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ENGINEERING SUPPLEMENT
ES-674
June 2009

DUCT, TUBEAXIAL AND VANEAXIAL FANS
ARRANGEMENT 9 V-BELT
Minimum-Maximum Center-to-Center Distances

The following tables are general limitations for V-belt drive selections. Because of significant selection limitations, **nyb** strongly recommends use of **nyb** selected drives only. The following guidelines are suitable to aid in selection of constant speed V-belt drives. Special consideration must be given in the selection of non-standard drives. Applications requiring higher service factor, banded belts, adjustable speeds, and speed ratios of 1.5:1 or greater require special consideration. For additional information or specific limitations, consult **nyb**.

1. All dimensions shown are in inches.
2. For belt center distances or specific drive information for motor frame sizes not shown below, consult **nyb**.
3. When selecting belt centers, avoid minimum and maximum extremes to assure ease of mounting and tensioning.
4. Consult the appropriate product bulletin to determine minimum/maximum motor size capability.
5. Because of inner tube space limitations, maximum allowable sheave sizes (O.D.) are as listed in the tables below.
6. 54" and 60" Vanaxial Fans and all Tubeaxial and Duct Fans utilize round beltwells. Width limitations shown are for sheaves at maximum OD limits. Other combinations (smaller OD, wider sheaves) may be acceptable. Consult **nyb**.

Sheave Limitations for Vaneaxial Fans

Size	Maximum	
	O.D.	Width
12	4 5/8	4
14	4 5/8	4
16	5	5
18	5	5
21	5	5
24	6 1/2	6
27	6 1/2	6

Size	Maximum	
	O.D.	Width
32	8	7
36	8	7
42	10	8 1/8
48	10	8 1/8
54	13 1/2	4 1/2
60	13 1/2	4 1/2

Sheave Limitations for Tubeaxial and Duct Fans

Size	Maximum	
	O.D.	Width
12	5 1/4	2 1/8
14	5 1/4	2 1/8
16	5 1/4	2 1/8
18	5 1/4	2 1/8
21	5 1/4	2 1/8
24	6 7/8	3
27	6 7/8	3

Size	Maximum	
	O.D.	Width
32	9 1/2	4
36	9 1/2	4
42	9 1/2	4 3/8
48	9 1/2	4 3/8
54	13 1/2	4 1/2
60	13 1/2	4 1/2

Belt Center Distances

Size	Motor Frame Size							
	56	143T	182T	213T	254T	284T	324T	364T
		145T	184T	215T	256T	286T	326T	365T
12	13.5 - 18.2	13.5 - 18.2	14.5 - 19.2	--	--	--	--	--
14	14.5 - 19.2	14.5 - 19.2	15.5 - 20.2	--	--	--	--	--
16	15.5 - 20.2	15.5 - 20.2	16.5 - 21.2	17.3 - 22.0	--	--	--	--
18	16.5 - 21.2	16.5 - 21.2	17.5 - 22.2	18.3 - 23.0	19.3 - 24.0	--	--	--
21	18.0 - 22.7	18.0 - 22.7	19.0 - 23.7	19.8 - 24.5	20.8 - 25.5	--	--	--
24	19.6 - 24.3	19.6 - 24.3	20.6 - 25.3	21.3 - 26.0	22.3 - 27.0	--	--	--
27	21.1 - 25.8	21.1 - 25.8	22.1 - 26.8	22.8 - 27.5	23.8 - 28.5	24.6 -- 29.3	--	--
32	23.6 - 28.3	23.6 - 28.3	24.6 - 29.3	25.4 - 30.1	26.4 - 31.1	27.1 -- 31.8	28.1 -- 32.8	29.1 -- 33.8
36	--	25.7 - 30.4	26.7 - 31.4	27.4 - 32.1	28.4 - 33.1	29.2 -- 33.9	30.2 -- 34.9	31.2 -- 35.9
42	--	28.8 - 33.5	29.8 - 34.5	30.5 - 35.2	31.5 - 36.2	32.3 -- 37.0	33.3 -- 38.0	34.3 -- 39.0
48	--	31.8 - 36.5	32.8 - 37.5	33.5 - 38.2	34.5 - 39.2	35.3 -- 40.0	36.3 -- 41.0	37.3 -- 42.0
54	--	--	36.0 - 40.7	36.7 - 41.4	37.7 - 42.4	38.5 -- 43.2	39.5 -- 44.2	40.5 -- 45.2
60	--	--	39.0 - 43.7	39.7 - 44.4	40.7 - 45.4	41.5 -- 46.2	42.5 -- 47.2	43.5 -- 48.2