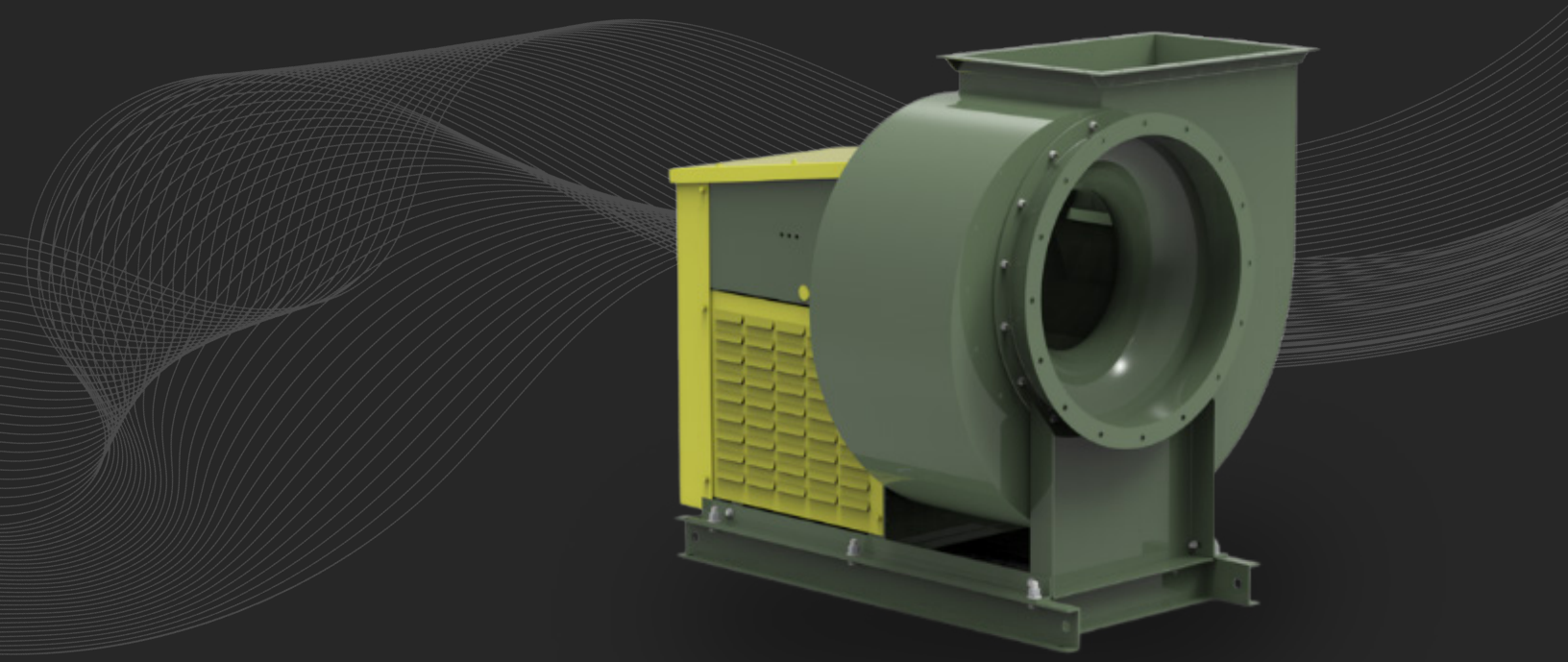
SPECS & DIMENSIONS

GP

GENERAL PURPOSE FANS

WITH AIRFOIL (ACF), BACKWARD CURVED (BC), AND SINGLE-THICKNESS (PLR) WHEEL DESIGNS



Capacities to 26,500 CFM (45,000 m^3/hr)
Static Pressures to 8”WG (1,990 Pa)
Temperatures to 650°F (343°C)

THE NEW YORK
BLOWER COMPANY

DIMS-12000
November, 2026

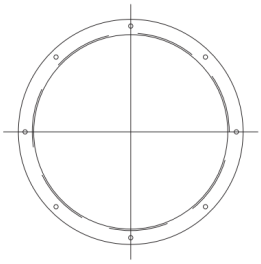
FLANGE DIMENSIONS

FLANGED INLET

Flange mounted via bolted connection on fan housing. Holes are furnished on vertical centerline.

INLET FLANGE ANGLES:

Size 12 - 1.00" x 1.00" x 0.13"
Size 15-22 - 1.50" x 1.50" x 0.19"
Size 24-36 - 2.00" x 2.00" x 0.19"

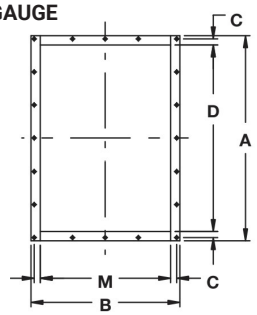


FLANGED OUTLET

Flange face mounted flush with outside edge of housing discharge. Holes are furnished on 4.00" centers from centerlines.

OUTLET FLANGE ANGLES OR MATERIAL GAUGE

Size 12-22 - 7 gauge plate
Size 24-36 - 2.00" x 2.00" x 0.19"



DIMENSIONS [Inches]					
Size	I.D.	B.C.	O.D.	Holes	
				No	Dia.
12	13.500	14.625	15.500	8	0.4375
15	16.375	17.875	19.375	8	0.4375
18	20.000	21.750	23.000	16	0.5625
20	21.750	23.500	24.750	16	0.5625
22	24.375	26.125	27.375	16	0.5625
24	26.875	29.125	30.875	16	0.5625
27	29.500	31.750	33.500	16	0.5625
30	32.875	35.125	36.875	16	0.5625
33	36.125	38.375	40.125	16	0.5625
36	40.125	42.375	44.125	16	0.5625

Dimensions are nominal and may include rounded values. Consult certified drawing packages to confirm exact dimensions.
*Consult **nyb** for custom sizes and construction.*
Tolerance: +/- 0.125"

DIMENSIONS [Inches]									
Size	A†*	B†*	C†	D†	M*	Holes Per Flange		Hole Dia.
						Sides	Top & Bottom	
12	15.750	11.375	0.625	13.688	9.438	3	3	0.3125
15	18.750	13.375	0.625	16.813	11.438	5	3	0.3125
18	23.000	16.375	0.750	20.563	13.938	5	3	0.4375
20	25.000	17.500	0.750	22.625	15.063	7	3	0.4375
22	27.375	19.375	0.750	24.875	16.938	7	3	0.4375
24	30.375	21.500	0.875	27.375	18.500	7	5	0.4375
27	33.250	23.375	0.875	30.250	20.375	9	5	0.4375
30	36.500	25.625	0.875	33.500	22.625	9	5	0.4375
33	39.875	27.875	0.875	36.875	24.875	9	5	0.4375
36	44.750	31.500	1.125	40.750	27.500	11	7	0.5625

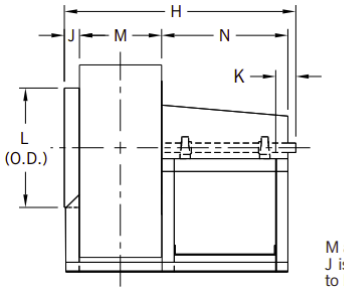
**Dimension shown is inside flange, outside housing. Deduct housing material thicknesses to determine inside dimension of discharge.*
†Dimensions may vary slightly depending on alloy construction, narrow-width construction, or downblast discharge.
*Consult **nyb** for custom sizes and construction.*

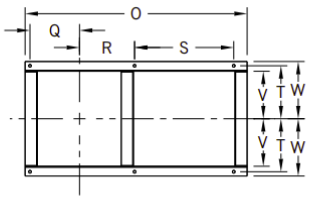
ACCESS GP DRAWINGS ON DEMAND

Drawings on Demand can generate fan drawing packages specifically tailored to the user's application requirements. Included are the abilities to select the fan's rotation, discharge position, accessories, motor frame size, and unitary base. Once selected, a complete drawing package will be available. Visit our website to access tailored drawing packages: **https://apps.nyb.com/drawingsondemand/**

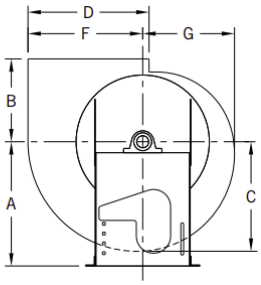
- *No software to download*
- *Upload selections from Fan-To-Size*
- *File types include DWG, PDF, & STP*
- *Choose from a wide selection of accessories*
- *Options to add customer information to drawings*

DIMENSIONS: ARR. 10





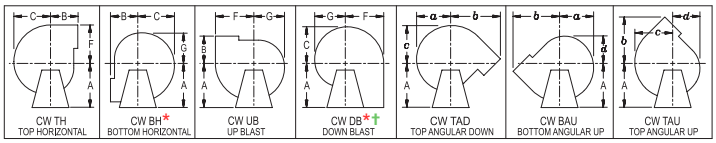
M and D are outside of the housing excluding the flange.
J is from housing side over inlet collar. Dimensions not to be used for construction unless certified.

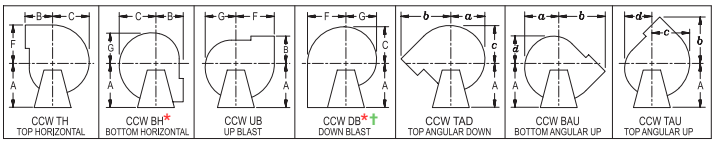


DIMENSIONS [inches]												
Size	**A**	**B**	**C**	**D**	**F**	**G**	**H**	**J**	**K**	**L**	**M**	**N**
12	15.500	10.000	12.375	13.625	12.938	10.375	32.000	2.125	2.500	13.500	9.375	19.938
15	17.500	12.000	15.063	16.750	15.813	12.625	37.500	3.125	3.000	16.500	11.375	21.938
18	21.250	14.000	18.375	20.438	19.313	15.375	40.500	3.125	3.500	20.000	13.875	21.938
20	25.500	15.500	20.313	22.500	21.313	17.000	45.625	3.125	4.000	22.375	15.000	26.000
22	25.500	17.000	22.438	24.813	23.563	18.750	47.563	3.125	4.000	24.500	16.875	26.000
24	28.000	19.000	24.688	27.313	25.938	20.625	50.688	4.125	4.500	27.000	18.500	26.000
27	32.500	20.500	27.188	30.188	28.563	22.750	54.000	4.125	5.000	30.000	20.375	26.875
30	32.500	22.500	30.250	33.438	31.750	25.313	56.750	4.125	5.500	33.000	22.625	26.875
33	39.500	24.500	33.313	36.813	34.938	27.875	62.500	4.125	6.000	36.500	24.875	29.875
36	39.500	29.000	36.875	40.750	38.688	30.875	66.063	5.000	6.000	40.000	27.500	29.938

DIMENSIONS [inches]												
Size	**O**	**Q**	**R**	**S**	**T**	**V**	**W**	**a**	**b**	**c**	**d**	**Base Holes**
12	31.500	6.125	6.563	16.313	7.375	6.500	8.000	11.625	16.250	12.875	9.250	0.5625
15	35.563	7.188	7.563	18.313	8.875	8.000	9.500	14.125	19.750	15.750	11.375	0.5625
18	38.563	8.688	9.313	17.313	9.375	8.250	10.250	17.250	23.625	19.125	13.875	0.5625
20	43.750	9.250	10.375	20.375	10.875	9.750	11.750	18.875	26.125	21.125	15.000	0.5625
22	45.625	10.188	11.313	20.375	10.875	9.750	11.750	21.000	28.750	23.250	16.750	0.5625
24	47.750	11.500	12.375	19.875	12.250	11.000	13.000	23.125	31.875	25.625	18.500	0.7500
27	50.500	12.438	13.313	20.750	13.625	11.750	14.750	25.375	34.750	28.250	20.375	0.7500
30	52.750	13.563	14.438	20.750	13.625	11.750	14.750	28.250	38.375	31.375	22.625	0.7500
33	58.000	14.688	15.563	23.750	16.000	14.000	17.000	31.125	42.125	34.625	25.250	0.7500
36	60.750	16.063	16.938	23.750	16.000	14.000	17.000	34.375	47.875	38.250	27.500	0.7500

Dimensions are nominal and may include rounded values. Consult certified drawing packages to confirm exact dimensions. *Tolerance: +/- 0.125"*





* *Sizes 22 - 36 may require removal of base angle and housing brace on outlet side to convert Bottom Horizontal (BH) or Down Blast (DB) discharge in the field. Size 30 - 36 with flanged outlet require a 1 ½" minimum shiim on Bottom Horizontal (BH) discharge.*

† *Down Blast (DB) fans with flanged outlets can only be equipped with a partial outlet flange so as to clear structures.*

MATERIAL SPECIFICATIONS

U.S. standard sheet gauge to 7 gauge. Dimensions in inches. Weights in pounds. WR^2 in lb.-ft^2.

Size	Housing		Pedestal		Platform		Drive Plate	Inlet Hanger	Base Angles
	Sides	Scroll	Sides	Scroll	Motor	Bearing			
12	14	16	12	12	7	10	12	10	1.50 x 1.50 x 0.19
15	14	16	12	12	7	10	12	10	1.50 x 1.50 x 0.19
18	14	14	12	12	7	7	10	10	2.00 x 2.00 x 0.19
20	14	14	10	10	7	7	10	10	2.00 x 2.00 x 0.19
22	14	14	10	10	7	7	10	10	2.00 x 2.00 x 0.19
24	12	14	10	10	0.25	7	10	10	2.00 x 2.00 x 0.19
27	12	14	10	7	0.25	7	10	10	3.00 x 2.00 x 0.19
30	12	14	10	7	0.25	7	10	10	3.00 x 2.00 x 0.19
33	12	14	10	7	0.25	7	10	10	3.00 x 2.00 x 0.19
36	12	12	10	7	0.25	7	7	10	3.00 x 2.00 x 0.19

Size	Wheels						Shaft		Bearings†	Bare Fan Weight
	ACF		BC		PLR		Diameter	Keyway		
	Wt.	WR^2	Wt.	WR^2	Wt.	WR^2				
12	8*	2	-	-	15	2	1 7/16	3/8 x 3/16	A	145
15	12*	3	-	-	21	5	1 7/16	3/8 x 3/16	A	195
18	31	11	36	12	32	11	1 11/16	3/8 x 3/16	A	300
20	38	15	49	20	41	17	1 11/16	3/8 x 3/16	A	350
22	45	23	68	31	50	26	1 15/16	1/2 x 1/4	A	425
24	70	39	88	49	67	37	1 15/16	1/2 x 1/4	A	535
27	89	64	103	72	89	63	1 15/16	1/2 x 1/4	B	645
30	100	90	125	111	106	96	1 15/16	1/2 x 1/4	B	720
33	118	123	146	151	125	134	2 3/16	1/2 x 1/4	B	940
36	175	232	204	267	179	235	2 3/16	1/2 x 1/4	B	1130

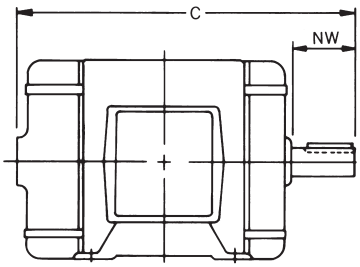
** Aluminum Wheels*

† nyb reserves the right to substitute bearings of equal or greater rating.

Bearings: A = Dodge DLAH Series Ball Bearings B = Dodge DLMAH Series Ball Bearings

Approximate shipping weight in pounds.

Motor Limitations			
Size	Maximum Motor Frame Size		Maximum C-NW
	Open	TE	
12	215T	184T	14.50
15	215T	215T	16.63
18	215T	215T	16.63
20	256T	254T	18.63
22	256T	254T	18.63
24	256T	254T	18.63
27	284T	256T	19.50
30	284T	256T	19.50
33	284T	284T	22.50
36	284T	284T	22.50



Motor frame sizes vary in length with different motor manufacturers. To determine whether a specific motor will fit, the frame size should be equal to or smaller than the maximum shown and the case length [NEMA C minus NEMA NW] must be equal to or less than the maximum allowable dimension shown.

FAN ENGINEERING & SELECTION

Fans are an integral part of the systems in which they are applied. As such, New York Blower sales representatives work closely with design engineers in assessing requirements and meeting critical performance and dimensional specifications. Because of the wide variety of choices available, it is recommended that selection be made using New York Blower's online fan selection software, Fan-To-Size, and that a New York Blower sales representative assist in optimizing the final selection.

CORRECTION FACTORS

Fan performance is based on actual cubic feet per minute (ACFM) at the fan inlet at standard density (0.075 lbs./ft.^{3}) and static pressure at the fan outlet. Static pressure capabilities are show in inches water gauge ("WG). Multiply the required static pressure at operating conditions by the appropriate factors in Charts II and III to obtain the corrected static pressure for standard conditions. Pressure and BHP will be reduced at conditions by the inverse of these factors. Multiply one factor by the other if temperature and altitude are non-standard. For example, if the installation is located at an altitude of 3000 ft. and the gas temperature is 200°F., the correction factor is 1.40 (1.12 x 1.25).

CHART I
Temperature & Material Derate Factors for Maximum Safe Speeds

AIRSTREAM TEMPERATURE [°F]	MATERIALS OF CONSTRUCTION				
	Steel†	Alm.	304 SST*	316 SST*	347 SST*
-50°	1.00	1.00	1.00	1.00	1.00
70°	1.00	1.00	1.00	1.00	1.00
200°	0.97	0.98	0.88	0.95	0.95
300°	0.95	-	0.82	0.92	0.93
400°	0.94	-	0.78	0.89	0.90
500°	0.93	-	0.75	086	0.90
600°	0.92	-	0.73	0.84	0.90
650°	0.89	-	0.71	0.82	0.90

† *Except Sizes 12 and 15 ACF wheels which are aluminum as standard.*

* *PLR wheels only.*

CHART IV
Wheel Maximum Safe Speeds [RPM]

FAN SIZE	WHEEL TYPE		
	ACF	BC	PLR
12	4900	-	4270
15	3800	-	3360
18	3005	2735	2735
20	2780	2510	2510
22	2570	2305	2305
24	3225	2090	2090
27	2010	1850	1850
30	1805	1665	1665
33	1650	1515	1515
36	1450	1360	1360

CHART II
Temperature Correction Factors

TEMPERATURE [°F]	FACTOR
-50°	0.77
-25°	0.82
0°	0.87
20°	0.91
40°	0.94
60°	0.98
70°	1.00
80°	1.02
100°	1.06
120°	1.09
140°	1.13
160°	1.17
180°	1.21
200°	1.25
225°	1.29
250°	1.34
275°	1.39
300°	1.43
325°	1.48
350°	1.53
375°	1.58
400°	1.62
450°	1.72
500°	1.81
550°	1.91
600°	2.00
650°	2.10

CHART III
Altitude Correction Factors

ALTITUDE ABOVE SEA LEVEL [ft.]	FACTOR
0	1.00
500	1.02
1000	1.04
2000	1.06
2500	1.10
3000	1.12
3500	1.14
4000	1.16
4500	1.18
5000	1.20
5500	1.22
6000	1.25
6500	1.27
7000	1.30
7500	1.32
8000	1.35
8500	1.37
9000	1.40
10000	1.45



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