

Backward Curved Fan Box – Belt Derive

FAN - BOX

BWD-B-T



Unit features

BWD-B-T Box belt driven fans with frame in extruded aluminum profiles, paneling and acoustic cladding equipped with

- High performance scroll type centrifugal fan, double inlet double width non overloading **Backward**-curved blade impeller constructed from formed lightweight aluminum for transmission drive, coupled to the motor by trapezoidal belts and pulleys, statically and dynamically balanced in according to Iso standard to grade G6.3.

Designed for use in professional ventilation systems, where high pressure and thermal insulation are required.

- Series composed by 8 sizes, with flowrate starting from 1000 m³/h up to 52.000 m³/h and pressure from 200 up to 2000 Pa.
- Working temperature: +60°C;
- Trapezoidal EPDM belts with innovative technology with bare sides maintenance-free. It does not suffer from the considerable drop in voltage in the first hours after installation, maximum energy efficiency, extraordinary power capacity, antistatic, high dimensional accuracy, minimum voltage loss.
- Pulleys with trapezoidal grooves built in cast iron with protective phosphating treatment and statically balanced, cast-iron conical bushes with ISO G7 bores.
- Cladding panels made in GI sheet steel, external painted or plasticized and galvanized internal, interposed with 25 mm of high density polyurethane foam, or Rockwall having a sound reduction and density not less than 24 kg/m³.
- Inspection door with lock system CE compliance, complete with handle
- TEFC asynchronous 3-phase motor 400V, class F protected, IE3 as standard efficiency (single phase up on request).
- Single speed as default, two speed version available on request.
- **POSITIONING:** Floor mounting, Shelf mounting and Ceiling mounting.



Fan Box – Backward Curved Belt derive



Scroll Type – Backward Curved DWDI Centrifugal

Applications

BWD-B box fans, the fans box – BWD—B-T series are particularly designed for air extraction, supply or filtration. Their main characteristic is the high performance at high pressure required at larger air flow

- Offices.
- Schools.
- Hospitals and medical facilities.
- Hotels and motels.
- Stadium and sports halls.
- Auditoriums and exhibition halls.
- Restaurants, cafeterias and canteens.
- Public toilets

Engineering Data

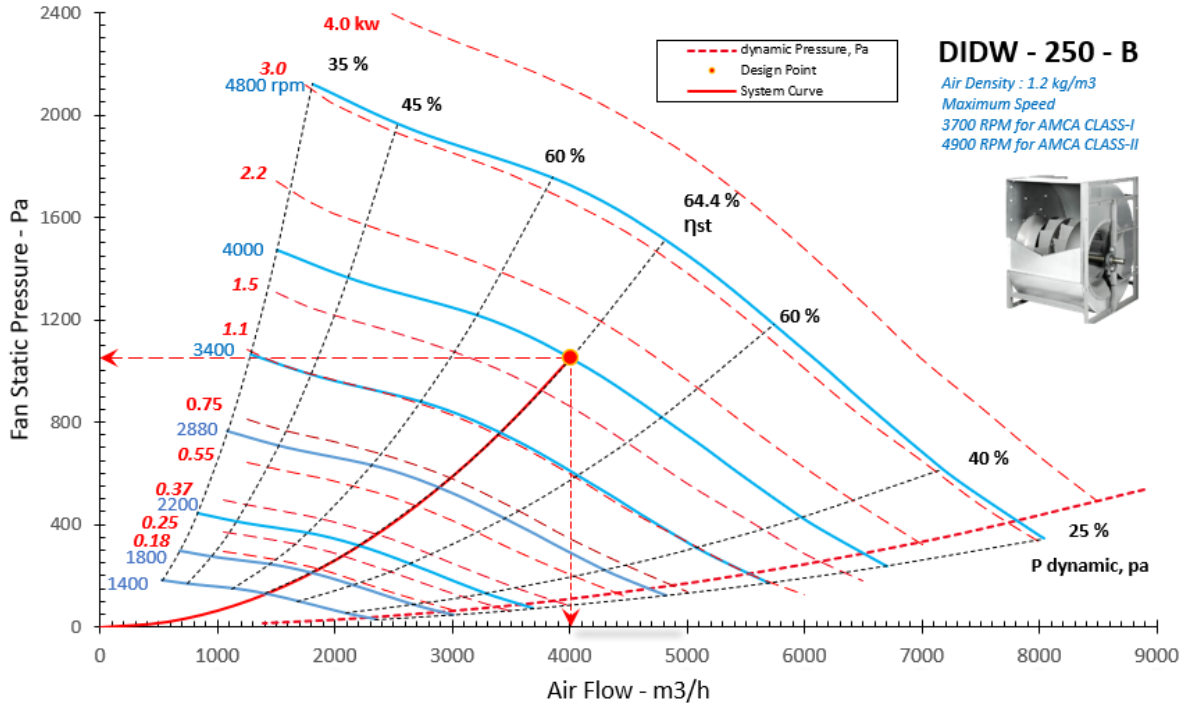
Technical Data

Model	Flow Rate	Pa -200	Pa -300	Pa -400	Pa -500	Pa -600	Pa -700	Pa -800	Pa -900	Pa -1000	Noise (dBA)
Box Fan	m3/h	Rpm-Kw	Rpm-Kw	Rpm-Kw	Rpm-Kw	Rpm-Kw	Rpm-Kw	Rpm-Kw	Rpm-Kw	Rpm-Kw	min/max
BWD-B-T- 250	1000	1565 - 0,25	1881 - 0,25	2143 - 0,37	2369 - 0,55	2569 - 0,55	2748 - 0,75	0	0	0	59/71
BWD-B-T- 250	2000	1835 - 0,25	2094 - 0,37	2331 - 0,55	2551 - 0,55	2757 - 0,75	2949 - 1,1	3131 - 1,1	3301 - 1,5	3464 - 1,5	63/76
BWD-B-T- 250	3000	2248 - 0,37	2464 - 0,55	2660 - 0,75	2842 - 0,75	3016 - 1,1	3181 - 1,1	3341 - 1,5	3497 - 1,5	3646 - 2,2	67/77
BWD-B-T- 250	4000	2697 - 0,75	2897 - 1,1	3074 - 1,1	3235 - 1,1	3386 - 1,5	3531 - 1,5	3670 - 2,2	3805 - 2,2	3935 - 2,2	71/79
BWD-B-T- 250	5000	3152 - 1,1	3348 - 1,5	3517 - 1,5	3668 - 2,2	3808 - 2,2	3940 - 2,2	4067 - 2,2	4189 - 3	4306 - 3	74/81
BWD-B-T- 310	2000	1272 - 0,25	1517 - 0,37	1740 - 0,55	1939 - 0,75	2119 - 1,1	2281 - 1,1	2429 - 1,5	2564 - 1,5	2688 - 2,2	61/77
BWD-B-T- 310	3000	1421 - 0,37	1633 - 0,55	1819 - 0,55	1992 - 0,75	2157 - 1,1	2314 - 1,1	2465 - 1,5	2609 - 2,2	2746 - 2,2	63/77
BWD-B-T- 310	4000	1603 - 0,37	1795 - 0,55	1970 - 0,75	2127 - 1,1	2273 - 1,1	2411 - 1,5	2543 - 1,5	2671 - 2,2	2795 - 2,2	66/78
BWD-B-T- 310	6000	2129 - 1,1	2226 - 1,1	2342 - 1,5	2469 - 1,5	2598 - 2,2	2723 - 2,2	2842 - 2,2	2955 - 3	3063 - 3	72/80
BWD-B-T- 310	8000	2745 - 2,2	2803 - 2,2	2868 - 2,2	2942 - 3	3023 - 3	3112 - 3	3206 - 3	3303 - 4	3401 - 4	77/82
BWD-B-T- 350	3000	1190 - 0,25	1390 - 0,37	1565 - 0,55	1725 - 0,75	1877 - 1,1	2020 - 1,1	2155 - 1,5	2280 - 1,5	2400 - 2,2	62/78
BWD-B-T- 350	6000	1627 - 0,75	1783 - 1,1	1920 - 1,1	2045 - 1,5	2163 - 1,5	2274 - 2,2	2380 - 2,2	2380 - 2,2	2582 - 3	69/79
BWD-B-T- 350	8000	1953 - 1,5	2097 - 1,5	2224 - 2,2	2340 - 2,2	2448 - 2,2	2549 - 3	2645 - 3	2737 - 3	2826 - 4	73/81
BWD-B-T- 350	10000	2298 - 2,2	2427 - 3	2545 - 3	2654 - 3	2756 - 4	2851 - 4	2942 - 4	3028 - 5,5	3111 - 5,5	77/83
BWD-B-T- 350	12000	2660 - 4	2771 - 4	2879 - 4	2980 - 5,5	3076 - 5,5	3167 - 5,5	3254 - 2,2	3336 - 7,5	3415 - 7,5	80/85
BWD-B-T- 450	4000	832 - 0,55	965 - 0,75	1083 - 1,1	1189 - 1,1	1287 - 1,5	1378 - 1,5	1464 - 2,2	1546 - 2,2	1623 - 3	62/76
BWD-B-T- 450	5000	898 - 0,55	1025 - 0,75	1136 - 1,1	1237 - 1,5	1331 - 1,5	1418 - 2,2	1501 - 2,2	1580 - 3	1655 - 3	64/77
FBWD-B-T- 450	7000	1045 - 1,1	1163 - 1,1	1265 - 1,5	1359 - 2,2	1445 - 2,2	1526 - 3	1603 - 3	1676 - 3	1746 - 4	67/78
BWD-B-T- 450	9000	1198 - 1,5	1312 - 2,2	1410 - 2,2	1498 - 3	1580 - 3	1656 - 3	1728 - 4	1797 - 4	1863 - 5,5	70/79
BWD-B-T- 450	12000	1432 - 2,2	1543 - 3	1638 - 4	1723 - 4	1800 - 4	1872 - 5,5	1940 - 5,5	2005 - 5,5	2066 - 7,5	74/82
BWD-B-T- 450	15000	1665 - 4	1777 - 4	1871 - 5,5	1954 - 5,5	2030 - 7,5	2099 - 7,5	2165 - 7,5	2227 - 11	2287 - 11	77/84
BWD-B-T- 500	6000	795 - 0,75	939 - 1,1	1065 - 1,5	1180 - 2,2	1285 - 3	1382 - 3	1474 - 4	1560 - 4	1642 - 5,5	67/83
BWD-B-T- 500	8000	866 - 0,75	994 - 1,1	1110 - 2,2	1218 - 2,2	1317 - 3	1410 - 4	1499 - 4	1582 - 5,5	1662 - 5,5	69/83
BWD-B-T- 500	12000	1054 - 1,5	1157 - 2,2	1253 - 3	1343 - 3	1429 - 4	1511 - 4	1590 - 5,5	1666 - 5,5	1739 - 7,5	73/84
BWD-B-T- 500	16000	1275 - 3	1360 - 3	1441 - 4	1517 - 4	1591 - 5,5	1663 - 5,5	1732 - 7,5	1798 - 7,5	1863 - 7,5	77/86
BWD-B-T- 500	20000	1513 - 4	1585 - 5,5	1654 - 5,5	1721 - 7,5	1785 - 7,5	1847 - 7,5	1908 - 11	1967 - 11	2025 - 11	81/87
BWD-B-T- 500	24000	1761 - 7,5	1823 - 7,5	1883 - 7,5	1942 - 11	1999 - 11	2054 - 11	2108 - 11	2161 - 15	2213 - 15	84/89
BWD-B-T- 560	8000	746 - 1,1	887 - 1,5	1012 - 2,2	1125 - 3	1229 - 3	1325 - 4	1414 - 4	1497 - 5,5	1575 - 5,5	66/82
BWD-B-T- 560	10000	786 - 1,1	917 - 1,5	1034 - 2,2	1141 - 3	1241 - 4	1335 - 4	1423 - 5,5	1506 - 5,5	1585 - 7,5	67/82
BWD-B-T- 560	15000	900 - 1,5	1026 - 2,2	1131 - 3	1226 - 4	1313 - 5,5	1396 - 5,5	1475 - 7,5	1551 - 7,5	1624 - 7,5	70/83
BWD-B-T- 560	20000	1020 - 2,2	1140 - 3	1339 - 5,5	1422 - 5,5	1500 - 7,5	1572 - 7,5	1642 - 11	1708 - 11	1768 - 11	72/84
BWD-B-T- 560	25000	1175 - 4	1263 - 4	1360 - 5,5	1453 - 7,5	1537 - 7,5	1615 - 11	1686 - 11	1754 - 11	1818 - 15	75/85
BWD-B-T- 560	30000	1357 - 5,5	1418 - 7,5	1491 - 7,5	1571 - 11	1651 - 11	1728 - 11	1801 - 15	1869 - 15	1933 - 15	79/86
BWD-B-T- 630	10000	715 - 1,1	857 - 2,2	976 - 3	1082 - 4	1177 - 5,5	1266 - 7,5	1348 - 7,5	1426 - 11	1500 - 11	69/85
BWD-B-T- 630	15000	778 - 1,5	904 - 3	1020 - 4	1124 - 5,5	1219 - 5,5	1306 - 7,5	1388 - 11	1464 - 11	1537 - 11	71/86
BWD-B-T- 630	20000	890 - 2,2	984 - 3	1080 - 4	1175 - 5,5	1265 - 7,5	1351 - 7,5	1431 - 11	1507 - 11	1579 - 15	74/86
BWD-B-T- 630	25000	1034 - 4	1104 - 5,5	1177 - 5,5	1254 - 7,5	1331 - 7,5	1408 - 11	1482 - 11	1555 - 15	1625 - 15	77/87
BWD-B-T- 630	30000	1193 - 5,5	1248 - 7,5	1305 - 7,5	1366 - 11	1428 - 11	1492 - 11	1556 - 15	1620 - 15	1684 - 15	80/88
BWD-B-T- 630	35000	1360 - 11	1405 - 11	1452 - 11	1500 - 11	1551 - 15	1603 - 15	1657 - 15	1711 - 18,5	1766 - 18,5	83/89
BWD-B-T- 710	15000	674 - 1,5	789 - 2,2	890 - 3	981 - 4	1063 - 5,5	1140 - 5,5	1211 - 7,5	1279 - 7,5	1342 - 11	71/86
BWD-B-T- 710	20000	742 - 2,2	845 - 3	939 - 4	1025 - 5,5	1104 - 5,5	1179 - 7,5	1248 - 11	1315 - 11	1377 - 11	73/86
BWD-B-T- 710	25000	826 - 3	917 - 4	1002 - 5,5	1081 - 5,5	1156 - 7,5	1226 - 11	1293 - 11	1357 - 11	1418 - 15	75/87
BWD-B-T- 710	30000	918 - 4	1001 - 5,5	1077 - 7,5	1149 - 7,5	1218 - 11	1284 - 11	1348 - 11	1408 - 15	1467 - 15	78/88
BWD-B-T- 710	35000	1016 - 5,5	1092 - 7,5	1162 - 7,5	1228 - 11	1292 - 11	1353 - 11	1412 - 15	1469 - 15	1524 - 18,5	80/89
BWD-B-T- 710	40000	1117 - 7,5	1188 - 11	1253 - 11	1314 - 11	1373 - 15	1430 - 15	1485 - 15	1538 - 18,5	1591 - 18,5	82/89
BWD-B-T- 710	45000	0	1287 - 11	1348 - 15	1406 - 15	1461 - 15	1514 - 18,5	1566 - 18,5	1616 - 22	1665 - 22	85/90

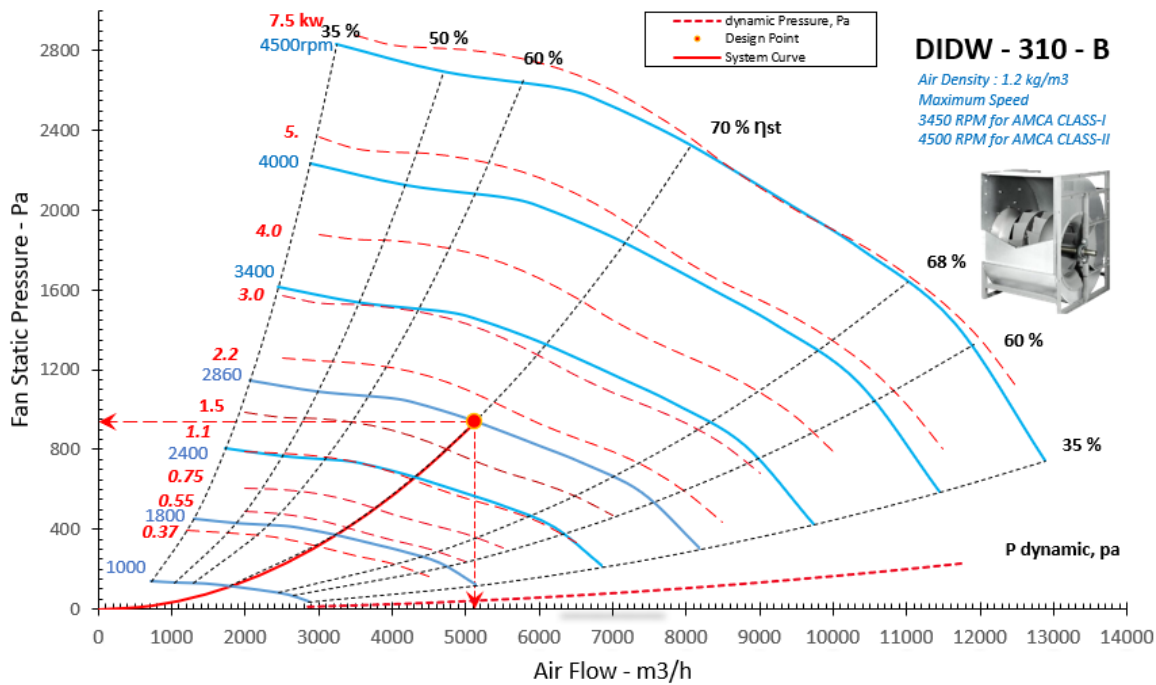
Note: The above schedule shows the quick selection guide for different fan performance up to 1000 pa static pressure, please contact us for more static pressure for computer selection.

Fan Curves

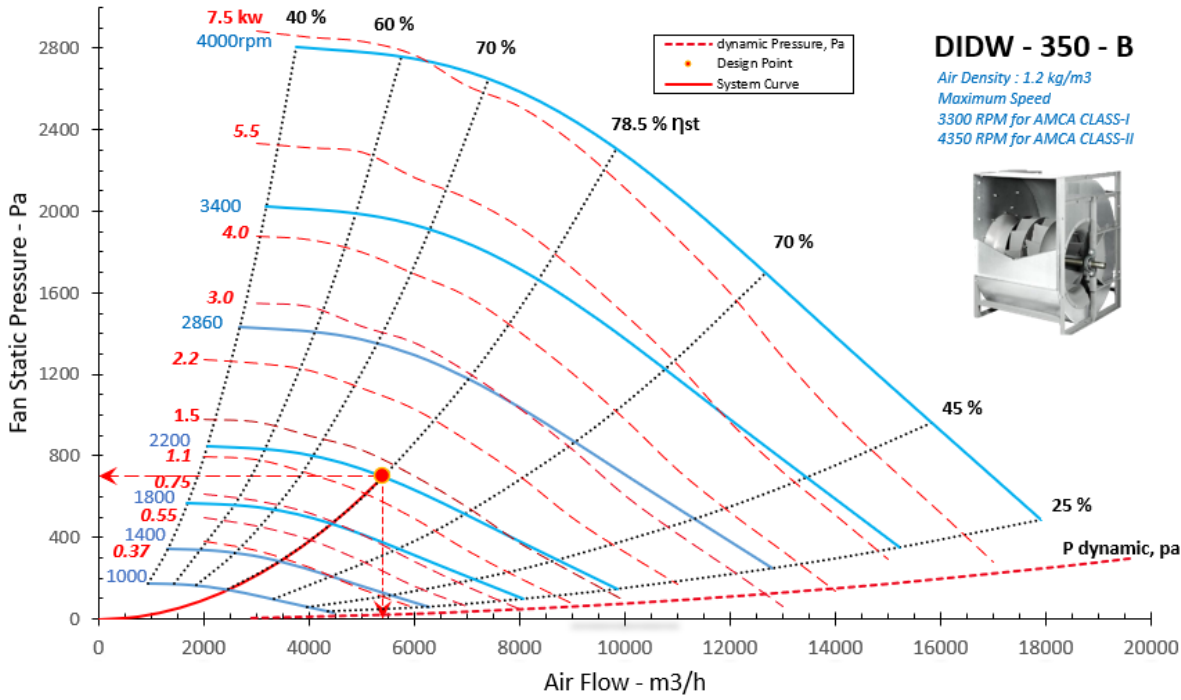
BWD-B-T – 250



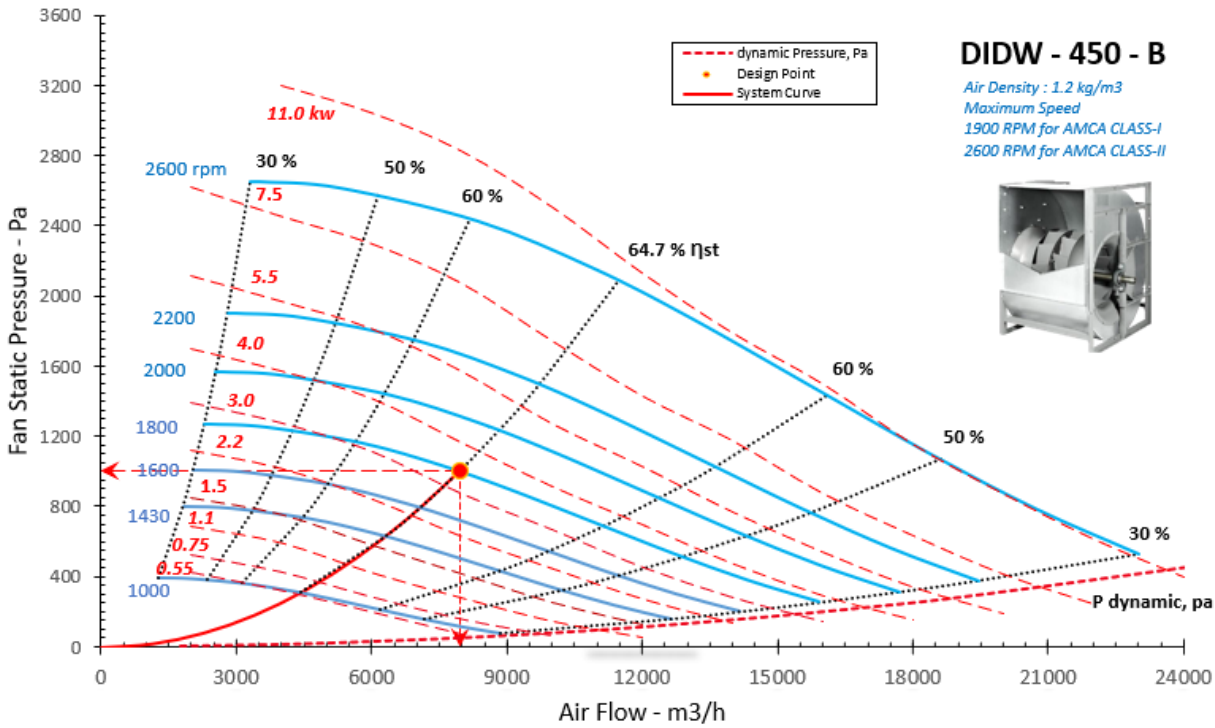
BWD-B-T – 310



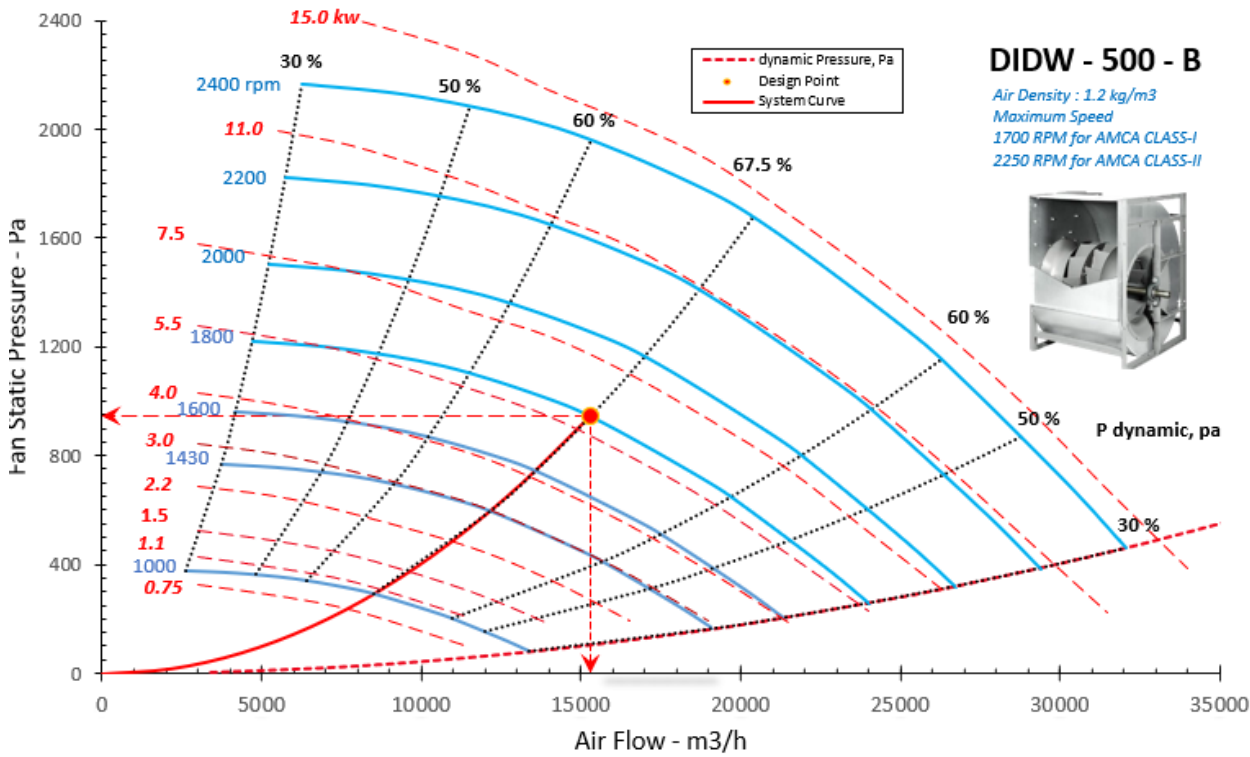
BWD-B-T – 350



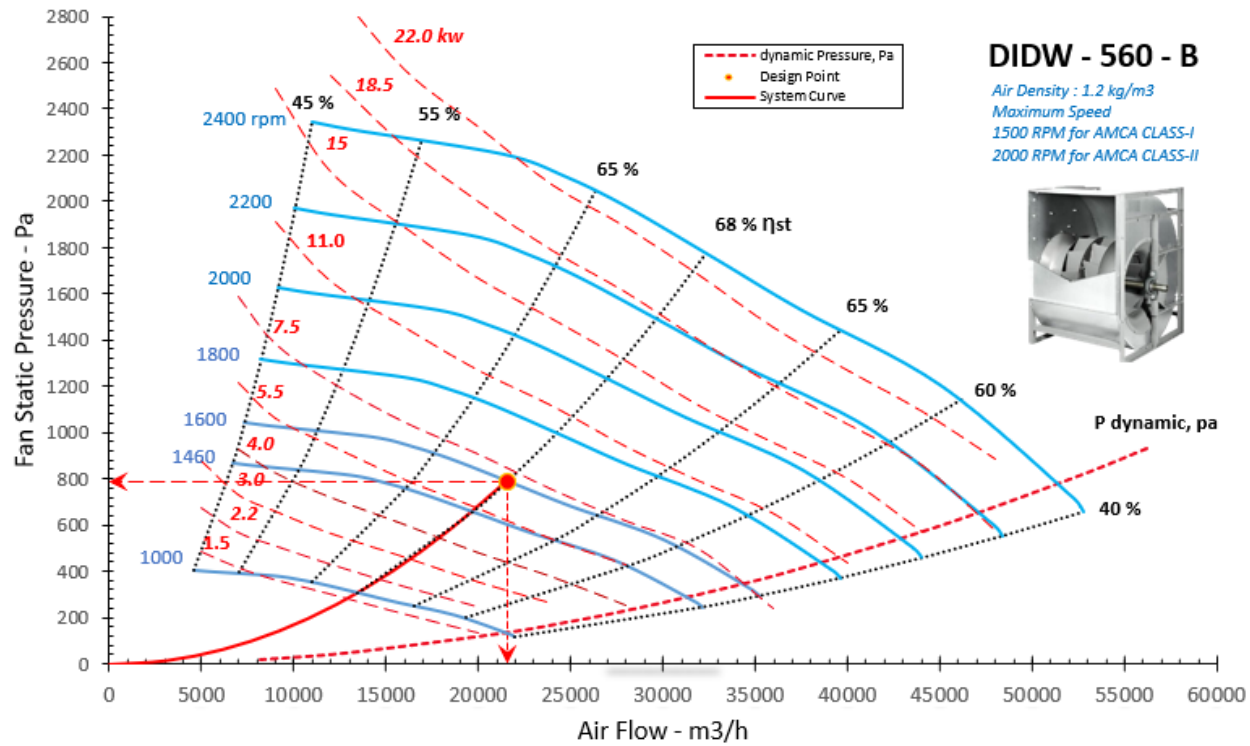
BWD-B-T – 450



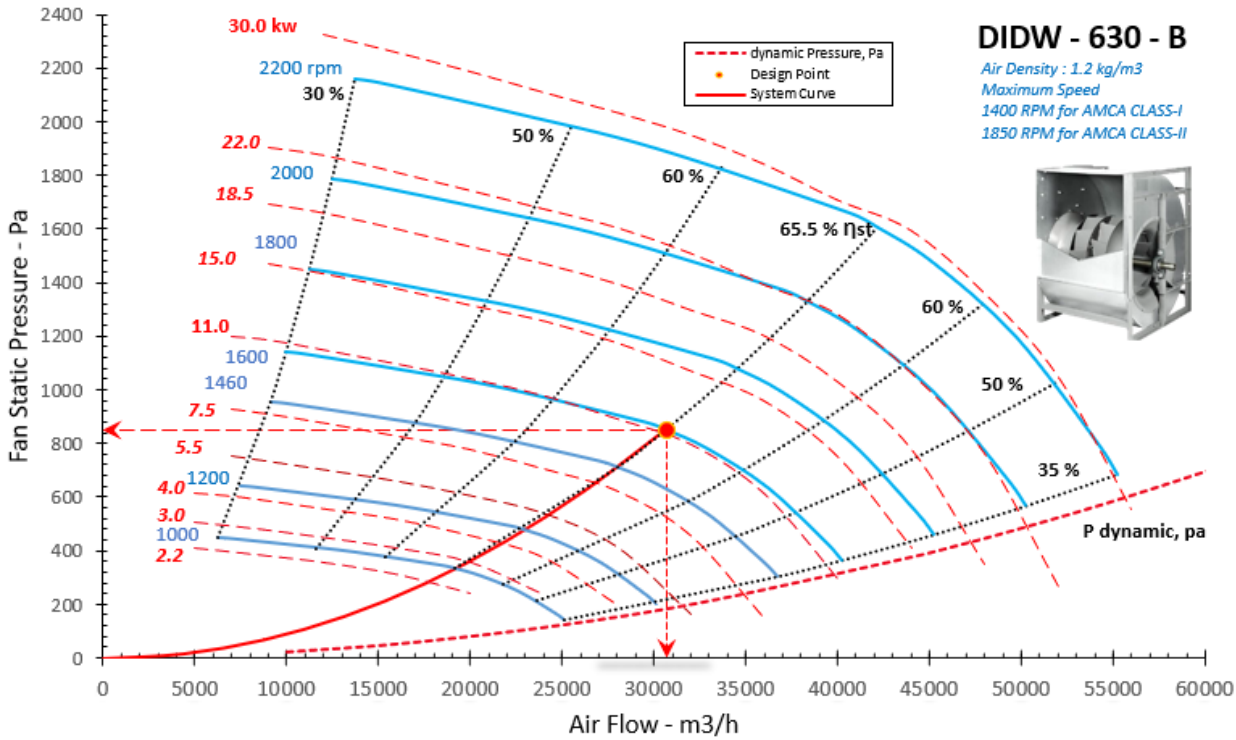
BWD-B-T – 500



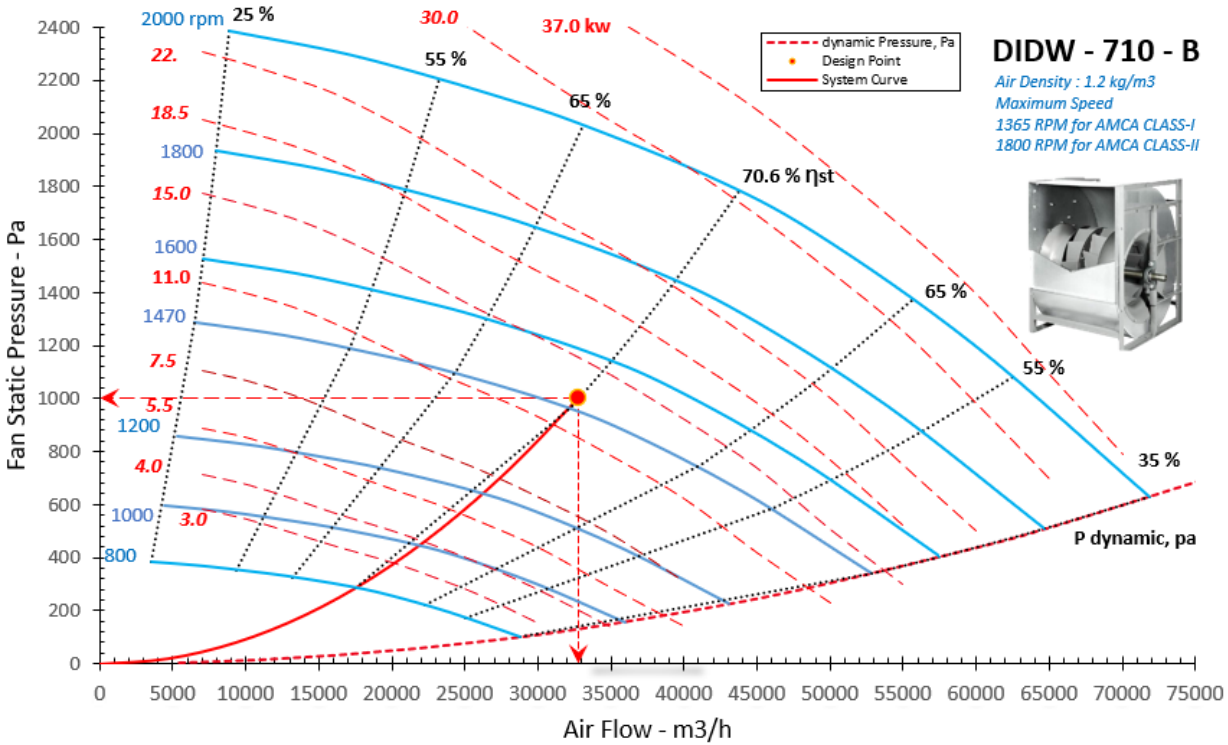
BWD-B-T – 560



BWD-B-T – 630

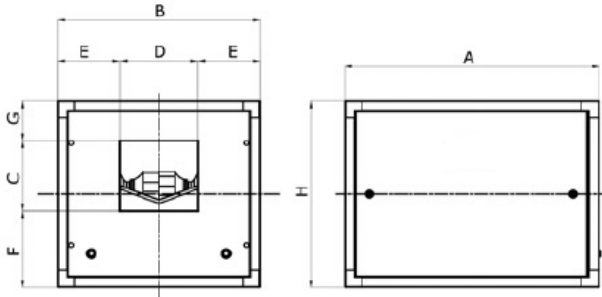


BWD-B-T – 710

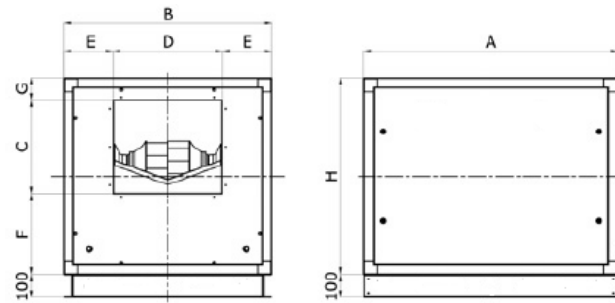


Unit Dimensions

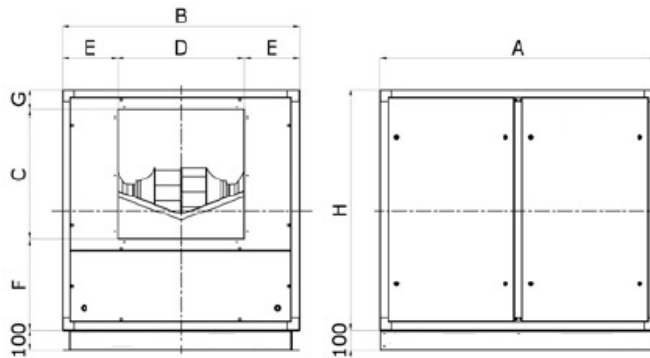
BWD-B-T – 250



BWD-B-T – 310-350



BWD-B-T – 450-710



Dimensions

Model

Box Fan	Size	A	B	C	D	E	F	G	H	KG
BWD-B-T	250	900	650	324	324	163	258	68	650	84
BWD-B-T	310	1100	900	406	406	247	310	134	850	130
BWD-B-T	350	1270	110	456	456	322	353	191	1000	179
BWD-B-T	450	1400	1200	574	574	313	429	197	1200	250
BWD-B-T	500	1400	1200	640	640	280	459	101	1200	280
BWD-B-T	560	1650	1350	718	718	316	496	136	1350	380
BWD-B-T	630	1760	1500	804	804	348	527	169	1500	410
BWD-B-T	710	1880	1650	912	912	388	546	192	1650	450

* All dimensions in mm, Indicative weights specified.

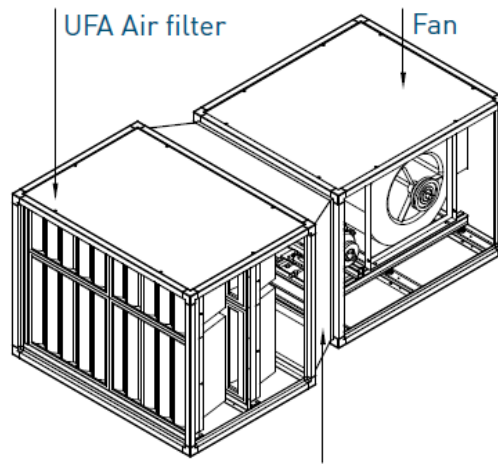
Note: For fresh air intake fan box applications, the unit width “B” as well as distance “E”, shall be modified to full fill the filter face velocity required at design air flow.

Make up air and air Filtration unit

BOX-BWD-B-T fans can be combined with Air Filtration Units (UFA) with modular filters and configurations depending on the type of filtration needed, the required air flow rate, and the available volumes.

The following categories of filtration are available:

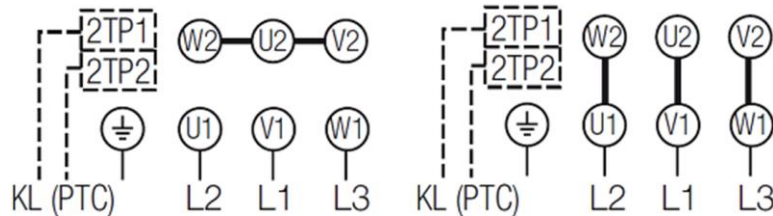
- HEPA filtration (M5+F8+H13)
- M5+F8 filtration
- M5+ Carbon dust filtration on F7 filter



Connection duct to be made by the installer

Like sectional air handling units, the air filtration unit could also house in the fan box up on request.

Electrical Wiring - Motor



Y – Connections

Δ - Connections



S. S. Air Tech.

Smart Fan / Smart Air Technology

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