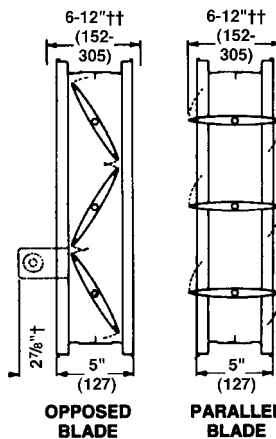
- The CD50SF offers sturdy, steel construction with interlocking frame design. Damper locks together without bolts, screws, or rivets that could shake loose. Frame corners are internally braced to reduce racking.
- Axles positively lock to blades without screws or welds. Non-stick, noncorrosive bearings assure long life and ease of operation. Axles and bearings combine with a shake proof linkage for low maintenance operation.
- Airfoil blade design and linkage concealed in the frame out of the air stream to reduce turbulence for low pressure drop and noise generation.
- Santoprene blade edge seals mechanically locked into the blade for superior low leakage in the closed position.
- Airfoil design allows for use in systems up to 13" w.g. maximum total static pressure.

When tested in accordance with AMCA Standard 500, the CD50SF exhibits leakage rates that meet the ultra-low 2.0 cfm/sq. ft. at 1" w.g. level.

### VARIATIONS

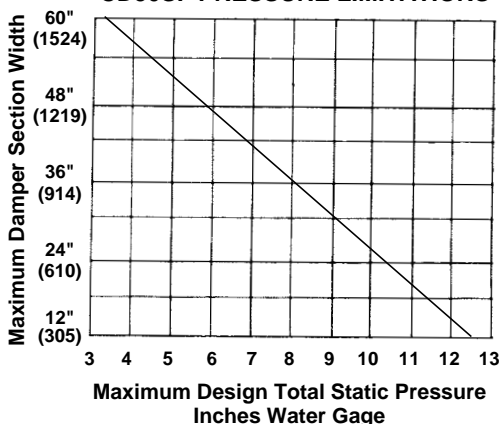
Variations to the CD50SF basic design are available at additional cost. They include:

- Factory-installed, pneumatic and electric actuators (specific information required with order).
- Ruskin frame-mounted universal actuator bracket to simplify field installation of most actuators (specify actuator and action, i.e., N.O. or N.C., with order).
- SP100 Switch Package to remotely indicate damper blade position.
- Heavier frame construction with U-channel frame.
- Front, rear or double flange frame with or without bolt holes.
- Anodized blades, enamel, epoxy and other special finishes are available.



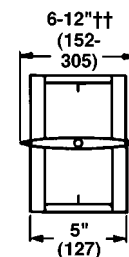
Heavy Construction/  
Special Materials  
U-channel Frame Option

### CD50SF PRESSURE LIMITATIONS

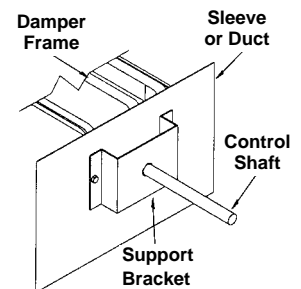


The CD50SF may be used in systems with total pressures exceeding 3.5" by reducing damper section width as indicated. Example: Maximum design total pressure of 8.5" w.g. would require CD50SF damper with maximum section width of 36".

Pressure limitations shown allow maximum blade deflection of 1/180 of span on 60" damper widths. Deflections in other damper widths (less than 48") at higher pressures shown will result in blade deflection substantially less than 1/180 of span.



Low profile frame  
illustrated is typical for  
units under 12" (305) high.



OUTBOARD SHAFT  
SUPPORT BRACKET