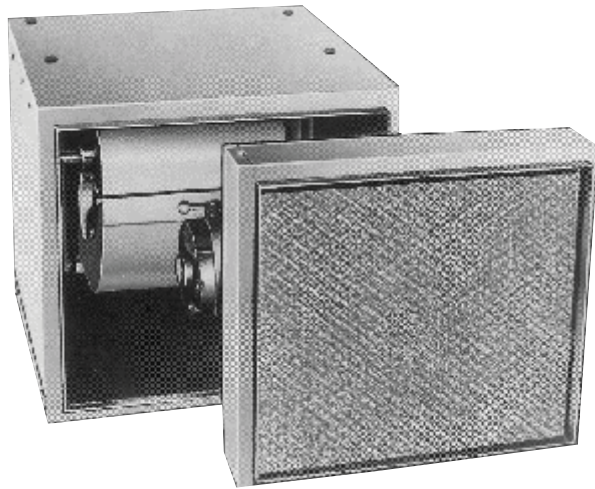


VDBA INDOOR SINGLE & TWIN LINE DUCT BLOWERS



Model VXDAF

OPTIONAL ACCESSORIES

- **VXDAF** filter sections are insulated and supplied with 1" framed aluminum mesh filter. All filter tracks will accommodate either 1" or 2" filters. Easily removed for servicing through end access panel.
- 1" internal fiberglass insulation to overcome condensation on cabinet when used in cooling applications.
- External vibration isolators.

FEATURES

- An economical and efficient all purpose in-line duct blower for indoor use with heating, cooling and ventilating systems.
- Quiet forward curved blower operates at a low RPM.
- Attractive green baked enamel paint finish.
- Motor receives the cooling benefits of being in the air stream for increased motor life.
- 9/16" mounting holes are provided in the top of the cabinet and through channels reinforcing the top panel.
- Heavy-duty ball bearings suitable for -65 to +250 degrees F.
- Access panels for convenient motor and drive installation and servicing from either side.

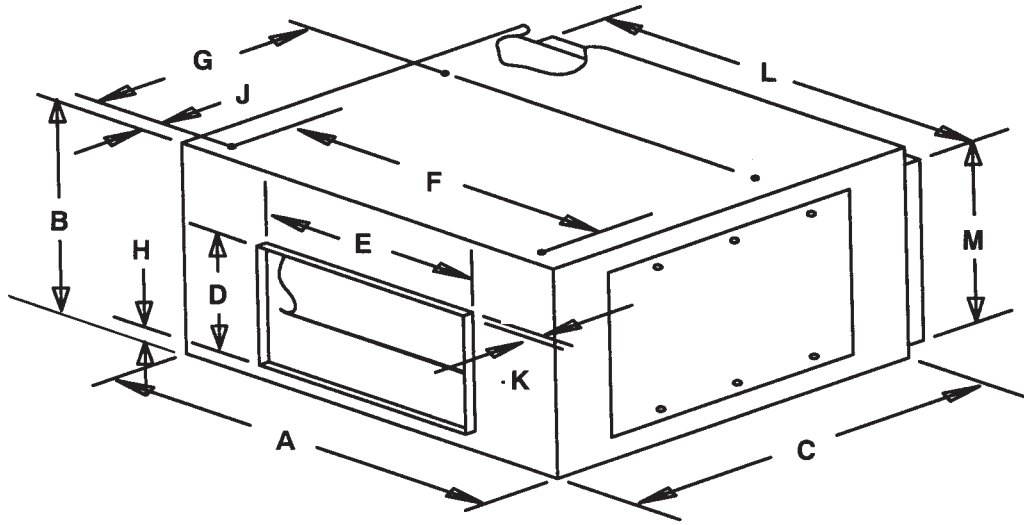
FEATURES (Continued)

- Shaft flats are standard on both ends for clockwise or counter clockwise rotation.
- Heavy-duty motor mounting bracket with motor adjusting bolt and rubber bumper is supplied on models VDBA.
- All twin units use a common shaft for balanced air supply by each blower.

SPECIAL NOTE

**To ensure optimum operating performance on any forward curved fan, Carnes recommends a review of the fan curve using the Carnes Fan-C-Lect™ Selection Software.*

VDBA Dimensions

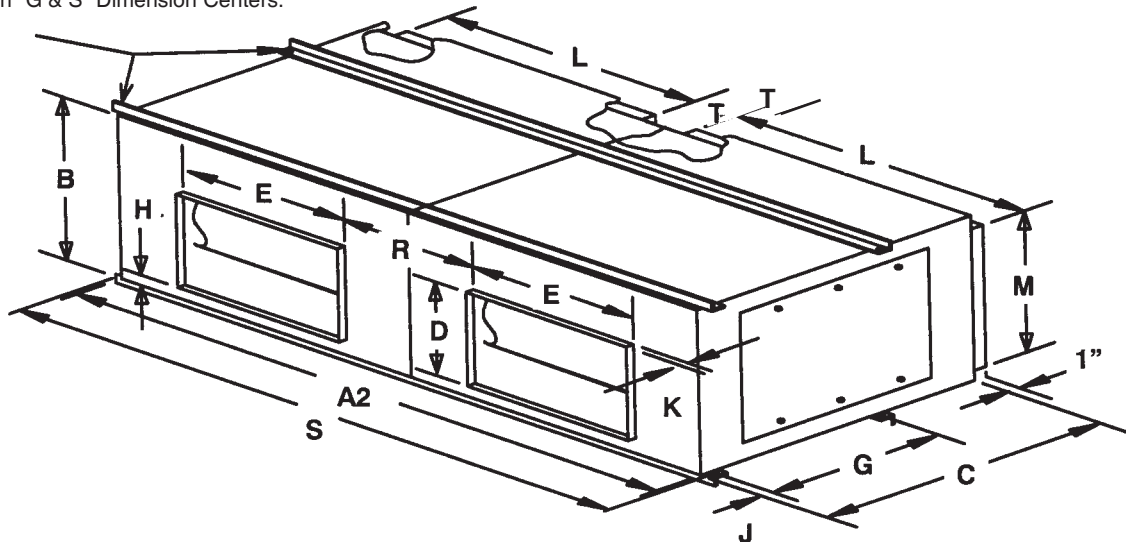


DIMENSIONS (Inches) — (Single Blower Units)

Note: Weight shown is less motor and drive

VDBA	A	B	C	D	E	F	G	H	J	K	L	M	WT. (Lbs.)
07	18	15-3/8	23	8-1/4	9-3/16	14-1/2	9-5/8	1-1/4	1-1/4	7/8	15-7/8	13-3/8	46
09	21	18	23	10-1/4	11-13/16	17-1/2	11-3/4	1-1/4	1-3/4	7/8	19	16	58
10	22-1/4	20	24-3/4	11-3/8	13-1/8	18-3/4	13-3/8	1-1/4	1-3/4	7/8	20-1/4	18	69
12	27	23	27-1/2	13-7/16	15-5/8	23-1/2	16-1/8	1-1/4	1-3/4	7/8	25	21	89
15	33-1/2	28	32	15-7/8	18-5/8	28	19-1/2	2-5/8	1-3/4	7/8	30-1/2	25	175
18	41-1/2	34	44	19-5/8	22-5/8	35	24	2-3/4	1-3/4	1-1/8	35-3/8	31-5/8	205

Structural Steel Angle Twinning Rail.
Top and Bottom with 5/8" Mounting
Holes on "G & S" Dimension Centers.

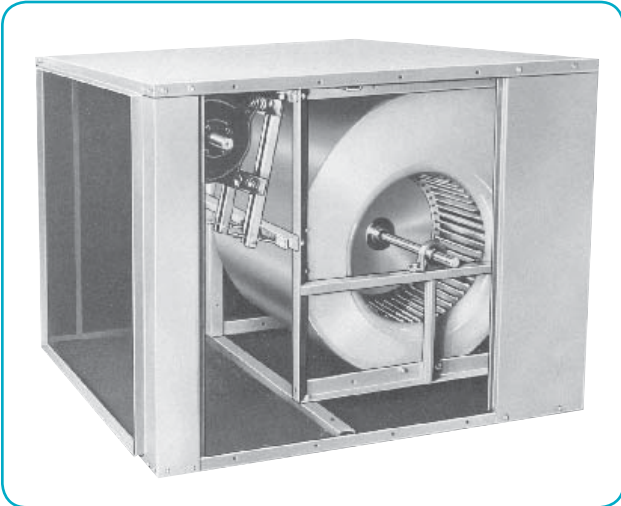


DIMENSIONS (Inches) — (Twin Blower Units)

Note: Weight shown is less motor and drive

VDBA	A2	B	C	D	E	G	H	J	K	L	M	R	S	T	WT. (Lbs.)
27	36	15-3/8	23	8-1/4	9-3/16	9-5/8	1-1/4	1-1/4	7/8	15-7/8	13-3/8	8-13/16	38-1/4	2	145
29	42	18	23	10-1/4	11-13/16	11-3/4	1-1/4	1-3/4	7/8	19	16	9-3/16	44-1/4	2	163
30	44-1/2	20	24-3/4	11-3/8	13-1/8	13-3/8	1-1/4	1-3/4	7/8	20-1/4	18	9-1/8	46-3/4	2	190
32	54	23	27-1/2	13-7/16	15-5/8	16-1/8	1-1/4	1-3/4	7/8	25	21	11-3/8	56-1/4	2	240
35	67	28	32	15-7/8	18-5/8	19-1/2	2-5/8	1-3/4	7/8	30-1/2	25	14-7/8	69-1/4	3	345

VGBA OUTDOOR SINGLE & TWIN LINE DUCT BLOWERS



OPTIONAL ACCESSORIES

- **VXDAF** filter sections are insulated and supplied with 1" framed aluminum mesh filter. All filter tracks will accommodate either 1" or 2" filters. Easily removed for servicing through end access panel.
- **VXDAH** 09-38 - filtered intake hood sections supplied with 1" aluminum mesh filters. **VXDAH** 40 hood section has a screened inlet for use with **VXDAF** 40 Filter Section. (Note: **VGBA** 29-40 require two filter sections or two hood sections).
- External vibration isolators.
- Internal factory installed vibration isolation.

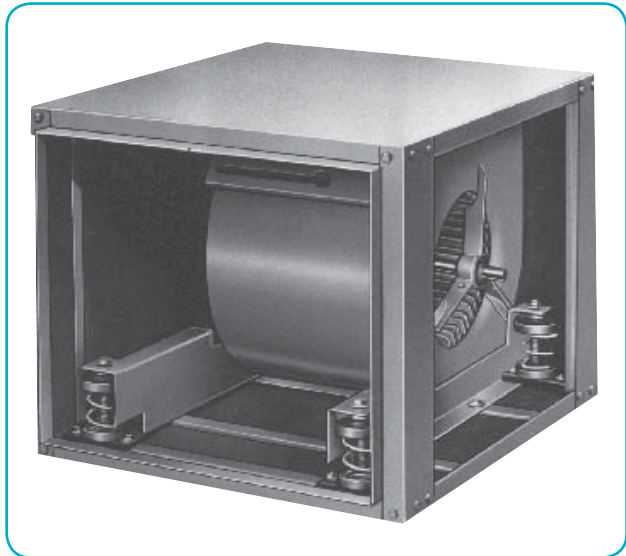
FEATURES

- All purpose heavy-duty blower with weather resistant insulated cabinet for indoor or outdoor installation.
- Quiet FC blowers operate at low RPM.
- Attractive green corrosion resistant high solids enamel paint finish on zinc coated outer panels.
- 1" fiberglass insulation to reduce cabinet condensation and energy costs.
- Access panels for convenient motor and drive installation and servicing from either side.

Motor mounting hardware as required:

- Motor mounting brackets and adjusting hardware for models **VGBA** 09 and 10.
- 1-5 HP mounting plate for **VGBA** 12, 15 and **VGBA** 12,15 with internal vibration isolation.
- 1-15 HP motor platform for **VGBA** 18.
- Specify 1-15 HP or 20-50 HP motor platform for model **VGBA** 40.

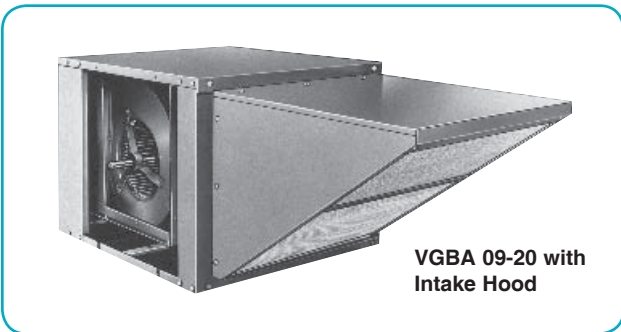
- Heavy-duty ball bearings suitable for -65 to +250 degrees F.
- Spider bearing bracket for models **VGBA** 09-15.
- Pillow block bearings for models **VGBA** 18-40.



MODEL VGBA with Internal Vibration Isolation

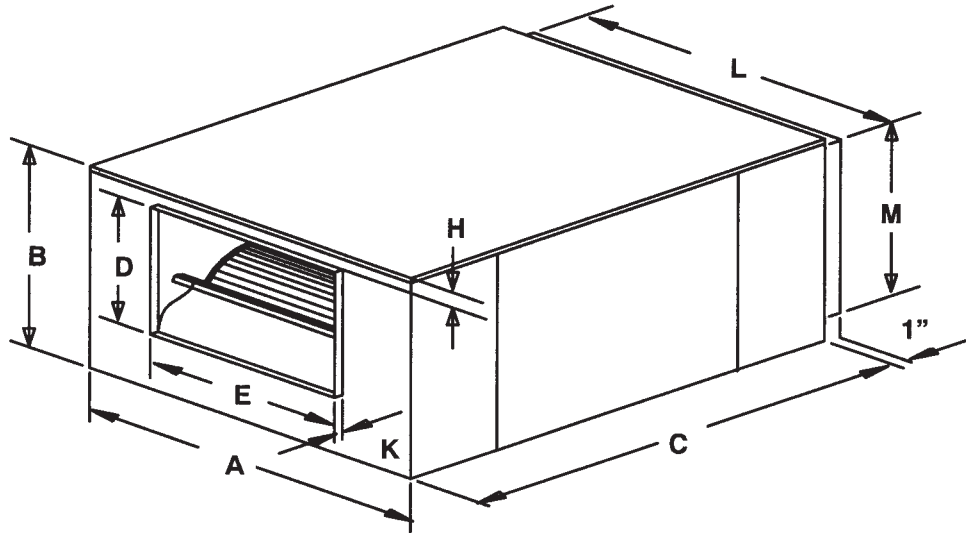
FEATURES (Continued)

- Models **VGBA** 09 & 10 have shaft flat extensions, both ends, for CW and CCW drive.
- Models **VGBA** 12-40 have keywayed shaft extension, both ends, for single and multiple grooved drive.
- Blower is firmly mounted on 2 heavy steel reinforcing channels which also contain the holes necessary for hanging when unit is suspended overhead.
- Reinforcing angle frame (as illustrated) is standard on all models except **VGBA** 09 & 10.
- Twin models are tied together with angle iron runners. Blowers are driven by a common shaft for a balanced air supply by each blower.



VGBA 09-20 with Intake Hood

VGBA Dimensions

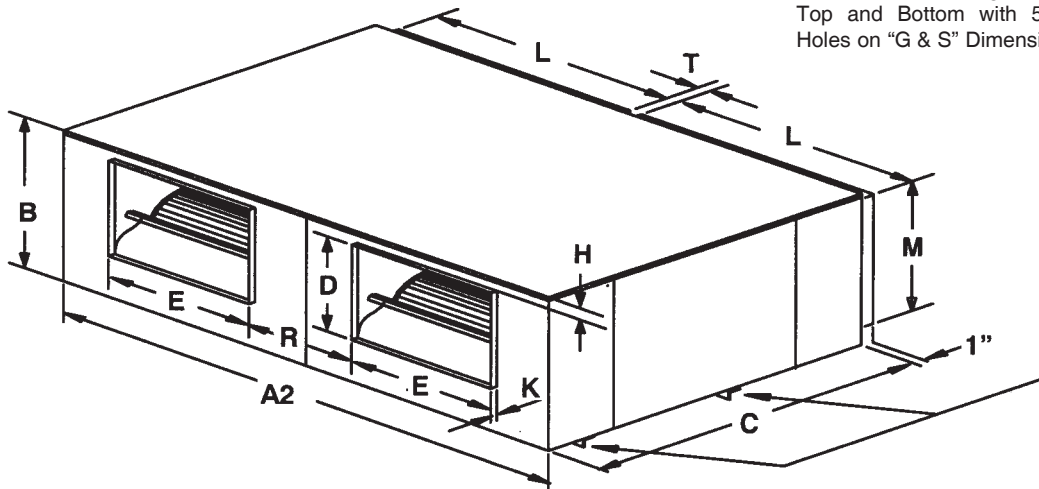


DIMENSIONS (Inches) — (Single Blower Units)

Note: Weight shown is less motor and drive

VGBA	A	B	C	D	E	H	K	L	M	WT. (Lbs.)
09	21	18	23	11-1/4	12-3/4	1	1-1/8	19	16	64
10	22-1/4	20	24-3/4	12-3/8	14-1/8	1	1-1/8	20-1/4	18	74
12	30-1/8	24-3/4	34	14-1/2	16-5/8	2-1/8	1-1/8	25-1/8	21-1/8	175
15	33-3/4	28-5/8	38-1/8	17	19-5/8	2-1/8	1-1/8	30-5/8	25-1/4	214
18	41-1/2	34	44	19-5/8	22-5/8	2-3/4	1-1/8	35-3/8	31-5/8	370
20	44-3/4	41-1/8	57-1/2	25-3/4	25-3/4	3	1-1/8	38-3/8	35-1/8	575

Structural Steel Angle Twinning Rail.
Top and Bottom with 5/8" Mounting
Holes on "G & S" Dimension Centers.

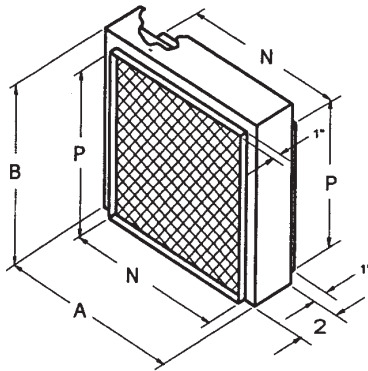


DIMENSIONS (Inches) — (Twin Blower Units)

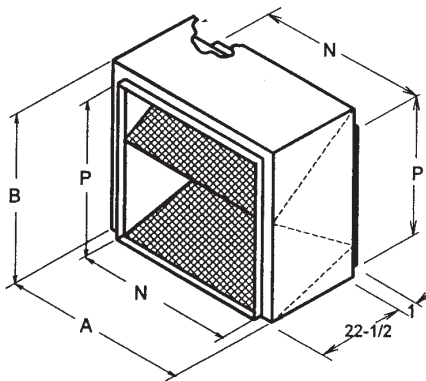
Note: Weight shown is less motor and drive

VGBA	A2	B	C	D	E	H	K	L	M	R	T	WT. (Lbs.)
29	42	18	23	11-1/4	12-3/4	1	1-1/8	19	16	9-1/4	2	171
30	44-1/2	20	24-3/4	12-3/8	14-1/8	1	1-1/8	20-1/4	18	9-1/4	2	198
32	60-1/8	24-3/4	34	14-1/2	16-5/8	2-1/8	1-1/8	25-1/8	21-1/8	13-1/4	4-3/4	390
35	67-5/8	28-5/8	38-1/8	17	19-5/8	2-1/8	1-1/8	30-5/8	25-1/4	14-1/8	2-7/8	467
38	83-3/4	34	44	19-5/8	22-5/8	2-3/4	1-1/8	35-3/8	31-5/8	19	6-1/4	750
40	89-1/2	41-1/8	57-1/2	25-3/4	25-3/4	3	1-1/8	38-3/8	35-1/8	19	6-1/8	1200

VXDAF - Filter Sections

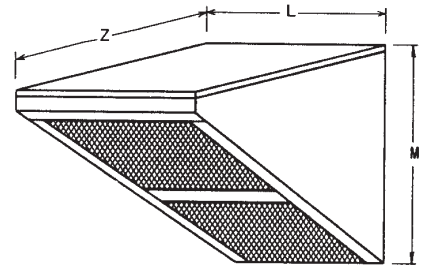


**VXDAF
FILTER SECTION**



**VXDAF (40)
FILTER SECTION**

VXDAH - Intake Hoods



**VXDAH
INTAKE HOOD**

DIMENSIONS (Inches) — VXDAF (Models VDBA & VGBA)

Size	A	B	N	P	Filter Size - Qty
07 / 27	17-3/4	15-3/8	16	13-1/2	14-1/8 x 16-5/8 (1)
09 / 29	21	18	19-1/8	16-1/8	16-3/4 x 19-7/8 (1)
10 / 30	22-1/4	20	20-3/8	18-1/8	18-3/4 x 21-1/8 (1)
12 / 32	27	23	25-1/8	21-1/8	21-3/4 x 25-7/8 (1)
15 / 35	32-1/2	26-3/4	30-5/8	25-1/8	25-3/4 x 31 (1)
18 / 38	37	33-1/4	35-1/4	31-1/2	32-1/4 x 35-7/8 (1)
40	39-3/4	37-1/4	38-1/2	35-1/4	20 x 25 (6)

ALL FILTER SECTIONS HAVE 1" ALUMINUM FILTERS.

DIMENSIONS (Inches) — VXDAH (Model VGBA)

Size	L	M	Z	Filter Size - Qty	Wt. (Lbs.)
N / A	--	--	--	--	--
09 / 29	19-1/4	16-9/16	21-1/4	16 x 24 (1)	18
10 / 30	20-1/2	18-9/16	25-3/4	15 x 20 (2)	20
12 / 32	25-3/8	21-9/16	30-3/4	20 x 25 & 16 x 25 (2)	32
15 / 35	31-3/16	25-13/16	33-1/2	20 x 28-1/2 (2)	44
18 / 38	35-5/8	32-11/16	40-1/4	20 x 25 (2) & 16 x 25 (2)	56
40	38-5/8	35-9/16	22	20 x 25 (6)	44

INTAKE HOODS (EXCEPT 40) HAVE 1" ALUMINUM FILTERS.
VXDAH 40 HAS SCREENED INLET FOR USE WITH VXDAF40 FILTER SECTION.

NOTE: TWIN DUCT BLOWERS REQUIRE TWO FILTER SECTIONS AND/OR TWO HOOD SECTIONS (Models 27-40)

PRESSURE DROP in. wg WITH 1" ALUMINUM FILTERS

CFM	FILTER SECTION						HOOD SECTION					
	07 / 27	09 / 29	10 / 30	12 / 32	15 / 35	18 / 38	40	09 / 29	10 / 30	12 / 32	18 / 38	40
300	.010	.007						.013				
400	.018	.010						.018				
600	.030	.020	.013					.030	.018			
800	.067	.026	.022	.012				.043	.025	.015		
1000	.117	.042	.028	.020				.065	.034	.019		
1200	.171	.073	.041	.023	.012			.093	.043	.023	.017	
1300		.091	.053	.025	.015			.107	.049	.027	.019	
1400		.109	.067	.029	.018			.122	.055	.030	.020	
1600		.145	.095	.038	.021	.011			.072	.035	.025	.015
1800		.182	.124	.054	.024	.013			.091	.042	.030	.017
2000			.154	.073	.026	.017			.109	.048	.034	.019
2500				.126	.042	.023				.073	.045	.025
3000				.182	.073	.028				.103	.061	.032
3500					.110	.040				.131	.082	.040
4000					.147	.057	.023				.107	.048
4500					.182	.082	.027				.130	.059
5000						.107	.032					.072
5500						.132	.036					.088
6000						.157	.040					.103
6500						.182	.046					.117
7000							.052					.131
7500							.058					
8000							.065					
8500							.074					
9000							.082					
10000							.101					
11000							.118					
12000							.137					
MAXIMUM CFM												
	1250	1800	2200	3500	4500	6700	12000	1450	2200	3500	4500	7000

PERFORMANCE DATA | Model VDBA



Carnes Company certifies that the Models VDBA and VGBA Series Duct Blower shown herein are licensed to bear the AMCA seal. The ratings are based on tests and procedures performed in accordance with AMCA Publication 211 and Publication 311 and comply with the requirements of the AMCA Certified Ratings Program.

PERFORMANCE DATA

VDBA 07

**3/4 HP MAXIMUM
3/4" SHAFT**

**TIP SPEED = 2.03 X RPM
WHEEL DIA. = 7.75"**

**STANDARD DRIVE RANGE
680 - 929 RPM**

CFM	Outlet Velocity FPM	1/8" SP			1/4" SP			1/2" SP			3/4" SP			1" SP			1-1/2" SP			2" SP			2-1/2" SP			
		RPM	BHP	Sones	RPM	BHP	Sones	RPM	BHP	Sones	RPM	BHP	Sones	RPM	BHP	Sones	RPM	BHP	Sones	RPM	BHP	Sones	RPM	BHP	Sones	RPM
300	569	526	0.01	1.3	719	0.03	--	1026	0.06	--	1247	0.09	--	1433	0.12	--	1733	0.19	--	1980	0.26	--	2189	0.33	--	
400	759	567	0.02	1.8	737	0.04	3.9	1019	0.07	--	1257	0.11	--	1448	0.15	--	1761	0.24	--	2020	0.33	--	2242	0.42	--	
500	949	636	0.04	3.1	770	0.05	4.2	1027	0.09	9.3	1246	0.13	--	1450	0.18	--	1775	0.28	--	2038	0.39	--	2271	0.50	--	
600	1139	719	0.06	4.3	822	0.07	6.2	1051	0.12	10.1	1255	0.16	11.8	1437	0.20	--	1777	0.32	--	2051	0.45	--	2286	0.58	--	
700	1329	806	0.08	6.4	894	0.10	8.7	1086	0.15	10.8	1278	0.20	12.5	1451	0.24	14.3	1763	0.35	22.0	2052	0.50	--	2295	0.65	--	
800	1519	894	0.12	8.6	975	0.14	10.1	1134	0.18	11.7	1308	0.24	12.9	1473	0.30	15.7	1768	0.41	23.0	2038	0.54	--	2292	0.71	--	
900	1709	983	0.16	10.8	1062	0.19	12.1	1198	0.23	12.9	1350	0.29	13.8	1503	0.36	20.7	1785	0.48	24.0	2038	0.61	--	--	--	--	
1000	1899	1073	0.21	12.6	1149	0.24	13.3	1272	0.29	14.7	1400	0.35	15.1	1540	0.43	17.6	1809	0.57	26.0	2053	0.70	--	--	--	--	
1100	2089	1165	0.27	14.1	1236	0.31	14.8	1352	0.37	15.6	1465	0.43	17.7	1588	0.50	19.8	1840	0.66	29.0	--	--	--	--	--	--	
1200	2279	1257	0.35	15.8	1325	0.39	16.5	1438	0.46	17.6	1539	0.52	23.0	1644	0.58	23.0	--	--	--	--	--	--	--	--	--	
1300	2469	1351	0.43	17.9	1414	0.48	18.5	1526	0.56	21.0	1618	0.62	37.0	1713	0.69	27.0	--	--	--	--	--	--	--	--	--	
1400	2659	1445	0.53	22.0	1505	0.53	22.0	1613	0.67	24.0	1701	0.74	26.0	--	--	--	--	--	--	--	--	--	--	--	--	

VDBA 09

VDBA - 3/4 HP MAX

VGBA - 1-1/2 HP MAX

TIP SPEED = 2.65 X RPM

STANDARD DRIVE RANGE

VGBA 09

3/4" SHAFT

3/4" SHAFT

WHEEL DIA. = 10.13"

580 - 792 RPM

CFM	Outlet Velocity FPM	1/8" SP			1/4" SP			1/2" SP			3/4" SP			1" SP			1-1/2" SP			2" SP			2-1/2" SP			
		RPM	BHP	Sones	RPM	BHP	Sones	RPM	BHP	Sones	RPM	BHP	Sones	RPM	BHP	Sones	RPM	BHP	Sones	RPM	BHP	Sones	RPM	BHP	Sones	RPM
600	713	417	0.03	1.6	557	0.05	2.2	798	0.10	5.7	977	0.15	8.5	1120	0.21	10.8	1353	0.33	--	1548	0.45	--	1717	0.59	--	
700	832	440	0.04	1.3	566	0.06	2.5	791	0.11	5.4	979	0.17	8.6	1128	0.23	11.1	1367	0.37	--	1564	0.50	--	1736	0.65	--	
800	951	468	0.06	1.8	581	0.07	3.8	786	0.12	5.2	974	0.19	8.4	1130	0.26	11.2	1379	0.41	15.8	1578	0.56	--	1751	0.72	--	
900	1070	499	0.07	2.2	601	0.10	3.1	792	0.14	5.5	964	0.21	8.1	1126	0.28	11.0	1384	0.45	16.2	1590	0.61	19.7	1764	0.79	--	
1000	1189	534	0.09	2.7	625	0.12	4.1	802	0.17	5.8	964	0.23	8.1	1118	0.31	10.7	1384	0.48	16.2	1596	0.67	20.0	1777	0.85	24.0	
1100	1308	573	0.12	3.4	653	0.15	6.9	816	0.20	6.7	970	0.27	8.3	1112	0.34	10.5	1379	0.52	15.8	1598	0.72	20.0	1784	0.92	24.0	
1200	1427	613	0.15	4.5	682	0.18	10.3	834	0.24	8.0	979	0.30	8.6	1115	0.38	10.6	1371	0.56	15.3	1596	0.76	20.0	1787	0.98	24.0	
1300	1546	654	0.19	6.1	714	0.22	5.2	856	0.28	7.0	992	0.35	8.9	1122	0.42	10.9	1362	0.60	14.8	1590	0.81	19.7	1786	1.04	24.0	
1400	1665	696	0.23	7.0	750	0.26	5.9	881	0.33	7.6	1009	0.40	9.4	1132	0.48	11.3	1362	0.65	14.8	1582	0.87	19.3	1781	1.10	24.0	
1500	1783	739	0.28	7.7	788	0.31	6.7	907	0.38	8.2	1028	0.46	10.1	1145	0.53	11.9	1367	0.71	15.1	1573	0.92	18.8	1775	1.17	24.0	
1600	1902	782	0.34	8.3	828	0.37	7.5	936	0.44	8.9	1050	0.52	10.4	1162	0.60	13.6	1375	0.78	15.6	1573	0.99	18.8	1765	1.23	23.0	
1700	2021	826	0.40	8.8	868	0.43	8.3	966	0.51	9.6	1075	0.59	11.1	1181	0.68	17.5	1385	0.86	16.2	1576	1.07	19.0	1758	1.31	23.0	

VDBA 10

VDBA - 1-1/2 HP MAX

VGBA - 1-1/2 HP MAX

TIP SPEED = 2.99 X RPM

STANDARD DRIVE RANGE

VGBA 10

3/4" SHAFT

3/4" SHAFT

WHEEL DIA. = 11.44"

505 - 690 RPM

CFM	Outlet Velocity FPM	1/8" SP			1/4" SP			1/2" SP			3/4" SP			1" SP			1-1/2" SP			2" SP			2-1/2" SP			
		RPM	BHP	Sones	RPM	BHP	Sones	RPM	BHP	Sones	RPM	BHP	Sones	RPM	BHP	Sones	RPM	BHP	Sones	RPM	BHP	Sones	RPM	BHP	Sones	RPM
800	771	388	0.04	2.0	511	0.07	3.1	709	0.12	5.9	861	0.18	8.8	987	0.25	--	1196	0.41	--	1371	0.58	--	1524	0.76	--	
900	868	403	0.05	2.5	520	0.08	3.7	712	0.14	6.0	866	0.21	9.0	993	0.27	11.8	1204	0.44	--	1380	0.62	--	1533	0.81	--	
1000	964	422	0.06	2.4	531	0.09	4.6	713	0.15	6.1	869	0.23	9.1	998	0.31	12.0	1210	0.47	--	1387	0.66	--	1542	0.87	--	
1100	1060	445	0.08	3.0	544	0.11	6.0	719	0.18	6.3	872	0.26	9.2	1002	0.34	12.2	1216	0.50	16.7	1394	0.70	--	1550	0.92	--	
1200	1157	470	0.10	3.8	559	0.13	8.7	728	0.20	6.8	873	0.28	9.3	1005	0.37	12.4	1221	0.55	17.0	1400	0.74	21.0	1557	0.97	--	
1300	1253	497	0.12	5.4	575	0.15	4.6	738	0.23	7.2	878	0.31	9.5	1007	0.40	12.5	1225	0.61	17.2	1405	0.79	21.0	1563	1.02	--	
1400	1350	525	0.15	4.9	593	0.18	5.3	749	0.26	7.8	886	0.34	9.9	1009	0.43	12.6	1229	0.65	17.4	1410	0.86	21.0	1568	1.07	25.0	
1500	1446	553	0.18	5.6	616	0.21	6.5	762	0.29	8.4	895	0.38	10.3	1013	0.47	12.8	1232	0.70	17.6	1415	0.93	22.0	1573	1.14	26.0	
1600	1543	582	0.22	6.7	640	0.25	8.0	776	0.33	9.0	905	0.42	10.8	1021	0.52	13.2	1234	0.74	17.7	1419	1.00	22.0	1578	1.23	26.0	
1700	1639	612	0.25	7.8	666	0.29	9.6	791	0.37	9.6	916	0.46	11.3	1030	0.57	13.7	1235	0.79	17.8	1422	1.06	22.0	1583	1.32	27.0	
1800	1736	642	0.29	8.8	693	0.33	11.0	807	0.41	10.2	928	0.51	11.9	1040	0.62	14.3	1239	0.84	18.0	1424	1.12	22.0	1587	1.40	27.0	
1900	1832	672	0.34	9.7	720	0.38	12.1	824	0.46	10.4	942	0.56	12.6	1051	0.68	14.9	1246	0.91	18.4	1426	1.17	22.0	1590	1.48	27.0	

VDBA 12

VDBA - 1-1/2 HP MAX

VGBA - 3 HP MAX

TIP SPEED = 3.27 X RPM

STANDARD DRIVE RANGE

VGBA 12

3/4" SHAFT

1" SHAFT

WHEEL DIA. = 12.50"

447 - 611 RPM

CFM	Outlet Velocity FPM	1/8" SP			1/4" SP			1/2" SP			3/4" SP			1" SP			1-1/2" SP			2" SP			2-1/2" SP			
		RPM	BHP	Sones	RPM	BHP	Sones	RPM	BHP	Sones	RPM	BHP	Sones	RPM	BHP	Sones	RPM	BHP	Sones	RPM	BHP	Sones	RPM	BHP	Sones	RPM
1200	823	367	0.07	2.0	470	0.10	3.4	639	0.17	--	783	0.27	--	904	0.37	--	1098	0.57	--	1255	0.78	--	1390	1.02	--	
1400	960	393	0.09	2.8	487	0.13	4.0	646	0.21	--	783	0.31	--	904	0.42	--	1106	0.65	--	1268	0.89	--	1407	1.13	--	
1600	1097	423	0.12	4.1	507	0.17	5.0	658	0.26	10.8	786	0.35	--	905	0.47	--	1106	0.72	--	1276	0.99	--	1420	1.27	--	
1800	1234	455	0.16	6.2	532	0.21	6.4	673	0.31	9.3	796	0.41	10.5	906	0.53	--	1108	0.80	--	1278	1.08	--	1427	1.39	--	
2000	1371	489	0.21	5.1	559	0.26	7.7	690	0.37	9.9	809	0.49	10.4	915												



Carnes Company certifies that the Models VDBA and VGBA Series Duct Blower shown herein are licensed to bear the AMCA seal. The ratings are based on tests and procedures performed in accordance with AMCA Publication 211 and Publication 311 and comply with the requirements of the AMCA Certified Ratings Program.

PERFORMANCE DATA

VDBA 15 **VDBA - 3 HP MAX** **VGBA - 5 HP MAX** **TIP SPEED = 3.99 X RPM** **STANDARD DRIVE RANGE**
VGBA 15 **1" SHAFT** **1" SHAFT** **WHEEL DIA. = 15.25"** **401-548 RPM**

CFM	Outlet Velocity FPM	1/8" SP			1/4" SP			1/2" SP			3/4" SP			1" SP			1-1/2" SP			2" SP			2-1/2" SP		
		RPM	BHP	Sones	RPM	BHP	Sones	RPM	BHP	Sones	RPM	BHP	Sones	RPM	BHP	Sones	RPM	BHP	Sones	RPM	BHP	Sones	RPM	BHP	Sones
1800	876	273	0.10	2.7	370	0.18	4.8	510	0.29	8.8	617	0.42	11.3	705	0.57	14.1	850	0.88	18.3	969	1.20	21.0	1071	1.52	24.0
1900	925	278	0.11	3.4	373	0.19	5.0	510	0.32	9.0	620	0.44	11.5	708	0.60	14.3	854	0.93	18.6	974	1.26	22.0	1077	1.59	25.0
2000	974	284	0.12	4.2	375	0.20	4.5	510	0.35	9.0	622	0.47	11.7	711	0.62	14.6	857	0.97	19.0	978	1.32	22.0	1083	1.67	25.0
2100	1022	290	0.14	2.9	375	0.21	4.6	510	0.38	9.0	623	0.50	11.8	714	0.65	14.9	860	1.01	19.3	982	1.37	22.0	1088	1.74	26.0
2200	1071	297	0.15	3.5	376	0.22	4.6	511	0.41	9.2	624	0.54	11.9	716	0.68	15.1	863	1.05	19.7	986	1.43	23.0	1092	1.81	27.0
2300	1120	305	0.17	4.2	378	0.23	4.7	514	0.44	10.0	624	0.58	11.9	718	0.72	15.3	866	1.09	20.0	989	1.48	23.0	1096	1.89	27.0
2400	1168	314	0.19	4.8	381	0.25	4.8	517	0.46	10.8	624	0.62	12.0	720	0.76	15.5	869	1.13	20.0	992	1.54	24.0	1100	1.96	27.0
2500	1217	323	0.21	5.5	385	0.27	5.1	521	0.49	12.0	624	0.67	12.0	721	0.81	15.5	872	1.17	21.0	995	1.59	24.0	1104	2.02	28.0
2600	1266	332	0.23	4.6	389	0.29	5.3	525	0.51	13.3	625	0.71	12.1	721	0.86	15.5	875	1.21	21.0	999	1.64	25.0	1107	2.09	29.0
2700	1314	342	0.26	5.1	394	0.32	5.6	528	0.54	14.3	626	0.76	12.2	721	0.92	15.5	877	1.26	22.0	1002	1.69	25.0	1110	2.16	29.0
2800	1363	352	0.29	5.6	400	0.34	5.9	530	0.56	9.0	629	0.80	12.6	721	0.98	15.5	879	1.31	22.0	1005	1.75	25.0	1113	2.22	29.0
2900	1412	363	0.31	6.0	406	0.37	6.2	531	0.58	9.1	632	0.84	13.0	721	1.04	15.5	881	1.37	23.0	1007	1.81	26.0	1116	2.29	29.0
3000	1461	373	0.35	6.4	413	0.40	6.5	531	0.60	9.2	636	0.87	13.8	722	1.09	15.6	882	1.44	23.0	1010	1.87	26.0	1119	2.36	30.0
3100	1509	384	0.38	6.7	420	0.43	7.1	532	0.62	9.2	640	0.91	14.5	723	1.15	15.8	883	1.51	23.0	1012	1.93	27.0	1122	2.42	30.0
3200	1558	394	0.42	7.0	427	0.46	8.8	533	0.65	9.3	643	0.95	15.0	725	1.21	15.9	883	1.59	23.0	1015	2.00	27.0	1125	2.49	31.0
3300	1607	405	0.45	7.2	436	0.50	10.3	536	0.68	9.5	646	0.98	15.6	728	1.26	16.2	883	1.68	23.0	1016	2.07	27.0	1128	2.57	32.0
3400	1655	416	0.49	7.4	445	0.54	12.0	539	0.71	9.7	649	1.01	13.6	732	1.31	16.6	883	1.77	23.0	1018	2.16	28.0	1130	2.64	32.0
3500	1704	427	0.54	7.8	454	0.58	14.1	543	0.75	10.0	650	1.04	13.7	736	1.36	16.9	883	1.86	23.0	1019	2.25	28.0	1133	2.73	32.0
3600	1753	437	0.58	8.3	463	0.62	16.4	547	0.80	10.7	651	1.08	13.8	740	1.41	17.3	883	1.94	23.0	1019	2.35	28.0	1135	2.81	32.0
3700	1801	448	0.63	8.8	473	0.67	9.4	552	0.84	11.6	651	1.10	13.8	743	1.46	17.5	884	2.03	24.0	1020	2.46	28.0	1137	2.91	33.0
3800	1850	459	0.68	9.4	483	0.72	10.0	557	0.89	12.5	652	1.14	13.9	746	1.51	17.8	886	2.12	25.0	1020	2.57	28.0	1138	3.01	33.0
3900	1899	470	0.73	9.9	493	0.78	10.8	562	0.94	13.6	653	1.18	13.9	749	1.55	17.6	888	2.20	26.0	1020	2.69	28.0	1139	3.13	33.0
4000	1948	481	0.79	10.5	503	0.83	11.9	568	0.99	14.9	655	1.23	14.1	750	1.59	17.7	891	2.29	27.0	1020	2.81	28.0	1140	3.25	33.0
4100	1996	492	0.85	11.1	513	0.89	13.1	574	1.04	16.1	658	1.28	14.3	751	1.63	17.8	894	2.36	29.0	1020	2.93	28.0	1140	3.38	33.0
4200	2045	503	0.91	11.7	523	0.95	14.2	581	1.10	12.5	661	1.33	14.5	751	1.67	17.8	898	2.44	32.0	1020	3.05	28.0	1140	3.52	33.0
4300	2094	514	0.97	12.4	534	1.02	15.4	588	1.16	13.1	665	1.39	14.9	752	1.71	17.8	902	2.52	35.0	1022	3.16	29.0	1140	3.67	33.0
4400	2142	526	1.04	12.9	544	1.09	16.6	595	1.22	13.8	670	1.46	15.8	753	1.76	17.9	906	2.59	39.0	1023	3.28	29.0	1140	3.81	33.0

VDBA 18 **5 HP MAXIMUM** **TIP SPEED = 4.76 X RPM**
VGBA 18 **1" SHAFT** **WHEEL DIA. = 18.19"**

CFM	Outlet Velocity FPM	1/8" SP			1/4" SP			1/2" SP			3/4" SP			1" SP			1-1/2" SP			2" SP			2-1/2" SP		
		RPM	BHP	Sones	RPM	BHP	Sones	RPM	BHP	Sones	RPM	BHP	Sones	RPM	BHP	Sones	RPM	BHP	Sones	RPM	BHP	Sones	RPM	BHP	Sones
3000	972	255	0.20	3.0	321	0.29	6.3	429	0.29	--	533	0.72	--	615	0.97	--	748	1.50	--	860	2.06	--	957	2.68	--
3200	1037	264	0.23	3.7	325	0.33	7.6	428	0.32	--	531	0.77	--	616	1.03	--	750	1.59	--	861	2.16	--	959	2.79	--
3400	1102	273	0.27	4.8	330	0.36	5.0	432	0.35	--	529	0.82	--	615	1.10	--	751	1.67	--	863	2.27	--	961	2.91	--
3600	1167	282	0.31	6.5	336	0.41	5.4	437	0.38	--	526	0.86	--	614	1.16	--	753	1.76	--	865	2.39	--	963	3.03	--
3800	1232	292	0.35	8.9	343	0.45	6.0	442	0.41	8.0	523	0.89	--	613	1.22	--	754	1.84	--	867	2.50	--	965	3.17	--
4000	1297	302	0.40	10.1	351	0.50	6.6	448	0.44	8.6	526	0.97	--	610	1.28	--	754	1.93	--	868	2.62	--	967	3.32	--
4200	1362	312	0.45	11.0	359	0.56	7.2	452	0.46	9.1	530	1.04	--	607	1.33	--	754	2.03	--	869	2.73	--	969	3.46	--
4400	1426	323	0.51	6.0	367	0.61	7.8	457	0.49	9.7	534	1.12	--	604	1.38	--	752	2.13	--	870	2.84	--	970	3.60	--
4600	1491	334	0.58	6.6	376	0.68	8.5	462	0.51	10.3	540	1.21	11.7	606	1.48	--	751	2.22	--	871	2.96	--	971	3.75	--
4800	1556	345	0.65	7.4	385	0.75	9.2	466	0.54	9.8	546	1.31	12.5	610	1.58	--	749	2.31	--	870	3.09	--	972	3.89	--
5000	1621	356	0.72	8.2	395	0.83	9.9	473	0.56	10.3	551	1.41	13.5	615	1.69	--	746	2.39	--	869	3.22	--	973	4.03	--
5200	1686	367	0.80	8.9	404	0.91	10.5	479	0.58	10.8	555	1.51	15.0	620	1.80	14.4	742	2.46	--	868	3.35	--	973	4.18	--
5400	1751	378	0.89	9.7	414	1.01	11.1	487	0.60	11.3	560	1.61	17.2	627	1.92	15.4	739	2.55	--	866	3.47	--	973	4.35	--
5600	1816	390	0.98	10.6	424	1.10	11.6	494	0.62	11.8	565	1.72	20.0	632	2.05	16.9	742	2.69	--	864	3.58	--	972	4.51	--
5800	1881	401	1.08	11.4	435	1.21	12.1	502	0.65	12.4	569	1.84	14.4	636	2.18	18.3	746	2.84	--	861	3.69	--	971	4.67	--
6000	1945	413	1.19	12.1	445	1.32	12.6	510	0.68	13.0	575	1.95	14.7	641	2.32	20.0	750	3.00	--	857	3.79	--	969	4.82	--
6200	2010	424	1.30	12.9	456	1.44	12.3	519	0.71	13.7	58	2.08	15.2	646	2.46	23.0	755	3.16	--	853	3.89	--	967	4.96	--
6400	2075	436	1.42	13.7	466	1.56	13.1	527	0.75	14.4	588	2.22	15.7	650	2.61	25.0	761	3.33	20.0	856	4.08	--	--	--	--
6600	2140	448	1.55	14.6	477	1.70	14.0	536	0.80	15.2	595	2.36	16.4	655	2.75	17.5	767	3.52	21.0	859	4.27	--	--	--	--
6800	2205	460	1.69	15.4	488	1.84	14.8	545	0.84	16.5	603	2.51	17.1	660	2.90	17.9	772	3.71	22.0	863	4.48	--	--	--	--
7000	2270	472	1.83	16.2	499	1.98	15.6	555	0.89	18.8	611	2.66	18.2	666	3.07	18.4	777	3.91	23.0	868	4.69	--	--	--	--
7200	2335	484	1.98	17.0	510	2.14	16.4	564	0.94	22.0	619	2.83	19.2	673	3.24	19.1	782	4.11	24.0	873	4.91	--	--	--	--
7400	2399	496	2.14	17.9	522	2.31	17.4	574	0.9																

PERFORMANCE DATA



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VGBA 20

15 HP MAXIMUM
1-7/16" SHAFT

TIP SPEED = 5.35 X RPM
WHEEL DIA. = 20.44"

CFM	Outlet Velocity		1/8" SP			1/4" SP			1/2" SP			3/4" SP			1" SP			1-1/2" SP			2" SP			2-1/2" SP							
	FPM	RPM	BHP	Sones	RPM	BHP	Sones	RPM	BHP	Sones	RPM	BHP	Sones	RPM	BHP	Sones	RPM	BHP	Sones	RPM	BHP	Sones	RPM	BHP	Sones	RPM	BHP	Sones			
6000	1303	336	0.84	13.3	373	1.00	9.1	446	1.35	7.6	511	1.75	10.0	569	2.14	11.8	674	2.99	16.6	765	3.86	20.0	845	4.75	23.0						
6250	1357	347	0.94	14.7	382	1.10	9.8	453	1.46	8.0	517	1.87	10.3	574	2.28	12.1	678	3.15	17.1	768	4.06	20.0	848	4.95	24.0						
6500	1411	358	1.04	14.4	392	1.21	10.5	461	1.58	8.5	523	2.00	10.6	580	2.43	12.4	682	3.31	18.1	772	4.26	21.0	852	5.19	24.0						
6750	1465	370	1.15	14.1	402	1.33	11.2	468	1.71	8.9	530	2.13	10.5	585	2.58	12.7	685	3.47	18.7	776	4.46	21.0	855	5.43	24.0						
7000	1520	381	1.27	13.8	412	1.46	11.8	476	1.85	9.4	536	2.28	10.9	591	2.74	13.2	690	3.66	19.8	780	4.67	21.0	859	5.68	25.0						
7250	1574	392	1.40	13.6	423	1.59	12.3	484	1.99	9.8	543	2.42	11.4	597	2.90	13.7	695	3.86	21.0	783	4.88	22.0	863	5.93	25.0						
7500	1628	404	1.54	13.5	433	1.73	12.7	492	2.14	10.3	551	2.58	11.9	604	3.07	14.5	700	4.06	22.0	787	5.09	22.0	867	6.19	25.0						
7750	1683	415	1.68	13.3	444	1.88	13.2	500	2.30	10.7	558	2.75	12.3	610	3.25	14.0	705	4.28	24.0	791	5.31	22.0	871	6.45	26.0						
8000	1737	427	1.84	13.3	455	2.05	13.3	509	2.47	11.2	565	2.94	12.8	617	3.44	14.5	711	4.50	25.0	795	5.55	23.0	874	6.71	26.0						
8250	1791	439	2.00	13.3	465	2.22	13.3	518	2.65	11.8	573	3.13	13.4	624	3.63	15.0	716	4.72	27.0	800	5.81	23.0	878	6.97	26.0						
8500	1845	450	2.18	13.3	476	2.40	13.3	528	2.84	12.4	581	3.33	14.0	631	3.84	15.5	722	4.96	29.0	805	6.08	24.0	882	7.24	27.0						
8750	1900	462	2.36	13.3	487	2.59	13.4	537	3.05	12.9	588	3.54	14.5	638	4.05	16.0	728	5.20	31.0	810	6.36	25.0	885	7.51	27.0						
9000	1954	474	2.56	13.3	498	2.79	13.5	547	3.26	13.5	596	3.76	15.1	646	4.29	16.7	735	5.45	33.0	815	6.64	26.0	890	7.83	27.0						
9250	2008	486	2.77	13.4	510	3.00	13.6	557	3.48	14.1	604	3.99	15.7	653	4.53	17.3	741	5.71	36.0	821	6.94	27.0	895	8.15	28.0						
9500	2063	498	2.98	13.5	521	3.22	13.7	567	3.72	14.8	613	4.23	16.8	661	4.79	18.0	748	5.98	20.0	827	7.24	28.0	900	8.49	28.0						
9750	2117	509	3.21	13.6	532	3.46	14.0	577	3.97	15.7	622	4.48	18.0	668	5.05	19.1	754	6.26	21.0	833	7.55	29.0	905	8.84	29.0						
10000	2171	521	3.45	13.7	543	3.71	14.5	587	4.22	17.0	631	4.75	19.5	676	5.33	20.0	761	6.55	21.0	839	7.87	31.0	910	9.19	29.0						
10250	2226	533	3.70	14.0	555	3.96	15.1	598	4.49	18.9	640	5.04	21.0	684	5.62	22.0	768	6.85	22.0	845	8.20	32.0	916	9.56	30.0						
10500	2280	545	3.96	14.6	566	4.23	15.7	608	4.78	21.0	650	5.33	23.0	692	5.91	23.0	776	7.16	22.0	851	8.54	33.0	921	9.93	30.0						
10750	2234	557	4.23	15.2	578	4.52	16.6	619	5.07	24.0	659	5.64	26.0	700	6.22	24.0	783	7.48	23.0	858	8.90	34.0	927	10.32	31.0						
11000	2388	568	4.52	15.8	589	4.81	18.2	629	5.38	27.0	669	5.96	29.0	709	6.55	25.0	790	7.84	24.0	864	9.26	26.0	933	10.71	31.0						
11250	2443	580	4.82	16.9	601	5.12	20.0	640	5.70	31.0	679	6.29	34.0	718	6.89	27.0	798	8.21	24.0	871	9.63	27.0	939	11.12	32.0						
11500	2497	592	5.13	18.7	613	5.45	23.0	651	6.04	36.0	689	6.64	36.0	727	7.25	28.0	805	8.59	25.0	878	10.01	27.0	946	11.53	33.0						
11750	2551	604	5.46	21.0	624	5.78	26.0	662	6.38	41.0	699	7.00	38.0	736	7.62	29.0	813	8.98	26.0	885	10.41	28.0	952	11.96	33.0						
12000	2606	616	5.08	24.0	636	6.13	29.0	673	6.75	48.0	709	7.37	39.0	746	8.01	30.0	820	9.38	26.0	892	10.81	29.0	958	12.40	34.0						

NOTES: Performance certified is for installation Type B - Free Inlet, Ducted Outlet, without filter section. Performance ratings (bhp) do not include transmission losses. Performance ratings do not include the effects of accessories. The sound ratings shown are loudness values in fan sones at 5 ft. (1.5mm) in a hemispherical free field calculated per AMCA Standard 301. Installation Type B: free inlet hemispherical sone levels. Sone values not documented in unlisted areas. Twin unit data is derived from tests of single width fans.

PERFORMANCE DATA



Carnes Company certifies that the Models VDBA and VGBA Series Duct Blower shown herein are licensed to bear the AMCA seal. The ratings are based on tests and procedures performed in accordance with AMCA Publication 211 and Publication 311 and comply with the requirements of the AMCA Certified Ratings Program.

VDBA 27

**1-1/2 HP MAXIMUM
3/4" SHAFT**

**TIP SPEED = 2.03 X RPM
WHEEL DIA. = 7.75"**

CFM	Outlet Velocity FPM	1/8" SP			1/4" SP			1/2" SP			3/4" SP			1" SP			1-1/2" SP			2" SP			2-1/2" SP		
		RPM	BHP	Sones	RPM	BHP	Sones	RPM	BHP	Sones	RPM	BHP	Sones	RPM	BHP	Sones	RPM	BHP	Sones	RPM	BHP	Sones	RPM	BHP	Sones
600	569	526	0.03	1.9	719	0.05	3.8	1026	0.11	11.1	1247	0.18	--	1433	0.24	--	1733	0.38	--	1980	0.51	--	2189	0.67	--
800	759	567	0.05	2.5	737	0.07	4.9	1019	0.14	10.8	1257	0.22	14.1	1448	0.30	16.8	1761	0.48	27.0	2020	0.65	--	2242	0.83	--
1000	949	636	0.07	3.9	770	0.11	5.3	1027	0.18	11.2	1246	0.25	13.7	1450	0.36	17.0	1775	0.57	28.0	2038	0.79	--	2271	1.00	--
1200	1139	719	0.11	5.3	822	0.15	7.6	1051	0.23	12.1	1255	0.31	14.0	1437	0.40	16.3	1777	0.64	28.0	2051	0.90	--	2286	1.16	--
1400	1329	808	0.17	7.9	894	0.20	10.5	1086	0.30	12.9	1278	0.39	15.0	1451	0.49	17.1	1763	0.71	27.0	2052	1.00	--	2295	1.29	--
1600	1519	894	0.24	10.6	975	0.28	12.1	1134	0.37	14.0	1308	0.49	15.4	1473	0.60	18.8	1768	0.82	28.0	2038	1.08	--	2292	1.42	--
1800	1709	983	0.32	13.0	1062	0.37	14.5	1198	0.47	15.5	1350	0.59	16.5	1503	0.72	25.0	1785	0.97	29.0	2038	1.22	--	--	--	--
2000	1899	1073	0.43	15.1	1149	0.49	16.0	1272	0.59	17.6	1400	0.70	18.1	1540	0.85	21.0	1809	1.13	32.0	2053	1.40	--	--	--	--
2200	2089	1165	0.55	16.8	1236	0.63	17.7	1352	0.74	18.7	1465	0.85	21.0	1588	1.00	24.0	1840	1.32	35.0	--	--	--	--	--	--
2400	2279	1257	0.70	18.9	1325	0.79	19.7	1438	0.91	21.0	1539	1.03	28.0	1644	1.17	28.0	--	--	--	--	--	--	--	--	--
2600	2469	1351	0.87	21.0	1414	0.97	22.0	1526	1.12	25.0	1618	1.24	--	1713	1.38	33.0	--	--	--	--	--	--	--	--	--
2800	2659	1445	1.07	26.0	1505	1.17	27.0	1613	1.35	29.0	1701	1.49	--	--	--	--	--	--	--	--	--	--	--	--	--

**VDBA 29
VGBA 29**

**1-1/2 HP MAXIMUM
3/4" SHAFT**

**TIP SPEED = 2.65 X RPM
WHEEL DIA. = 10.13"**

CFM	Outlet Velocity FPM	1/8" SP			1/4" SP			1/2" SP			3/4" SP			1" SP			1-1/2" SP			2" SP			2-1/2" SP		
		RPM	BHP	Sones	RPM	BHP	Sones	RPM	BHP	Sones	RPM	BHP	Sones	RPM	BHP	Sones	RPM	BHP	Sones	RPM	BHP	Sones	RPM	BHP	Sones
1200	713	417	0.06	2.3	557	0.09	2.9	798	0.19	6.8	977	0.30	10.3	1120	0.41	13.0	1353	0.65	--	1548	0.90	--	1717	1.17	--
1400	832	440	0.08	1.8	566	0.12	3.0	791	0.22	6.6	979	0.34	10.3	1128	0.47	13.4	1367	0.73	--	1564	1.01	--	1736	1.30	--
1600	951	468	0.11	2.4	581	0.15	3.8	786	0.25	6.4	974	0.37	10.2	1130	0.52	13.5	1379	0.81	18.9	1578	1.12	--	1751	1.43	--
1800	1070	499	0.14	2.9	601	0.19	3.9	792	0.29	8.6	964	0.41	9.8	1126	0.56	13.3	1384	0.89	19.3	1590	1.23	24.0	--	--	--
2000	1189	534	0.19	3.5	625	0.24	5.0	802	0.34	7.0	964	0.47	9.8	1118	0.62	12.9	1384	0.97	19.3	1596	1.33	24.0	--	--	--
2200	1308	573	0.24	4.3	653	0.29	8.5	816	0.40	8.1	970	0.53	10.0	1112	0.68	12.6	1379	1.03	18.9	1598	1.44	24.0	--	--	--
2400	1427	613	0.30	5.6	682	0.36	12.4	834	0.48	9.7	979	0.61	10.3	1115	0.76	12.7	1371	1.11	18.3	--	--	--	--	--	--
2600	1546	654	0.38	7.4	714	0.43	6.3	856	0.56	8.4	992	0.69	10.8	1122	0.85	13.1	1362	1.20	17.7	--	--	--	--	--	--
2800	1665	696	0.46	8.4	750	0.52	7.1	881	0.66	9.2	1009	0.80	11.4	1132	0.95	13.6	1362	1.31	17.8	--	--	--	--	--	--
3000	1783	739	0.56	9.4	788	0.62	8.1	907	0.77	9.9	1028	0.92	12.1	1145	1.06	14.4	1367	1.43	18.1	--	--	--	--	--	--
3200	1902	782	0.67	10.1	828	0.73	9.0	936	0.88	10.8	1050	1.05	12.5	1162	1.20	16.3	--	--	--	--	--	--	--	--	--
3400	2021	826	0.80	10.6	868	0.86	10.0	966	1.02	11.5	1075	1.19	13.5	1181	1.36	21.0	--	--	--	--	--	--	--	--	--

**VDBA 30
VGBA 30**

**1-1/2 HP MAXIMUM
3/4" SHAFT**

**TIP SPEED = 2.99 X RPM
WHEEL DIA. = 11.44"**

CFM	Outlet Velocity FPM	1/8" SP			1/4" SP			1/2" SP			3/4" SP			1" SP			1-1/2" SP			2" SP			2-1/2" SP		
		RPM	BHP	Sones	RPM	BHP	Sones	RPM	BHP	Sones	RPM	BHP	Sones	RPM	BHP	Sones	RPM	BHP	Sones	RPM	BHP	Sones	RPM	BHP	Sones
1600	771	388	0.08	2.7	511	0.13	3.9	709	0.25	7.2	861	0.36	10.7	987	0.51	--	1196	0.82	--	1371	1.16	--	--	--	--
1800	868	403	0.10	3.2	520	0.16	4.6	712	0.28	7.3	866	0.42	11.0	993	0.55	14.3	1204	0.88	--	1380	1.24	--	--	--	--
2000	964	422	0.13	3.1	531	0.18	5.6	713	0.31	7.4	869	0.47	11.1	998	0.61	14.5	1210	0.94	--	1387	1.32	--	--	--	--
2200	1060	445	0.16	3.7	544	0.22	7.3	719	0.35	7.7	872	0.51	11.3	1002	0.69	14.8	1216	1.00	20.0	1394	1.40	--	--	--	--
2400	1157	470	0.20	4.7	559	0.26	10.6	728	0.40	8.2	873	0.55	11.4	1005	0.75	15.0	1221	1.10	20.0	1400	1.49	--	--	--	--
2600	1253	497	0.25	6.6	575	0.30	5.7	738	0.45	8.8	878	0.61	11.7	1007	0.80	15.1	1225	1.21	21.0	--	--	--	--	--	--
2800	1350	525	0.30	6.0	593	0.35	6.5	749	0.51	9.4	886	0.69	12.1	1009	0.86	15.2	1229	1.31	21.0	--	--	--	--	--	--
3000	1446	553	0.36	6.8	616	0.42	7.9	762	0.58	10.1	895	0.76	12.6	1013	0.95	15.4	1232	1.40	21.0	--	--	--	--	--	--
3200	1543	582	0.43	8.0	640	0.49	9.7	776	0.65	10.9	905	0.84	13.1	1021	1.04	15.8	1234	1.48	21.0	--	--	--	--	--	--
3400	1639	612	0.51	9.3	666	0.57	11.5	791	0.73	11.6	916	0.93	13.7	1030	1.14	16.4	--	--	--	--	--	--	--	--	--
3600	1736	642	0.59	10.6	693	0.66	13.3	807	0.82	12.4	928	1.02	14.4	1040	1.25	17.0	--	--	--	--	--	--	--	--	--
3800	1832	672	0.68	11.7	720	0.77	14.5	824	0.91	12.7	942	1.13	15.2	1051	1.35	17.8	--	--	--	--	--	--	--	--	--

NOTES: Performance certified is for installation Type B - Free Inlet, Ducted Outlet, without filter section. Performance ratings (bhp) do not include transmission losses. Performance ratings do not include the effects of accessories. The sound ratings shown are loudness values in fan sones at 5 ft. (1.5mm) in a hemispherical free field calculated per AMCA Standard 301. Installation Type B: free inlet hemispherical sone levels. Sone values not documented in unlisted areas. Twin unit data is derived from tests of single width fans.

PERFORMANCE DATA



Carnes Company certifies that the Models VDBA and VGBA Series Duct Blower shown herein are licensed to bear the AMCA seal. The ratings are based on tests and procedures performed in accordance with AMCA Publication 211 and Publication 311 and comply with the requirements of the AMCA Certified Ratings Program.

**VDBA 32
VGBA 32**

VDBA - 1-1/2 HP MAXIMUM
3/4" SHAFT

VGBA - 3 HP MAXIMUM
1" SHAFT

TIP SPEED = 3.27 X RPM
WHEEL DIA. = 12.50"

CFM	Outlet Velocity FPM	1/8" SP			1/4" SP			1/2" SP			3/4" SP			1" SP			1-1/2" SP			2" SP			2-1/2" SP		
		RPM	BHP	Sones	RPM	BHP	Sones	RPM	BHP	Sones	RPM	BHP	Sones	RPM	BHP	Sones	RPM	BHP	Sones	RPM	BHP	Sones	RPM	BHP	Sones
2400	823	367	0.13	2.7	470	0.20	4.2	639	0.35	--	783	0.54	--	904	0.73	--	1098	1.15	--	1255	1.56	--	1390	2.05	--
2800	960	393	0.18	3.5	487	0.26	5.0	646	0.42	--	783	0.61	--	904	0.83	--	1106	1.30	--	1268	1.78	--	1407	2.26	--
3200	1097	423	0.25	5.0	507	0.33	6.2	658	0.51	8.0	786	0.71	--	905	0.94	--	1106	1.43	--	1276	1.98	--	1420	2.53	--
3600	1234	455	0.33	7.5	532	0.42	7.8	673	0.62	8.7	796	0.83	12.7	906	1.60	--	1108	1.60	--	1278	2.17	--	1427	2.79	--
4000	1371	489	0.43	6.2	559	0.53	9.4	690	0.74	9.5	809	0.97	12.6	915	1.21	--	1108	1.75	--	1279	2.38	--	--	--	--
4400	1508	524	0.54	7.3	588	0.65	10.7	711	0.89	10.4	824	1.13	13.4	927	1.38	16.1	1109	1.93	--	1279	2.59	--	--	--	--
4800	1646	562	0.69	8.7	620	0.80	12.0	734	1.06	11.5	840	1.31	14.2	941	1.59	16.7	1118	2.16	--	1278	2.79	--	--	--	--
5200	1783	601	0.86	10.1	653	0.98	12.9	759	1.25	12.6	860	1.53	15.2	956	1.81	17.4	1129	2.41	--	--	--	--	--	--	--
5600	1920	640	1.06	11.3	687	1.18	12.0	786	1.46	13.9	882	1.76	16.2	973	2.06	18.2	1142	2.70	22.0	--	--	--	--	--	--
6000	2057	680	1.29	12.6	722	1.40	13.4	815	1.70	15.3	906	2.02	17.4	993	2.34	19.2	--	--	--	--	--	--	--	--	--
6400	2194	721	1.55	14.0	758	1.66	14.8	846	1.98	17.0	932	2.31	19.2	1015	2.66	20.0	--	--	--	--	--	--	--	--	--
6800	2331	762	1.85	15.6	796	1.96	16.1	877	2.28	19.9	959	2.63	22.0	1039	3.00	23.0	--	--	--	--	--	--	--	--	--

**VDBA 35
VGBA 35**

VDBA - 3 HP MAXIMUM
1" SHAFT

VGBA - 5 HP MAXIMUM
1 SHAFT

TIP SPEED = 3.99 X RPM
WHEEL DIA. = 15.25"

CFM	Outlet Velocity FPM	1/8" SP			1/4" SP			1/2" SP			3/4" SP			1" SP			1-1/2" SP			2" SP			2-1/2" SP		
		RPM	BHP	Sones	RPM	BHP	Sones	RPM	BHP	Sones	RPM	BHP	Sones	RPM	BHP	Sones	RPM	BHP	Sones	RPM	BHP	Sones	RPM	BHP	Sones
3600	876	273	0.20	3.5	370	0.35	5.8	510	0.59	10.2	617	0.84	13.2	705	1.14	16.2	850	1.77	20.0	969	2.40	24.0	1071	3.04	27.0
3800	925	278	0.22	4.2	373	0.38	6.0	510	0.64	10.5	620	0.89	13.6	708	1.19	16.5	854	1.85	21.0	974	2.52	24.0	1077	3.19	28.0
4000	974	284	0.25	5.0	375	0.40	5.6	510	0.70	10.5	622	0.94	13.8	711	1.25	16.8	857	1.93	21.0	978	2.63	25.0	1083	3.34	28.0
4200	1022	290	0.28	3.8	375	0.42	5.7	510	0.76	10.5	623	1.00	13.9	714	1.31	17.1	860	2.01	22.0	982	2.75	25.0	1088	3.49	29.0
4400	1071	297	0.31	4.5	376	0.44	5.7	511	0.82	10.8	624	1.07	14.0	716	1.37	17.3	863	2.09	22.0	986	2.86	26.0	1092	3.63	30.0
4600	1120	305	0.34	5.2	378	0.47	5.8	514	0.87	11.5	624	1.16	14.0	718	1.44	17.5	866	2.17	22.0	989	2.96	26.0	1096	3.77	30.0
4800	1168	314	0.38	5.8	381	0.50	6.0	517	0.93	12.4	624	1.24	14.0	720	1.52	17.7	869	2.25	23.0	992	3.07	26.0	1100	3.91	31.0
5000	1217	323	0.42	6.5	385	0.54	6.2	521	0.98	13.6	624	1.33	14.0	721	1.61	17.8	872	2.33	23.0	995	3.18	27.0	1104	4.05	31.0
5200	1266	333	0.47	5.8	389	0.59	6.5	525	1.03	14.8	625	1.42	14.1	721	1.72	17.8	875	2.42	24.0	999	3.28	28.0	1107	4.18	32.0
5400	1314	342	0.52	6.3	394	0.63	6.8	528	1.07	15.8	626	1.51	14.2	721	1.83	17.8	877	2.52	24.0	1002	3.39	28.0	1110	4.31	32.0
5600	1363	352	0.57	6.8	400	0.68	7.1	530	1.11	10.8	629	1.59	14.6	721	1.95	17.8	879	2.63	25.0	1005	3.50	28.0	1113	4.44	33.0
5800	1412	363	0.63	7.3	406	0.74	7.5	531	1.15	10.9	632	1.67	15.2	721	2.07	17.8	881	2.75	26.0	1007	3.61	29.0	1116	4.58	33.0
6000	1461	373	0.69	7.7	413	0.80	7.8	531	1.19	11.0	636	1.75	15.9	722	2.19	18.0	882	2.88	26.0	1010	3.73	29.0	1119	4.71	34.0
6200	1509	384	0.76	8.1	420	0.86	8.5	532	1.24	11.0	640	1.82	16.6	723	2.30	18.0	883	3.02	26.0	1013	3.86	30.0	1122	4.84	34.0
6400	1558	394	0.83	8.4	428	0.93	10.2	533	1.29	11.1	643	1.89	17.1	725	2.42	18.2	883	3.18	26.0	1015	4.00	30.0	1125	4.98	35.0
6600	1607	405	0.91	8.7	436	1.00	11.8	536	1.36	11.4	647	1.96	17.8	728	2.52	18.5	883	3.35	26.0	1017	4.15	31.0	--	--	--
6800	1655	416	0.99	9.0	445	1.08	13.5	539	1.43	11.7	649	2.03	15.8	732	2.63	18.9	883	3.53	26.0	1018	4.31	31.0	--	--	--
7000	1704	427	1.07	9.5	454	1.16	15.5	543	1.51	12.0	650	2.09	15.9	736	2.73	19.3	883	3.71	26.0	1019	4.50	32.0	--	--	--
7200	1753	437	1.16	10.0	463	1.25	17.8	547	1.59	12.6	650	2.15	16.0	740	2.83	19.7	883	3.89	26.0	1019	4.70	32.0	--	--	--
7400	1801	448	1.26	10.5	473	1.34	11.4	552	1.68	13.5	651	2.21	16.0	743	2.92	20.0	884	4.07	27.0	1020	4.91	32.0	--	--	--
7600	1850	459	1.36	11.1	483	1.44	12.0	557	1.78	14.5	652	2.28	16.1	746	3.01	20.0	886	4.24	28.0	--	--	--	--	--	--
7800	1899	470	1.47	11.8	493	1.55	12.8	562	1.88	15.6	653	2.36	16.2	749	3.10	20.0	888	4.41	29.0	--	--	--	--	--	--
8000	1948	481	1.58	12.4	503	1.66	13.9	568	1.98	17.0	655	2.45	16.3	750	3.18	20.0	891	4.57	31.0	--	--	--	--	--	--
8200	1996	492	1.69	13.1	513	1.78	15.1	574	2.09	18.1	658	2.55	16.5	751	3.26	17.8	894	4.73	32.0	--	--	--	--	--	--
8400	2045	503	1.82	13.7	523	1.90	16.3	581	2.20	14.9	661	2.66	16.8	751	3.34	17.8	898	4.88	35.0	--	--	--	--	--	--
8600	2094	514	1.95	14.4	534	2.03	17.5	588	2.32	15.5	665	2.78	17.2	752	3.43	17.8	--*10	--	--	--	--	--	--	--	--
8800	2142	526	2.08	15.0	544	2.17	19.0	595	2.45	16.2	670	2.91	17.6	753	3.52	20.0	--	--	--	--	--	--	--	--	--

NOTES: Performance certified is for installation Type B - Free Inlet, Ducted Outlet, without filter section. Performance ratings (bhp) do not include transmission losses. Performance ratings do not include the effects of accessories. The sound ratings shown are loudness values in fan sones at 5 ft. (1.5mm) in a hemispherical free field calculated per AMCA Standard 301. Installation Type B: free inlet hemispherical sone levels. Sone values not documented in unlisted areas. Twin unit data is derived from tests of single width fans.

PERFORMANCE DATA



Carnes Company certifies that the Models VDBA and VGBA Series Duct Blower shown herein are licensed to bear the AMCA seal. The ratings are based on tests and procedures performed in accordance with AMCA Publication 211 and Publication 311 and comply with the requirements of the AMCA Certified Ratings Program.

VGBA 38

10 HP MAXIMUM
1-3/16" SHAFT

TIP SPEED = 4.76 X RPM
WHEEL DIA. = 18.19"

CFM	Outlet Velocity FPM	1/8" SP			1/4" SP			1/2" SP			3/4" SP			1" SP			1-1/2" SP			2" SP			2-1/2" SP		
		RPM	BHP	Sones	RPM	BHP	Sones	RPM	BHP	Sones	RPM	BHP	Sones	RPM	BHP	Sones	RPM	BHP	Sones	RPM	BHP	Sones	RPM	BHP	Sones
6000	972	255	0.40	3.8	321	0.58	7.6	429	0.95	--	533	1.45	--	615	1.95	--	748	3.00	--	860	4.12	--	957	5.36	--
6400	1037	264	0.46	4.7	325	0.65	9.1	428	1.02	--	531	1.54	--	616	2.06	--	750	3.17	--	861	4.31	--	959	5.59	--
6800	1102	273	0.53	5.9	330	0.73	6.1	432	1.12	--	529	1.63	--	615	2.19	--	751	3.34	--	863	4.54	--	961	5.82	--
7200	1167	282	0.61	7.9	336	0.81	6.6	437	1.23	--	526	1.71	--	614	2.32	--	753	3.51	--	865	4.77	--	963	6.06	--
7600	1232	292	0.70	10.7	343	0.90	7.2	442	1.35	9.7	523	1.79	--	613	2.44	--	754	3.68	--	867	5.00	--	965	6.35	--
8000	1297	302	0.80	12.1	351	1.00	8.0	448	1.48	10.4	526	1.93	--	610	2.55	--	754	3.86	--	868	5.23	--	967	6.64	--
8400	1362	312	0.91	13.3	359	1.11	8.8	452	1.61	11.0	530	2.09	--	607	2.66	--	754	4.06	--	869	5.46	--	969	6.92	--
8800	1426	323	1.03	7.3	367	1.23	9.5	457	1.75	11.7	534	2.25	--	604	2.77	--	752	4.25	--	870	5.68	--	970	7.21	--
9200	1491	334	1.15	8.1	376	1.36	10.3	462	1.90	12.3	540	2.42	--	606	2.96	--	751	4.44	--	871	5.92	--	971	7.49	--
9600	1556	345	1.29	8.9	385	1.50	11.1	466	2.05	12.0	546	2.61	15.1	610	3.16	--	749	4.61	--	870	6.18	--	972	7.78	--
10000	1621	356	1.44	9.9	395	1.66	11.9	473	2.21	12.6	551	2.81	16.2	615	3.37	--	746	4.78	--	869	6.44	--	973	8.05	--
10400	1686	367	1.60	10.8	404	1.83	12.6	479	2.39	13.2	555	3.02	17.9	620	3.60	--	742	4.93	--	868	6.69	--	973	8.37	--
10800	1751	378	1.78	11.8	414	2.01	13.3	487	2.58	13.8	560	3.23	21.0	627	3.84	18.5	739	5.10	--	866	6.93	--	973	8.70	--
11200	1816	390	1.96	12.8	424	2.21	14.0	494	2.78	14.4	565	3.45	25.0	632	4.10	20.0	742	5.38	--	864	7.16	--	972	9.02	--
11600	1881	401	2.16	13.7	435	2.42	14.7	502	2.99	15.0	569	3.67	17.0	636	4.37	22.0	746	5.68	--	861	7.38	--	971	9.33	--
12000	1945	413	2.38	14.7	445	2.64	15.2	510	3.21	15.6	575	3.91	17.5	641	4.64	24.0	750	5.99	--	857	7.58	--	969	9.63	--
12400	2010	424	2.60	15.5	456	2.87	14.9	519	3.45	16.4	581	4.16	18.1	646	4.92	27.0	755	6.32	--	853	7.78	--	967	9.92	--
12800	2075	436	2.84	16.5	466	3.12	15.8	527	3.70	17.2	588	4.43	18.9	650	5.21	30.0	761	6.67	--	856	8.16	--	--	--	--
13200	2140	448	3.10	17.4	477	3.39	16.7	536	3.96	18.2	595	4.72	19.6	655	5.50	21.0	767	7.03	25.0	859	8.55	--	--	--	--
13600	2205	460	3.37	18.4	488	3.67	17.7	545	4.25	19.7	603	5.02	20.0	660	5.81	21.0	772	7.42	26.0	863	8.96	--	--	--	--
14000	2270	472	3.66	19.4	499	3.97	18.7	555	4.57	23.0	611	5.33	22.0	666	6.14	22.0	777	7.81	27.0	868	9.38	--	--	--	--
14400	2335	484	3.97	20.0	510	4.28	19.7	564	4.90	26.0	619	5.65	23.0	673	6.48	23.0	782	8.22	29.0	873	9.83	--	--	--	--
14800	2399	496	4.29	21.0	520	4.61	21.0	574	5.25	32.0	627	5.99	24.0	680	6.85	24.0	786	8.63	31.0	--	--	--	--	--	--
15200	2464	508	4.63	22.0	533	4.96	22.0	584	5.62	36.0	635	6.35	26.0	687	7.22	24.0	791	9.06	32.0	--	--	--	--	--	--

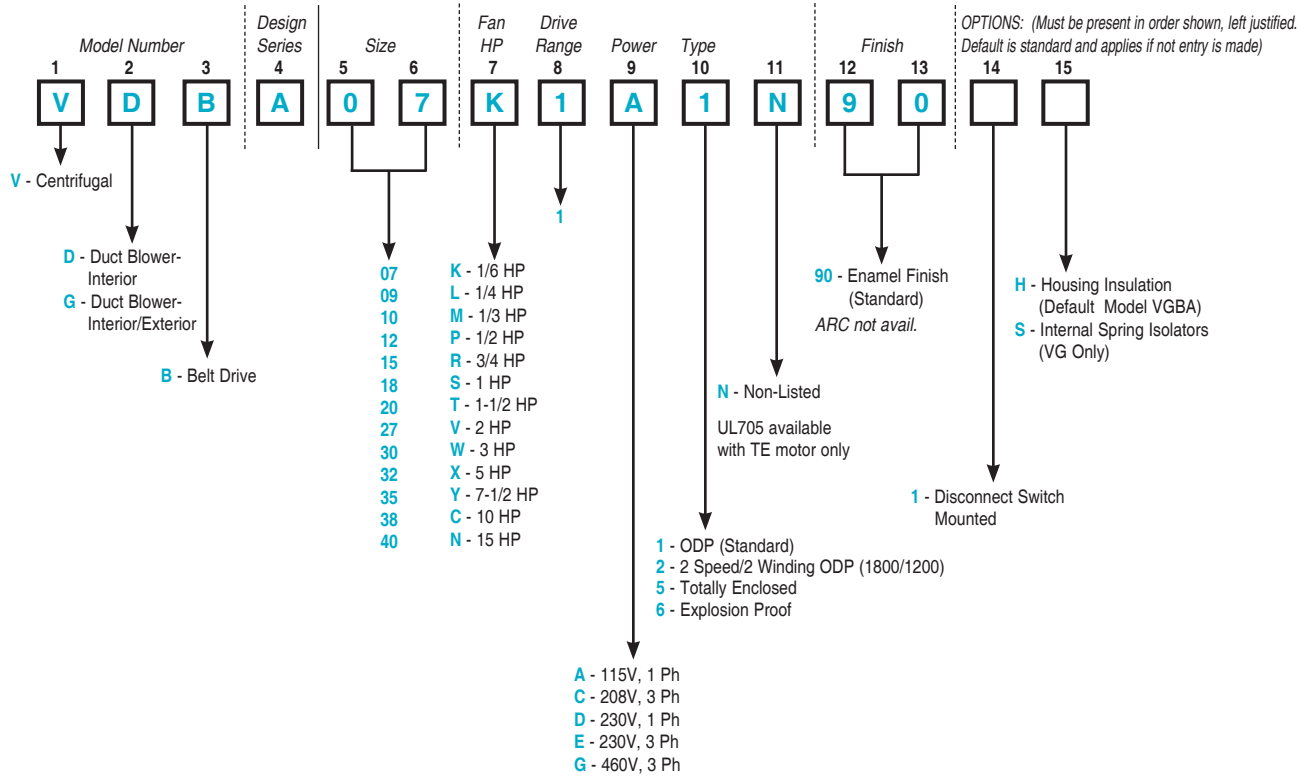
VGBA 40

40 HP MAXIMUM
2-1/4" SHAFT

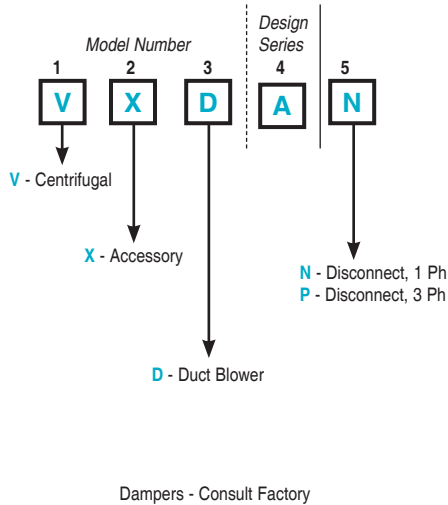
TIP SPEED = 5.35 X RPM
WHEEL DIA. = 20.44"

CFM	Outlet Velocity FPM	1/8" SP			1/4" SP			1/2" SP			3/4" SP			1" SP			1-1/2" SP			2" SP			2-1/2" SP		
		RPM	BHP	Sones	RPM	BHP	Sones	RPM	BHP	Sones	RPM	BHP	Sones	RPM	BHP	Sones	RPM	BHP	Sones	RPM	BHP	Sones	RPM	BHP	Sones
12000	1303	336	1.69	16.0	373	2.00	11.0	446	2.70	9.2	511	3.50	12.1	569	4.29	14.4	674	5.99	19.8	765	7.72	24.0	845	9.50	28.0
12500	1357	347	1.88	17.9	382	2.21	11.8	453	2.92	9.6	517	3.74	12.5	574	4.57	14.7	678	6.30	20.0	768	8.11	24.0	848	9.89	29.0
13000	1411	358	2.09	17.3	392	2.43	12.6	461	3.16	10.3	523	4.00	12.9	580	4.86	15.0	682	6.62	22.0	772	8.52	25.0	852	10.38	29.0
13500	1465	370	2.31	16.9	402	2.66	13.3	468	3.42	10.8	530	4.27	13.0	585	5.16	15.4	685	6.95	22.0	776	8.92	25.0	855	10.87	29.0
14000	1250	381	2.55	16.6	412	2.91	14.1	476	3.69	11.3	536	4.55	13.3	591	5.47	15.9	690	7.32	24.0	780	9.34	25.0	859	11.36	30.0
14500	1574	392	2.80	16.3	423	3.18	14.7	484	3.97	11.9	543	4.85	13.9	597	5.80	16.5	695	7.72	25.0	783	9.76	26.0	863	11.87	30.0
15000	1628	404	3.08	16.2	433	3.47	15.3	492	4.27	12.5	551	5.16	14.5	604	6.15	17.3	700	8.13	27.0	787	10.10	26.0	867	12.38	31.0
15500	1683	415	3.37	16.1	444	3.77	15.8	500	4.59	13.1	558	5.50	15.0	610	6.51	16.9	705	8.55	29.0	791	10.62	27.0	871	12.89	31.0
16000	1737	427	3.68	15.9	455	4.09	15.9	509	4.94	13.7	565	5.87	15.5	617	6.88	17.4	711	8.99	31.0	795	11.10	27.0	874	13.42	31.0
16500	1791	439	4.01	15.7	465	4.43	15.9	518	5.30	14.3	573	6.26	16.2	624	7.27	17.9	716	9.45	33.0	800	11.62	28.0	878	13.95	32.0
17000	1845	450	4.36	15.9	476	4.79	16.0	528	5.69	15.1	581	6.66	16.8	631	7.67	18.6	722	9.92	35.0	805	12.16	29.0	882	14.48	32.0
17500	1900	462	4.73	15.9	487	5.17	16.1	537	6.09	15.7	588	7.08	17.4	638	8.09	19.2	728	10.40	38.0	810	12.71	30.0	885	15.02	32.0
18000	1954	474	5.12	16.0	498	5.58	16.2	547	6.52	16.4	596	7.52	18.1	646	8.57	20.0	735	10.91	41.0	815	13.28	31.0	890	15.65	33.0
18500	2008	486	5.53	16.1	510	6.00	16.4	557	6.97	17.1	605	7.97	18.9	653	9.06	21.0	741	11.43	43.0	821	13.87	33.0	895	16.31	33.0
19000	2063	498	5.97	16.2	521	6.45	16.6	567	7.44	18.0	613	8.45	20.0	661	9.58	22.0	748	11.97	24.0	827	14.48	34.0	900	16.98	34.0
19500	2117	509	6.42	16.4	532	6.92	17.1	577	7.93	18.9	622	8.97	22.0	668	10.11	23.0	754	12.53	25.0	833	15.10	36.0	905	17.67	34.0
20000	2171	521	6.90	16.6	543	7.41	17.7	587	8.45	20.0	631	9.51	23.0	676	10.66	24.0	761	13.10	25.0	839	15.75	37.0	910	18.38	35.0
20500	2226	533	7.40	17.1	555	7.93	18.3	598	8.99	22.0	640	10.07	25.0	684	11.24	26.0	768	13.70	26.0	845	16.41	33.0	916	19.11	36.0
21000	2280	545	7.92	17.8	566	8.47	19.0	608	9.55	25.0	650	10.66	28.0	692	11.83	28.0	776	14.32	27.0	851	17.09	40.0	921	19.86	36.0
21500	2334	557	8.47	18.4	578	9.03	20.0	619	10.14	29.0	659	11.28	31.0	700	12.45	29.0	783	14.96	28.0	858	17.79	42.0	927	20.63	37.0
22000	2388	568	9.04	19.1	589	9.63	21.0	629	10.76	33.0	669	11.92	36.0	709	13.10	30.0	790	15.68	28.0	864	18.52	31.0	933	21.42	38.0
22500	2443	580	9.64	20.0	601	10.25	24.0	640	11.40	38.0	679	12.58	41.0	718	13.79	32.0	798	16.41	29.0	871	19.26	32.0	939	22.23	39.0
23000	2497	592	10.26	22.0	613	10.89	28.0	651	12.07	43.0	689	13.28	44.0	727	14.50	34.0	805	17.17	30.0	878	20.03	33.0	946	23.07	40.0
23500	2551	604	10.91	25.0	625	11.57	31.0	662	12.77	50.0	699	14.00	47.0	736	15.25	35.0	813	17.96	31.0	885	20.82	34.0	952	23.92	40.0
24000	2606	616	11.59	28.0	636	12.27	36.0	673	13.50	59.0	709	14.75	49.0	746	16.02	37.0	820	18.76	32.0	892	21.63	34.0	958	24.80	41.0

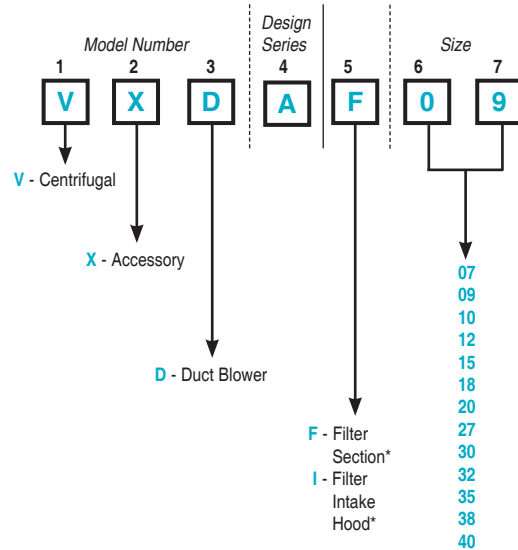
▼ Duct Blowers



▼ Safety Disconnect



▼ Rain Hood and Filter Section



***NOTE:** 2 Filter sections & intake hoods are included on models 27-40. (Please do not "double up" sections or hoods.)

▼ Isolators

