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ENGINEERING SUPPLEMENT
ES-675
January 2017

FIXED PITCH VANEAXIAL FANS
ARRANGEMENT 9 V-BELT DRIVE
Minimum-Maximum Center-to-Center Distances [in inches]

1. All belt center distances 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 product bulletin to determine minimum/maximum motor size capability.
5. Because of inner tube space limitations, maximum allowable sheave sizes (O.D.) are listed in the tables below.

Sheave Limitations for Fixed Pitch Vaneaxial Fans

| Size | Maximum | | Size | Maximum | | Size | Maximum | |
|----------|---------|-------|----------|---------|-------|----------|---------|-------|
| | O.D. | Width | | O.D. | Width | | O.D. | Width |
| 12-06-06 | 4.1 | 4 | 27-12-09 | 8.1 | 6 | 38-16-09 | 12.1 | 7 |
| 14-06-06 | 4.1 | 4 | 27-16-12 | 9.1 | 6 | 38-20-12 | 13.1 | 7 |
| 14-08-08 | 6.1 | 4 | 27-20-16 | 10.1 | 6 | 38-26-15 | 14.1 | 7 |
| 16-08-09 | 6.1 | 5 | 29-12-09 | 8.1 | 6 | 42-20-09 | 13.1 | 8.125 |
| 16-12-12 | 7.1 | 5 | 29-16-12 | 9.1 | 6 | 42-26-12 | 14.1 | 8.125 |
| 18-08-09 | 6.1 | 5 | 29-20-16 | 10.1 | 6 | 48-20-09 | 14.1 | 8.125 |
| 18-12-12 | 7.1 | 5 | 32-16-09 | 10.1 | 7 | 48-26-12 | 15.1 | 8.125 |
| 21-08-09 | 6.1 | 5 | 32-20-12 | 11.1 | 7 | 54-26-09 | 17.1 | 4.5 |
| 21-12-12 | 7.1 | 5 | 36-16-09 | 11.1 | 7 | 60-26-09 | 18.1 | 4.5 |
| 21-16-16 | 8.1 | 5 | 36-20-12 | 12.1 | 7 | | | |
| 24-12-09 | 8.1 | 6 | 36-26-15 | 13.1 | 7 | | | |
| 24-16-12 | 9.1 | 6 | | | | | | |

Belt Center Distances

| Size | 143T & 145T | | 182T & 184T | | 213T & 215T | | 254T & 256T | | 284T & 286T | | 324T & 326T | | 364T & 365T | | 404T & 405T | | 444T & 445T | |
|----------|-------------|--------|-------------|--------|-------------|--------|-------------|--------|-------------|--------|-------------|--------|-------------|--------|-------------|--------|-------------|--------|
| | Min. | Max. | Min. | Max. | Min. | Max. | Min. | Max. | Min. | Max. | Min. | Max. | Min. | Max. | Min. | Max. | Min. | Max. |
| 12-06-06 | 13 3/8 | 16 3/8 | 14 3/8 | 17 3/8 | 15 1/8 | 18 1/8 | - | - | - | - | - | - | - | - | - | - | - | - |
| 14-06-06 | 14 3/8 | 17 3/8 | 15 3/8 | 18 3/8 | 16 1/8 | 19 1/8 | - | - | - | - | - | - | - | - | - | - | - | - |
| 14-08-08 | 14 3/8 | 17 3/8 | 15 3/8 | 18 3/8 | 16 1/8 | 19 1/8 | 17 1/8 | 20 1/8 | - | - | - | - | - | - | - | - | - | - |
| 16-08-09 | 15 1/2 | 18 1/2 | 16 1/2 | 19 1/2 | 17 1/4 | 20 1/4 | 18 1/4 | 21 1/4 | - | - | - | - | - | - | - | - | - | - |
| 16-12-12 | 15 1/2 | 18 1/2 | 16 1/2 | 19 1/2 | 17 1/4 | 20 1/4 | 18 1/4 | 21 1/4 | 19 | 22 | 20 | 23 | - | - | - | - | - | - |
| 18-08-09 | 16 1/2 | 19 1/2 | 17 1/2 | 20 1/2 | 18 1/4 | 21 1/4 | 19 1/4 | 22 1/4 | 20 | 23 | 21 | 24 | - | - | - | - | - | - |
| 18-12-12 | 16 1/2 | 19 1/2 | 17 1/2 | 20 1/2 | 18 1/4 | 21 1/4 | 19 1/4 | 22 1/4 | 20 | 23 | 21 | 24 | 22 | 25 | - | - | - | - |
| 21-08-09 | 17 7/8 | 20 7/8 | 18 7/8 | 21 7/8 | 19 5/8 | 22 5/8 | 20 5/8 | 23 5/8 | 21 3/8 | 24 3/8 | 22 3/8 | 25 3/8 | - | - | - | - | - | - |
| 21-12-12 | 17 7/8 | 20 7/8 | 18 7/8 | 21 7/8 | 19 5/8 | 22 5/8 | 20 5/8 | 23 5/8 | 21 3/8 | 24 3/8 | 22 3/8 | 25 3/8 | 23 3/8 | 26 3/8 | - | - | - | - |
| 21-16-16 | 17 7/8 | 20 7/8 | 18 7/8 | 21 7/8 | 19 5/8 | 22 5/8 | 20 5/8 | 23 5/8 | 21 3/8 | 24 3/8 | 22 3/8 | 25 3/8 | 23 3/8 | 26 3/8 | - | - | - | - |
| 24-12-09 | 19 1/2 | 22 1/2 | 20 1/2 | 23 1/2 | 21 1/4 | 24 1/4 | 22 1/4 | 25 1/4 | 23 | 26 | 24 | 27 | - | - | - | - | - | - |
| 24-16-12 | 19 1/2 | 22 1/2 | 20 1/2 | 23 1/2 | 21 1/4 | 24 1/4 | 22 1/4 | 25 1/4 | 23 | 26 | 24 | 27 | 25 | 28 | - | - | - | - |
| 27-12-09 | 21 | 24 | 22 | 25 | 22 3/4 | 25 3/4 | 23 3/4 | 26 3/4 | 24 1/2 | 27 1/2 | 25 1/2 | 28 1/2 | - | - | - | - | - | - |
| 27-16-12 | 21 | 24 | 22 | 25 | 22 3/4 | 25 3/4 | 23 3/4 | 26 3/4 | 24 1/2 | 27 1/2 | 25 1/2 | 28 1/2 | 26 1/2 | 29 1/2 | - | - | - | - |
| 27-20-16 | 21 | 24 | 22 | 25 | 22 3/4 | 25 3/4 | 23 3/4 | 26 3/4 | 24 1/2 | 27 1/2 | 25 1/2 | 28 1/2 | 26 1/2 | 29 1/2 | - | - | - | - |
| 29-12-09 | 21 7/8 | 24 7/8 | 22 7/8 | 25 7/8 | 23 5/8 | 26 5/8 | 24 5/8 | 27 5/8 | 25 3/8 | 28 3/8 | 26 3/8 | 29 3/8 | 27 3/8 | 30 3/8 | - | - | - | - |
| 29-16-12 | 21 7/8 | 24 7/8 | 22 7/8 | 25 7/8 | 23 5/8 | 26 5/8 | 24 5/8 | 27 5/8 | 25 3/8 | 28 3/8 | 26 3/8 | 29 3/8 | 27 3/8 | 30 3/8 | 28 3/8 | 31 3/8 | - | - |
| 29-20-16 | 21 7/8 | 24 7/8 | 22 7/8 | 25 7/8 | 23 5/8 | 26 5/8 | 24 5/8 | 27 5/8 | 25 3/8 | 28 3/8 | 26 3/8 | 29 3/8 | 27 3/8 | 30 3/8 | 28 3/8 | 31 3/8 | - | - |
| 32-16-09 | 23 5/8 | 26 5/8 | 24 5/8 | 27 5/8 | 25 3/8 | 28 3/8 | 26 3/8 | 29 3/8 | 27 1/8 | 30 1/8 | 28 1/8 | 31 1/8 | 29 1/8 | 32 1/8 | - | - | - | - |
| 32-20-12 | 23 5/8 | 26 5/8 | 24 5/8 | 27 5/8 | 25 3/8 | 28 3/8 | 26 3/8 | 29 3/8 | 27 1/8 | 30 1/8 | 28 1/8 | 31 1/8 | 29 1/8 | 32 1/8 | 30 1/8 | 33 1/8 | - | - |
| 36-16-09 | 25 5/8 | 28 5/8 | 26 5/8 | 29 5/8 | 27 3/8 | 30 3/8 | 28 3/8 | 31 3/8 | 29 1/8 | 32 1/8 | 30 1/8 | 33 1/8 | 31 1/8 | 34 1/8 | - | - | - | - |
| 36-20-12 | 25 5/8 | 28 5/8 | 26 5/8 | 29 5/8 | 27 3/8 | 30 3/8 | 28 3/8 | 31 3/8 | 29 1/8 | 32 1/8 | 30 1/8 | 33 1/8 | 31 1/8 | 34 1/8 | 32 1/8 | 35 1/8 | - | - |
| 36-26-15 | 25 5/8 | 28 5/8 | 26 5/8 | 29 5/8 | 27 3/8 | 30 3/8 | 28 3/8 | 31 3/8 | 29 1/8 | 32 1/8 | 30 1/8 | 33 1/8 | 31 1/8 | 34 1/8 | 32 1/8 | 35 1/8 | - | - |
| 38-16-09 | 26 3/8 | 29 3/8 | 27 3/8 | 30 3/8 | 28 1/8 | 31 1/8 | 29 1/8 | 32 1/8 | 29 7/8 | 32 7/8 | 30 7/8 | 33 7/8 | 31 7/8 | 34 7/8 | 32 7/8 | 35 7/8 | - | - |
| 38-20-12 | 26 3/8 | 29 3/8 | 27 3/8 | 30 3/8 | 28 1/8 | 31 1/8 | 29 1/8 | 32 1/8 | 29 7/8 | 32 7/8 | 30 7/8 | 33 7/8 | 31 7/8 | 34 7/8 | 32 7/8 | 35 7/8 | 33 7/8 | 36 7/8 |
| 38-26-15 | 26 3/8 | 29 3/8 | 27 3/8 | 30 3/8 | 28 1/8 | 31 1/8 | 29 1/8 | 32 1/8 | 29 7/8 | 32 7/8 | 30 7/8 | 33 7/8 | 31 7/8 | 34 7/8 | 32 7/8 | 35 7/8 | 33 7/8 | 36 7/8 |
| 42-20-09 | 28 3/4 | 31 3/4 | 29 3/4 | 32 3/4 | 30 1/2 | 33 1/2 | 31 1/2 | 34 1/2 | 32 1/4 | 35 1/4 | 33 1/4 | 36 1/4 | 34 1/4 | 37 1/4 | 35 1/4 | 38 1/4 | 36 1/4 | 39 1/4 |
| 42-26-12 | 28 3/4 | 31 3/4 | 29 3/4 | 32 3/4 | 30 1/2 | 33 1/2 | 31 1/2 | 34 1/2 | 32 1/4 | 35 1/4 | 33 1/4 | 36 1/4 | 34 1/4 | 37 1/4 | 35 1/4 | 38 1/4 | 36 1/4 | 39 1/4 |
| 48-20-09 | 31 3/4 | 34 3/4 | 32 3/4 | 35 3/4 | 33 1/2 | 36 1/2 | 34 1/2 | 37 1/2 | 35 1/4 | 38 1/4 | 36 1/4 | 39 1/4 | 37 1/4 | 40 1/4 | 38 1/4 | 41 1/4 | 39 1/4 | 42 1/4 |
| 48-26-12 | 31 3/4 | 34 3/4 | 32 3/4 | 35 3/4 | 33 1/2 | 36 1/2 | 34 1/2 | 37 1/2 | 35 1/4 | 38 1/4 | 36 1/4 | 39 1/4 | 37 1/4 | 40 1/4 | 38 1/4 | 41 1/4 | 39 1/4 | 42 1/4 |
| 54-26-09 | 34 7/8 | 37 7/8 | 35 7/8 | 38 7/8 | 36 5/8 | 39 5/8 | 37 5/8 | 40 5/8 | 38 3/8 | 41 3/8 | 39 3/8 | 42 3/8 | 40 3/8 | 43 3/8 | 41 3/8 | 44 3/8 | 42 3/8 | 45 3/8 |
| 60-26-09 | 37 7/8 | 40 7/8 | 38 7/8 | 41 7/8 | 39 5/8 | 42 5/8 | 40 5/8 | 43 5/8 | 41 3/8 | 44 3/8 | 42 3/8 | 45 3/8 | 43 3/8 | 46 3/8 | 44 3/8 | 47 3/8 | 45 3/8 | 48 3/8 |