



REVERSOMATIC
MANUFACTURING LIMITED

Use Reversomatic fans when quality and performance come first

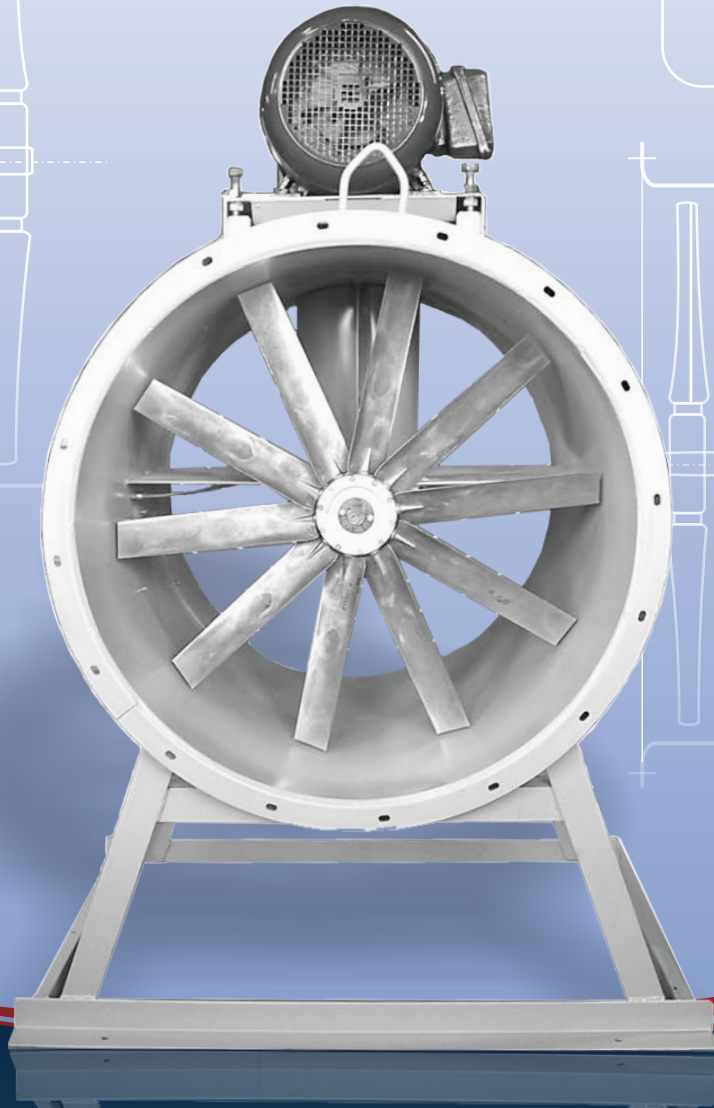
AIRFOIL TUBEAXIAL FANS

Direct Drive
Model

RDD

Belt Driven
Model

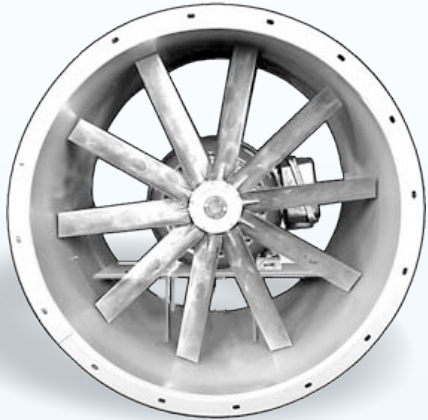
RBD



Evaluated by UL as per UL 705
(United State) and CSA Standard
C22.2 No.113-M1984 (Canada).

Tubeaxial Fans are designed for use in low to medium pressure ducted applications. They are generally used for removal of contaminated air or hot air found in industrial applications; but can also be used to supply air through duct work for cooling or pressurizing of the interior spaces ie. Elevator Shaft and Stairwells for Condominiums. Tubeaxial fans are very versatile and compact for moving large volumes of air in duct systems having relatively low pressure losses.

DIRECT DRIVE TUBEAXIAL FANS

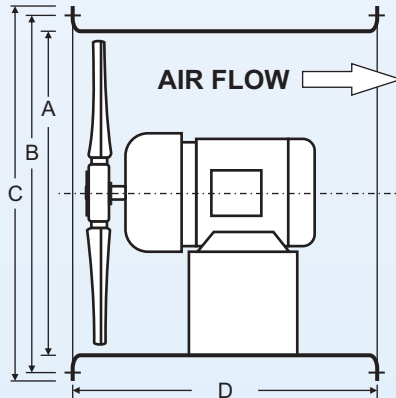
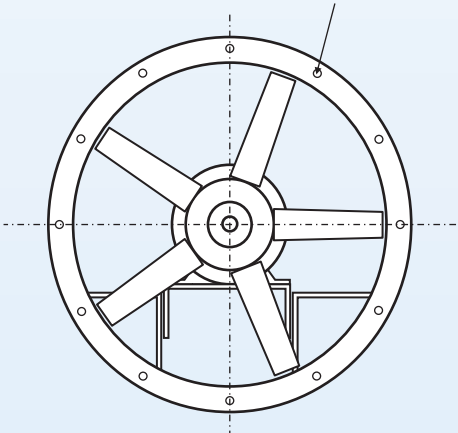


Model RDD

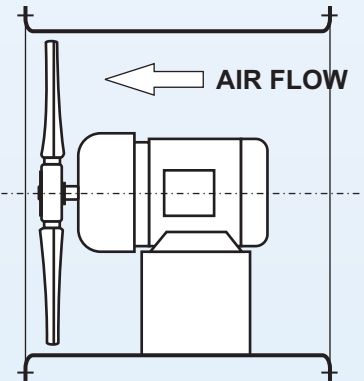
- Housing construction of Heavy Gauge Steel
- 12" through 40" Airfoil Cast Aluminum Propeller Blade
- Ranging from 800 to 44,000 CFM
- Static Pressure 0 to 3" SP.
- Motor sizes are 1/4 to 30 HP depending on propeller size and CFM desired
- The RDD is a Direct Drive fan with motor in the airstream



E - Diameter of holes
F - Number of holes



"B" RUNNING
(Factory Standard)



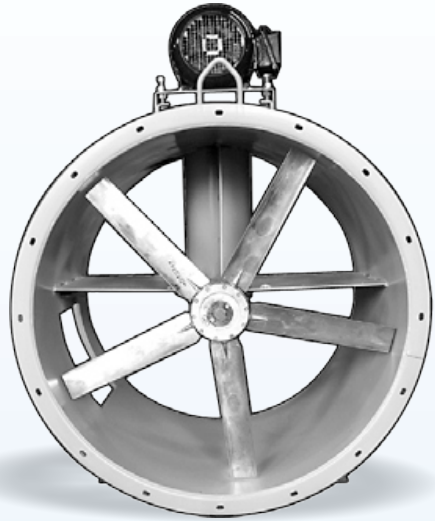
"A" RUNNING
(Optional - specify when required)

FAN DIMENSIONS

| SIZE | A | B | C | E | F | MOTOR HP | | | D | | |
|------|----|----------|----|------|----|----------|--------|-------|----|----|----|
| | | | | | | | | | | | |
| 12 | 12 | 13 13/16 | 15 | 7/16 | 12 | 1 | — | — | 21 | — | — |
| 15 | 15 | 17 | 18 | 7/16 | 8 | 2 | — | — | 21 | — | — |
| 18 | 18 | 19 3/4 | 21 | 7/16 | 8 | 3 | — | — | 21 | — | — |
| 21 | 21 | 22 3/4 | 24 | 7/16 | 12 | <= 5 | — | — | 24 | — | — |
| 24 | 24 | 25 3/4 | 27 | 7/16 | 12 | <= 5 | 7.5-10 | — | 24 | 27 | — |
| 30 | 30 | 32 3/8 | 34 | 7/16 | 16 | <= 5 | 7.5-10 | — | 27 | 30 | — |
| 36 | 36 | 38 3/8 | 40 | 7/16 | 16 | <= 10 | 15-20 | 25-30 | 30 | 33 | 36 |
| 40 | 40 | 42 3/8 | 44 | 7/16 | 24 | <= 10 | 15-20 | 25-30 | 33 | 33 | 36 |

All dimensions are in inches.

BELT DRIVEN TUBEAXIAL FANS

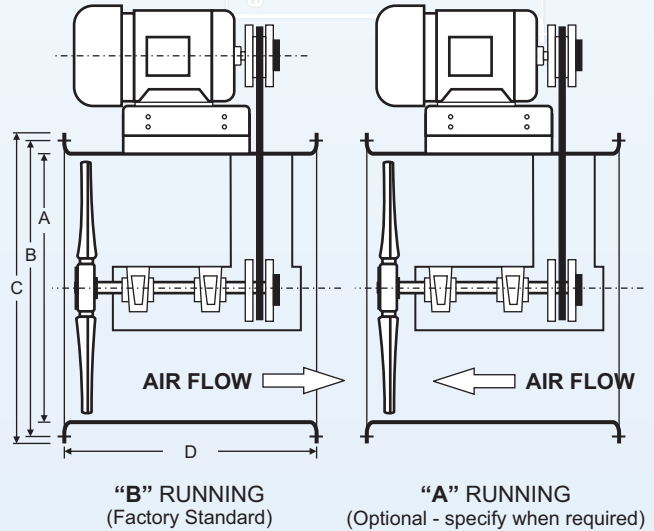
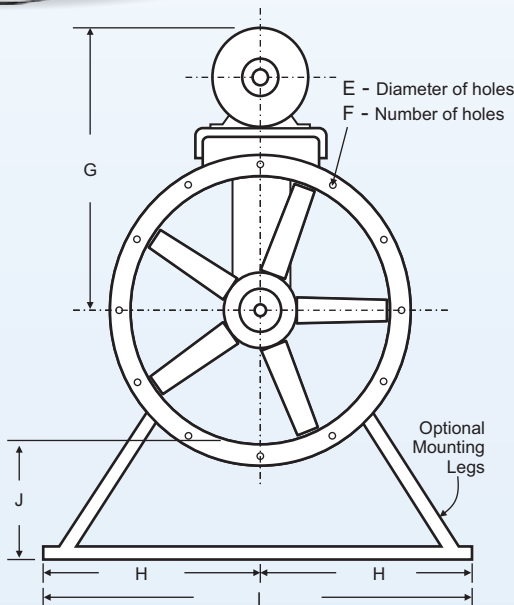


Model RBD

- Housing construction of Heavy Gauge Steel
- 12” through 48” Airfoil Cast Aluminum Propeller Blade
- Ranging from 1300 to 70,000 CFM
- Static Pressure 0 to 3” SP.
- Motor sizes are 1/4 to 50 HP depending on propeller size and CFM desired
- The RBD is a belt drive fan with motor and drives out of the airstream



Reversomatic Manufacturing Limited certifies that Models RBD-12 to RBD-48 inclusive shown on pages 7, 8 & 9 are licensed to bear the AMCA Seal. The ratings are based on tests and procedures performed in accordance with AMCA Publication 211 and AMCA Publication 311 and comply with the requirements of the AMCA Certified Ratings Program.



FAN DIMENSIONS

| SIZE | A | B | C | E | F | G | MOUNTING LEGS | | |
|------|----|----------|----|------|----|----|---------------|----|--------|
| | | | | | | | H | I | J |
| 12 | 12 | 13 13/16 | 15 | 7/16 | 12 | 17 | 6 | 12 | 7 1/2 |
| 15 | 15 | 17 | 18 | 7/16 | 8 | 19 | 7 1/2 | 15 | 8 |
| 18 | 18 | 19 3/4 | 21 | 7/16 | 8 | 22 | 9 | 18 | 8 1/2 |
| 21 | 21 | 22 3/4 | 24 | 7/16 | 12 | 25 | 10 1/2 | 21 | 9 |
| 24 | 24 | 25 3/4 | 27 | 7/16 | 12 | 32 | 12 | 24 | 9 1/2 |
| 27 | 27 | 29 3/8 | 31 | 7/16 | 16 | 33 | 13 1/2 | 27 | 10 |
| 30 | 30 | 32 3/8 | 34 | 7/16 | 16 | 35 | 15 | 30 | 10 1/2 |
| 33 | 33 | 35 3/8 | 37 | 7/16 | 16 | 37 | 16 1/2 | 33 | 11 |
| 36 | 36 | 38 3/8 | 40 | 7/16 | 16 | 40 | 18 | 36 | 11 1/2 |
| 40 | 40 | 42 3/8 | 44 | 7/16 | 24 | 42 | 20 | 40 | 12 1/2 |
| 42 | 42 | 44 3/8 | 46 | 7/16 | 24 | 44 | 21 | 42 | 12 1/2 |
| 48 | 48 | 50 3/8 | 52 | 7/16 | 24 | 48 | 24 | 48 | 13 1/2 |

| MOTOR HP | | | D | | |
|----------|---------|--------|----|----|----|
| 1 | — | — | 21 | — | — |
| 2 | — | — | 21 | — | — |
| 3 | — | — | 21 | — | — |
| <= 5 | — | — | 24 | — | — |
| <= 5 | 7.5 -10 | — | 24 | 27 | — |
| <= 5 | 7.5 -10 | — | 24 | 27 | — |
| <= 5 | 7.5 -10 | — | 27 | 30 | — |
| <= 5 | 7.5 -10 | — | 27 | 30 | — |
| <= 10 | 15 -20 | 25 -30 | 30 | 33 | 36 |
| <= 10 | 15 -20 | 25 -30 | 33 | 33 | 36 |
| <= 20 | 25 -30 | 40 -50 | 33 | 36 | 39 |
| <= 20 | 25 -30 | 40 -50 | 33 | 36 | 39 |

* Custom mounting legs are available upon request

All dimensions are in inches.

PERFORMANCE DATA OF TUBEAXIAL FANS

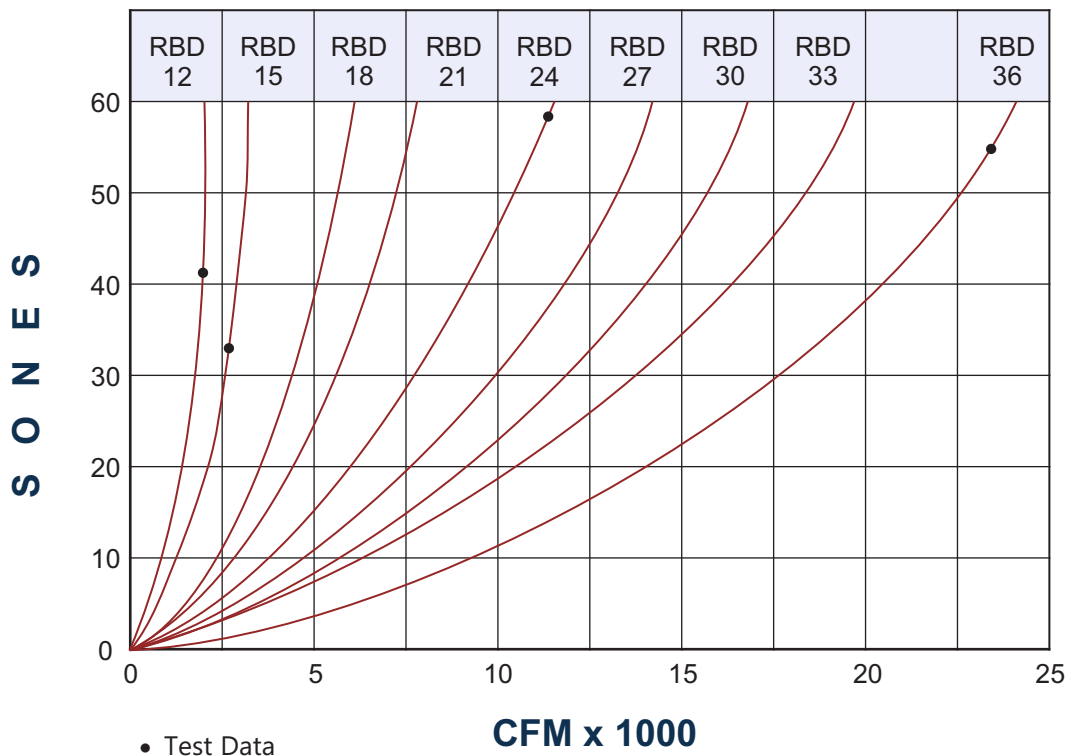
| BELT DRIVE 150 mm HUB DIA. 5 BLADES 25° BLADE ANGLE | | | | | | | | | | |
|-----------------------------------------------------|------------------------|---------|-----------|-------------|-------------|-------------|-------------|-------------|-----------|---------------|
| MOTOR H.P. | Max. Input Power Watts | FAN RPM | 0" SP CFM | 1/8" SP CFM | 1/4" SP CFM | 3/8" SP CFM | 1/2" SP CFM | 3/4" SP CFM | 1" SP CFM | 1-1/2" SP CFM |
| RBD-12" | | | | | | | | | | |
| 0.25 HP | 353 | 2371 | 1294 | 1251 | 1167 | 1076 | 986 | 766 | | |
| 0.33 HP | 471 | 2601 | 1429 | 1382 | 1303 | 1224 | 1142 | 953 | 662 | |
| 0.50 HP | 707 | 2988 | 1632 | 1525 | 1482 | 1386 | 1292 | 987 | 821 | |
| 0.75 HP | 1059 | 3420 | 1870 | 1820 | 1760 | 1690 | 1620 | 1460 | 1200 | 460 |
| 1.00 HP | 1413 | 3765 | 2057 | 2006 | 1949 | 1879 | 1812 | 1657 | 1384 | 566 |
| RBD-15" | | | | | | | | | | |
| 0.50 HP | 631 | 1860 | 2258 | 2070 | 1850 | 1610 | 1215 | 250 | | |
| 0.75 HP | 1032 | 2192 | 2661 | 2500 | 2348 | 2145 | 1930 | 810 | 353 | |
| 1.00 HP | 1268 | 2348 | 2850 | 2710 | 2560 | 2390 | 2200 | 1610 | 590 | |
| 1.50 HP | 1894 | 2685 | 3260 | 3200 | 3000 | 2876 | 2760 | 2364 | 1190 | 432 |
| 2.00 HP | 2528 | 2955 | 3587 | 3390 | 3280 | 3190 | 3080 | 2790 | 2300 | 850 |
| RBD-18" | | | | | | | | | | |
| 0.75 HP | 864 | 1951 | 3613 | 3493 | 3256 | 3021 | 2769 | 2230 | | |
| 1.00 HP | 1153 | 2148 | 3978 | 3857 | 3641 | 3421 | 3197 | 2699 | 1995 | |
| 1.50 HP | 1730 | 2459 | 4558 | 4445 | 4245 | 4038 | 3831 | 3379 | 2690 | 878 |
| 2.00 HP | 2307 | 2706 | 5018 | 4895 | 4713 | 4519 | 4313 | 3880 | 3174 | 1213 |
| 3.00 HP | 3460 | 3097 | 5741 | 5599 | 5439 | 5251 | 5059 | 4632 | 3875 | 1600 |
| RBD-21" | | | | | | | | | | |
| 0.75 HP | 800 | 1580 | 4606 | 4422 | 4064 | 3698 | 3320 | 2340 | | |
| 1.00 HP | 1068 | 1739 | 5066 | 4895 | 4570 | 4231 | 3878 | 3099 | | |
| 1.50 HP | 1602 | 1991 | 5797 | 5642 | 5348 | 5044 | 4726 | 4045 | 3065 | |
| 2.00 HP | 2136 | 2191 | 6384 | 6227 | 5952 | 5665 | 5371 | 4729 | 3763 | 1199 |
| 3.00 HP | 3204 | 2508 | 7305 | 7125 | 6896 | 6619 | 6350 | 5736 | 4721 | 1854 |
| RBD-24" | | | | | | | | | | |
| 1.00 HP | 987 | 1478 | 7996 | 7636 | 7124 | 6624 | 5997 | 4505 | | |
| 1.50 HP | 1480 | 1691 | 9150 | 8839 | 8391 | 7977 | 7458 | 6424 | 4924 | |
| 2.00 HP | 1973 | 1861 | 10071 | 9786 | 9375 | 9017 | 8524 | 7655 | 6528 | |
| 3.00 HP | 2960 | 2132 | 11479 | 11227 | 10915 | 10603 | 10187 | 9459 | 8524 | 3742 |
| 5.00 HP | 4933 | 2528 | 13664 | 13318 | 13059 | 12840 | 12494 | 11836 | 11098 | 5548 |
| RBD-27" | | | | | | | | | | |
| 1.00 HP | 931 | 1365 | 9738 | 9096 | 8264 | 7495 | 6516 | 5148 | | |
| 1.50 HP | 1396 | 1561 | 11170 | 10585 | 9848 | 9193 | 8424 | 6648 | | |
| 2.00 HP | 1861 | 1718 | 12285 | 11799 | 11071 | 10491 | 9788 | 8409 | 7171 | |
| 3.00 HP | 2792 | 1969 | 14047 | 13654 | 12962 | 12451 | 11821 | 10743 | 9345 | 4409 |
| 5.00 HP | 4654 | 2334 | 16650 | 16278 | 15690 | 15272 | 14704 | 13745 | 12590 | 5940 |

NOTE: Performance certified is for installation type A; Free Inlet, Free Outlet. Performance ratings do not include the effects of appurtenances (accessories). Power (BHP) includes transmission losses. The sound ratings shown are loudness values in fan sones at 1.5 m (5 ft.) in a hemispherical free field calculated per AMCA International Standard 301. Values shown are for: Installation A: Free inlet hemispherical sone levels.

| BELT DRIVE | | | 150 mm HUB DIA. 5 BLADES 25° BLADE ANGLE | | | | | | | | | |
|----------------|------------------------|---------|------------------------------------------|-------------|-------------|-------------|-------------|-------------|-----------|---------------|-----------|---------------|
| MOTOR HP | Max. Input Power Watts | FAN RPM | 0" SP CFM | 1/8" SP CFM | 1/4" SP CFM | 3/8" SP CFM | 1/2" SP CFM | 3/4" SP CFM | 1" SP CFM | 1-1/2" SP CFM | 2" SP CFM | 2-1/2" SP CFM |
| RBD-30" | | | | | | | | | | | | |
| 1.00 HP | 883 | 1148 | 11479 | 10556 | 9404 | 8366 | 7035 | | | | | |
| 1.50 HP | 1324 | 1313 | 13191 | 12332 | 11305 | 10408 | 9389 | 6872 | | | | |
| 2.00 HP | 1765 | 1445 | 14500 | 13812 | 12767 | 11965 | 11052 | 9163 | | | | |
| 3.00 HP | 2648 | 1655 | 16614 | 16081 | 15008 | 14299 | 13455 | 12027 | 10165 | | | |
| 5.00 HP | 4412 | 1963 | 19635 | 19238 | 18322 | 17704 | 16914 | 15654 | 14082 | 6333 | | |
| 7.50 HP | 6619 | 2247 | 22455 | 22000 | 21440 | 20817 | 19990 | 18803 | 17440 | 8583 | | |
| RBD-33" | | | | | | | | | | | | |
| 1.00 HP | 841 | 990 | 13221 | 12016 | 10545 | 8467 | 7554 | | | | | |
| 1.50 HP | 1262 | 1133 | 15211 | 14078 | 12762 | 10969 | 10355 | 7096 | | | | |
| 2.00 HP | 1682 | 1246 | 16714 | 15825 | 14462 | 12859 | 12316 | 9917 | | | | |
| 3.00 HP | 2523 | 1428 | 19182 | 18508 | 17055 | 15637 | 15088 | 13310 | 10986 | | | |
| 5.00 HP | 4205 | 1693 | 22621 | 22198 | 20953 | 19718 | 19124 | 17562 | 15574 | 6725 | | |
| 7.50 HP | 6308 | 1938 | 25870 | 25385 | 24519 | 23185 | 22602 | 21095 | 19288 | 9114 | | |
| RBD-36" | | | | | | | | | | | | |
| 2.00 HP | 1760 | 1045 | 17769 | 16390 | 15240 | 13964 | 12311 | 8783 | | | | |
| 3.00 HP | 2640 | 1196 | 20278 | 19219 | 18073 | 16873 | 15531 | 13292 | 6733 | | | |
| 5.00 HP | 4400 | 1418 | 24093 | 23316 | 22176 | 21140 | 19793 | 18135 | 11399 | | | |
| 7.50 HP | 6600 | 1627 | 27506 | 26731 | 26731 | 24922 | 23581 | 22122 | 14465 | | | |
| 10.0 HP | 8800 | 1787 | 30317 | 29462 | 29462 | 27928 | 26517 | 25256 | 16798 | | | |

NOTE: Performance certified is for installation type A; Free Inlet, Free Outlet. Performance ratings do not include the effects of appurtenances (accessories). Power (BHP) includes transmission losses. The sound ratings shown are loudness values in fan sones at 1.5 m (5 ft.) in a hemispherical free field calculated per AMCA International Standard 301. Values shown are for: Installation A: Free inlet hemispherical sone levels.

SONES AT 0.00" STATIC PRESSURE

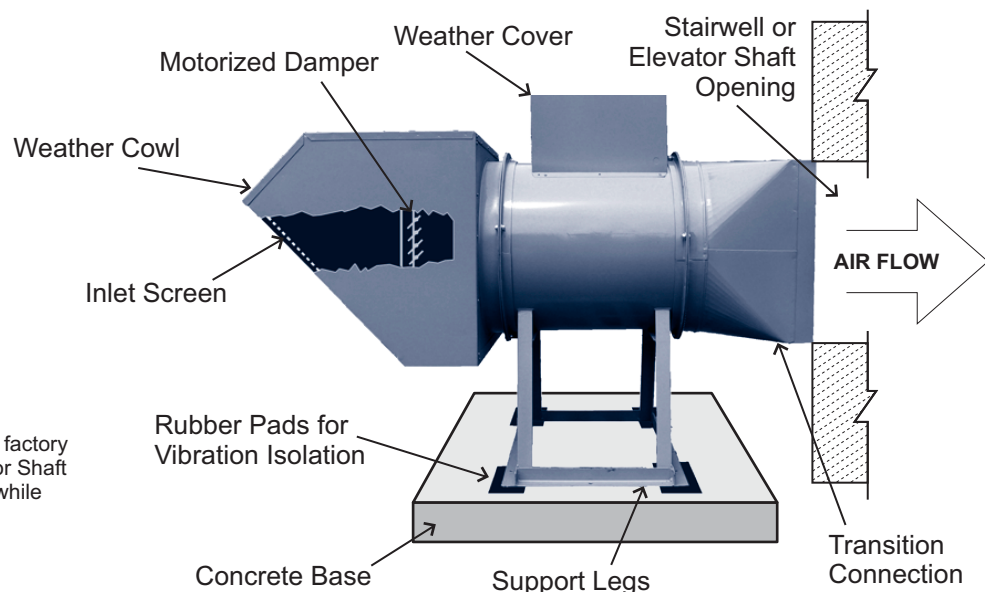


| BELT DRIVE | | | | | | | | | | | |
|----------------|---------|-------------------------------------------|-------------|-------------|-------------|-------------|-------------|-----------|---------------|-----------|---------------|
| MOTOR HP | FAN RPM | 0" SP CFM | 1/8" SP CFM | 1/4" SP CFM | 3/8" SP CFM | 1/2" SP CFM | 3/4" SP CFM | 1" SP CFM | 1-1/2" SP CFM | 2" SP CFM | 2-1/2" SP CFM |
| RBD-40" | | 250 mm HUB DIA. 7 BLADES 25° BLADE ANGLE | | | | | | | | | |
| 2.00 HP | 949 | 20100 | 19600 | 18200 | 16600 | 14700 | | | | | |
| 3.00 HP | 1086 | 23100 | 22600 | 21700 | 20300 | 18900 | 15400 | | | | |
| 5.00 HP | 1288 | 27300 | 27300 | 26500 | 25500 | 24400 | 21900 | 19000 | | | |
| 7.50 HP | 1475 | 31300 | 31300 | 30800 | 30000 | 29100 | 27200 | 25000 | 19400 | | |
| 10.0 HP | 1623 | 34500 | 34500 | 34200 | 33500 | 32800 | 31100 | 29200 | 24800 | 18300 | |
| RBD-42" | | 250 mm HUB DIA. 7 BLADES 25° BLADE ANGLE | | | | | | | | | |
| 2.00 HP | 848 | 19800 | 19080 | 17370 | 15300 | 12780 | | | | | |
| 3.00 HP | 972 | 22680 | 22230 | 20790 | 19170 | 17370 | 11790 | | | | |
| 5.00 HP | 1153 | 26910 | 26730 | 25650 | 24480 | 23040 | 19890 | 15570 | | | |
| 7.50 HP | 1319 | 30780 | 30780 | 29970 | 28980 | 27900 | 25380 | 22590 | | | |
| 10.0 HP | 1454 | 33930 | 33930 | 33390 | 32490 | 31590 | 29430 | 27090 | | | |
| 15.0 HP | 1662 | 38790 | 38790 | 38610 | 37980 | 37170 | 35460 | 33570 | 29250 | | |
| 20.0 HP | 1832 | 42750 | 42750 | 42660 | 42120 | 41490 | 40050 | 38430 | 34830 | 30600 | 25110 |
| 25.0 HP | 1974 | 46080 | 46080 | 45990 | 45630 | 45090 | 43830 | 42390 | 39150 | 35640 | 31410 |
| RBD-48" | | 380 mm HUB DIA. 14 BLADES 25° BLADE ANGLE | | | | | | | | | |
| 2.00 HP | 771 | 22000 | 21200 | 19300 | 17000 | 14200 | | | | | |
| 3.00 HP | 884 | 25200 | 24700 | 23100 | 21300 | 19300 | 13100 | | | | |
| 5.00 HP | 1048 | 29900 | 29700 | 28500 | 27200 | 25600 | 22100 | 17300 | | | |
| 7.50 HP | 1199 | 34200 | 34200 | 33300 | 32200 | 31000 | 28200 | 25100 | | | |
| 10.0 HP | 1322 | 37700 | 37700 | 37100 | 36100 | 35100 | 32700 | 30100 | | | |
| 15.0 HP | 1513 | 43100 | 43100 | 42900 | 42200 | 41300 | 39400 | 37300 | 32500 | | |
| 20.0 HP | 1665 | 47500 | 47500 | 47400 | 46800 | 46100 | 44500 | 42700 | 38700 | 34000 | 27900 |
| 25.0 HP | 1794 | 51200 | 51200 | 51100 | 50700 | 50100 | 48700 | 47100 | 43500 | 39600 | 34900 |

NOTE: Heavy duty blades are available for 20 to 50 HP & 40,000 to 70,000 CFM fans depend on operating conditions. Contact factory for selection & more information.

STAIR / ELEVATOR PRESSURIZATION

Roof Mounted Assembly Model RBD - Belt Drive



NOTE: Height of Support Legs is factory supplied to suit Stairwell or Shaft Opening. Please specify while ordering.

RBD TYPICAL SPECIFICATION

All belt-drive tube axial fans supply and/or exhaust are model RBD as manufactured by Reversomatic. Propeller construction consists of extruded aluminum propeller blades mounted in cast aluminum hub. The blade pitch is pre-set at the factory to match design conditions and locked into place by means of a self-locking pin. All propellers are statically and dynamically balanced for vibration-free operation. All fans have a heavy gauge steel housing and power assembly. All bearings are grease

lubricated ball bearing pillow block type with a minimum average life of 100,000 hours. All units have external grease fittings for ease in lubricating. Oil resistant nonstatic belts are provided. All fans bear the AMCA seal for sound and air performance. All steel sheet metal parts are cleaned, conditioned and painted with enamel paint finish prior to assembly. A final coat of gray enamel is applied to all exterior surfaces after assembly.

INSTALLATION

Reversomatic RDD and RBD duct fans may be mounted in any position using several different methods, mounting brackets for ceiling suspension and support legs for floor mounting. Angle supports for rod hangers. For convenience in wiring & service, the motor should be readily accessible. On direct drive units, access through adjacent duct work is recommended. On belt drive units, the motor position must

be considered with regard to service and adjacent objects such as wall and ceiling. Access door is provided. The duct fan has flanged ends on the steel housing for convenience mounting directly in the duct system. Flexible connections or transition pieces may be utilized to reduce noise transmission, simplify duct attachment and provide access to interior of fan.

MAINTENANCE

Tube axial fans should be cleaned as necessary to remove accumulated dust, dirt and other foreign matter which may collect on the blades or interior surfaces. Belt drive, belt(s) should be inspected and tension adjusted. Check belt(s) for proper alignment. On all belt drive models fan bearings are factory lubricated for extended service.

External relubrication fan bearing fittings are standard

with belt drive models. Pillow-block ball bearings should be lubricated annually or more frequently, depending upon conditions and operating cycle. For lubrication of electric motor, see instructions supplied by motor manufacturer. Always check blade clearance and check direction of rotation with arrow on housing before operating.

WARRANTY

REVERSOMATIC MANUFACTURING LIMITED WARRANTS IT WILL PROVIDE A REPLACEMENT PART OF ITS FANS FOUND TO BE DEFECTIVE IN MATERIAL OR WORKMANSHIP FOR A PERIOD OF ONE YEAR FROM DATE OF PURCHASE FOR FIRST USER, F.O.B. OUR PLANT.

NOTE: THIS WARRANTY DOES NOT APPLY TO LABOR COSTS INVOLVED IN REPLACEMENT OR REINSTALLATION, DIAGNOSTIC SERVICE, CLEANING AND ADJUSTMENT OR TRANSPORTATION. FURTHERMORE WARRANTY IS ONLY APPLICABLE WHEN REVERSOMATIC REPLACEMENT PARTS AND ACCESSORIES ARE USED.

APPROXIMATE SHIPPING WEIGHT (LESS MOTOR) LBS

| FAN SIZE | RDD | RBD |
|----------|-----|-----|
| 12 | 66 | 79 |
| 15 | 110 | 121 |
| 18 | 141 | 150 |
| 21 | 158 | 198 |
| 24 | 176 | 238 |

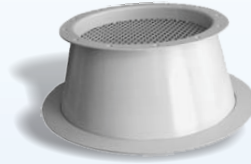
| FAN SIZE | RDD | RBD |
|----------|-----|-----|
| 30 | 209 | 286 |
| 36 | 396 | 418 |
| 40 | 440 | 484 |
| 42 | | 528 |
| 48 | | 616 |

ACCESSORIES - (Optional)



WEATHER COVER

Complete enclosure weather covers are available on all RBD fans. The cover provides weather protection for the motor and the drive when the fan is used in outside applications.



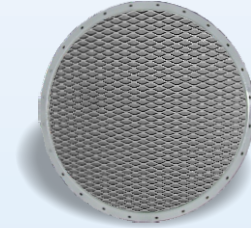
INLET BELL

Spun aluminum inlet bell available for installation on site



BELT GUARD

Belt Guard is available for all RBD fans to prevent accidental contact with the drive. Expanded metal is used to cover the front of the guard to allow visual inspection of the drive without removal of the guard.

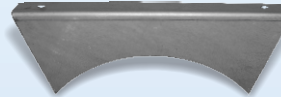


SCREEN



INSPECTION DOOR

Provides easy access to the bearings.



SUPPORT FRAME / CEILING BRACKET

ALSO AVAILABLE: Floor Mounting Feet, and Disconnect Switch.

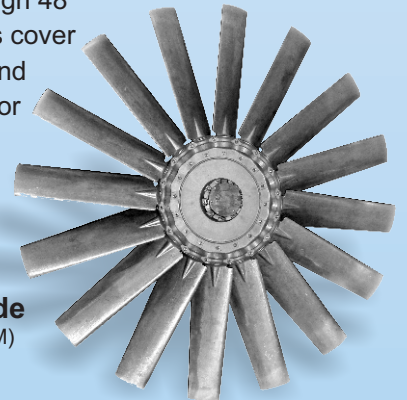
ALUMINUM DIE CAST PROPELLER



Standard Duty Blade
(800 to 40,000 CFM)

The RBD/RDD aluminum die cast propeller has been designed for use where high static pressure are required. It is constructed of multiple blades 5, 7, 8, 9, 10, 14 & 16 blades. The pitch setting of the blades is done at the factory & the blades are locked into place by means of a self-locking pin. Both units come in a variety of pitches (5° to 45°) to provide a wider performance range. Due to the airfoil blade design the propeller has a non-overloading characteristic such as found in a centrifugal type wheel. The propeller is available in sizes 12" trough 48" for belt drive RBD and 12" to 40" for direct drive RDD. Both types cover the range of 0" to 3" static pressure. Each propeller is statically and dynamically balanced for vibration free operation. It is designed for (temperature range) - 40° to 302°F (-40° to 150°C).

NOTE: For 20 HP & Up and 1" S.P. & higher, use **heavy duty blades**.



Heavy Duty Blade
(40,000 to 70,000 CFM)



REVERSOMATIC
MANUFACTURING LIMITED

790 Rowntree Dairy Road, Woodbridge ON, Canada L4L 5V3
Tel: 905-851-6701 • Fax: 905-851-8376 • info@reversomatic.com

www.reversomatic.com