

# MODEL NBRTD

## BELT DRIVE CENTRIFUGAL UPBLAST ROOF EXHAUSTERS



Model NBRTD belt drive fans are designed to exhaust air up to 6817 CFM in high static pressure applications to 3". 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.

Their low contour and bold, simple lines complement any building structure.

### Construction/Specification Checklist

- Heavy-gauge, corrosion free, spun aluminum housing; heavy-duty steel substructure; galvanized steel curb cap; stainless steel and cadmium-plated fasteners.
- Motor compartment is forced cooled when operating, sealing the motor from exhaust air, while providing positive cooling and maximum motor life.
- Rugged overlapping skirt spinnings 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.
- Designed to prevent entry of snow or rain into building when fan is not operating. Eliminates the requirement for damper on discharge side of the fan.
- Specially designed cover directs the flow of air upward, and away from the roof. Virtually eliminates contaminants from accumulating under the fan or on the roof.
- Premium tubular frame design to provide maximum strength with minimum weight.
- Prelubricated ball bearing drive and motor mounted in compartment *isolated* from exhaust airstream.
- Heavy-duty cast iron adjustable pulleys to permit speed variation.
- Nonoverloading, backward inclined, centrifugal wheel dynamically and statically balanced assures long life and quiet operation.
- Single screw adjustment of belt tension maintains constant air delivery.
- Heat shield - nominal 1/2" thick metal tuf-skin insulation on motor compartment base plate.
- External mounted weatherproof junction box.
- Class B insulated motor.
- Designed for maximum operating temperature of 300°F.
- Standard disconnect insures safety when unit is being serviced (ships loose).

### 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 available on all NBRTD models. Not available on wall mounted units.

**Coatings:** Choice of epoxy, heresite and Synthetic Resin (formerly Eisenheiss) coatings are available for added protection against acids and alkalis.

**Curb Hinge Arrangement:** 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 Trough:** Grease collects in aluminum container for safe and sanitary disposal. Keeps roof safe and clean with proper use.

All specifications are subject to change without notice unless approved in submittal by JencoFan.

**1 year fan housing warranty, 1 year motor warranty**

# PERFORMANCE

## SIZE 14

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	-	-	-	-	-	-
	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	-	-	-	-
1/2 HP	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	-	-	-	-
	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	1399 .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 .1014/24	1557 .1021/23	-
3/4 HP	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
	1 HP												

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 fan sone levels.



**UL Standard 762**  
**for grease removal**



SIZE 18

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	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	-	-	-	-	-	-	
	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	-	-	-	-	-	
	1/3 HP	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	-	-	-	-
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	-	-	-	
1/2 HP	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	-	-	-	
	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	

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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 fan sone levels.



UL Standard 762  
for grease removal

SIZE 24

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						
	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						
	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					
	1/3 HP	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				
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				
1/2 HP	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		
	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		
3/4 HP	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	

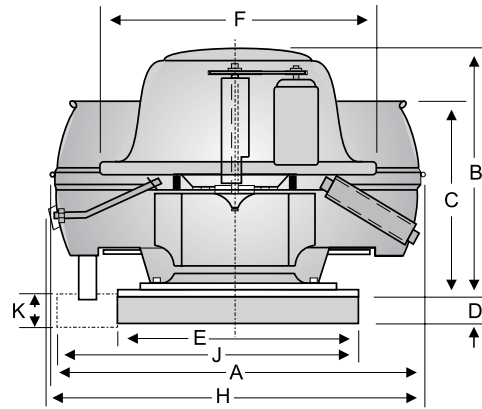
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 Performance shown is for unit without inlet ducts.  
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# DIMENSIONS



Model NBRTD	Dimensions (Inches)									Wheel Dia.
	A	B	C	D	E	F	H	J	K	
14	28	21-5/16	14-1/2	2-1/2	20	21-3/4	31	27	3-1/2	14-3/4
18	32	24-1/4	15-1/4	3	24	25	35	31	3-1/2	18-5/8
24	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.