CHICAGO

an ISO 9001 Company

PFD

PACKAGED FORCED DRAFT FANS & COMPONENTS

BULLETIN PFD-105

Forced Draft

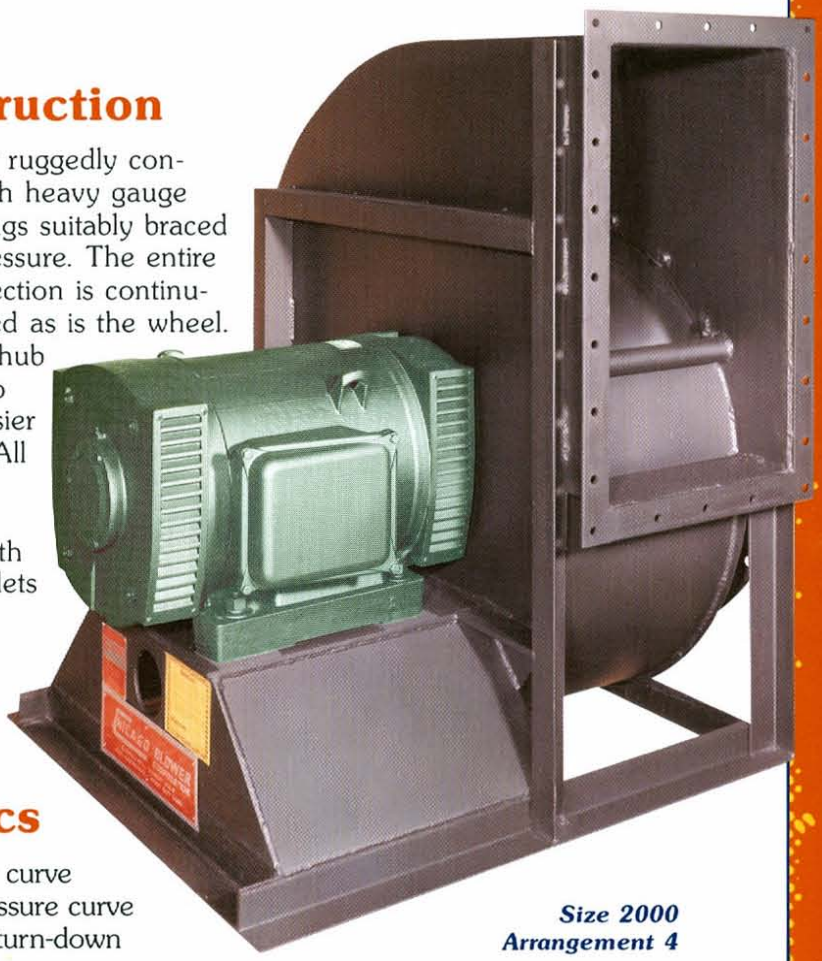
HIGH EFFICIENCY AIRFOIL FANS

Design Features

Initially developed 30 years ago for packaged boiler systems, Chicago's Packaged Forced Draft fan has earned a reputation as the industry standard. The PFD is a compact, direct connected, airfoil bladed fan offering exceptional reliability. To afford the highest efficiencies throughout the performance range, there are three wheel diameters available for each fan size. Fan and wheel width can also be varied to obtain maximum performance. For systems design versatility, seven standard discharge positions can be specified in each rotation.

Construction

The PFD is ruggedly constructed with heavy gauge steel housings suitably braced for high pressure. The entire airstream section is continuously welded as is the wheel. The wheel hub is bushed to facilitate easier mounting. All fans are furnished standard with flanged outlets ready for installation.



Size 2000
Arrangement 4

Performance Characteristics

Nine fan sizes from 2000 to 4412 • Volumes from 3,000 to 65,000 CFM • Pressures from 4″ to 50″ Static • Efficiencies to 82% • Non-overloading horsepower curve
- Steep pressure curve
- Excellent turn-down capabilities

Applications

Chicago's Packaged Forced Draft fans are specified by the world's major manufacturers of boiler and burner systems. On the typical downdraft boiler installation the fan is mounted directly on top of the burner windbox.

Chicago's PFD fans are also used extensively in combustion air, supply air and primary air applications. In addition, they are utilized for liquid agitation and product cooling and drying.

For many applications, Original Equipment Manufacturers integrate Chicago PFD components into their equipment. Fan components for every size are all available individually.

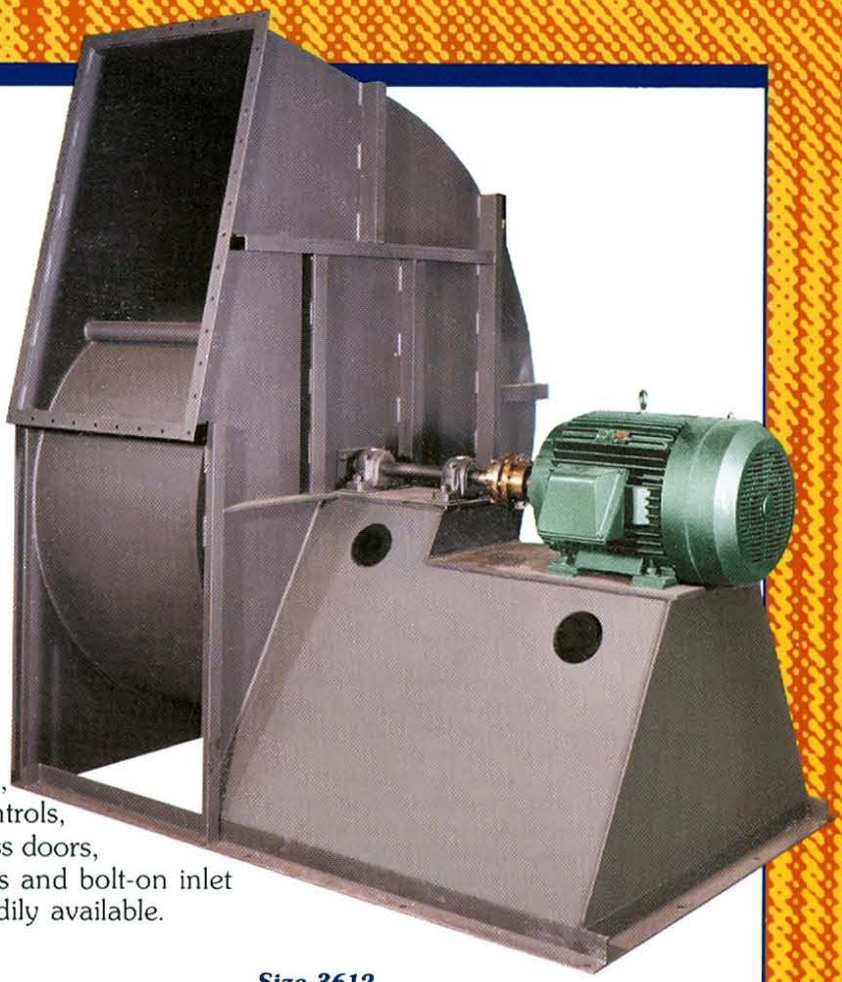
For application and selection assistance contact your professional Chicago Blower representative. He has the expertise to recommend the correct fan for your individual application. Sales offices are located in major cities throughout North America and licensees throughout the world.

Complete Packaged Fans Ready To Run

Chicago Blower applied the packaged fan concept to forced draft fans and developed the pre-engineered ready-to-run Packaged Forced Draft fan. The PFD ships as a complete assembly requiring only bolting in place and motor wiring. Installation time and labor is minimal whether in the shop or in the field. No additional bracing or stiffening is required.

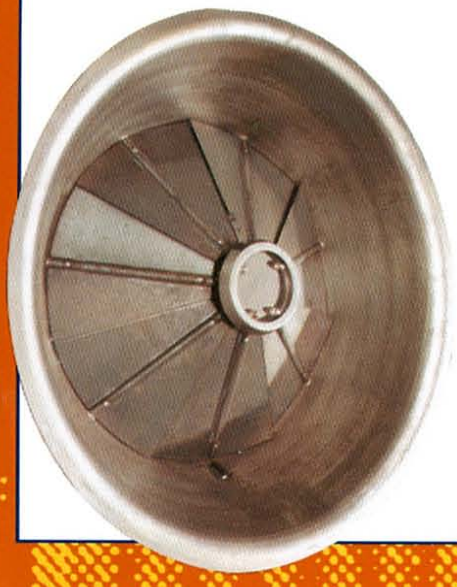
Every fan is run tested and statically and dynamically balanced for smooth trouble-free operation. As a pre-engineered fan, Chicago's PFD is available months ahead of custom built fans.

A wide choice of options can be added to suit individual installation requirements. Flanged inlets, inlet vane controls, screens, access doors, housing drains and bolt-on inlet boxes are readily available.



Size 3612
Arrangement 8

Components for Customer Installation



Many OEM systems are supplied with individual PFD components built in to the equipment. Wheels, inlet volume controls, inlet cones and housings are standard component parts available for customer installation. Only when you design genuine PFD components into your packaged units can you be assured of Chicago quality, performance and reliability.

CHICAGO PFD FANS & COMPONENTS

Selection Guide

The Chicago PFD is available in nine sizes. Each size has 3 wheel designs, providing the widest possible range of pressure/volume combinations. The performance curves are designed to provide the most efficient performance envelope of each size for each wheel design and speed.

NOTE:

Curves depict performance at 70° and sea level (.075 lbs/cu. ft. = density). See the example below for conditions other than .075.

SELECTION EXAMPLE:

Requirement 30,000 CFM 12.5″ SP, 140°F, 1500 ft. elevation.

1. **From table, the correction factor for 140°F. and 1500 ft. elevation is 1.20.**
2. **The equivalent SP at 70°F. and sea level is 12.5″ x 1.20 = 15″.**
3. **Checking the curves, we select a size 3612 with a design 1904 wheel.**
4. **Reading the horsepower on the corresponding curve, we find 99 BHP at 70°. Horsepower at conditions is derived as follows: 99 BHP ÷ 1.2 = 83 BHP.**

Summary: Selection is a size 3612 design 1904 to deliver 30000 CFM, 140°F., 1500′ elevation, 12.5″ SP, requiring 83 BHP.

AIR TEMP. °F	ALTITUDE (FEET)										
	0′	500′	1000′	1500′	2000′	2500′	3000′	3500′	4000′	4500′	5000′
0	.87	.88	.90	.92	.93	.95	.97	.99	1.00	1.02	1.04
40	.94	.96	.98	1.00	1.01	1.03	1.05	1.07	1.09	1.11	1.13
70	1.00	1.02	1.04	1.06	1.08	1.10	1.12	1.14	1.16	1.18	1.20
80	1.02	1.04	1.06	1.08	1.10	1.12	1.14	1.16	1.18	1.20	1.22
100	1.06	1.08	1.10	1.12	1.14	1.16	1.18	1.20	1.22	1.25	1.27
120	1.09	1.11	1.13	1.16	1.18	1.20	1.22	1.24	1.27	1.29	1.31
140	1.13	1.15	1.17	1.20	1.22	1.24	1.26	1.29	1.31	1.34	1.36
160	1.17	1.19	1.21	1.24	1.26	1.28	1.31	1.33	1.35	1.38	1.41
180	1.21	1.23	1.25	1.28	1.30	1.32	1.35	1.37	1.40	1.42	1.45
200	1.25	1.27	1.29	1.32	1.34	1.36	1.39	1.42	1.44	1.47	1.50
250	1.34	1.36	1.39	1.41	1.44	1.47	1.49	1.52	1.55	1.58	1.61
300	1.43	1.46	1.49	1.51	1.54	1.57	1.60	1.63	1.66	1.69	1.72

Although Arrangement 4 applications are limited to 150° F operation, Arrangement 8 and component parts may be applied at temperatures up to 300° F. Care must be taken to insure that the maximum wheel speed is not exceeded at temperature. The maximum RPMs on the table below should be multiplied by the speed deration factor to determine maximum safe speed at conditions.

MAXIMUM RPM @ 70°F		
2000		3600
2214		3600
2412		3600
2700	H	3600
	L	2090
3000		1880
3300		1880
3612		1800
4014		1840
4412		1840

SAFE SPEED DERATION FOR TEMPERATURE	
Temperature °F.	Standard Steel Wheel
70	1.00
100	1.00
200	.94
300	.90

Sound Level Guide

Refer to Chicago Blower's fan.net for performance, fan curves and sound data.

NOTES:

For software and asistance, contact your local Chicago Blower sales engineer.

CHICAGO — an ISO 9001 Company

CHICAGO BLOWER CORPORATION — 1675 Glen Ellyn Road Glendale Heights, IL 60139

Description — July 10, 2001

Job Description: BULLETIN PFD-105
Reference: Sample
Fan Type: Package Forced Draft, Airfoil, Direct Drive
Fan Model: Design 1902 PFD
Fan Size: 2700
Fan Width: 100%

Chicago Blower Corporation
Customer Service
Phone: (630) 858-2600
Fax: (630) 858-7172
e-mail: cbc@fan.net

Performance — Values are in accordance with AMCA Standard 210

	Design	Net #1
Volume Flow Rate (CFM)	7000	6050
Static Pressure (IN. WG)	7.44	5.6
Density (LB/FT³)	0.075	0.075
Temperature (°F)	70	70
Altitude (FT)	0	0
Speed (RPM)	1780	1780
Power Required (BHP)	11.5	8.36
Static Efficiency (%)	71.4	63.7
Outlet Velocity (FT/MIN)	1807	1562
Damper Opening (%)	100	54
Control Type	Inlet Volume Control	
Outlet Area (FT²)	3.87	

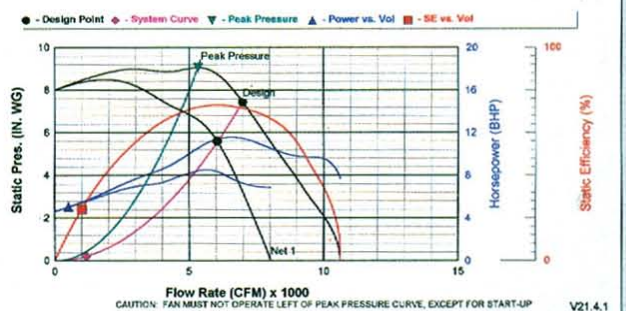
Sound — Values are in accordance with AMCA Standard 300

External Sound Power Levels (dB) (Sound based on IVC 100% Open)

Center Hz	63	125	250	500	1000	2000	4000	8000
L_W Design	87	92	93	95	88	82	80	77
ERC	9	4	1					

Sound Pressure 5.0 FT from Fan (dBA) 84

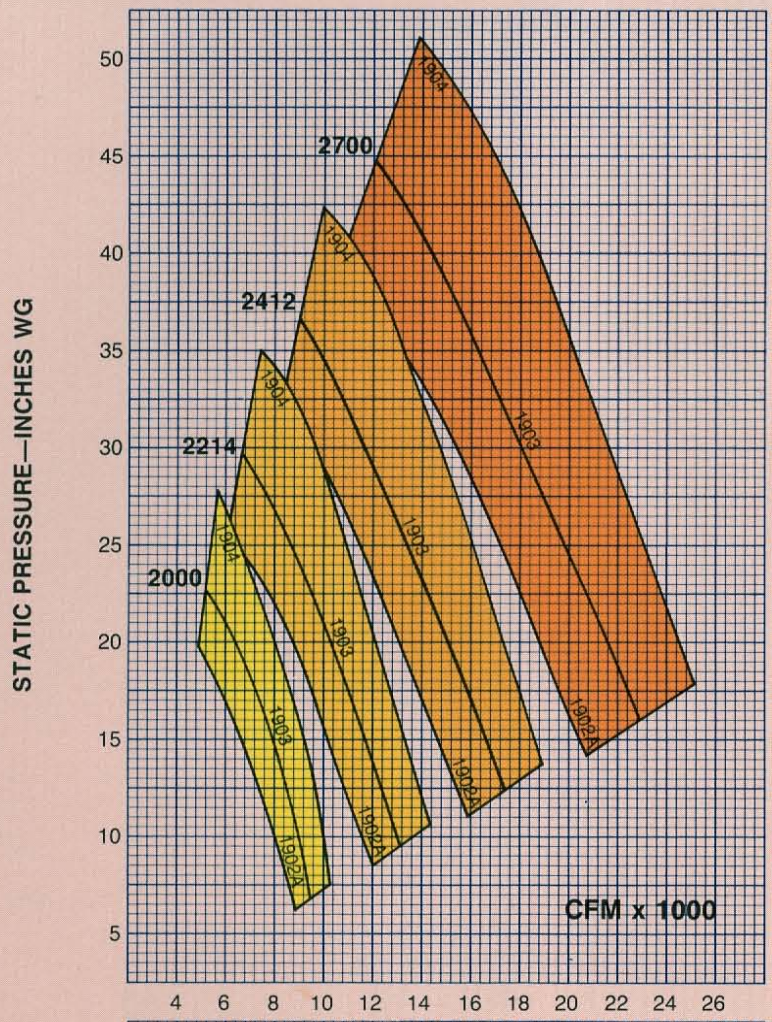
L_W (L_{WA}) is sound power at the fan inlet (outlet/airstream, less ERC.
Sound Pressure, Radiated, 5.0 Ft. from 0.179 housing 61 dBA.

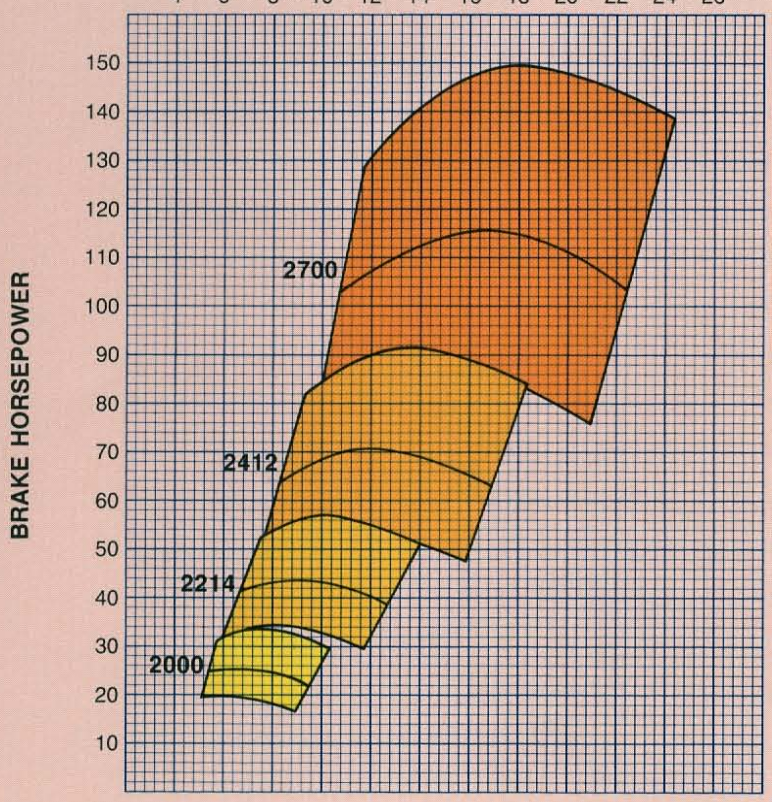


Performance

SIZES
2000 - 2700
3600 RPM

Size 2412
Clockwise Rotation
Up Blast Discharge
Optional Inlet Screen
and Housing Drain





Fan Size	Max. Frame Sizes	Outlet Area
2000	324TS 364US	2.12 sq. ft.
2214	365TS 444US	2.63 sq. ft.
2412	444TS 445US	3.19 sq. ft.
2700	445TS 500US	3.88 sq. ft.

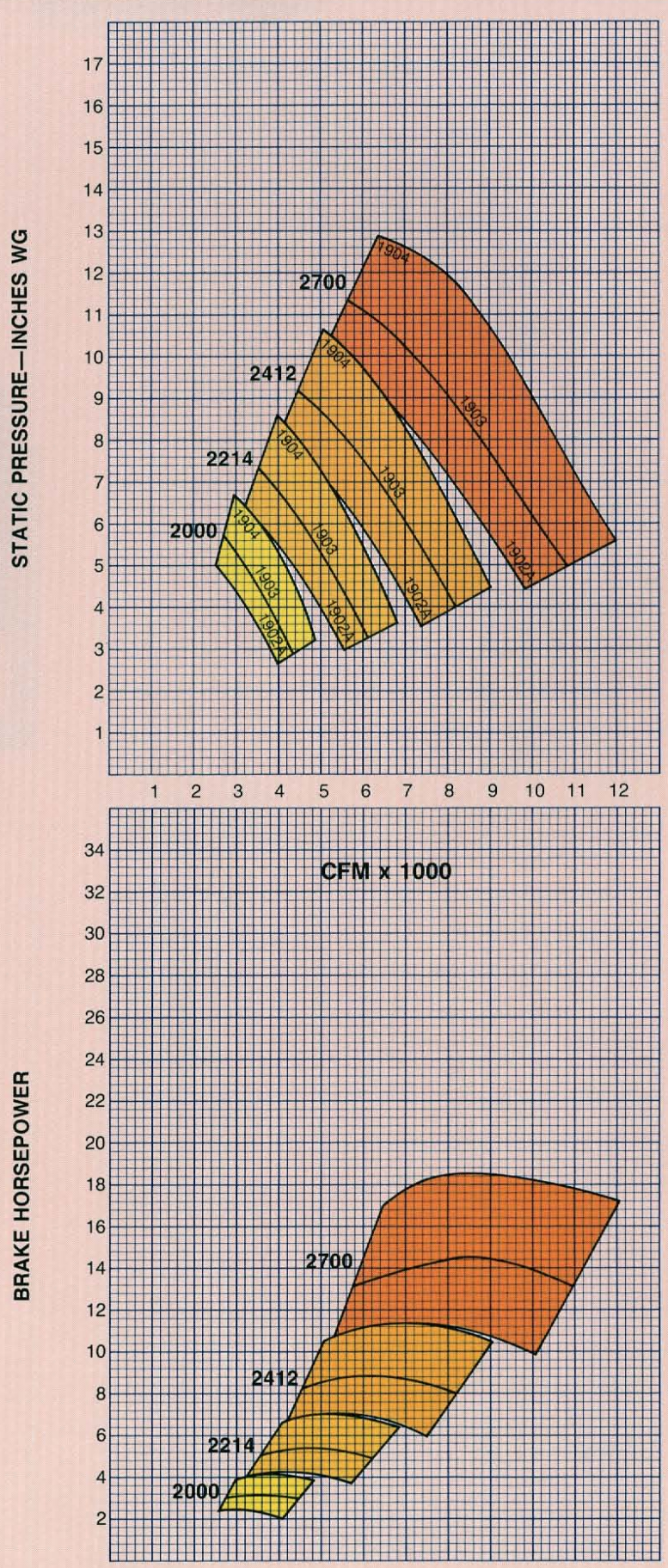
CHICAGO PFD FANS & COMPONENTS

Performance

SIZES
2000 - 2700
1800 RPM

Size 2700
Counterclockwise Rotation
Top Horizontal Discharge
Optional Access Door
and Flanged Outlet

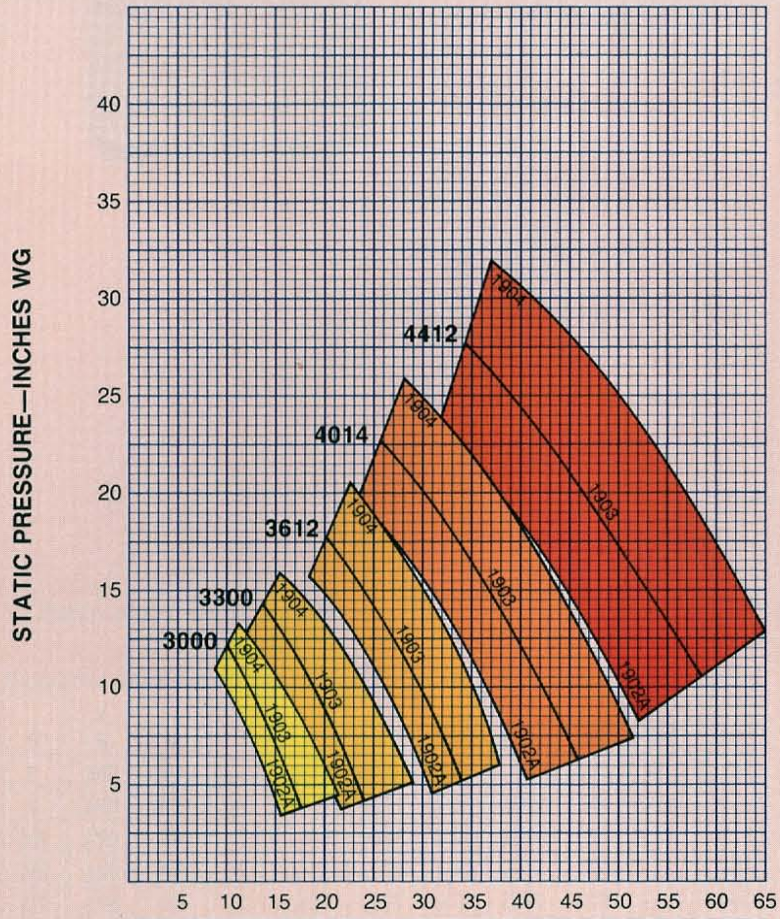
Fan Size	Max. Frame Sizes	Outlet Area
2000	184T 215U	2.12 sq. ft.
2214	215T 256U	2.63 sq. ft.
2412	254T 284U	3.19 sq. ft.
2700	284T 324U	3.88 sq. ft.

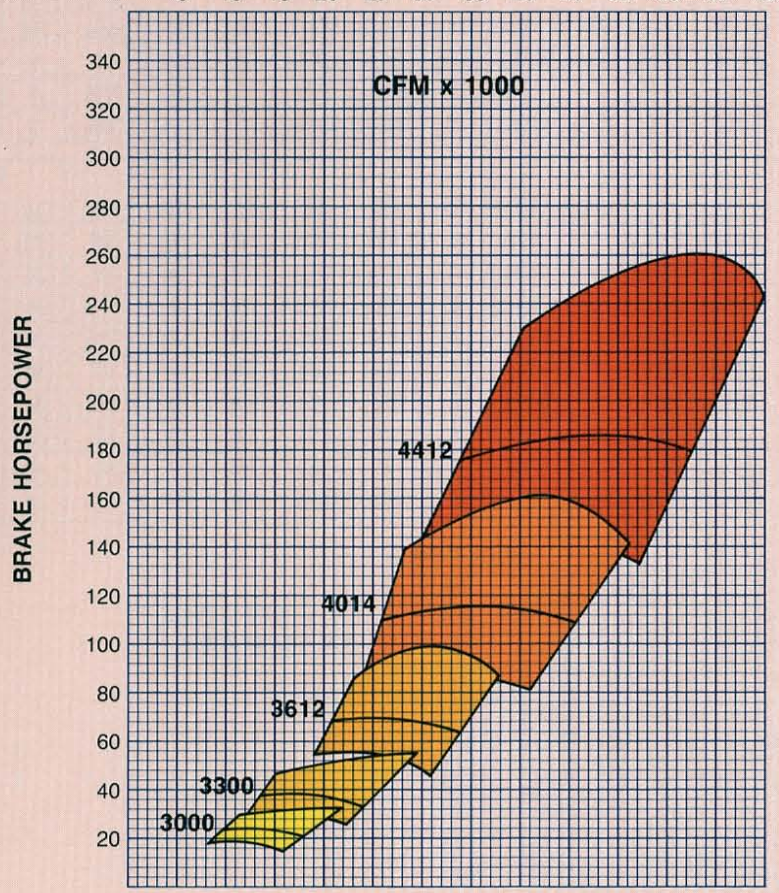


Performance

SIZES
3000 - 4412
1800 RPM

Size 3300
Clockwise Rotation
Down Blast Discharge

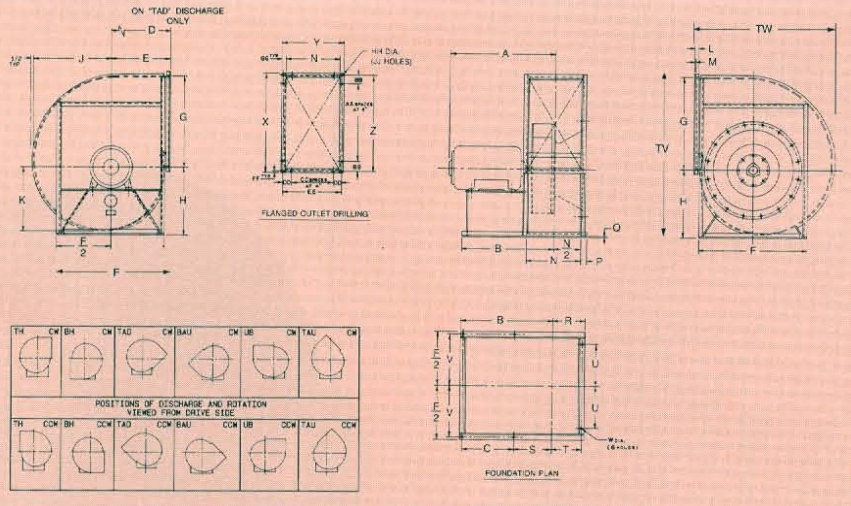




Fan Size	Max. Frame Sizes	Outlet Area
3000	324T 364US	4.78 sq. ft.
3300	364T 405US	5.79 sq. ft.
3612	405T 445US	7.09 sq. ft.
4014	447T M505	8.60 sq. ft.
4412	449T 505UZ	10.52 sq. ft.

CHICAGO PFD FANS & COMPONENTS

COMPLETE ARRANGEMENT 4 FANS Dimensions



*Value is for 100% width

FAN SIZE	A MAX	B MAX	C MAX	D	E	F	G	H						J	K	L	M	* N	P
								TH	BH	TAD	BAU	UB	TAU						
2000	31½	27 5/16	15 7/16	26½	18¼	31	22¾	16¾	26¼	21 7/8	21 5/8	20	18¼	19 15/16	16 19/32	1½	1/4	13¾	2
2214	35 7/8	29	16 1/8	28	19¼	34	25 5/16	18½	28¾	22 7/8	24	22 1/8	20 3/8	22 1/8	18 13/16	1½	1/4	15 3/8	2
2412	42 3/8	36 7/16	21 13/16	32	21 1/8	37¾	27 7/8	20¼	31 7/8	26	26 3/8	24 3/8	22¼	24 9/32	20 3/16	2	1/4	16 7/8	2½
2700	45 1/8	37¼	21 7/8	33½	22 5/8	40¾	30 11/16	22¼	34¾	27	29	26¾	24½	26 11/16	22 7/32	2	1/4	18½	2½
3000	34 7/8	31 3/16	14 13/16	36½	24 3/8	44½	34 1/8	24¾	38 1/8	29¼	32 1/8	29¾	27¼	29 1/8	24 1/8	2	1/4	20½	2½
3300	38½	33 3/16	15 9/16	39	26 1/8	47¾	37 9/16	27 1/8	41½	31	35 3/8	32 5/8	29 7/8	32 1/16	26 9/16	2	1/4	22¾	2½
3612	43 3/8	37 3/8	17 5/8	41	27¾	51	41½	29 7/8	45½	32 3/8	38 15/16	35 15/16	32 7/8	35 3/8	29 5/16	2	1/4	25	3
4014	56½	45 7/8	24 5/8	44	30¾	55	45 13/16	32 7/8	49¾	34½	43	39¾	36¼	39 1/16	32 3/8	2	1/4	27¾	3
4412	60 5/16	52 5/16	29 5/8	52¾	33 1/8	60½	50 5/8	37 5/16	55 3/8	41¾	48 7/16	44 11/16	41	43 7/32	35 13/16	2	1/4	30 5/8	3

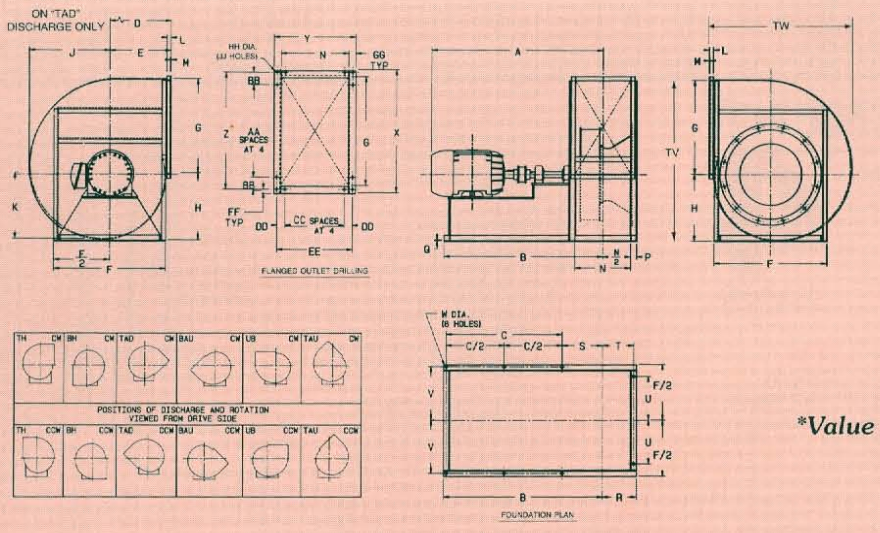
FAN SIZE	Q	R	S	T	U	V	W	X	Y	Z	AA	BB	CC	DD	EE	FF	GG	HH	JJ
2000	1/4	8 7/8	11	8	11½	14 5/8	1/2	25¾	16¾	24½	4	4¼	2	3¾	15½	1/2	1½	3/8	20
2214	1/4	9 11/16	12	8 13/16	13	16 1/8	1/2	28 5/16	18 3/8	27 1/16	5	3 17/32	3	2 9/16	17 1/8	5/8	1½	3/8	24
2412	1/4	10 15/16	13½	9 13/16	14	17¾	5/8	31 7/8	20 7/8	30 1/8	6	3 1/16	3	3 9/16	19 1/8	7/8	2	7/16	26
2700	1/4	11¾	14¼	10 5/8	15½	19¼	5/8	34 11/16	22½	32 15/16	6	4 15/32	3	4 3/8	20¾	7/8	2	7/16	26
3000	1/4	12¾	15¼	11 5/8	17¼	21 1/8	5/8	38 1/8	24½	36 3/8	7	4 3/16	4	3 3/8	22¾	7/8	2	1/2	30
3300	1/4	13 7/8	16½	12¾	18 7/8	22¾	5/8	41 9/16	26¾	39 13/16	8	3 29/32	5	2½	25	7/8	2	1/2	34
3612	1/4	15½	18½	14¼	20½	24¼	3/4	45½	29	43¾	9	3 7/8	5	3 5/8	27¼	7/8	2	1/2	36
4014	1/4	16 7/8	20	15 5/8	21½	26¼	3/4	49 13/16	31¾	48 1/16	10	4 1/32	6	3	30	7/8	2	1/2	40
4412	3/8	18 5/16	21 7/16	17 1/16	24¼	29	3/4	54 5/8	34 5/8	52 7/8	11	4 7/16	6	4 7/16	32 7/8	7/8	2	1/2	42

FAN SIZE	TW						TV						BARE FAN WT.
	TH	BH	TAD	BAU	UB	TAU	TH	BH	TAD	BAU	UB	TAU	A/4
2000	38 11/16	38 11/16	53 15/16	48 1/8	41 3/8	36 5/16	41	43 5/8	43 3/8	36 7/16	38 1/4	48 1/4	464
2214	41 7/8	41 7/8	58 7/8	52 11/16	45 1/16	40 5/8	45 5/16	48 1/16	46 3/4	40 1/2	41 3/8	52 7/8	601
2412	45 15/16	45 15/16	65 15/16	58 1/4	50 8/16	44 7/16	50 1/8	52 9/16	52 5/16	44 1/2	45 1/2	58 5/16	928
2700	49 13/16	49 13/16	71 3/8	63 3/8	55	49	54 15/16	57 1/2	56	49	49 3/8	63 5/8	1225
3000	54	54	78 1/2	69 5/16	60 3/4	54 1/4	60 7/8	62 3/4	61 3/8	54 1/4	54 1/8	70 1/16	917
3300	58 11/16	58 11/16	85 3/8	76 1/4	66 5/8	59 5/8	66 11/16	68 9/16	66 5/16	59 11/16	58 3/4	76 5/16	1249
3612	63 5/8	63 5/8	92 3/4	83 3/8	73 5/16	65 13/16	73 3/8	75 5/16	71 3/8	65 3/4	63 11/16	83 5/16	1829
4014	70 5/16	70 5/16	101 3/16	94 1/4	80 11/16	72 7/16	80 1/16	82 5/8	77 7/16	72 1/2	70 1/2	91 1/4	2703
4412	76 7/8	76 7/8	114 9/16	100 11/16	88 15/16	79 15/16	89 5/16	91 5/8	89 1/8	81	77 13/16	101 11/16	3559

TV = Total Vertical
TW = Total Width

COMPLETE ARRANGEMENT 8 FANS

Dimensions



*Value is for 100% width

FAN SIZE	A MAX	B MAX	C MAX	D	E	F	G	H TH	H BH	H TAD	H BAU	H UB	H TAU	J	K	L	M	* N	P
2000	56 5/8	53 7/8	42	26 1/2	18 1/4	31	22 3/4	16 3/4	26 1/4	21 7/8	21 5/8	20	18 1/4	20 7/16	16 19/32	1 1/2	1/4	13 3/4	2
2214	62 3/8	57 7/8	45	28	19 1/4	34	25 5/16	18 1/2	28 3/4	22 7/8	24	22 1/8	20 3/8	22 5/8	18 13/32	1 1/2	1/4	15 3/8	2
2412	75 3/16	66 9/16	51 15/16	32	21 1/8	37 3/4	27 7/8	20 1/4	31 7/8	26	26 3/8	24 3/8	22 1/4	24 25/32	20 3/16	2	1/4	16 7/8	2 1/2
2700	83 13/16	73 13/16	58 7/16	33 1/2	22 5/8	40 3/4	30 11/16	22 1/4	34 3/4	27	29	26 3/4	24 1/2	27 3/16	22 7/32	2	1/4	18 1/2	2 1/2
3000	60	57 1/4	40 7/8	36 1/2	24 3/8	44 1/2	34 1/8	24 3/4	38 1/8	29 1/4	32 1/8	29 3/4	27 1/4	29 5/8	24 5/8	2	1/4	20 1/2	2 1/2
3300	65	60 1/2	42 7/8	39	26 1/8	47 3/4	37 9/16	27 1/8	41 1/2	31	35 3/8	32 5/8	29 7/8	32 9/16	27 1/32	2	1/4	22 3/4	2 1/2
3612	76 5/8	67 5/8	47 7/8	41	27 3/4	51	41 1/2	29 7/8	45 1/2	32 3/8	38 15/16	35 15/16	32 7/8	35 7/8	29 13/16	2	1/4	25	3
4014	90 1/16	80 9/16	59 5/16	44	30 3/4	55	45 13/16	32 7/8	49 3/4	34 1/2	43	39 3/4	36 1/4	39 9/16	32 7/8	2	1/4	27 3/4	3

FAN SIZE	Q	R	S	T	U	V	W	X	Y	Z	AA	BB	CC	DD	EE	FF	GG	HH	JJ
2000	1/4	8 7/8	11	8	11 1/2	14 5/8	1/2	25 3/4	16 3/4	24 1/2	4	4 1/4	2	3 3/4	15 1/2	5/8	1 1/2	3/8	20
2214	1/4	9 11/16	12	8 13/16	13	16 1/8	1/2	28 5/16	18 3/8	27 1/16	5	3 17/32	3	2 9/16	17 1/8	5/8	1 1/2	3/8	24
2412	1/4	10 15/16	13 1/2	9 13/16	14	17 3/4	5/8	31 7/8	20 7/8	30 1/8	6	3 1/16	3	3 9/16	19 1/8	7/8	2	7/16	26
2700	1/4	11 3/4	14 1/4	10 5/8	15 1/2	19 1/4	5/8	34 11/16	22 1/2	32 15/16	6	4 15/32	3	4 3/8	20 3/4	7/8	2	7/16	26
3000	1/4	12 3/4	15 1/4	11 5/8	17 1/4	21 1/8	5/8	38 1/8	24 1/2	36 3/8	7	4 3/16	4	3 3/8	22 3/4	7/8	2	1/2	30
3300	1/4	13 7/8	16 1/2	12 3/4	18 7/8	22 3/4	5/8	41 9/16	26 3/4	39 13/16	8	3 29/32	5	2 1/2	25	7/8	2	1/2	34
3612	1/4	15 1/2	18 1/2	14 1/4	20 1/2	24 1/4	3/4	45 1/2	29	43 3/4	9	3 7/8	5	3 5/8	27 1/4	7/8	2	1/2	36
4014	1/4	16 7/8	20	15 5/8	21 1/2	26 1/4	3/4	49 13/16	31 3/4	48 1/16	10	4 1/32	6	3	30	7/8	2	1/2	40

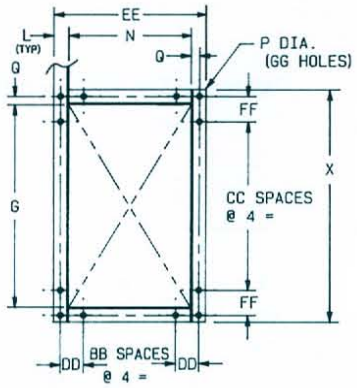
FAN SIZE	TW TH	TW BH	TW TAD	TW BAU	TW UB	TW TAU	TV TH	TV BH	TV TAD	TV BAU	TV UB	TV TAU	BARE FAN WT. A/8
2000	38 11/16	38 11/16	53 15/16	48 1/8	41 3/8	36 5/16	41	43 3/8	43 3/8	36 7/16	38 1/4	48 1/4	694
2214	41 7/8	41 7/8	58 7/8	52 11/16	45 1/16	40 5/8	45 5/16	48 1/16	46 3/4	40 1/2	41 3/8	52 7/8	934
2412	45 15/16	45 15/16	65 15/16	58 1/4	50 9/16	44 7/16	50 1/8	52 9/16	52 5/16	44 1/2	45 1/2	58 5/16	1416
2700	49 13/16	49 13/16	71 3/8	63 5/8	55	49	54 15/16	57 1/2	56	49	49 3/8	63 5/8	1944
3000	54	54	78 1/2	69 15/16	60 3/4	54 1/4	60 7/8	62 3/4	61 5/8	54 1/4	54 1/8	70 1/16	1228
3300	58 11/16	58 11/16	85 3/8	76 1/4	66 5/8	59 5/8	66 11/16	68 9/16	66 5/16	59 11/16	58 3/4	76 5/16	1601
3612	63 5/8	63 5/8	92 3/4	83 3/8	73 5/16	65 13/16	73 3/8	75 5/16	71 5/8	65 3/4	63 11/16	83 5/16	2316
4014	70 5/16	70 5/16	101 5/16	94 1/4	80 11/16	72 7/16	80 11/16	82 5/8	77 7/16	72 1/2	70 1/2	91 1/4	3462

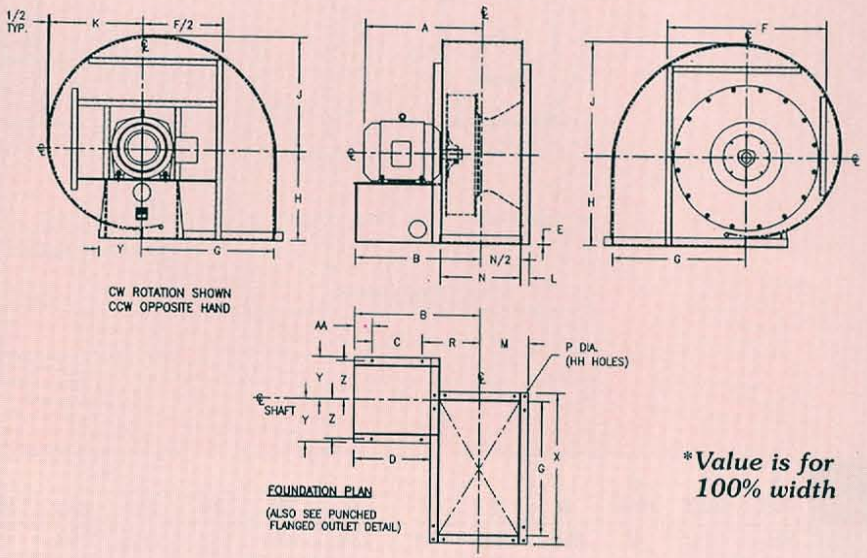
TV = Total Vertical
TW = Total Width

FAN SIZE	A MAX	B MAX	C MAX	D MAX	E	F	G	H	J	K	L	M	N *	P	Q	R MAX	X	Y MAX	Z MAX	AA MAX
2000	31 1/2	25 9/16	10 7/16	16 11/16	1/4	31	22 3/4	18 1/4	19 7/16	16 3/32	2	8 7/8	13 3/4	1/2	1 1/8	11	26 3/4	9 7/8	9	4 1/8
2214	35 7/8	27 1/4	10 5/16	17 9/16	1/4	34	25 5/16	19 1/4	21 5/8	17 29/32	2	9 11/16	15 3/8	1/2	1 1/8	12 5/16	29 5/16	10 3/8	9 1/2	4 5/8
2412	42 3/8	34 5/16	15 3/4	23 3/8	1/4	37 3/4	27 7/8	21 1/8	23 25/32	19 11/16	2 1/2	10 15/16	16 7/8	5/8	1 3/8	13 1/2	32 7/8	13 1/8	12	5 1/16
2700	45 1/8	35 1/8	15 7/8	23 3/8	1/4	40 3/4	30 11/16	22 5/8	26 3/16	21 23/32	2 1/2	11 3/4	18 1/2	5/8	1 3/8	14 1/4	35 11/16	13 1/8	12	5
3000	34 7/8	28 15/16	10 3/16	16 3/16	1/4	44 1/2	34 1/8	24 3/8	29 1/8	24 1/8	2 1/2	12 3/4	20 1/2	5/8	1 3/8	14 1/2	39 1/8	10 1/4	9 1/8	4 1/4
3300	38 1/2	30 15/16	9 5/16	17 1/16	1/4	47 3/4	37 9/16	26 1/8	32 1/16	26 9/16	2 1/2	13 7/8	22 3/4	5/8	1 3/8	16 1/2	42 9/16	10 7/8	9 3/4	5 1/8
3612	43 3/8	34 3/4	10 1/4	19 1/4	1/4	51	41 1/2	27 3/4	35 3/8	29 5/16	3	15 1/2	25	3/4	1 3/4	18 1/2	47 1/2	12 7/16	11 3/16	6
4014	56 1/2	43 3/8	17 1/4	26 1/2	1/4	55	45 13/16	30 3/4	39 1/16	32 3/8	3	16 7/8	27 3/4	3/4	1 3/4	20	51 13/16	14 1/2	13 1/4	6 1/8
4412	60 5/16	49 13/16	22 1/4	31 1/2	3/8	60 1/2	50 5/8	33 1/8	43 7/16	35 13/16	3	18 5/16	30 5/8	3/4	1 3/4	21 7/16	56 5/8	14 1/2	13 1/4	6 1/8

ARRANGEMENT 4 FANS

DOWN BLAST ONLY





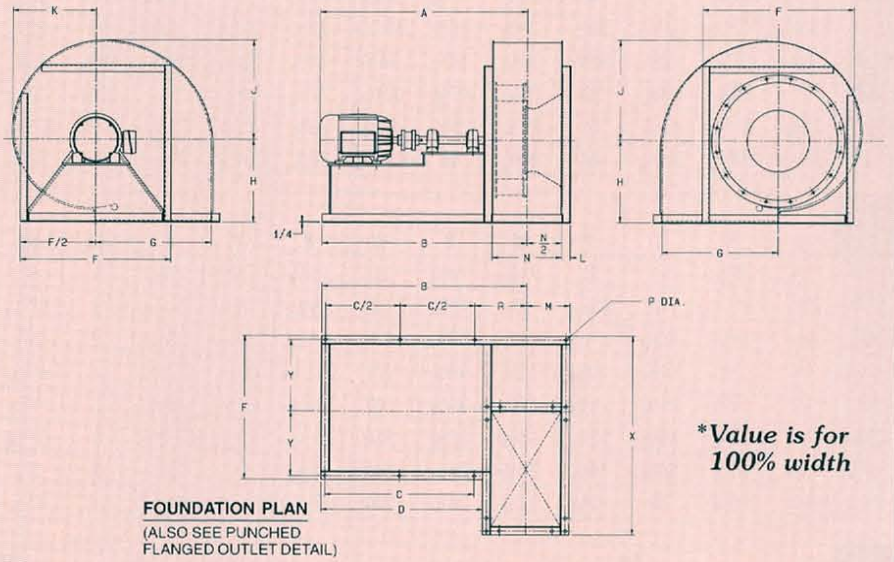
*Value is for 100% width

PUNCHED FLANGED OUTLET

FAN SIZE	BB	CC	DD	EE	FF	GG	HH
2000	2	4	4	17 3/4	4 1/2	20	24
2214	2	5	4 13/16	19 3/8	3 25/32	22	26
2412	3	6	3 13/16	21 7/8	3 5/16	26	30
2700	3	6	4 5/8	23 1/2	4 23/32	26	30
3000	4	7	3 5/8	25 1/2	4 7/16	30	34
3300	4	8	4 3/4	27 3/4	4 5/32	32	36
3612	5	9	4 1/4	31	4 1/2	36	40
4014	6	10	3 5/8	33 3/4	4 21/32	40	44
4412	7	12	3 1/16	36 5/8	3 1/16	46	50

ARRANGEMENT 8 FANS

DOWN BLAST ONLY



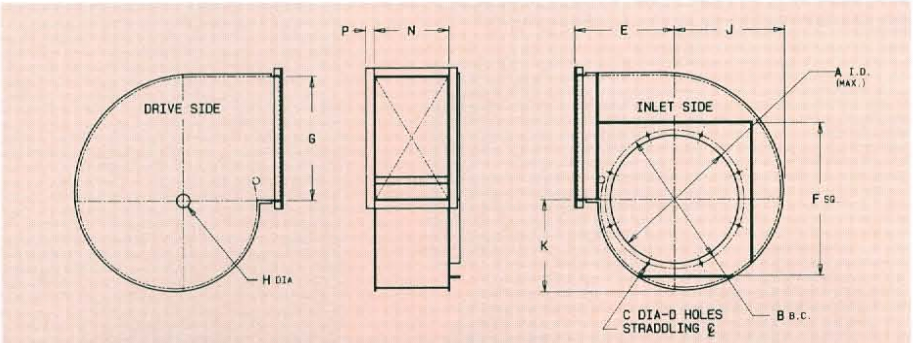
*Value is for 100% width

FAN SIZE	A MAX	B MAX	C MAX	D MAX	F	G	H	J	K	L	M	N *	P	Q	R	X	Y
2000	56 5/8	53 7/8	42	45	31	22 3/4	18 1/4	19 15/16	16 19/32	2	8 7/8	13 3/4	1/2	1 1/8	11	56 5/8	14 5/8
2214	62 3/8	57 7/8	44 11/16	48 3/16	34	25 5/16	19 1/4	22 1/8	18 13/32	2	9 11/16	15 3/8	1/2	1 1/8	12 5/16	62 3/8	16 1/8
2412	75 3/16	66 9/16	51 15/16	55 5/8	37 3/4	27 7/8	21 1/8	24 9/32	20 3/16	2 1/2	10 15/16	16 7/8	5/8	1 3/8	13 1/2	75 3/16	17 3/4
2700	83 13/16	73 13/16	58 7/16	62 1/16	40 3/4	30 11/16	22 5/8	26 11/16	22 7/32	2 1/2	11 3/4	18 1/2	5/8	1 3/8	14 1/4	83 13/16	19 1/4
3000	60	57 1/4	41 5/8	44 1/2	44 1/2	34 1/8	24 3/8	29 5/8	24 5/8	2 1/2	12 3/4	20 1/2	5/8	1 3/8	14 1/2	60	21 1/8
3300	65	60 1/2	42 7/8	46 5/8	47 3/4	37 9/16	26 1/8	32 9/16	27 1/32	2 1/2	13 7/8	22 3/4	5/8	1 3/8	16 1/2	65	22 3/4
3612	76 5/8	67 5/8	47 7/8	52 1/8	51	41 1/2	27 3/4	35 7/8	29 13/16	3	15 1/2	25	3/4	1 3/4	18 1/2	76 5/8	24 1/4
4014	90 1/16	80 9/16	59 5/16	63 11/16	55	45 13/16	30 3/4	39 9/16	32 7/8	3	16 7/8	27 3/4	3/4	1 3/4	20	90 1/16	26 1/4

CHICAGO PFD FANS & COMPONENTS

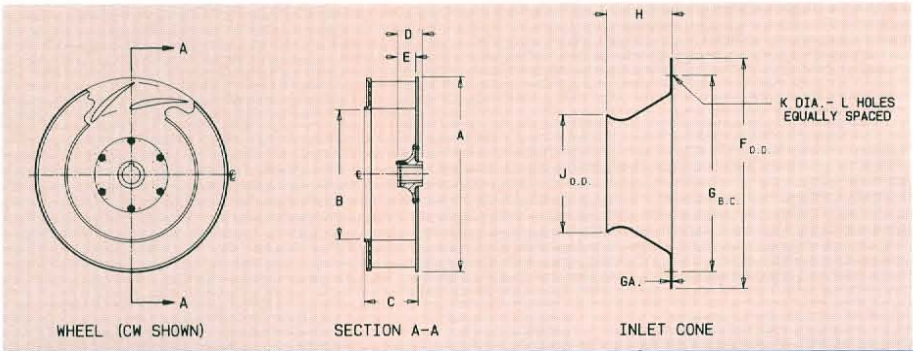
Components

HOUSING



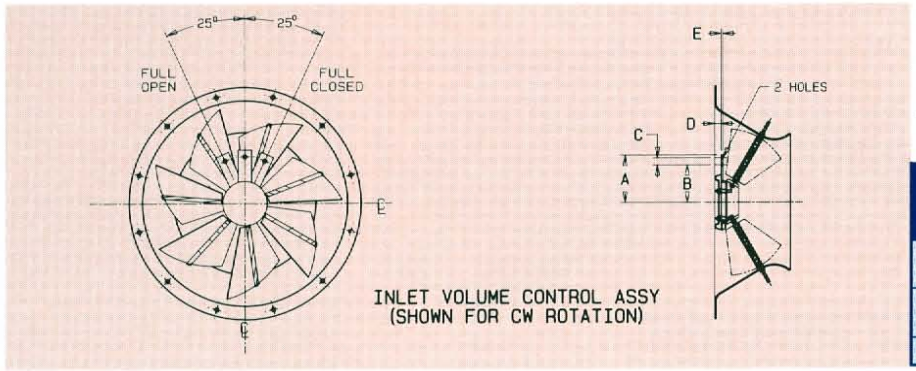
FAN SIZE	A MAX	B	C	D	E	F	G	H	J	K	N	P
	HOUSING DIMENSIONS - INCHES											
2000	24-1/2	25-1/2	3/8	8	18-1/4	28	22-3/4	2-1/4	19-15/16	16-19/32	13-3/4	1-1/2
2214	26-1/2	27-1/2	3/8	16	19-1/4	30	25-5/16	2-1/4	22-1/8	18-13/32	15-3/8	1-1/2
2412	29-1/2	31	1/2	16	21-1/8	33-3/4	27-7/8	2-3/4	24-9/32	20-3/16	16-7/8	2
2700	32-1/2	34	1/2	16	22-5/8	36-3/4	30-11/16	2-3/4	26-11/16	22-7/32	18-1/2	2
3000	35-1/2	37	1/2	16	24-3/8	40-1/4	34-1/8	3	29-5/8	24-5/8	20-1/2	2
3300	39	40-1/2	1/2	16	26-1/8	43-3/4	37-9/16	2-3/4	32-9/16	27-1/32	22-3/4	2
3612	42-1/4	43-3/4	1/2	16	27-3/4	47	41-1/2	3-1/4	35-7/8	29-13/16	25	2
4014	46-1/2	48	1/2	16	30-3/4	51	45-13/16	3-3/4	39-9/16	32-7/8	27-3/4	2
4412	51-3/4	53-1/4	1/2	24	33-1/8	56-1/2	50-5/8	4-1/4	43-23/32	36-5/16	30-5/8	2

WHEEL And INLET CONE



FAN SIZE	A MAX	B	C	D	E	F	G	H	J	K	L	GA.
	WHEEL DIMENSIONS - INCHES					CONE DIMENSIONS - INCHES						
2000	22-3/4	13-15/16	5-21/32	3-1/2	3	27	25-1/2	7-41/64	13-13/16	5/8	8	12
2214	25-1/8	15-1/16	6-5/16	3-1/2	3	29	27-1/2	8-15/64	14-29/32	5/8	16	12
2412	27-7/8	16-13/16	7-1/32	3-1/2	2-1/2	32-3/4	31	9-11/64	16-21/32	13/16	16	12
2700	31	18-11/16	7-3/4	3-1/2	2-1/2	35-3/4	34	10-1/32	18-1/4	15/16	16	12
3000	34	20-1/2	8-15/32	3-1/2	2-1/2	39-1/4	37	11-3/32	20-3/16	15/16	16	10
3300	37-3/4	22-27/32	9-13/32	3-1/2	2-1/4	42-3/4	40-1/2	12-7/16	22-19/32	15/16	16	10
3612	41-1/2	25-5/32	10-3/8	3-1/2	2-1/4	46	43-3/4	13-23/32	24-27/32	15/16	16	10
4014	45-3/4	28-3/32	11-13/32	3-1/2	2-1/4	50	48	15-5/16	27-25/32	15/16	16	10
4412	50-1/8	30-11/16	12-23/32	5-1/2	4-3/8	55-1/2	53-1/4	16-47/64	30-13/32	15/16	24	10

INLET VOLUME CONTROL



FAN SIZE	A	B	C	D	E	F
	IVC DIMENSIONS - INCHES					
2000 2412	6-9/16	5-1/16	1	0	1/4	5/8
2700 4014	9-7/32	6-23/32	2	1-3/16	3/8	1
4412	REFER TO FACTORY					

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