

MODEL NBRTD

BELT DRIVE CENTRIFUGAL UPBLAST ROOF EXHAUSTER



MODEL FEATURES

- Exhaust air up to 6,817 CFM in high static pressure applications up to 3"
- Belt drives permit easy performance adjustments when needed
- Non-overloading backward inclined wheel for efficiency at higher static pressures
- Class B insulated motor
- Heat shield
- Roof or sidewall mounting options
- UL762 Listed
- NFPA - suitable for National Fire Protection Association Installations

MODEL OVERVIEW

Model NBRTD belt drive fans are designed to exhaust air up to 6817 CFM in high static pressure applications to 3". The aluminum exterior provides an attractive appearance. Belt drives result in lower operating RPM and sound levels, making the Model NBRTD well suited to applications where quiet operation is important. Belt drives also permit easy performance adjustments when needed to balance the total ventilation system. The non-overloading backward inclined wheel with its higher static pressure capability makes this unit suitable for either ducted or nonducted applications. It's roof or sidewall mounting options permit location near the area to be ventilated, allowing short duct runs and more efficient operation.

They are 100% top discharge belt driven centrifugal power roof exhausters designed especially for restaurant and cafeteria range hoods, where top discharge of air is required.

1 year fan housing warranty, 1 year motor warranty



CONSTRUCTION/SPECIFICATION CHECKLIST

Housing

- Galvanized steel curb cap with integral deep single piece spun inlet for efficient performance and prevention of leakage into ductwork.
- Adjustable motor base for proper belt tension and ease of adjustment.
- Rugged overlapping skirt spinings are closed at base to form built-in grease trough with drain. Assures 100% upward discharge of exhaust air. Upper edge of skirt spinning is beaded for strength.
- Enclosed ventilated motor/drive compartment isolates motor and drives from exhaust air.
- Neoprene isolators for reduction of vibration and sound.
- The motor compartment housing easily removes with a minimum of tools for complete maintenance access.
- Water-tight conduit tube for easy electrical connection without having to wire through the breather tube.
- Designed for maximum operating temperature of 300°F.

Centrifugal Wheel

- Backward inclined for efficiency at higher static pressure.
- Non-overloading for safe operation in ducted systems.
- Heavy aluminum hub for extra strength.
- Close running tolerance between inlet cone and wheel inlet for maximum efficiency.
- Statically and dynamically balanced for smooth quiet operation.

Motors

- Class B insulated motor.
- Single speed drip-proof motors are provided on standard models.
- Welded motor brackets designed for maximum strength.
- Disconnect switch is standard with single speed open drip-proof motors.

Bearings

- 5 year bearing warranty.
- Heavy-duty ball bearing type.
- Prelubricated and permanently sealed.
- Sized for a minimum L50 life in excess of 200,000 hours.

Drives

- Heavy-duty cast iron adjustable pulleys to permit speed variation.
- Single screw adjustment of belt tension maintains constant air delivery.

UL Label

- UL Standard 762 for grease removal.



OPTIONS/ACCESSORIES

Belt Tightener: The unique JencoFan automatic spring loaded belt tightener insures the proper belt tension which reduces belt wear and maintains constant delivery on fan RPM. This accessory is not available on wall mounted units.

Special Coatings: Powered roof exhausters often require special coatings for protective and decorative purposes. Available coatings include: Synthetic Resin, Epoxy, and Heresite (air-dried phenolic). Contact your representative or the factory for more information on available coatings and colors.

Hinged Curb Cap: Provides easy access for servicing and cleaning of exhaust fan and duct and is available for all NBRTD models.

Wall Mount: NBRTD units may be used in wall mount configuration. The wall mount option must be specified.

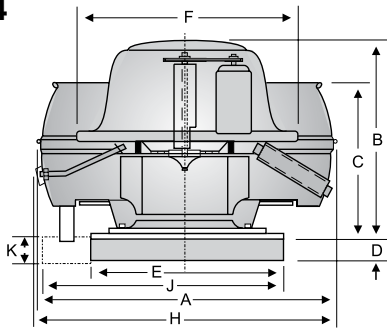
Grease Grabber or Aluminum Grease Trough: Trap designed for fast and inexpensive replacement. Grease collects in a container for safe and sanitary disposal. Keeps roof clean with proper use.

Roof Curb: Prefabricated heavy-gauge galvanized steel, welded construction, 18" high (other heights are also available) with 1-1/2" wood nailer. Assures perfect fit of exhauster to roof opening.



PERFORMANCE/DIMENSIONS

SIZE 14



A	B	C	D	E	F	H	J	K	WHEEL DIA.
28	21-5/16	14-1/2	2-1/2	20	21-3/4	31	27	3-1/2	14-3/4

Note: NFPA-96 requires at least 40 inches of clearance from the discharge to the roof surface when unit is used for kitchen exhaust.

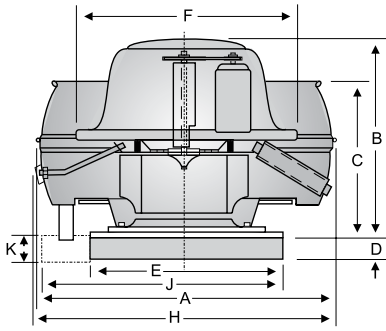
Speed Range Horsepower	RPM	CFM / BHP @ Static Pressure / Sones												
		0	1/8	1/4	3/8	1/2	5/8	3/4	1	1-1/2	2	2-1/2	3	
1/4 HP	500	654 .010/2.7	448 .015/1.9	-	-	-	-	-	-	-	-	-	-	
	580	758 .015/3.7	596 .022/3.2	-	-	-	-	-	-	-	-	-	-	
	660	863 .023/4.7	726 .030/4.5	516 .033/3.4	-	-	-	-	-	-	-	-	-	
	780	1020 .038/6.5	904 .047/6.5	770 .054/5.5	545 .054/4.8	-	-	-	-	-	-	-	-	
	860	1125 .051/7.5	1017 .061/7.6	910 .065/6.8	754 .074/6.1	469 .065/5.6	-	-	-	-	-	-	-	
	990	1295 .077/9.4	1199 .090/9.5	1113 .100/9.0	1007 .108/8.2	865 .113/7.6	661 .109/7.2	-	-	-	-	-	-	
	1/2 HP	1130	1478 .087/11.6	1392 .101/11.9	1317 .111/11.5	1237 .119/10.8	1139 .127/10.1	1014 .125/ 9.6	857 .034/9.1	-	-	-	-	-
		1165	1523 .126/12.2	1440 .141/12.5	1367 .154/12.2	1292 .165/11.5	1202 .174/10.8	1085 .183/10.2	951 .183/9.7	-	-	-	-	-
		1170	1531 .127/12.3	1447 .144/12.6	1374 .156/12.3	1299 .166/11.6	1210 .178/10.9	1095 .185/ 10.3	963 .186/9.8	-	-	-	-	-
		1260	1648 .159/13.9	1570 .177/14.2	1501 .191/14.1	1433 .203/13.5	1358 .213/12.8	1267 .226/12.1	1155 .232/11.6	840 .224/10.7	-	-	-	-
1340		1753 .191/15.3	1678 .211/15.8	1613 .226/15.7	1549 .239/15.3	1483 .251/14.5	1407 .262/13.8	1313 .275/13.2	1085 .279/12.3	-	-	-	-	
1420		1858 .227/16.8	1787 .249/17.3	1724 .265/17.3	1664 .280/17.0	1603 .292/16.4	1537 .304/15.6	1459 .320/14.8	1265 .332/13.9	-	-	-	-	
3/4 HP		1480	1936 .257/18.0	1868 .280/18.5	1807 .298/18.5	1749 .313/18.3	1692 .327/17.8	1630 .339/17.1	1561 .352/16.3	1385 .375/15.2	667 .317/13.9	-	-	-
		1580	2067 .313/19.9	2002 .337/22.0	1944 .357/21.0	1890 .374/21	1836 .389/20	1781 .403/19.4	1722 .417/18.7	1577 .447/17.3	1158 .457/15.6	-	-	-
		1670	2185 .370/22	2123 .396/22	2068 .417/22	2015 .436/22	1965 .452/22	1914 .468/21	1860 .482/21	1738 .510/19.2	848 .540/17.4	848 .500/16.6	-	-
		1740	2276 .418/23	2217 .446/23	2163 .468/23	2112 .488/23	2064 .506/23	2015 .522/23	1965 .538/22	1854 .567/21	1551 .610/18.8	1120 .597/17.7	-	-
	1820	2381 .479/24	2324 .507/25	2272 .532/25	2223 .553/25	2176 .572/25	2130 .590/24	2083 .606/24	1981 .638/23	1711 .696/20	1323 .696/19.1	-	-	
	1910	2499 .553/26	2444 .584/27	2394 .610/27	2347 .633/27	2302 .654/27	2257 .673/26	2213 .671/26	2120 .724/25	1885 .794/23	1572 .808/21	848 .673/20	-	
	1980	2590 .617/28	2538 .648/28	2489 .675/28	2443 .700/28	2399 .722/28	2356 .742/28	2313 .761/27	2226 .796/26	2014 .872/24	1730 .900/23	1322 .891/21	-	
	2060	2695 .694/29	2644 .727/30	2597 .756/30	2552 .782/30	2510 .806/30	2468 .827/30	2427 .848/29	2344 .885/28	2153 .954/26	1891 1.014/24	1557 1.021/23	-	
	2100	2747 .736/30	2698 .769/31	2651 .799/31	2607 .826/31	2565 .850/31	2524 .872/31	2484 .893/30	2403 .932/29	2220 1.003/27	1973 1.070/24	1667 1.070/24	1058 .990/23	

BHP does not include belt drive loss.
 Performance shown is for unit without inlet ducts.
 The sound ratings shown are loudness values in fan sones at 5 ft. (1.5m) in a hemispherical free field. Values shown are for installation Type A: free inlet hemispherical sone levels.



UL Standard 762
 for grease removal

SIZE 18



A	B	C	D	E	F	H	J	K	WHEEL DIA.
32	24-1/4	15-1/4	3	24	25	35	31	3-1/2	18-5/8

Note: NFPA-96 requires at least 40 inches of clearance from the discharge to the roof surface when unit is used for kitchen exhaust.

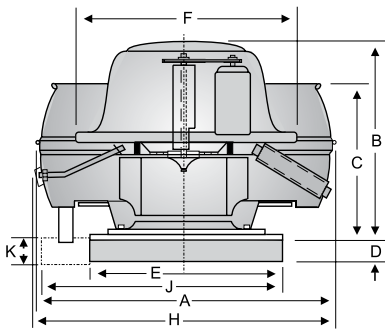
Speed Range Horsepower	RPM	CFM / BHP @ Static Pressure / Sones													
		0	1/8	1/4	3/8	1/2	5/8	3/4	1	1-1/2	2	2-1/2	3		
3/4 HP	1/4 HP	440	1159 .022/3.6	881 .031/3.0	-	-	-	-	-	-	-	-	-	-	-
		500	1318 .032/4.6	1087 .043/4.2	729 .047/3.2	-	-	-	-	-	-	-	-	-	-
		590	1555 .052/6.2	1361 .066/6.1	1122 .076/5.1	564 .067/4.4	-	-	-	-	-	-	-	-	-
		665	1753 .075/7.6	1579 .092/7.7	1399 .104/6.8	1134 .110/6.0	705 .100/6.0	-	-	-	-	-	-	-	-
		750	1977 .108/9.3	1819 .127/9.7	1672 .141/9.0	1480 .155/7.9	1220 .158/7.3	329 .086/7.3	-	-	-	-	-	-	-
		790	2082 .126/10.2	1931 .147/10.5	1794 .162/9.9	1628 .178/8.9	1405 .184/8.2	1150 .184/7.7	-	-	-	-	-	-	-
	1/3 HP	860	2267 .162/11.4	2125 .186/11.6	2001 .204/11.1	1864 .218/10.2	1686 .234/9.5	1471 .237/8.9	1220 .237/8.7	-	-	-	-	-	-
		910	2399 .192/12.3	2264 .218/12.5	2145 .237/12.0	2022 .253/11.1	1872 .272/10.5	1681 .280/9.9	1449 .282/9.5	-	-	-	-	-	-
		920	2425 .199/12.4	2291 .225/12.6	2174 .244/12.2	2053 .261/11.3	1908 .279/10.7	1722 .289/10.0	1502 .251/9.7	-	-	-	-	-	-
		980	2583 .240/13.5	2456 .269/13.6	2344 .290/13.2	2235 .308/12.4	2110 .325/11.8	1956 .345/11.1	1773 .350/10.7	1259 .344/10.4	-	-	-	-	-
	1/2 HP	1010	2662 .263/14.0	2539 .293/14.1	2429 .315/13.7	2323 .334/13.0	2207 .351/12.4	2067 .373/11.7	1895 .382/11.4	1507 .386/10.9	-	-	-	-	-
		1070	2820 .313/15.1	2703 .345/15.1	2598 .369/14.7	2499 .390/14.1	2394 .409/13.6	2275 .429/12.8	2129 .449/12.1	1774 .458/11.8	-	-	-	-	-
		1150	3031 .388/16.5	2921 .423/16.4	2822 .451/16.0	2729 .474/15.6	2635 .495/15.1	2533 .515/14.2	2417 .538/13.4	2122 .565/13	1217 .500/11.8	-	-	-	-
		1210	3189 .452/17.5	3084 .489/17.3	2989 .520/17.1	2899 .545/16.7	2811 .568/16.3	2719 .589/15.3	2616 .610/14.4	2361 .653/13.9	1665 .657/13.0	-	-	-	-
	1 HP	1280	3374 .535/18.8	3273 .575/18.6	3182 .608/18.3	3097 .636/18.0	3014 .661/17.6	2929 .684/17.2	2838 .706/16.8	2623 .758/15.9	2012 .786/14.3	-	-	-	-
		1350	3559 .628/20	3463 .670/19.9	3376 .706/19.7	3294 .737/19.4	3214 .764/19.0	3135 .789/18.7	3053 .813/18.3	2866 .863/17.4	2357 .917/15.9	869 .574/15.1	-	-	-
1400		3690 .701/21	3597 .745/21	3513 .782/21	3433 .815/20	3356 .843/20	3280 .870/19.7	3202 .895/19.3	3030 .944/18.5	2565 1.020/17.0	1952 1.020/16.1	-	-	-	
1445		3809 .770/22	3719 .816/22	3636 .856/21	3559 .890/21	3483 .920/21	3410 .948/21	3336 .975/20	3174 1.024/19.5	2748 1.118/18.0	2180 1.144/17.0	-	-	-	
1500		3954 .862/23	3867 .910/23	3786 .951/23	3711 .987/23	3638 1.019/22	3566 1.049/22	3496 1.078/22	3345 1.130/21	2961 1.241/19.3	2441 1.262/18.1	659 .684/17.7	-	-	
1560		4112 .969/24	4028 1.019/24	3950 1.063/24	3877 1.102/24	3806 1.136/24	3737 1.168/24	3669 1.198/23	3528 1.254/23	3185 1.375/21	2726 1.415/19.5	2127 1.406/18.8	-	-	
1635	4310 1.116/26	4230 1.169/26	4155 1.215/26	4084 1.257/26	4016 1.234/26	3949 1.328/25	3884 1.361/25	3753 1.421/25	3448 1.421/23	3038 1.624/22	2504 1.638/20	640 1.200/20	-		

BHP does not include belt drive loss.
 Performance shown is for unit without inlet ducts.
 The sound ratings shown are loudness values in fan sones at 5 ft. (1.5m) in a hemispherical free field. Values shown are for installation Type A: free inlet hemispherical sone levels.



UL Standard 762
 for grease removal

SIZE 24



A	B	C	D	E	F	H	J	K	WHEEL DIA.
41	27-1/4	19-1/4	3	30	31-1/2	44	37	3-1/2	24-3/4

Note: NFPA-96 requires at least 40 inches of clearance from the discharge to the roof surface when unit is used for kitchen exhaust.

Speed Range Horsepower	RPM	CFM / BHP @ Static Pressure / Sones										
		0	1/8	1/4	3/8	1/2	3/4	1	1-1/2	2	2-1/2	
1/4 HP	345	2036 .047/4.1	1576 .060/3.6									
	370	2184 .057/4.7	1769 .072/4.4	1161 .073/3.2								
	410	2420 .078/5.7	2054 .097/5.6	1506 .101/4.4								
	470	2774 .118/7.2	2447 .141/7.2	2080 .154/6.3	1701 .152/5.4							
	510	3010 .150/8.3	2698 .178/8.3	2402 .191/7.5	1926 .196/6.6	1792 .047/6.0						
1/3 HP	550	3246 .189/9.4	2946 .219/9.6	2697 .236/8.8	2318 .248/7.9	1952 .243/7.2						
	575	3394 .216/10.2	3100 .248/10.4	2872 .267/9.7	2542 .281/8.7	2080 .279/8						
	590	3482 .233/10.6	3193 .267/10.9	2975 .287/10.3	2667 .301/9.3	2236 .304/8.5						
1/2 HP	635	3748 .290/12.1	3469 .328/12.4	3271 .352/11.9	3020 .367/11.0	2675 .382/10.0	1361 .315/9.1					
	670	3955 .341/13.2	3684 .382/13.6	3494 .409/13.3	3277 .426/12.4	2986 .444/11.4	2402 .439/10.2					
	725	4279 .432/15.1	4021 .478/15.6	3838 .510/15.5	3660 .533/14.7	3425 .548/13.8	2762 .565/12.3	1792 .488/11.6				
	770	4545 .518/16.7	4296 .567/17.3	4118 .603/17.2	3956 .630/16.7	3758 .647/15.8	3205 .681/14.2	2778 .667/13.2				
	835	4928 .660/18.7	4693 .714/19.2	4519 .757/19.1	4370 .789/18.6	4211 .814/17.9	3777 .854/16.3	3168 .862/15.3				
3/4 HP	850	5017 .700/19.1	4785 .752/19.6	4611 .795/19.5	4464 .829/19	4312 .856/18.3	3899 .896/16.7	3320 .913/15.8				
	915	5401 .869/21	5180 .929/21	5010 .979/21	4869 1.01/21	4734 1.05/20	4398 1.09/18.7	3939 1.14/17.8	3120 1.11/16			
	950	5607 .972/22	5393 1.04/22	5225 1.09/22	5086 1.13/22	4957 1.17/21	4652 1.22/19.8	4244 1.26/18.9	3390 1.25/17			
	990	5843 1.10/23	5636 1.17/23	5470 1.22/23	5333 1.27/23	5208 1.31/22	4934 1.37/21	4570 1.41/20	3540 1.42/18.5			
	1040	6138 1.28/25	5939 1.35/25	5777 1.41/25	5641 1.46/24	5520 1.5/24	5275 1.57/23	4955 1.61/22	4056 1.67/21	2752 1.54/19		
1 HP	1070	6315 1.39/26	6120 1.46/26	5960 1.53/25	5825 1.58/25	5706 1.62/25	5472 1.70/24	5177 1.74/23	4351 1.83/21	3842 1.79/20		
	1110	6552 1.55/27	6362 1.63/27	6205 1.69/27	6071 1.75/26	5953 1.80/26	5730 1.88/25	5465 1.93/24	4728 2.04/23	3863 1.99/21		
	1155	6817 1.75/28	6634 1.83/28	6479 1.90/28	6347 1.96/27	6231 2.01/26	6017 2.10/26	5779 2.16/25	5126 2.27/24	4212 2.27/23	1676 1.60/20	

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