RUSKIN®

Patent Pending

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TED50V
THERMALLY EFFICIENT, INSULATED VERTICAL BLADE DAMPER

APPLICATION

Ruskin model TED50 is a low leak, thermally efficient damper with insulated extruded aluminum blades specially designed for reliable performance in climates prone to heavy condensation. Each blade has a thermal break that is strategically placed between twin blade edge seals. The twin seals create a neutral zone to ensure there is no thermal path. This feature eliminates thermal transfer and reduces potential for condensation. TED50 satisfies the leakage requirements of the IECC (International Energy Conservation Code).

STANDARD CONSTRUCTION

FRAME
5" (127) x 1" (25) x .125 (3) thick 6063T6 high yield aluminum.
6" (152) x 1 3/8" (35) x .125 (3) thick 6063T6 high yield aluminum with optional quick connect "T" flange frame.
6" (152) x 1" (25) thick 6063T6 high yield aluminum with optional thermal break frame.

BLADE(S)
5/64" (2) 6063T6 high yield aluminum with opposed blade action and thermal break.

AXLES
1/2" (13) nominal hexagonal plated steel.

BEARINGS
Dual action polycarbonate internal hex rotating inside an Acetyl Copolymer outer sleeve.

BLADE SEALS
Mechanically fastened extruded bulb Ruskiprene™.

JAMB SEALS
Combination compression/ribbed extruded Ruskiprene™.

LINKAGE
Swedgelock™ assembly plated steel concealed out of airstream.

OUTPUT SHAFT
1/2" (13) dia. x 6" (152) long plated steel shaft single section units.
1/2" (13) dia. jackshaft on multi-section assemblies up to 12 1/2 ft.^{2} (3. 8m^2).
1" (25) dia. jackshaft multi-section assemblies over 12 1/2 ft.^{2} (3. 8m^2).

PRESSURE
Up to 8.0" water gage (2 kPa) pressure.

VELOCITY
Up to 4,000 fpm (20.3 m/s).

LEAKAGE
Class 1A at 1" water gage (.25 kPa).
Class 1 at 4" water gage (1 kPa).

TEMPERATURE RANGE
-45°F to 185°F (-43°C to 85°C).

MINIMUM SIZE
Parallel blade unit: 6" x 6" (152 x 152).
Opposed blade unit: 6" x 11 1/2" (152 x 292).

MAXIMUM SIZE
Single section: 60" x 72" (1524 x 1829) single section.
Multi-section: multiple factory assembled 48" x 72" (1219 x 1829) sections with unlimited overall dimensions.

NOTES:
1. Values shown in parentheses ( ) are millimeters unless otherwise indicated.
2. Refer to Installation Instructions for additional details.

FEATURES

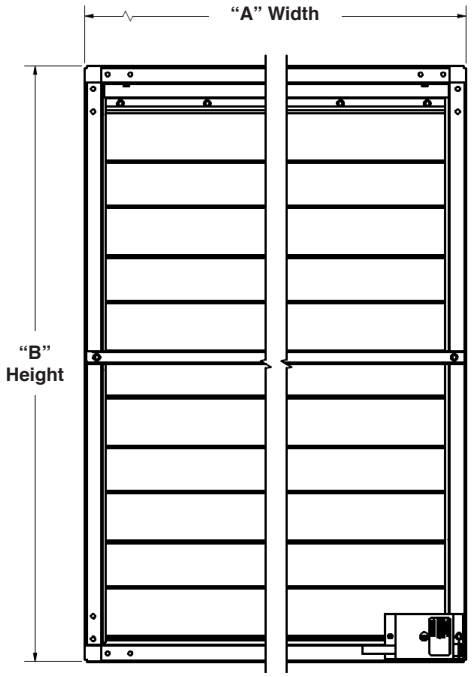
- 345% Thermal efficiency
- Extrusions with over 30% higher yield stress
- 6063T6 High yield extruded aluminum construction
- Twin blade seals with neutral zone thermal break
- Dual action injection molded bearing and bearing surface frame insert
- Ruskin Swedgelock™ linkage system

VARIATIONS

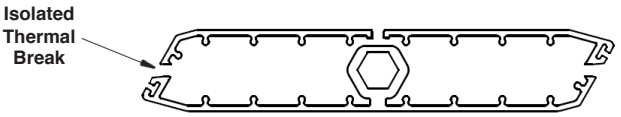
Ruskin model TED50 is available with the following variations at additional cost

- Front or rear flange frame
- Thermal break in frame
- Quick connect "T" flange frame (reduces pressure drop)
- Stainless steel linkage
- Stainless axles
- Clear anodized finish
- Factory furnished and commissioned actuators

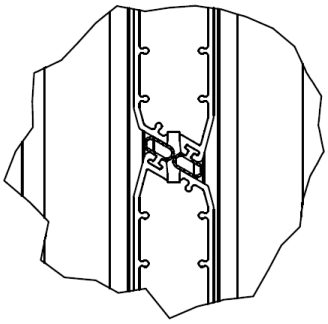
DIMENSIONAL DETAILS



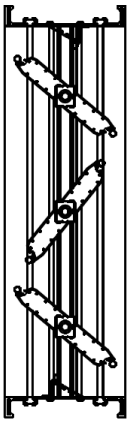
Front View
(See Notes 3 & 4 on Page 1)



Blade Detail



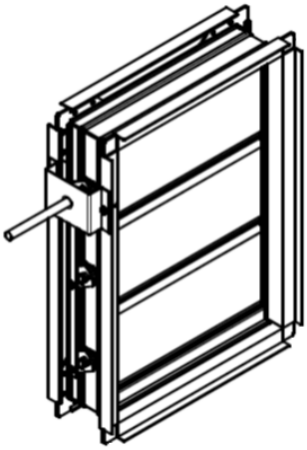
Blade to Blade Detail

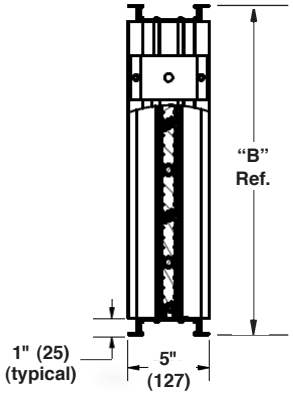


Opposed

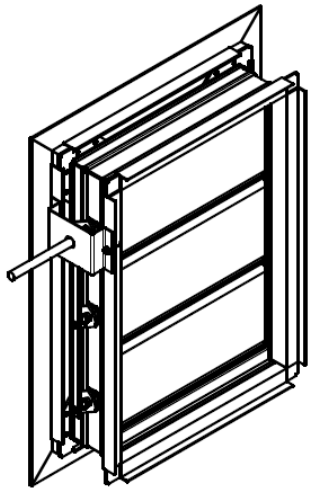
BLADE ACTION DETAIL
(Shown with thermal break frame option)

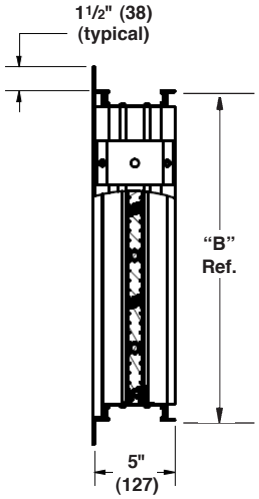
NOTE: To provide maximum free area and lowest pressure drop, Ruskin model TED50 utilizes varying blade widths. In some cases, the blade extends beyond the frame a maximum of 3.06" (78).



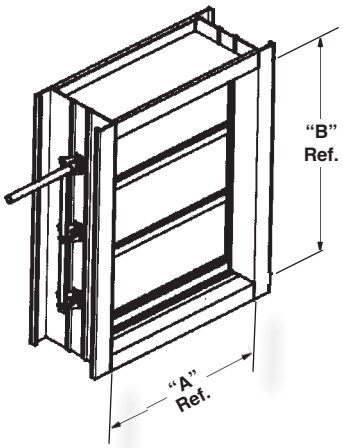


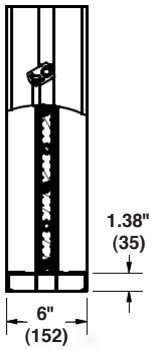
Channel Frame Detail
(A and B are O.D. Frame)





Flange Frame Detail
(A and B are O.D. Frame)





Quick Connect "T" Flange Frame Detail
(A-Width and B -Height are I.D. Frame)

NOTE: Thermal break frame option is similar to graphic above. The 6" (152) x 1" (25) x .125" (3) frame is dimensioned from the inside (I.D.) and furnished actual size. Refer to Note 4 on Page 1.