



3900 Dr. Greaves Rd.

• Kansas City, MO 64030

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ABD-SEA-ST

AUTOMATIC BALANCING DAMPER WITH SIDE TAP REGISTER BOX AND SUPPLY/EXHAUST GRILLE

APPLICATION

Ruskin Model ABD-SEA-ST provides precise and automatic airflow regulation for supply or exhaust ventilation systems in any residential or commercial building. Use in any HVAC application, with a static pressure between 0.2 and 2.0 inches w.c. Facilitates controlled volume of make-up or exhaust air in highrise applications. The ABD-SEA-ST is factory supplied with a 24 gauge register box with side tap collar for ducted applications and a aluminum supply or exhaust grille.

STANDARD CONSTRUCTION

FRAME

Thermoplastic resins with non-caustic antimicrobial agent preventing organic growth. Passes UL2043 tests for heat and smoke emission.

SEAL

Full circumference outer rubber gasket-type

SPRING

Stainless leaf type

AVAILABLE SIZES

Available sizes: 4", 5" or 6" dia. with customer specified enclosure dimensions

AIRFLOW RANGE

4"	30 to 125 CFM
5"	30 to 125 CFM
6"	60 to 240 CFM

EXHAUST/SUPPLY GRILLE

6063-T5 aluminum grille with fixed vanes at $\frac{3}{4}$ " centers

GRILLE STANDARD CONSTRUCTION

Sidewall Supply

BLADES

1 - Set of individually adjustable blades in the vertical or horizontal position; Aluminum, 6063-T5.

FRAME

Aluminum, 6063-T5

FINISH

Painted White

OPTIONAL FINISH

Clear Anodize or Mill

GRILLE STANDARD CONSTRUCTION

Exhaust Air Grille

BLADES

1- Set of fixed blades at 40° Angle; Aluminum, 6063-T5. Blades in the horizontal position

FRAME

Aluminum, 6063-T5

FINISH

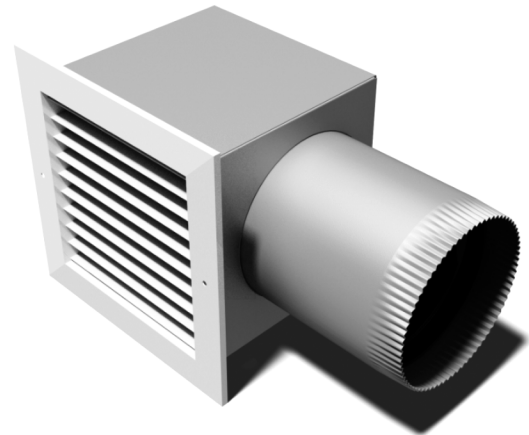
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OPTIONAL FINISH

Clear Anodize or Mill

NOTES:

- Accurate to within 10% of their set airflow value from 0.2" to 2.0" w.g.



Ruskin utilizes AAB valve in the production of our complete line of pressure independent solutions.



UL 2043

REGISTER BOX CONSTRUCTION

FRAME

24 gauge galvanized steel with side tap steel collar. Minimum 6"x6" and maximum 12"x12". Outside dimensions are actual. Optional flange on grille side of enclosure.

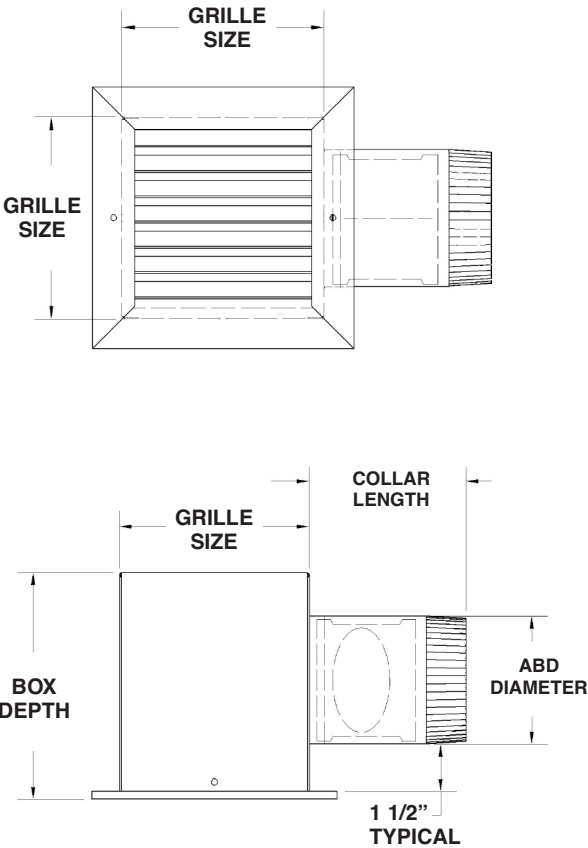
FEATURES

- Field convertible flow direction
- Anti-microbial agent
- Tool-free set-point adjustment
- Oil-filled, hermetically sealed bearings

VARIATIONS

- Plenum box depth
- Heavy-gauge enclosure

DIMENSIONS



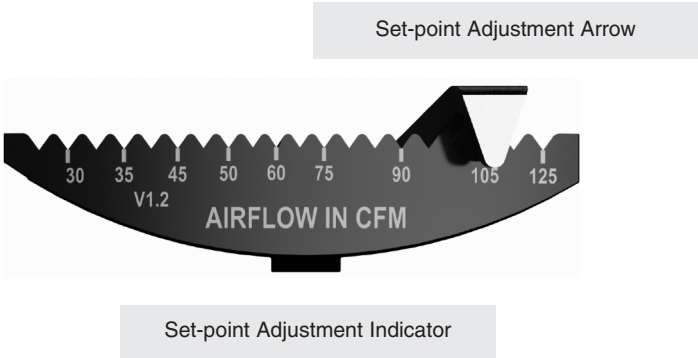
ABD Diameter	Available Grille Sizes	Collar Length	Box Depth
4" & 5" dia.	6" x 6" 8" x 8" 10" x 10" 12" x 12"	5"	7 1/2"
6" dia.	8" x 8" 10" x 10" 12" x 12"	6 1/2"	8 1/2"

ABD inserts into enclosure collar utilizing the full circumference seal to secure in place. To change air-flow direction, remove and rotate the ABD within the collar.

OPERATION

Pressure Independent Automatic Balancing Damper maintains a constant airflow volume in HVAC applications. The engineered damper blade is calibrated to automatically adjust to varying pressures using physics.

Slide the set-point adjustment arm to the desired airflow.



GRILLES

SIDEWALL SUPPLY GRILLE

1 set of individually adjustable blades in vertical or horizontal position

MINIMUM SIZE

6" width x 6" height

MAXIMUM SIZE

12" width x 12" height (Consult Ruskin for larger size options)

EXTRUDED ALUMINUM

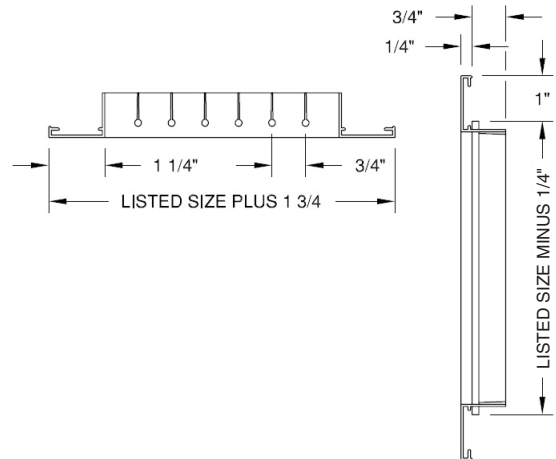
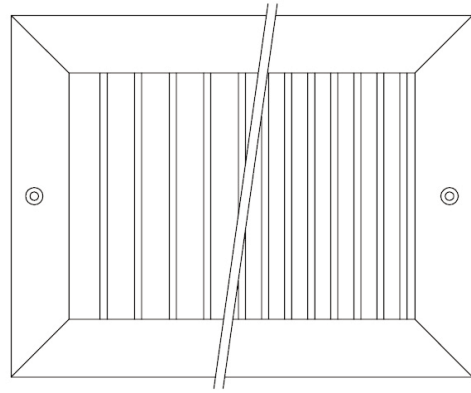
6063-T5

FINISH

Painted White

OPTIONAL FINISH

Clear Anodize or Mill



RETURN/EXHAUST AIR GRILLE

Blades fixed at 40° angle in horizontal position

MINIMUM SIZE

6" width x 6" height

MAXIMUM SIZE

12" width x 12" height (Consult Ruskin for larger size options)

EXTRUDED ALUMINUM

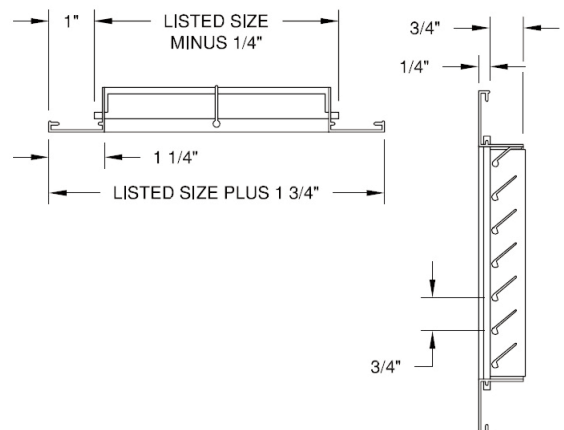
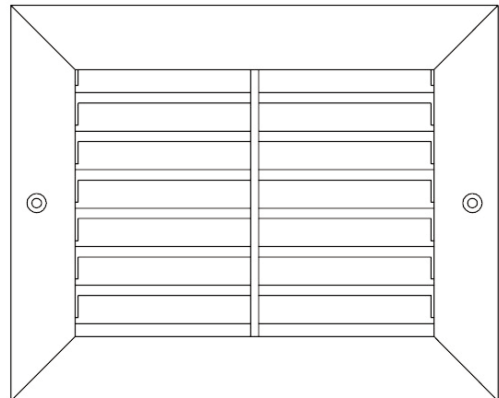
6063-T5

FINISH

Painted White

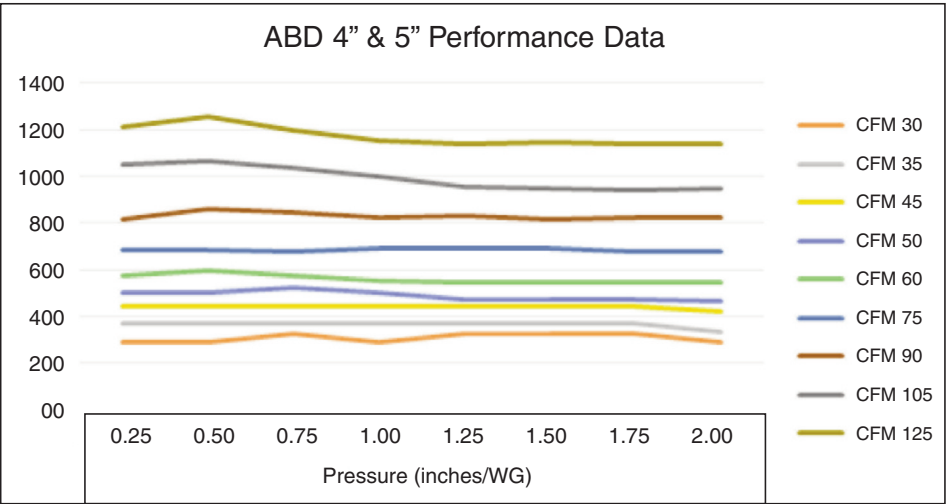
OPTIONAL FINISH

Clear Anodize or Mill



PERFORMANCE DATA

Ruskin Model ABD independently tested using AMCA standard 500-D Figure 1. The ABD maintains airflow volume throughout the operating setpoint range within +/- 10% accuracy. Performance based on pressure range of 0.2" - 2.0" w.g.*



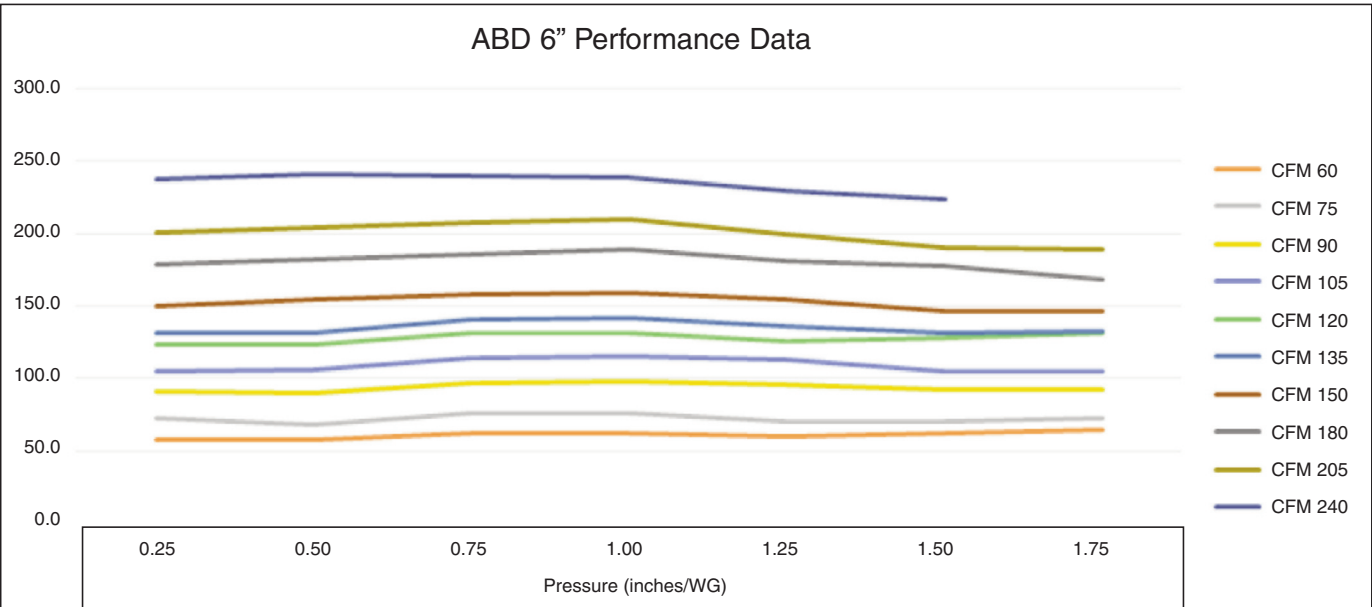
Ruskin utilizes AAB valve in the production of our complete line of pressure independent solutions.



ABD 4" & 5"
setpoint range:
30cfm - 125cfm

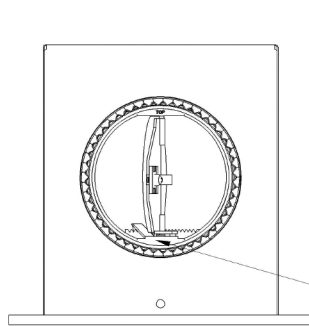
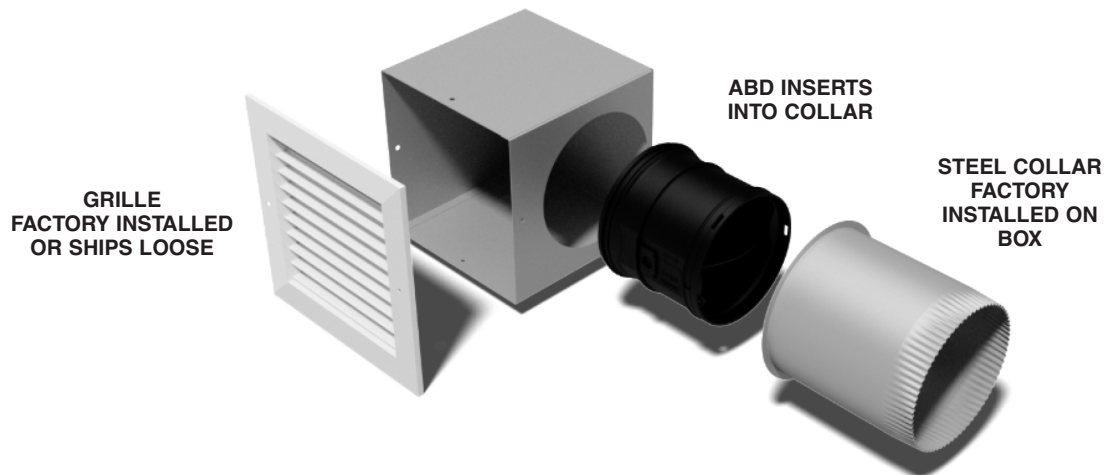


ABD 6"
setpoint range:
60cfm - 240cfm

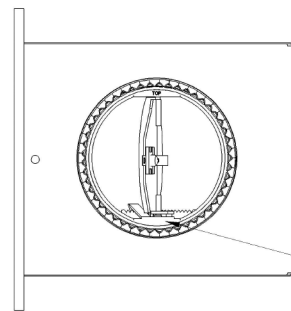


INSTALLATION AND MAINTENANCE

Ruskin Model ABD-SEA-ST can be installed in horizontal or vertical applications. When installing in horizontal applications, the set-point adjustment indicator should be placed at the 6 o'clock position, with the blade running vertically.



TYPICAL CEILING MOUNT



TYPICAL WALL MOUNT

SUGGESTED SPECIFICATION

Furnish and install at locations shown on plans or as in accordance with schedules, a Ruskin Model ABD-SEA-ST Pressure Independent Automatic Balancing damper with enclosure and grille. Unit shall require no power supply. Unit design shall facilitate field set point adjustment and flow direction change utilizing no tools. Each ABD-SEA-ST shall be rated for use in air temperatures ranging from 25° to 150°F (-4° to 65°C). Product shall be accurate to within 10% of set airflow value from 0.2" to 2.0" water column. The unit shall be provided as an assembly, used within a enclosure for mounting in wall or ceiling. Each ABD will be fitted with a full circumference rubber gasket-type seal. Each unit will be classified per UL 2043 and carry the UL mark indicating compliance. The pressure independent automatic balancing damper assembly shall be in all aspects equivalent to Ruskin Model ABD-SEA-ST.



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