

MATERIAL SPECIFICATIONS FOR STANDARD STEEL FANS

U.S. STANDARD STEEL GAUGE TO 7 GAUGE – DIMENSIONS [INCHES]

Size	Bare fan wt. [lbs.]	Housing					Wheel										Bearing base			Bearings		Type
		Side		Scroll	Inlet collar	LS/RIM				DH						Side sheets	Base flange	Top plates	Size			
		Sheets	Plates			Blades	Rims	Wts. [lbs.]	WR ²	Front plate	Back plate	Blade	Wts. [lbs.]	WR ²	LS/ RIM				DH			
			Drive	Inlet	LS/ RIM											DH						
224	560	7	10	10	7	7	7	-	42	13	10	7	10	63	21	1/4	1/4	3/8	23/16	23/16	D	
264	795	7	10	10	7	7	1/4	-	74	31	10	7	10	79	37	1/4	1/4	3/8	27/16	27/16	D	
294	1050	1/4	10	10	1/4	7	1/4	-	93	49	7	7	10	104	70	1/4	1/4	3/8	21 1/16	21 1/16	D	
334	1445	1/4	-	10	1/4	7	1/4	-	129	85	7	1/4	10	158	120	3/8	3/8	1/2	21 5/16	21 1/16	D	
364	1745	1/4	-	7	1/4	7	1/4	-	150	113	7	1/4	10	186	180	3/8	3/8	1/2	21 5/16	21 5/16	G	
404	2115	1/4	-	7	1/4	7	1/4	1/4	288	391	1/4	1/4	7	263	330	3/8	3/8	1/2	37/16	21 5/16	G	
454	2860	1/4	-	7	1/4	7	3/8	1/4	474	898	1/4	1/4	7	352	520	3/8	3/8	1/2	31 5/16	37 1/16	G	
504	3490	1/4	-	7	1/4	7	3/8	1/4	570	1223	1/4	1/4	7	424	812	3/8	1/2	1/2	31 5/16	31 5/16	G	
574	4575	1/4	-	7	1/4	7	3/8	1/4	752	2586	1/4	3/8	7	657	1635	3/8	5/8	1/2	47/16	31 5/16	G	
644	5750	1/4	-	1/4	1/4	1/4	3/8	1/4	1056	3451	1/4	3/8	1/4	866	2765	3/8	5/8	1/2	41 5/16	47 1/16	G	
714	6795	1/4	-	1/4	1/4	1/4	3/8	1/4	1237	4967	1/4	3/8	1/4	1127	4152	3/8	5/8	1/2	57 1/16	41 5/16	G	
784	7975	1/4	-	1/4	1/4	1/4	3/8	1/4	1565	7648	1/4	3/8	1/4	1319	6032	3/8	5/8	1/2	57 1/16	41 5/16	G	
854	9320	1/4	-	1/4	1/4	1/4	3/8	1/4	1798	9763	1/4	3/8	1/4	1533	8504	3/8	5/8	1/2	6	57 1/16	G	

D – Link-Belt P-300.

G – Link-Belt P-LB6800.

nyb reserves the right to substitute bearings of equal rating.

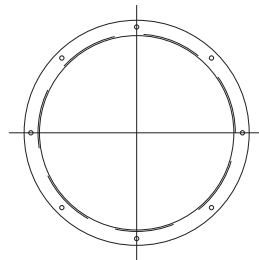
1. All sheet and plate steel is AISI 1017.
2. Wheel hubs are cast steel or fabricated steel.
3. Alternate materials or coatings may require changes in specifications.
4. Shafting is ASTM A-108, grade 1045 turned, ground, polished and straightened.

FLANGED INLET OPTION

Furnished with holes starting on vertical centerline.

Inlet bar sizes:

- Sizes 224-364..... 1/4 x 1 1/2
- Sizes 404-854..... 1/4 x 2

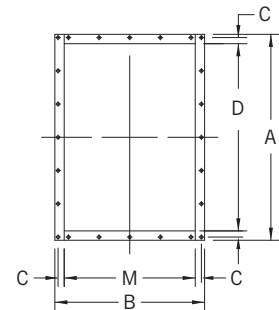


FLANGED OUTLET OPTION

Holes furnished on 4" centers on centerline.

Outlet flange sizes:

- Sizes 224-364... 1 1/2 x 1 1/2 x 3/16
- Sizes 404-854... 2 x 2 x 3/16



DIMENSIONS [INCHES]

Size	I.D.*	B.C.	O.D.	Holes	
				No.	Dia.
224	12 5/8	14 1/2	16	8	7/16
264	14 5/8	16 1/2	18	8	7/16
294	16 5/8	18 1/2	20	8	7/16
334	18 5/8	20 1/2	22	16	7/16
364	20 5/8	22 1/2	24	16	7/16
404	22 5/8	25	27	16	9/16
454	25 5/8	28	30	16	9/16
504	28 5/8	31	33	16	9/16
574	32 5/8	35	37	16	9/16
644	36 1/2	39	41	24	9/16
714	40 1/2	43	45	24	9/16
784	44 1/2	47	49	24	9/16
854	48 1/2	51	53	24	9/16

*Dimension shown is I.D. of inlet collar.

DIMENSIONS [INCHES]

Size	A	B	C	D*	M*	Holes	
						No.	Dia.
224	16	13 3/4	7/8	13	10 3/4	12	7/16
264	18	15 3/8	7/8	15	12 3/8	16	7/16
294	19 7/8	17	7/8	16 7/8	14	16	7/16
334	21 3/4	18 5/8	7/8	18 3/4	15 5/8	16	7/16
364	23 3/4	20 1/4	7/8	20 3/4	17 1/4	20	7/16
404	26 7/8	23	1 1/8	22 7/8	19	24	9/16
454	29 3/4	25 3/8	1 1/8	25 3/4	21 3/8	24	9/16
504	32 3/4	27 7/8	1 1/8	28 3/4	23 7/8	24	9/16
574	36 5/8	31 1/8	1 1/8	32 5/8	27 1/8	32	9/16
644	40 5/8	34 1/2	1 1/8	36 5/8	30 1/2	32	9/16
714	44 3/8	37 5/8	1 1/8	40 3/8	33 5/8	36	9/16
784	48 3/8	40 7/8	1 1/8	44 3/8	36 7/8	40	9/16
854	52 1/4	44 1/8	1 1/8	48 1/4	40 1/8	44	9/16

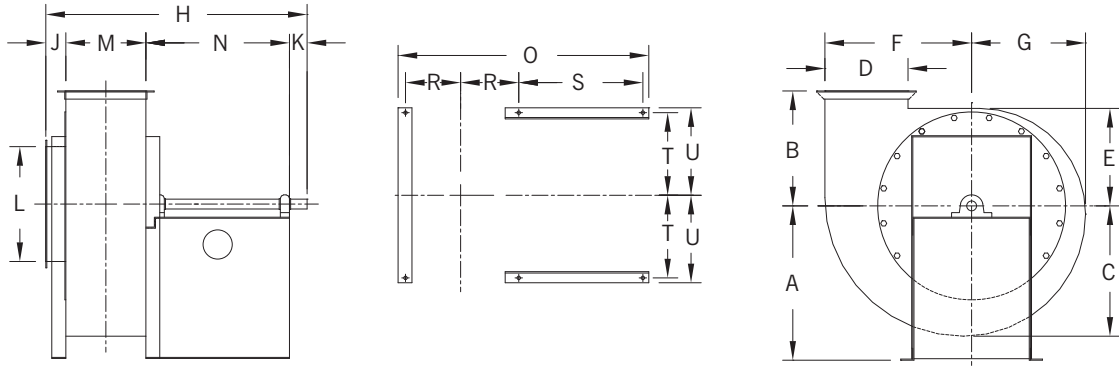
*Dimension shown is inside flange, outside outlet. Deduct housing material thickness to determine inside dimension of discharge.

DIMENSIONS

M and D are outside housing dimensions.
L dimension is inlet I.D.
J is from housing side over flange.
Arrangement 8 requires special base dimensions.
Dimensions not to be used for construction unless certified.
Tolerance: $\pm 1/8$

ARRANGEMENT 1

SIZES 224-294



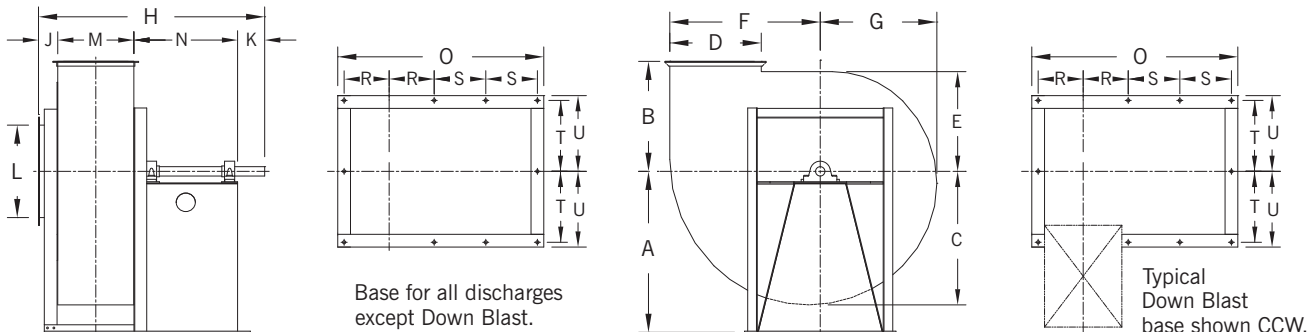
DIMENSIONS [INCHES]

Size	Wheel dia.	A	B	C	D	E	F	G	H	J	K	L	M
224	22 ⁵ / ₈	25 ¹ / ₂	16 ¹ / ₂	18 ⁷ / ₈	13	14	21 ¹ / ₄	16 ³ / ₈	44 ⁵ / ₈	3 ³ / ₈	5	12 ⁵ / ₈	10 ³ / ₄
264	26 ¹ / ₈	28	18 ¹ / ₂	21 ³ / ₄	15	16 ¹ / ₈	24 ¹ / ₂	18 ⁷ / ₈	46 ³ / ₄	4 ³ / ₈	5 ¹ / ₂	14 ⁵ / ₈	12 ³ / ₈
294	29 ⁵ / ₈	32 ¹ / ₂	21	24 ⁵ / ₈	16 ⁷ / ₈	18 ¹ / ₄	27 ³ / ₄	21 ³ / ₈	48 ⁷ / ₈	4 ³ / ₈	6	16 ⁵ / ₈	14

Size	N	O	R	S	T	U	a	b	c	d	Shaft dia.	Keyway	Base holes
224	22 ¹ / ₂	36 ³ / ₈	7	19 ³ / ₈	10 ⁷ / ₈	11 ³ / ₄	17 ⁵ / ₈	26 ⁵ / ₈	20	15 ¹ / ₄	2 ³ / ₁₆	1/2 x 1/4	9/16
264	24 ¹ / ₂	41	8 ³ / ₈	20 ³ / ₈	12 ¹ / ₄	13 ¹ / ₈	20 ¹ / ₄	30 ³ / ₈	23	17 ¹ / ₂	2 ⁷ / ₁₆	5/8 x 5/16	3/4
294	24 ¹ / ₂	42 ⁵ / ₈	9 ¹ / ₈	20 ³ / ₈	13 ⁵ / ₈	14 ¹ / ₂	23	34 ³ / ₈	26 ¹ / ₈	19 ⁷ / ₈	2 ¹¹ / ₁₆	5/8 x 5/16	3/4

ARRANGEMENT 1

SIZES 334-454

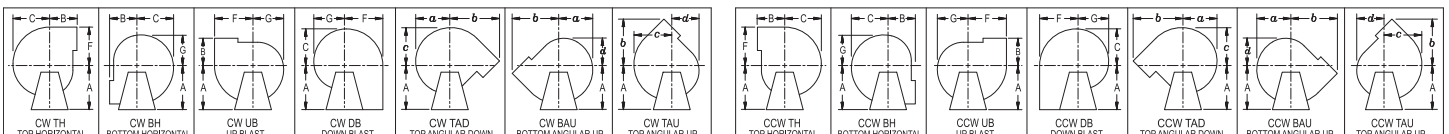


DIMENSIONS [INCHES]

Size	Wheel dia.	A	B	C	D	E	F	G	H	J	K	L	M	N	O	R
334	33	32 ³ / ₄	23	27 ³ / ₈	18 ³ / ₄	20 ³ / ₈	30 ⁷ / ₈	23 ⁷ / ₈	52 ¹ / ₂	4 ³ / ₈	6 ¹ / ₂	18 ⁵ / ₈	15 ⁵ / ₈	26	49 ³ / ₄	9 ⁷ / ₈
364	36 ¹ / ₂	36 ¹ / ₄	25 ¹ / ₂	30 ¹ / ₄	20 ³ / ₄	22 ¹ / ₂	34 ¹ / ₈	26 ³ / ₈	56 ¹ / ₄	5 ¹ / ₂	7	20 ⁵ / ₈	17 ¹ / ₄	26 ¹ / ₂	54	11 ¹ / ₄
404	40	40	28	33 ¹ / ₄	22 ⁷ / ₈	24 ³ / ₄	37 ³ / ₈	29	60 ¹ / ₂	5 ¹ / ₂	7 ¹ / ₂	22 ⁵ / ₈	19	28 ¹ / ₂	57 ³ / ₄	12 ¹ / ₈
454	45 ¹ / ₈	45	31 ¹ / ₂	37 ¹ / ₂	25 ³ / ₄	27 ⁷ / ₈	42 ¹ / ₄	32 ⁵ / ₈	65 ³ / ₈	5 ¹ / ₂	8	25 ⁵ / ₈	21 ³ / ₈	30 ¹ / ₂	62 ¹ / ₈	13 ³ / ₈

Size	S	T	U	a	b	c	d	Shaft diameter		Keyway		Base holes
								LS/RIM	DH	LS/RIM	DH	
334	13	15 ⁷ / ₈	17 ⁵ / ₈	25 ³ / ₄	38 ¹ / ₈	29 ¹ / ₄	22 ³ / ₈	2 ¹⁵ / ₁₆	2 ¹¹ / ₁₆	5/8 x 5/16	5/8 x 5/16	3/4
364	13 ¹ / ₄	17 ¹ / ₂	19 ³ / ₄	28 ¹ / ₂	42 ¹ / ₈	32 ¹ / ₄	24 ⁵ / ₈	2 ¹⁵ / ₁₆	2 ¹⁵ / ₁₆	5/8 x 5/16	5/8 x 5/16	7/8
404	14 ¹ / ₄	19 ³ / ₈	21 ⁵ / ₈	31 ¹ / ₈	46 ¹ / ₄	35 ³ / ₈	27	3 ⁷ / ₁₆	2 ¹⁹ / ₁₆	7/8 x 7/16	5/8 x 5/16	7/8
454	15 ¹ / ₈	21 ¹ / ₄	23 ¹ / ₂	35 ³ / ₈	52 ¹ / ₄	40	30 ⁵ / ₈	3 ¹⁵ / ₁₆	3 ⁷ / ₁₆	7/8 x 7/16	3/4 x 3/8	7/8

FAN DISCHARGES – VIEWED FROM DRIVE SIDE



Clockwise—angular discharges at 45°

Counterclockwise—angular discharges at 45°

ARRANGEMENT 1

SIZES 504-644

DIMENSIONS

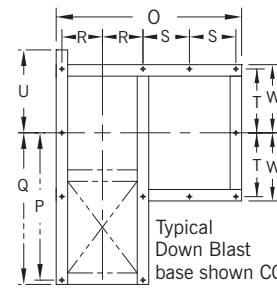
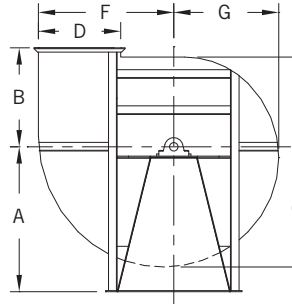
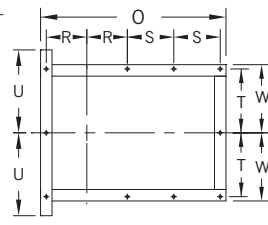
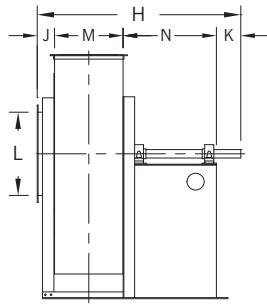
M and D are outside housing dimensions.
L dimension is inlet I.D.

J is from housing side over flange.

Arrangement 8 requires special base dimensions.

Dimensions not to be used for construction unless certified.

Tolerance: $\pm 1/8$



Base for all discharges except Down Blast.

Typical Down Blast base shown CCW.

DIMENSIONS [INCHES]

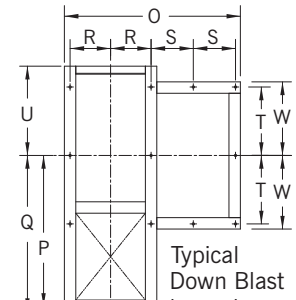
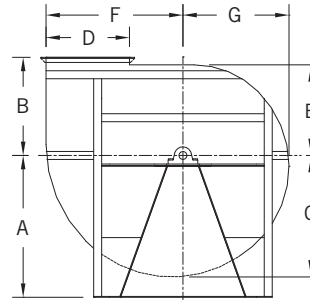
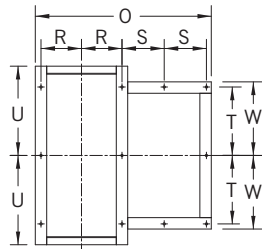
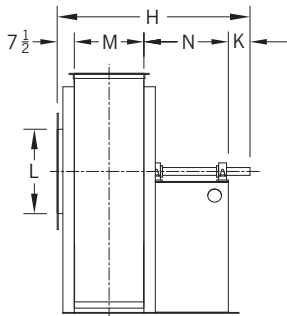
Size	Wheel dia.	A	B*	C	D	E	F	G	H	J	K	L	M	N	O	P
504	50 1/2	50 1/2	34 1/2	42	28 3/4	31 1/4	47 1/4	36 5/8	71 1/8	6 1/4	8 1/2	28 5/8	23 7/8	32 1/2	64 3/8	49 1/4
574	57 1/2	57 1/2	39	47 5/8	32 5/8	35 5/8	53 5/8	41 5/8	77 5/8	7 1/4	9	32 5/8	27 1/8	34 1/4	71 3/8	56 1/8
644	64 3/8	64	43	53 3/8	36 5/8	39 7/8	60 1/8	46 5/8	84 1/2	7 1/2	9 1/2	36 1/2	30 1/2	37	77 1/2	62 5/8

Size	Q	R	S	T	U	W	a	b	c	d	Shaft diameter		Keyway		Base holes
											RIM	DH	RIM	DH	
504	51 1/4	14	16 1/4	22 1/4	31 3/8	24 1/4	39 3/8	57 3/4	44 5/8	34 1/8	3 15/16	3 15/16	1 x 1/2	1 x 1/2	1
574	58 5/8	16 1/8	17 1/8	25	35 3/4	27 1/2	44 3/4	65 5/8	50 3/4	38 3/4	4 7/16	3 15/16	1 x 1/2	1 x 1/2	1
644	65 1/8	17 3/4	18 1/2	30	39 1/8	32 1/2	50 1/4	72 7/8	57	43 1/2	4 15/16	4 7/16	1 1/4 x 5/8	1 x 1/2	1

*For Down Blast discharge, use A dimension for B.

ARRANGEMENT 1

SIZES 714-854



Base for all discharges except Down Blast.

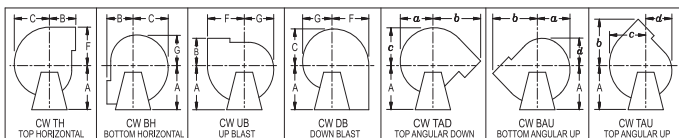
Typical Down Blast base shown CCW.

DIMENSIONS [INCHES]

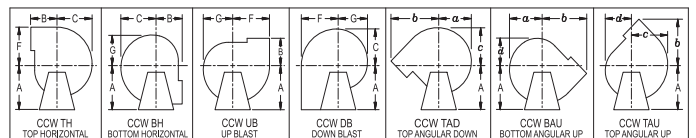
Size	Wheel dia.	A							B	C	D	E	F	G	H	K	L	M	N
		TH	BH	UB	DB	TAD	BAU	TAU											
714	71 1/4	54	71	61 1/2	47 1/2	50	65	57 1/2	47 1/2	59	40 3/8	44 1/8	66 1/2	51 1/2	91 1/8	10	40 1/2	33 5/8	40
784	78 1/4	59	77	67	52	54 3/4	71	63	52	64 5/8	44 3/8	48 3/8	73	56 5/8	98 7/8	10 1/2	44 1/2	36 7/8	44
854	85 1/4	64	83	73	57	60	78 1/2	69	57	70 1/2	48 1/4	52 5/8	79 1/2	61 5/8	106 5/8	11	48 1/2	40 1/8	48

Size	O	P	Q	R	S	T	U	W	a	b	c	d	Shaft diameter		Keyway	Base holes
													RIM	DH		
714	83 1/4	69	71 1/2	19 3/8	20	33 1/2	43 1/2	35 3/4	55 1/2	80 5/8	62 7/8	48	5 7/16	4 15/16	1 1/4 x 5/8	1
784	90 1/2	75 1/2	78	21	22	36 1/2	47	38 3/4	60 7/8	88 1/2	69	52 3/4	5 7/16	4 15/16	1 1/4 x 5/8	1
854	97 3/4	82	84 1/2	22 1/2	24	39 1/2	50 1/2	41 3/4	66 3/8	96 5/8	75	57 3/8	6	5 7/16	1 1/4 x 5/8	1

FAN DISCHARGES – VIEWED FROM DRIVE SIDE



Clockwise—angular discharges at 45°



Counterclockwise—angular discharges at 45°