



SHELDONS ENGINEERING Inc.

Sheldons Engineering Product Index

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MATERIAL HANDLING-RADIAL BLADE CENTRIFUGAL FAN –9000 XS

GENERAL

The centrifugal fan shall be designed and manufactured by Sheldons Engineering to ensure smooth operation. Fan wheel shall be radial, with blades extending from to hub to the tip of the wheel model "XS" as shown in plans with all steel construction. Unless otherwise directed, fan arrangement, motor location, support base, rotation and discharge are as shown on the layout drawings. Fan size is defined as the OD in inches of the fan inlet.

PERFORMANCE

Fan ratings shall be based on tests made in accordance with AMCA Standard 210. Flow shall be actual volumetric flow at the fan inlet. Fan static pressure is defined as static pressure at fan outlet less total pressure at fan inlet. Standard inlet density is to be taken as 0.75 lb/ft³ with corrections for temperature, elevation, inlet static pressure, gas composition and humidity as defined in the schedule. Fans shall be selected to operate to the right of the peak static pressure at the given speed to ensure stable performance. Fan brake horsepower shall rise continuously over the entire range of flows for a given speed and shall be equal to or less than specified at the given flow and fan static pressure.

SOUND

Fan manufacturers shall provide sound power level ratings for fans tested and rated in accordance with AMCA Standards 300 and 301. Sound power ratings shall be in decibels (reference 10-12 watts) in eight octave bands. Sound power levels will be corrected for installation by the specifying engineer...dBA or sound pressure levels only are not acceptable.

CONSTRUCTION

Fan housings are to be heavy -- min. gauge per chart below, continuously welded construction with flanged and punched outlet. Housings with lock seams or spot welded construction are not acceptable.

| Fan Size | Class I (12 M) | Class II & III (15 & 19M) | Class IV (22M) |
|----------|-------------------------------|---------------------------|----------------|
| 7-11 | 14 gauge (0.0747" or 1.89 mm) | 12 gauge | 10 gauge |
| 13-26 | 12 gauge (0.1046" or 2.66 mm) | 10 gauge | 7 gauge |
| 29-37 | 10 gauge (0.1345" or 3.43 mm) | 7 gauge | ¼" |
| 41-49 | 7 gauge (0.1875" or 4.76 mm) | ¼" | ¼" |
| 54-60 | --- | 3/8" | 3/8" |

BEARINGS (belt driven fans)

Bearings are to be heavy duty, grease lubricated, precision anti-friction, self-aligning pillow block design. Bearings shall be designed for a minimum L₁₀ life per the chart below when rated at the fan's maximum cataloged operating speed.

| Class | I | II | III | IV |
|---------------------------|--------|--------|---------|---------|
| MIN. L ₁₀ Life | 30,000 | 40,000 | 100,000 | 400,000 |



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SHAFT (belt driven fans)

Shafts are to be ASTM A-108 steel, grade 1040/1045, precision turned, ground and polished. Grade 1018 steel is not acceptable. The shaft's first critical speed shall be at least 143% of the fan's maximum operating speed.

PAINT

All fan surfaces are to be thoroughly prepared prior to painting using a combination of washing and hand and power tool cleaning as required in SSPC-SP-3. After cleaning, all surfaces are to be coated with a zinc rich oxide primer. Surfaces of bolted components not accessible after assembly shall be coated and allowed to dry prior to final assembly.

BALANCE & INSPECTION

All fans shall be precision balanced to ISO quality grade 2.5, report to be submitted with the maintenance manual. A final inspection by a qualified inspector prior to shipment is required to include: scope of supply confirmation, balance, welding, dimensions, bearings, duct and base connection points, paint finish and overall workmanship.

ACCESSORIES

Accessories shall be provided as called for in the plans and specifications. Standard accessories include:

Motor to be NEMA Design B 3/60/460-575V-1800 rpm, high efficiency TEFC 1.15 SF

V-Belt Drives - Variable Speed/Constant Speed with min 1.5 SF

Belt Guard or weather cover required

Extended lubrication lines (nylon, copper or stainless steel) with fittings terminating in an accessible area.

Additional Features that may be required:

Access Door – bolted/quick opening or plug type with raised door

Housing Drain – pipe ½ coupling or flanged connection

Shaft Seal – non-asbestos fibre or spring loaded carbon ring style

Bolt-on variable inlet vanes

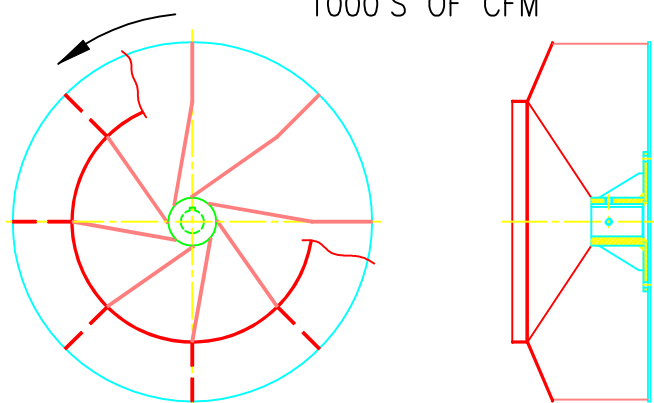
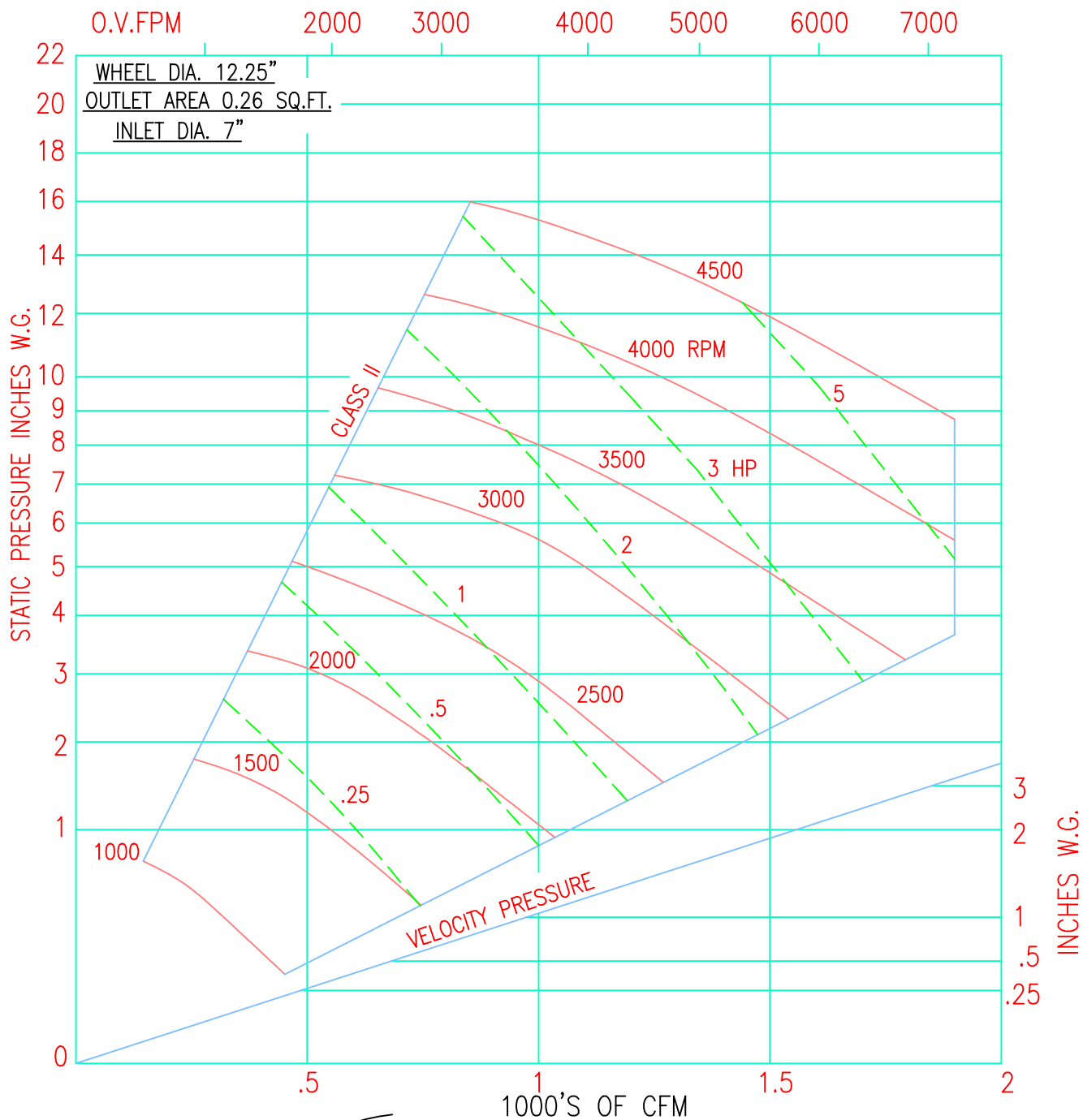
Spark Resistant Construction –

AMCA “A” All parts in contact with the air stream of Aluminum construction

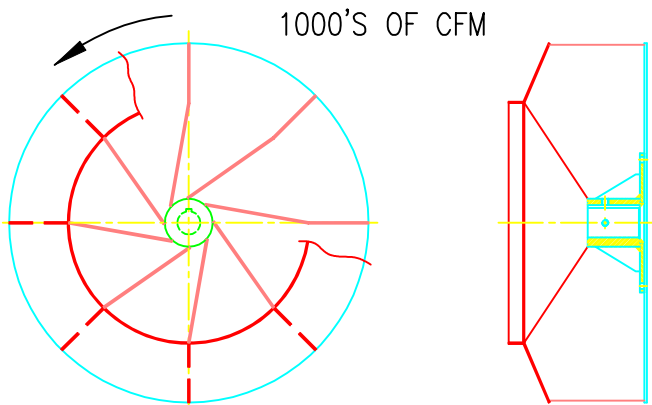
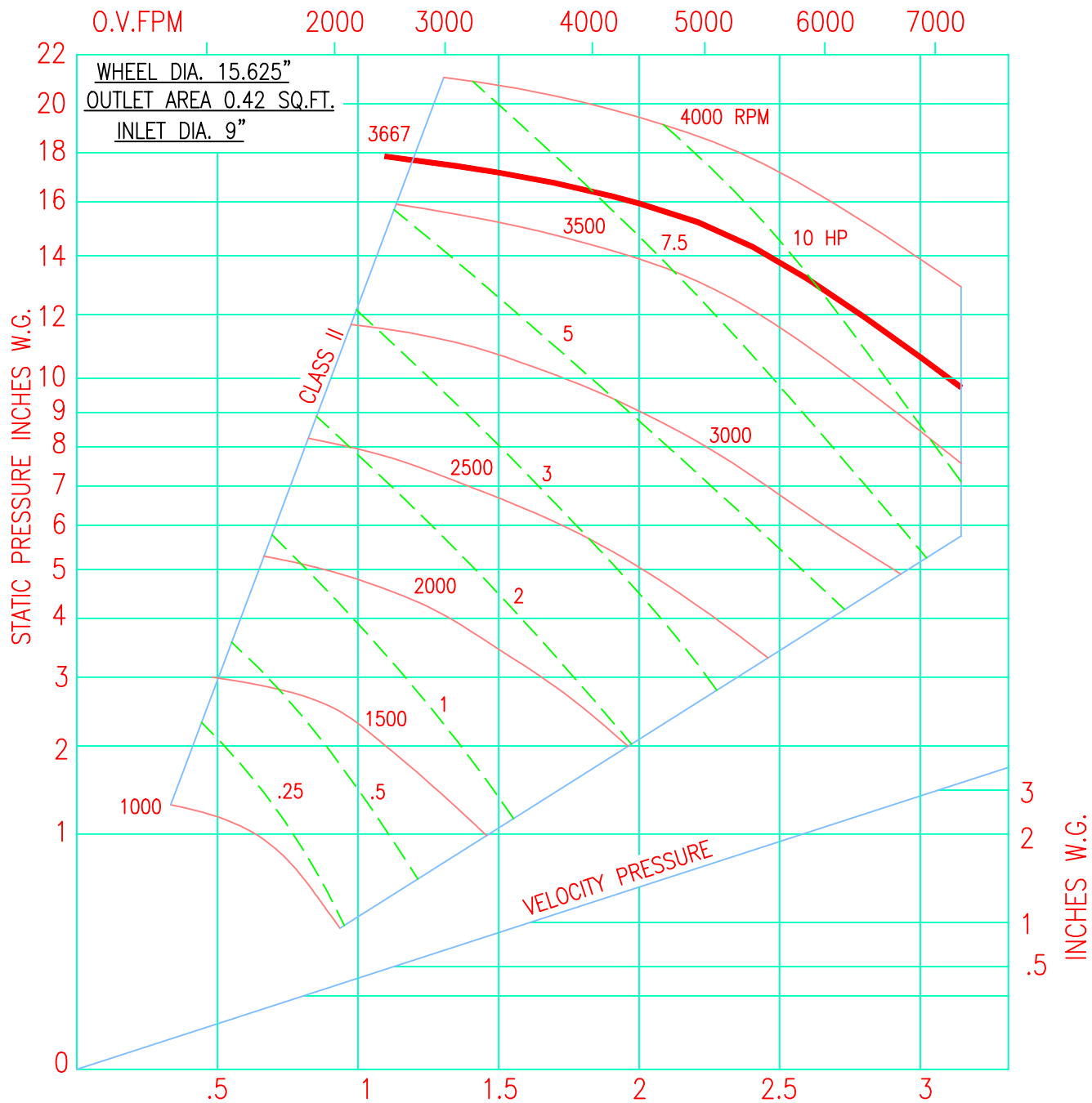
AMCA “B” Aluminum wheel with Aluminum rubbing ring around shaft entry point

AMCA “C” Aluminum inlet cone and Aluminum rubbing ring

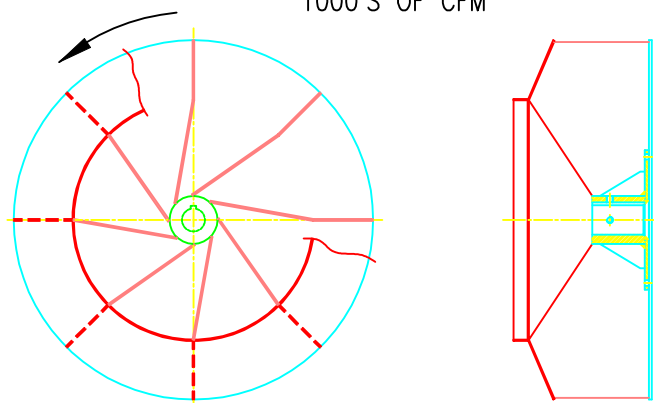
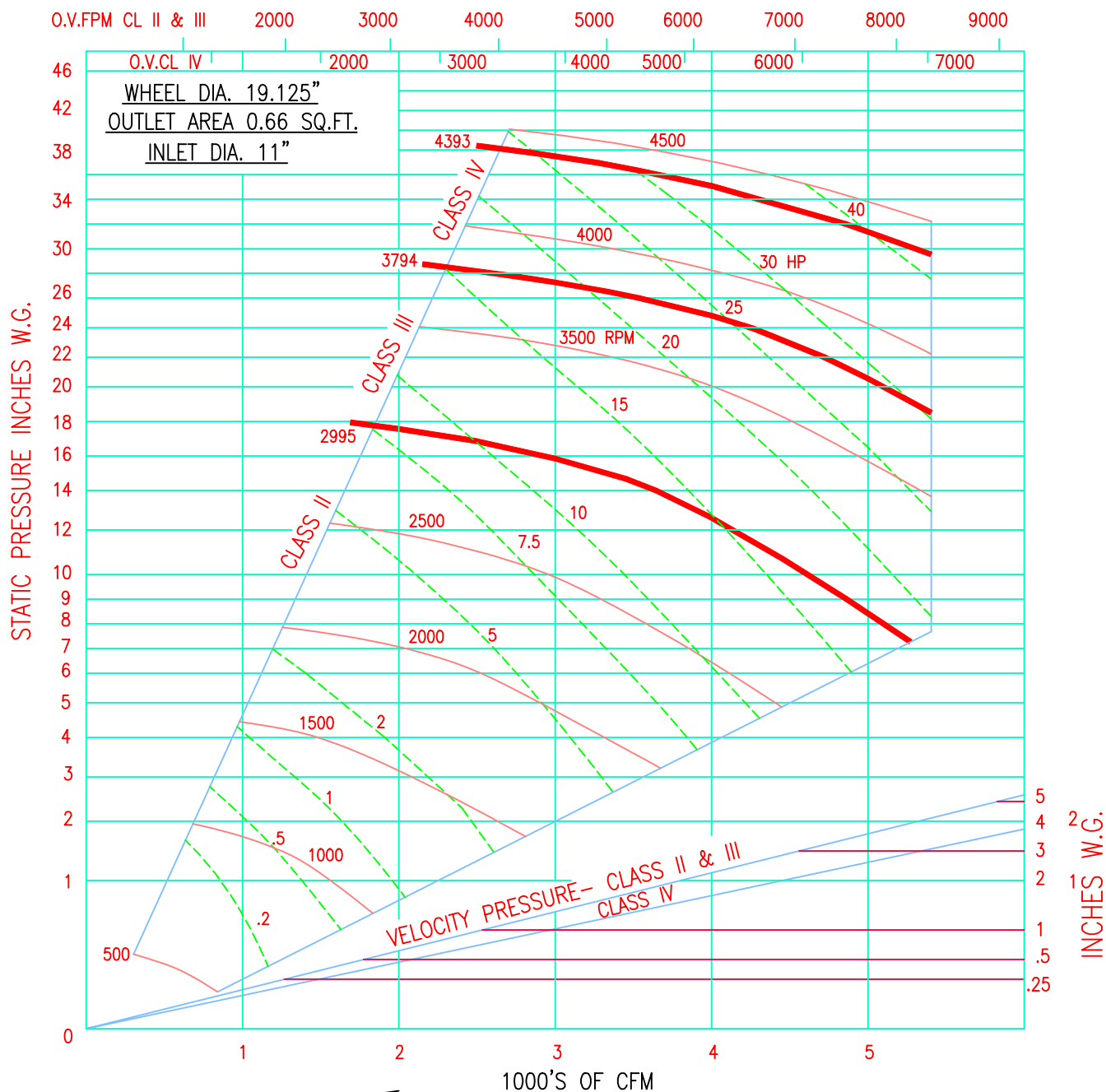
Horizontally Split Fan Housing



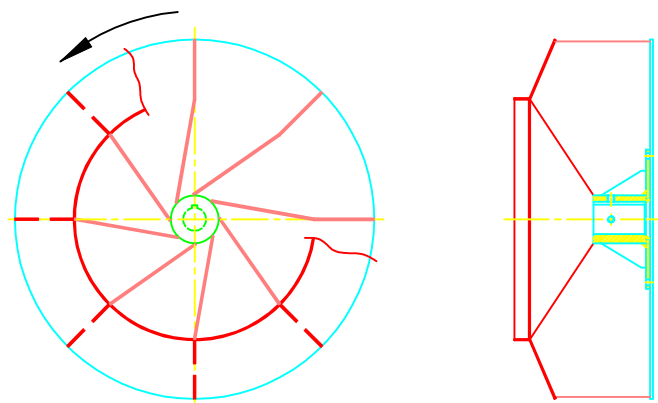
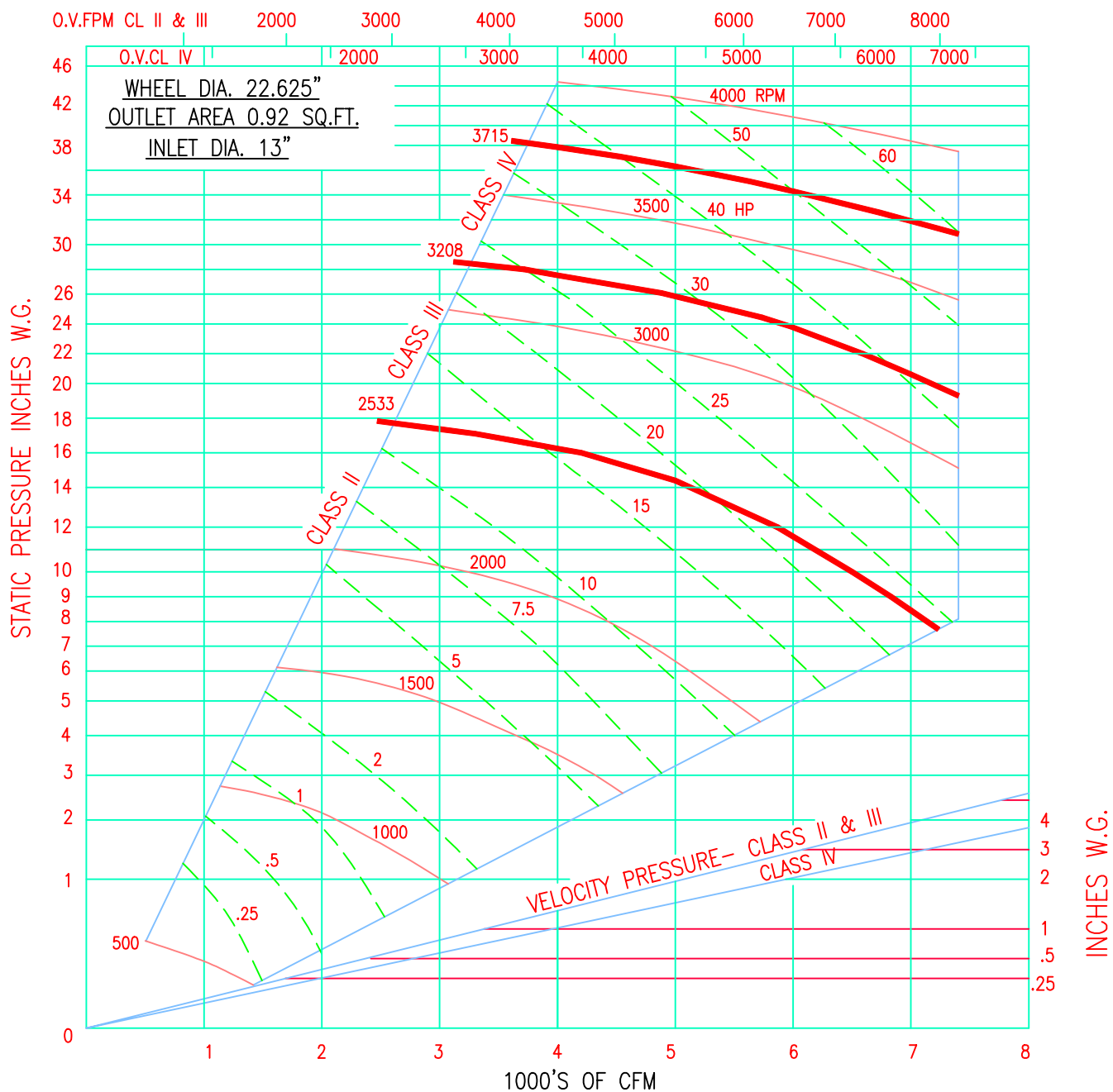
"CLOCK WISE" WHEEL SHOWN



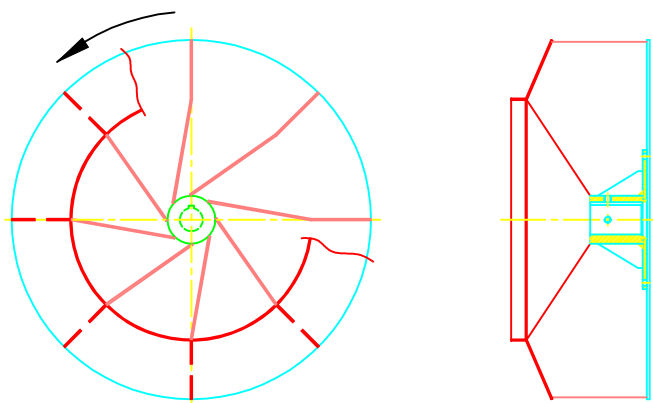
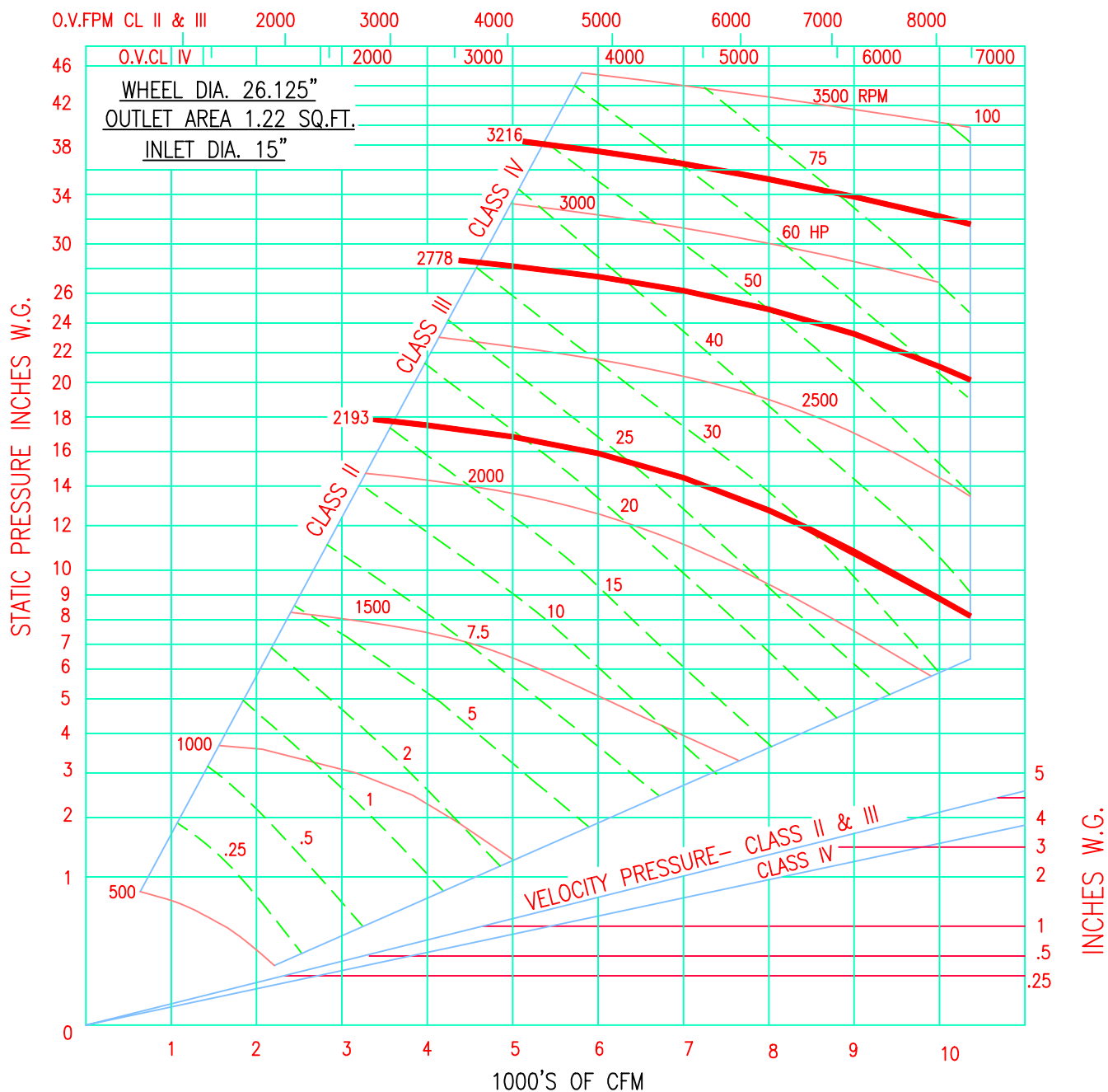
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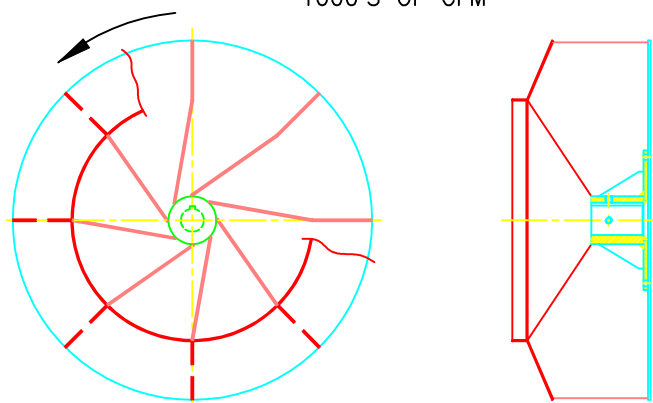
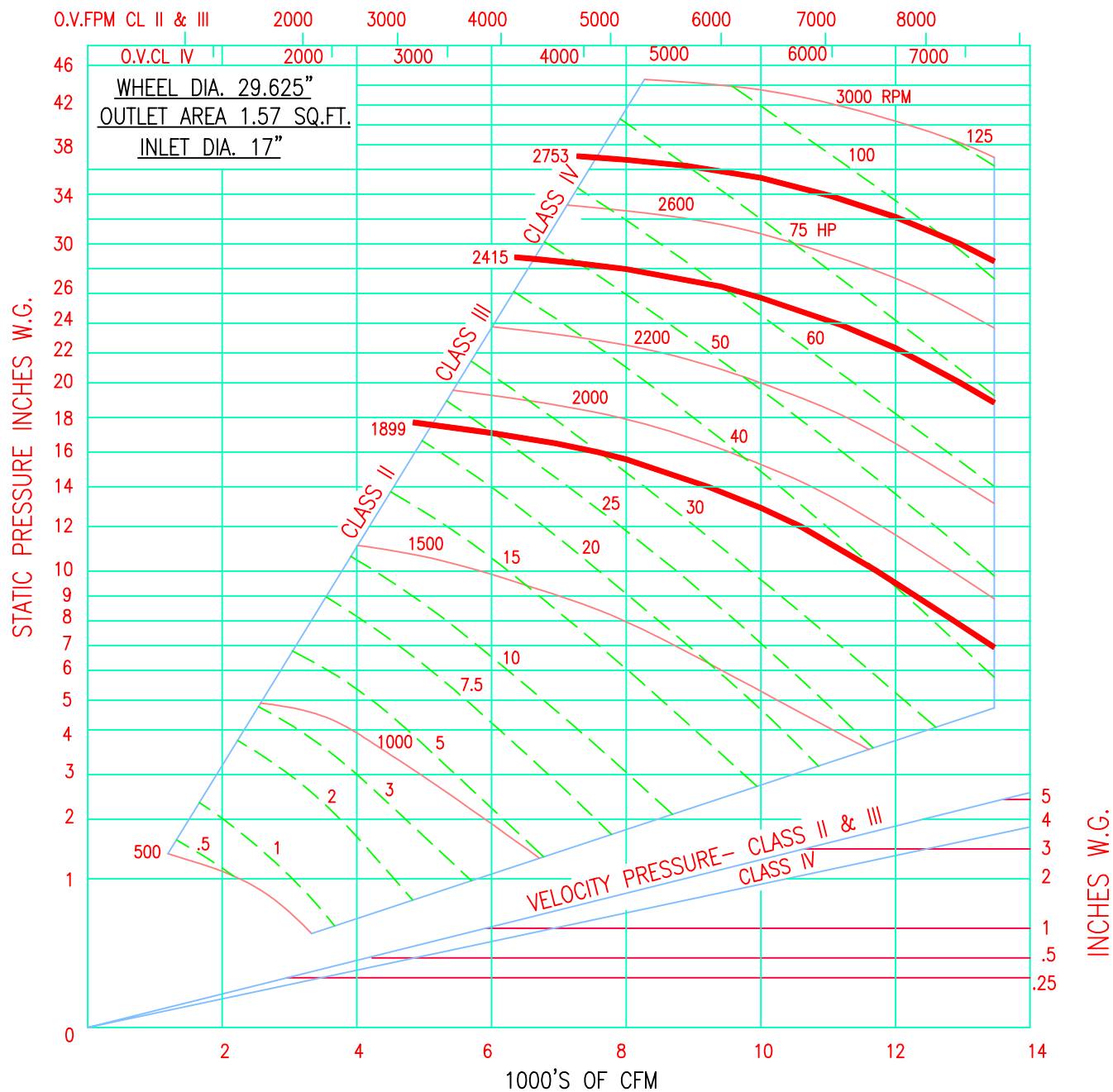
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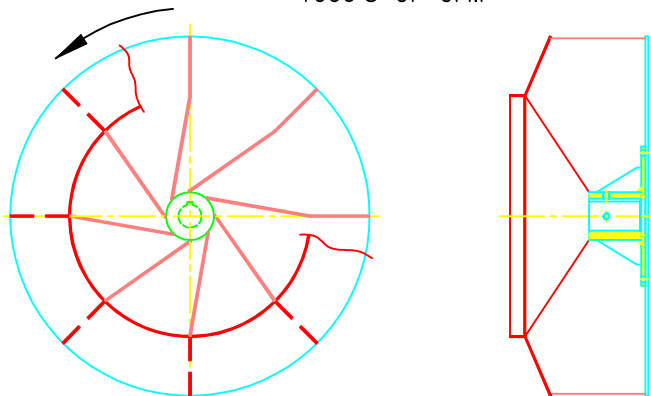
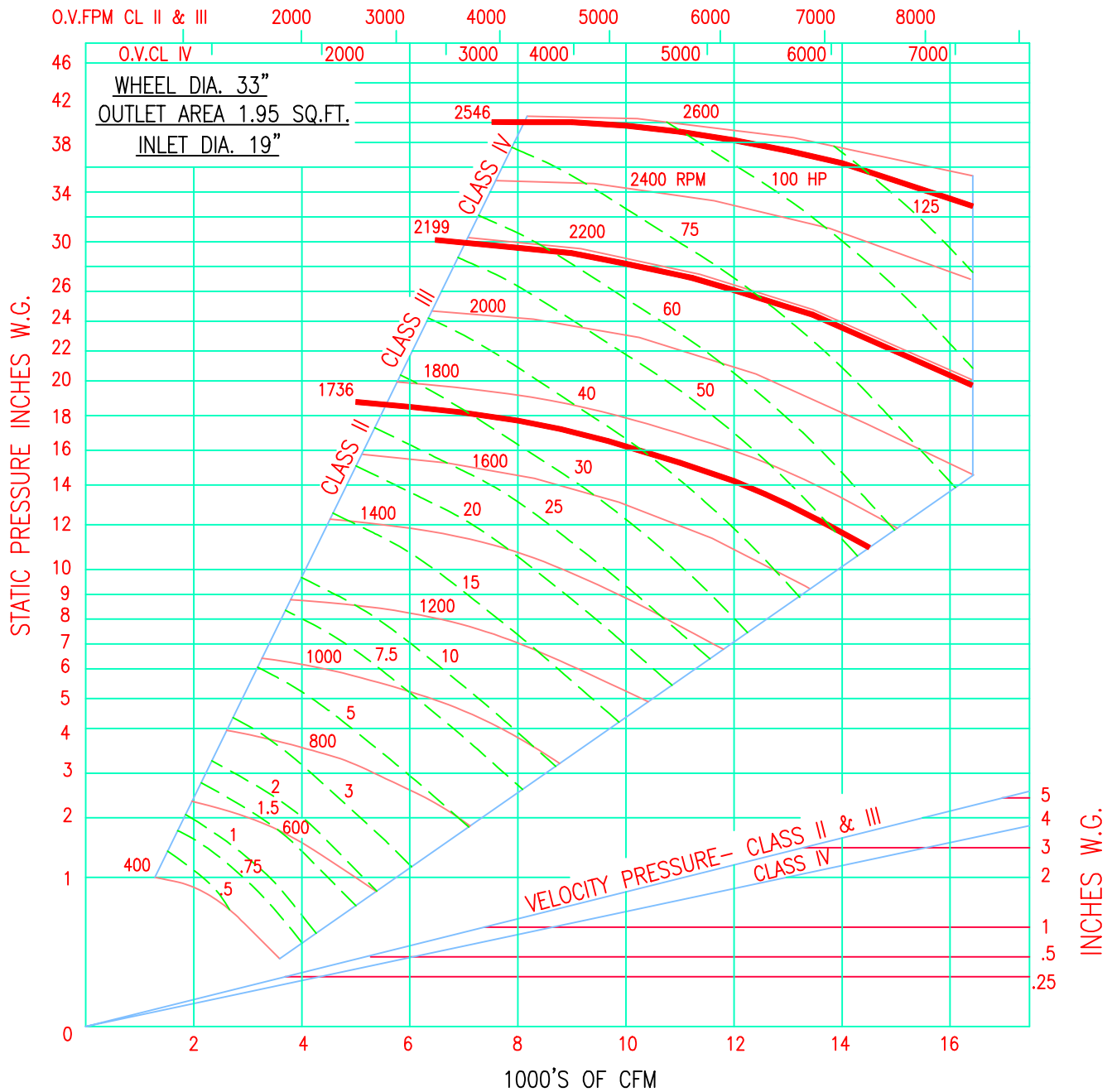
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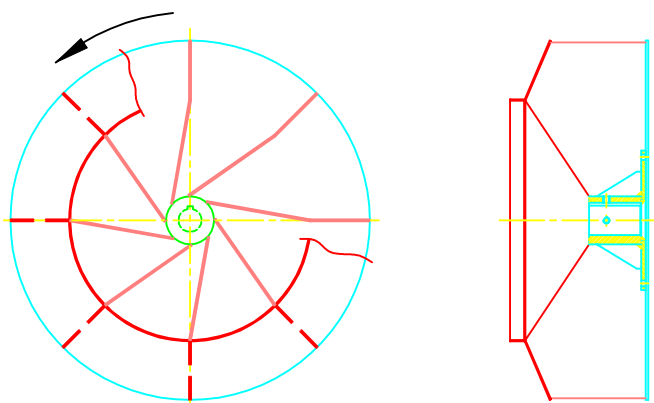
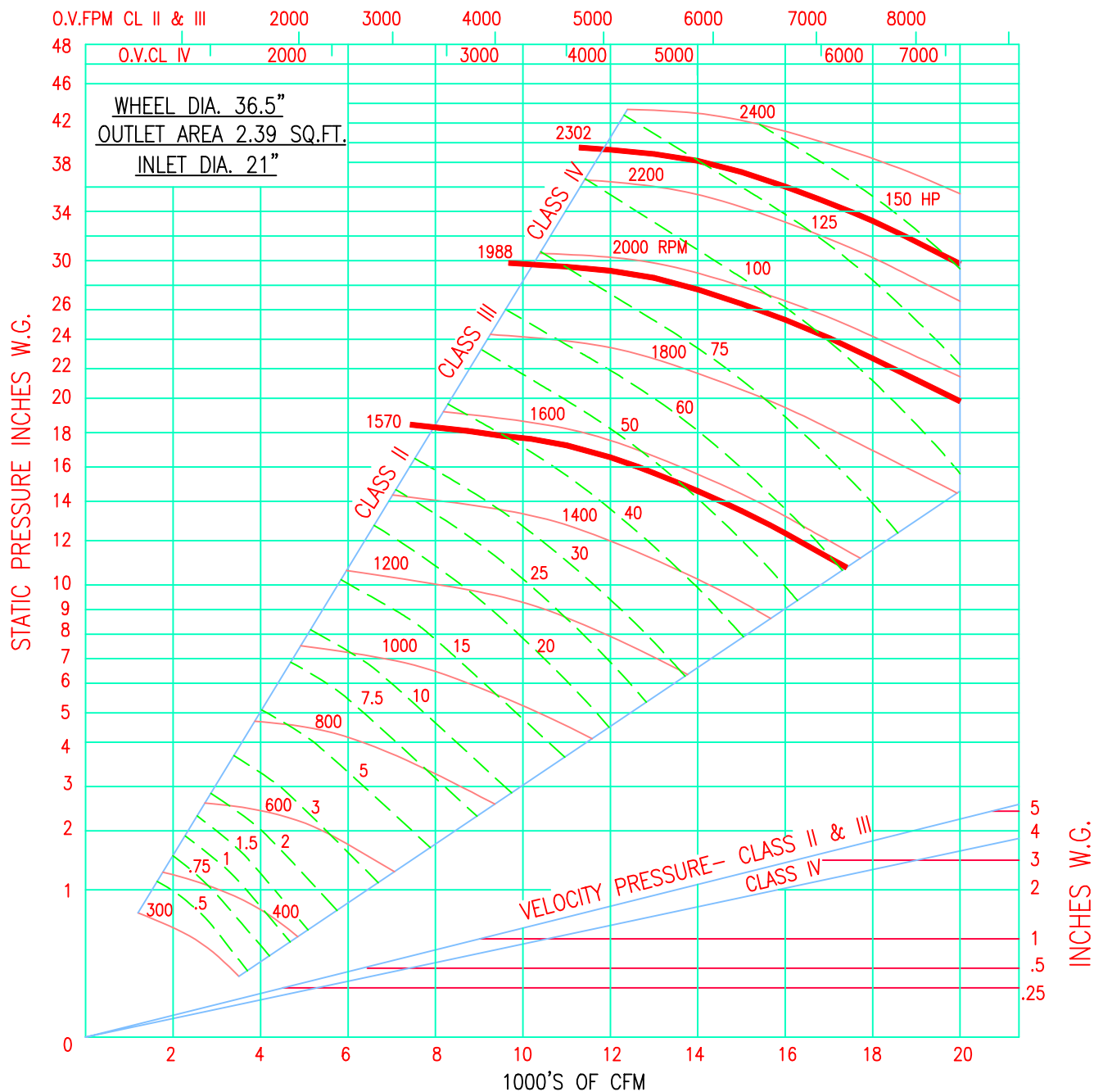
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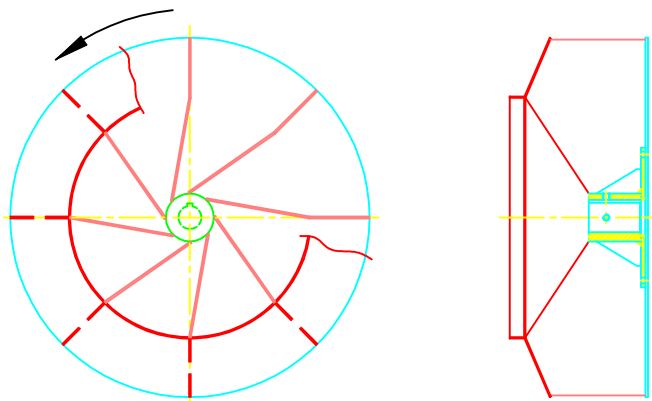
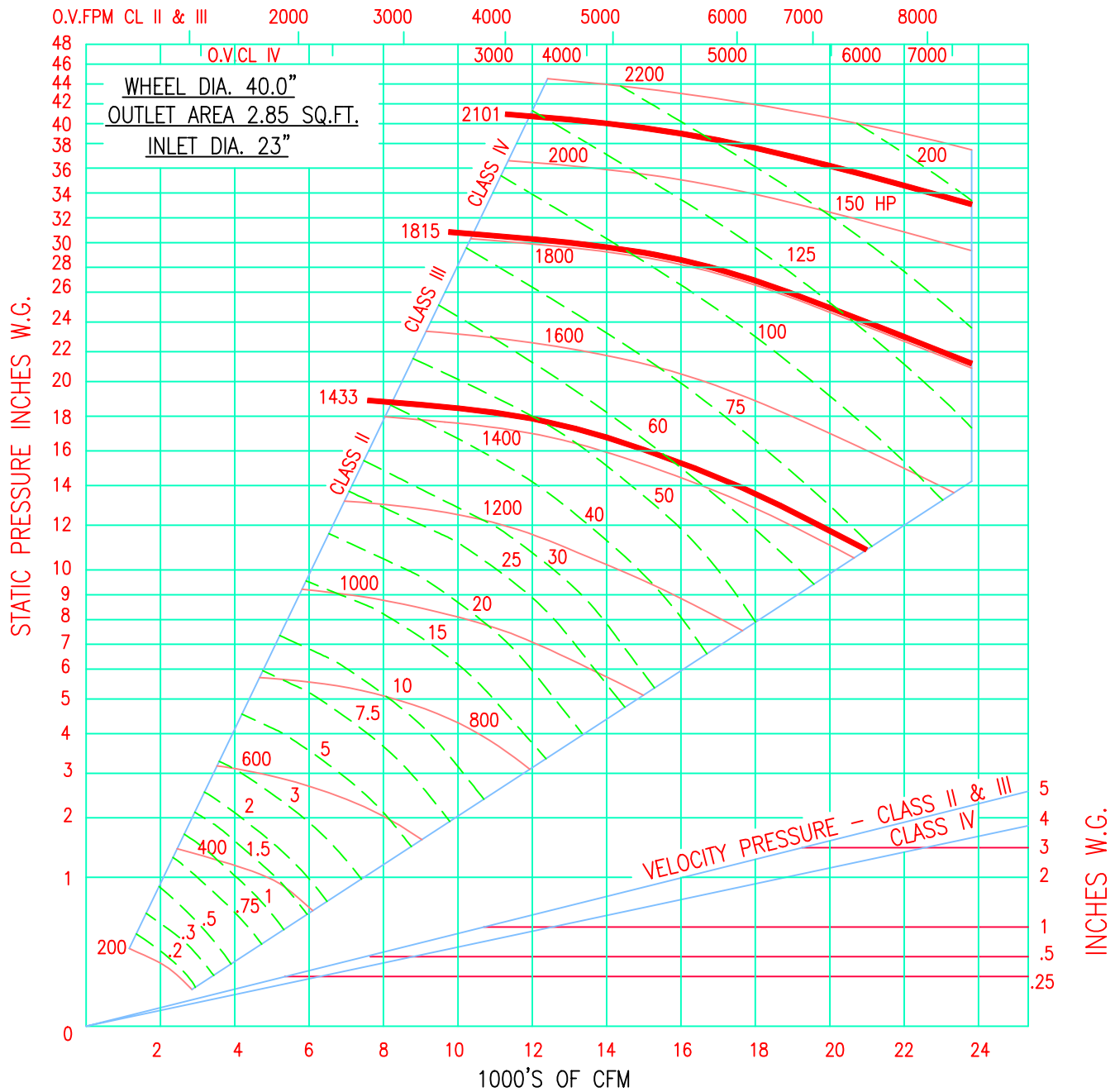
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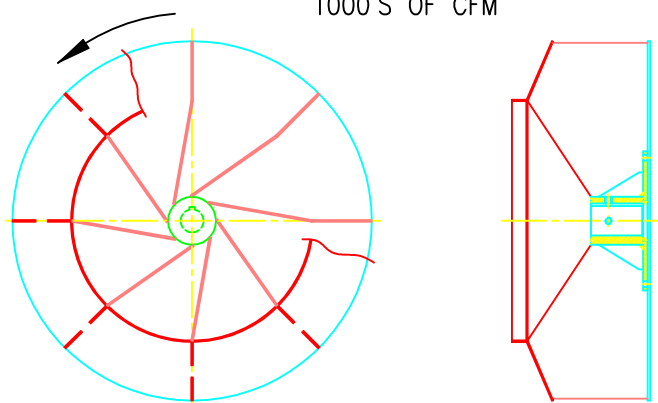
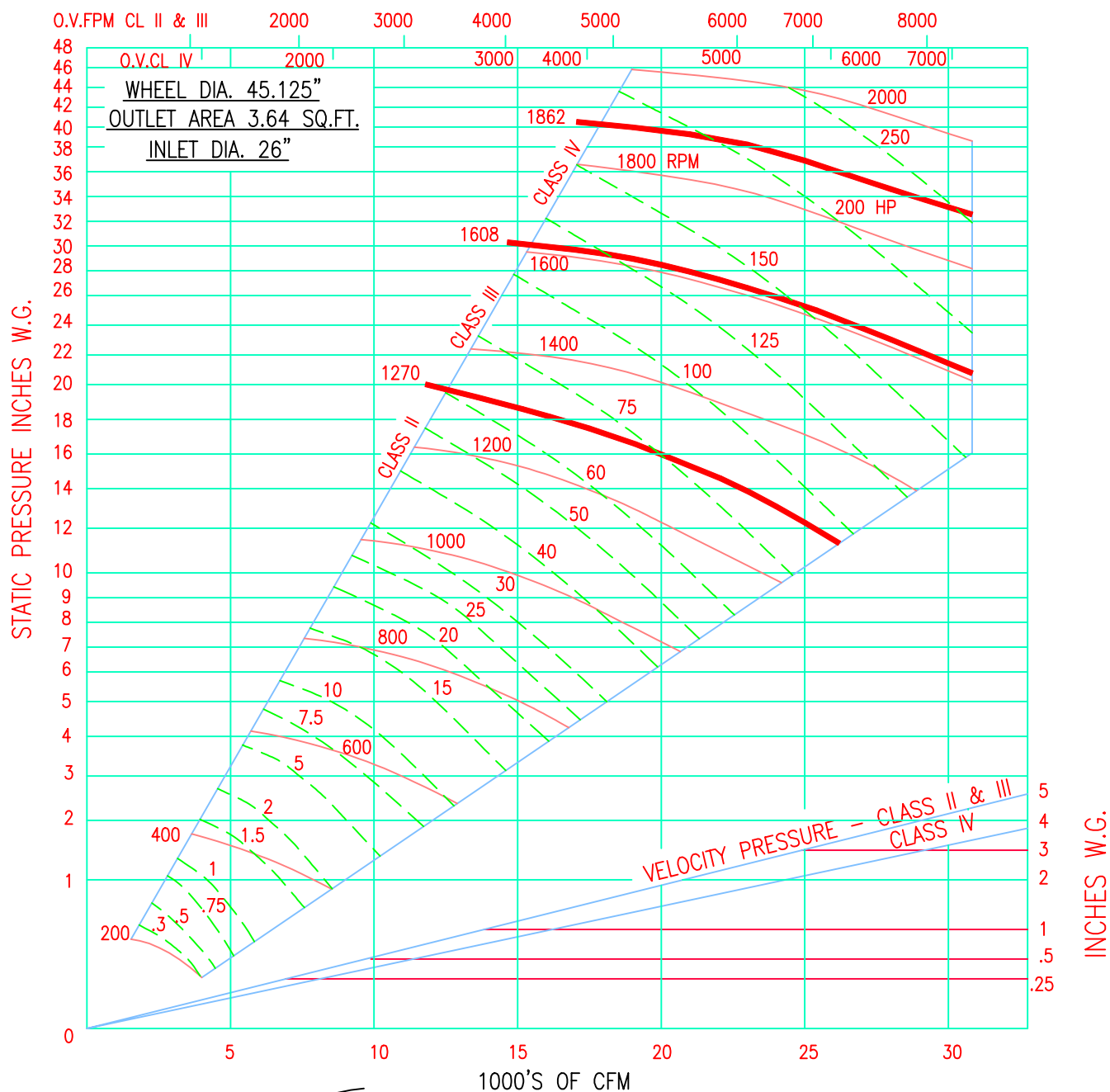
"CLOCK WISE" WHEEL SHOWN



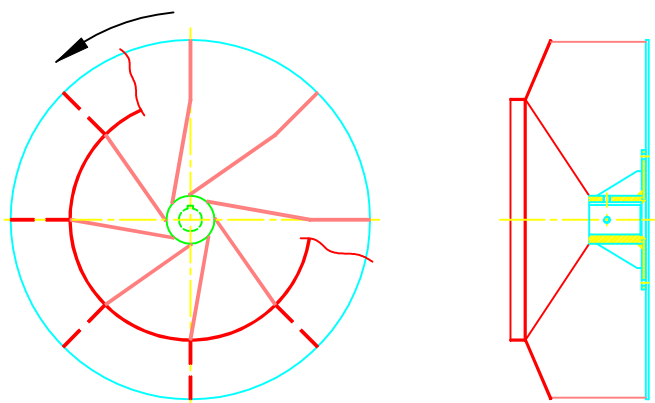
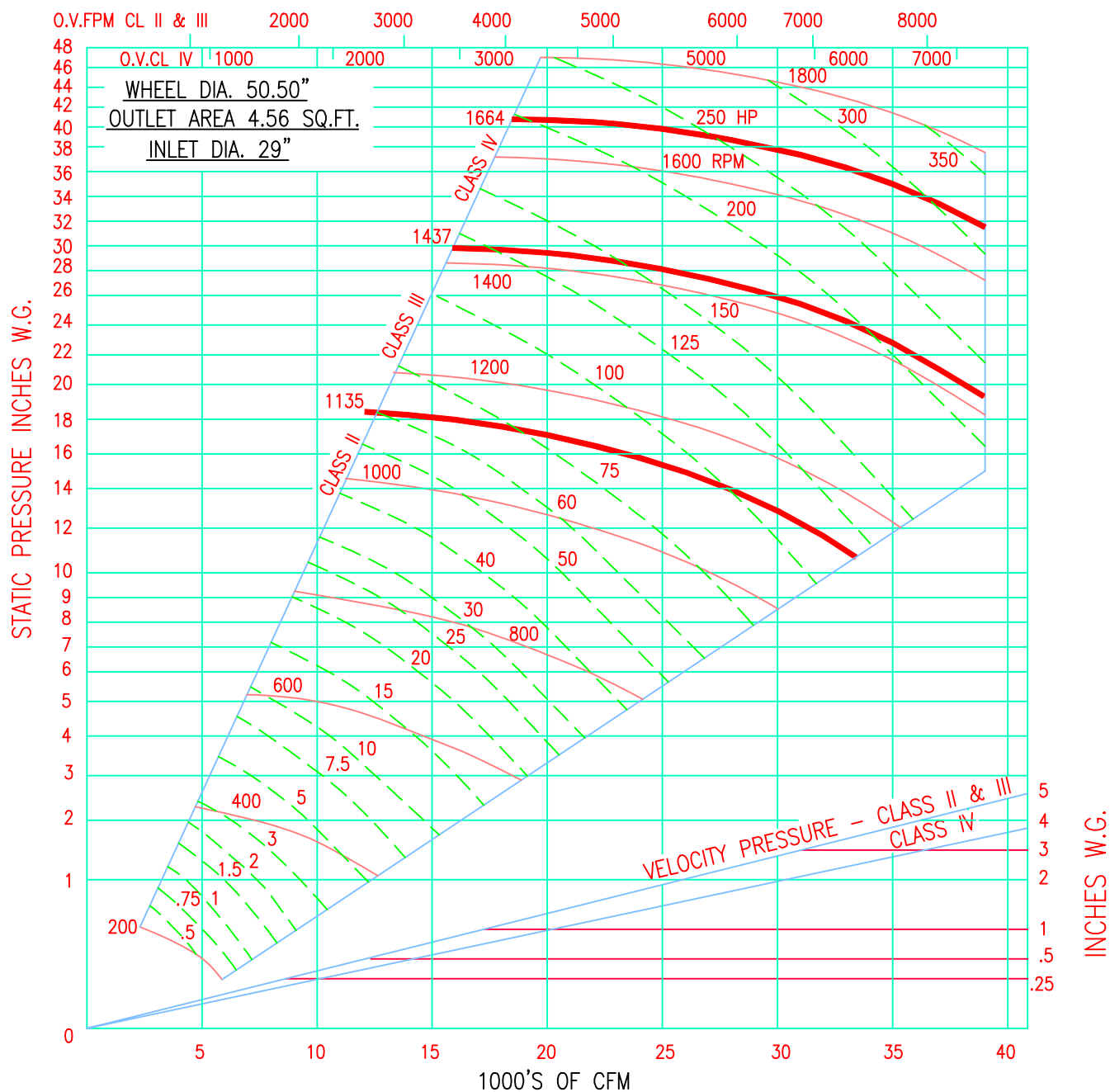
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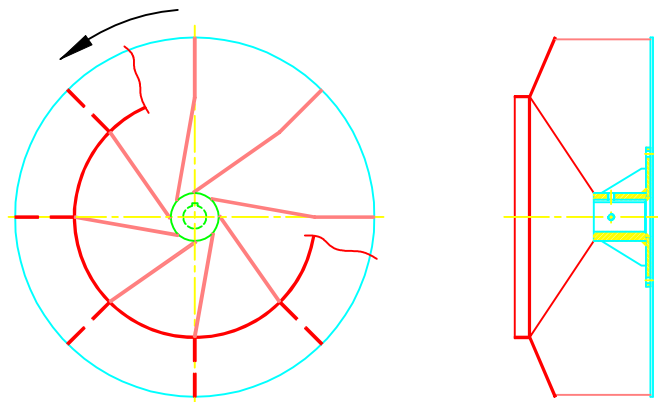
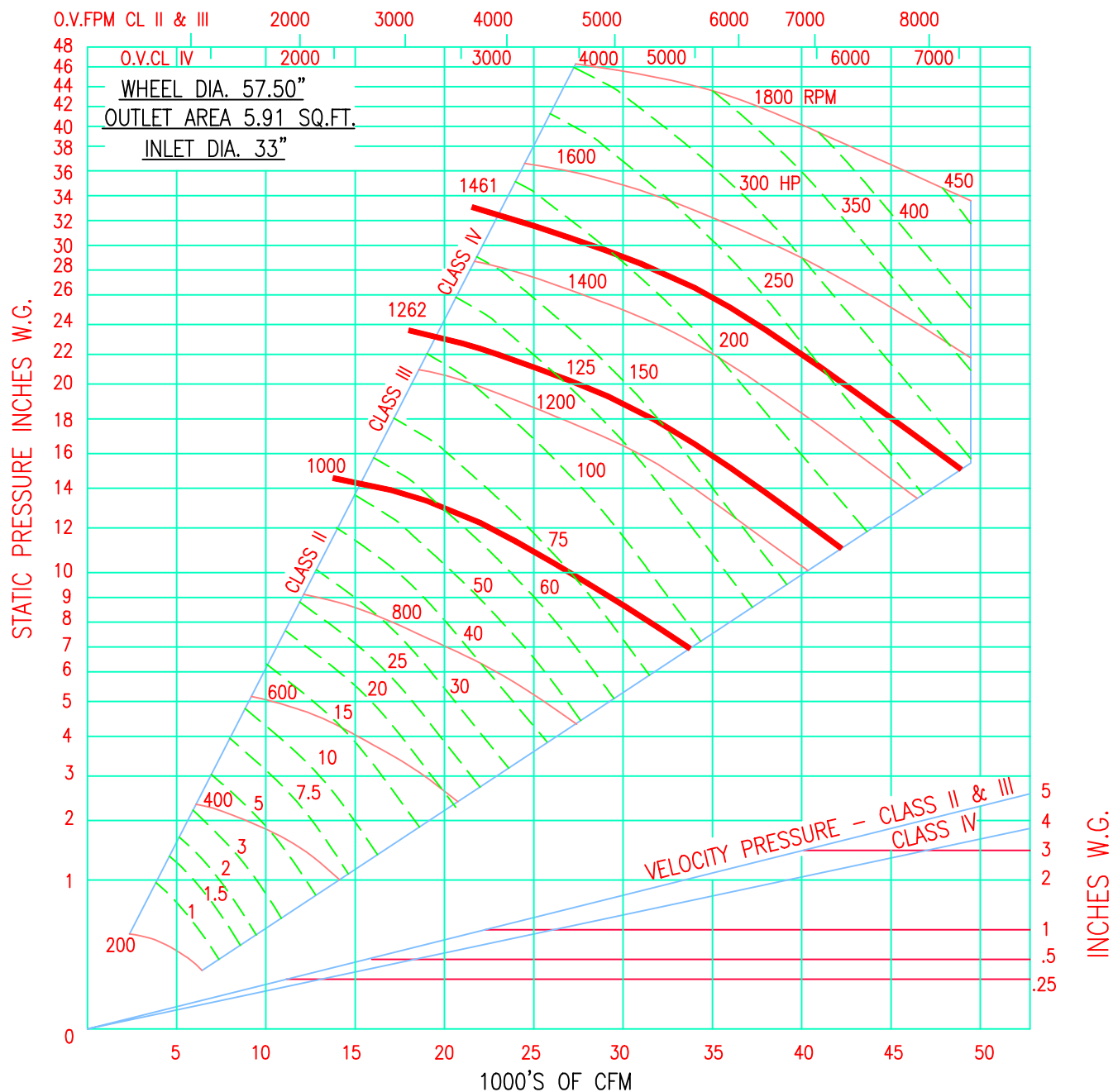
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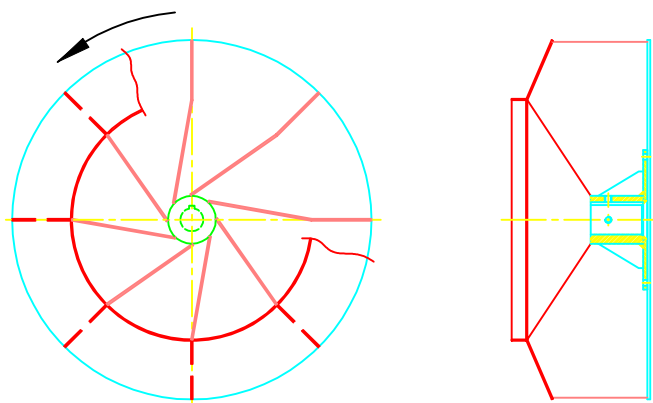
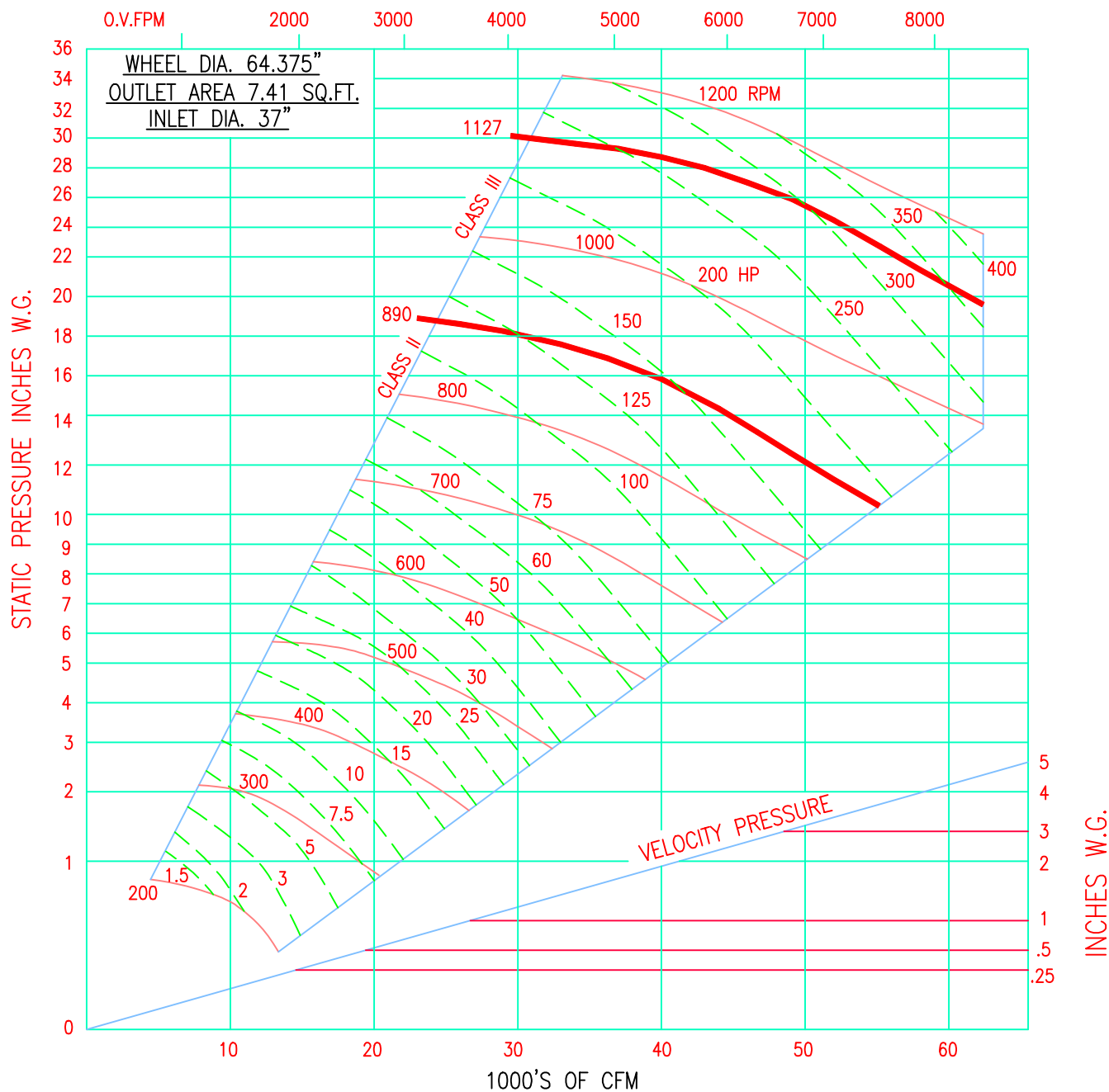
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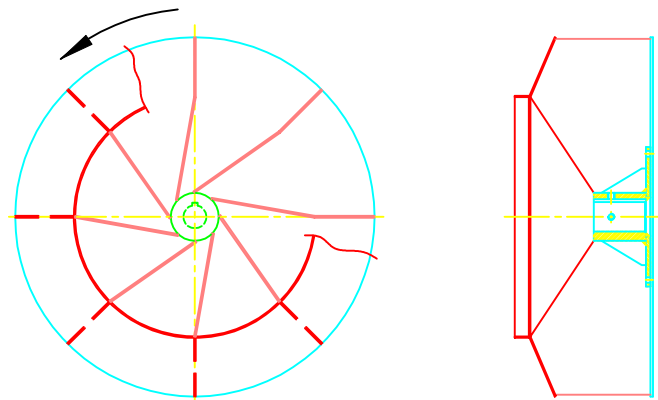
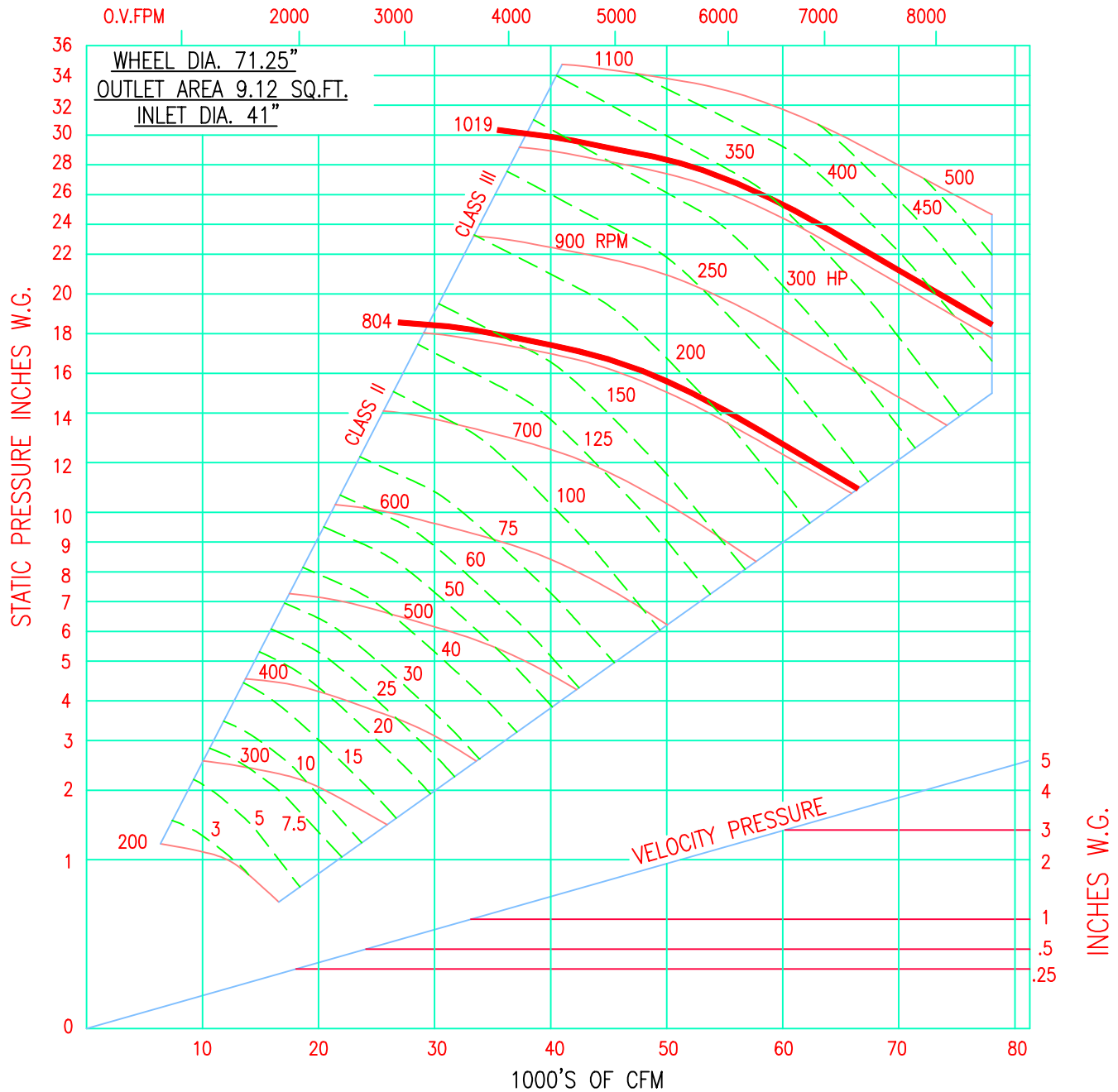
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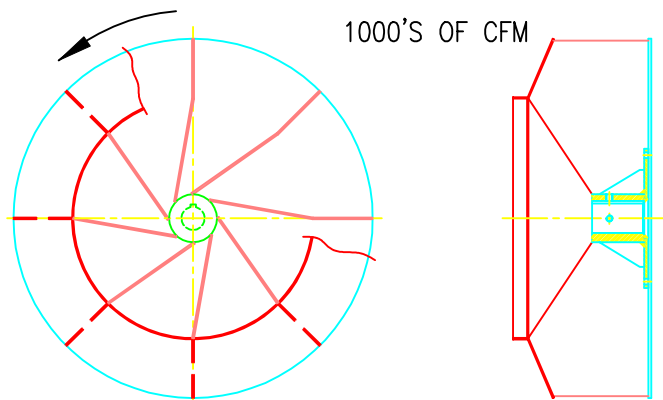
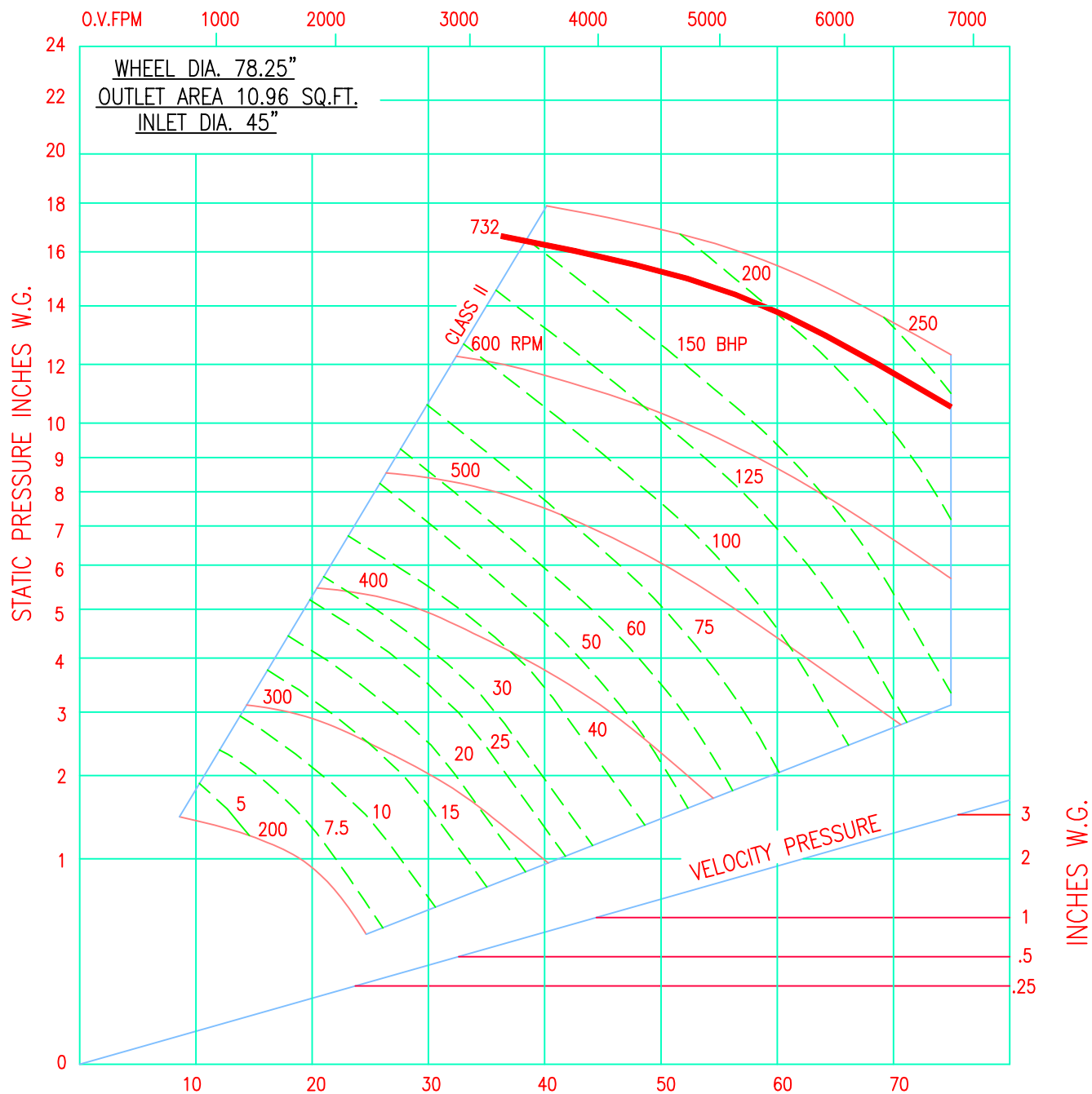
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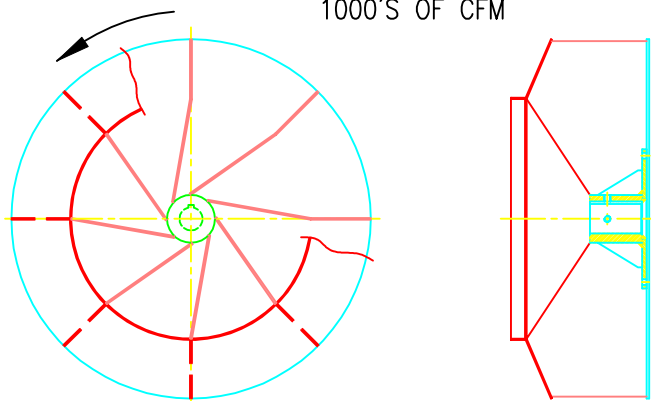
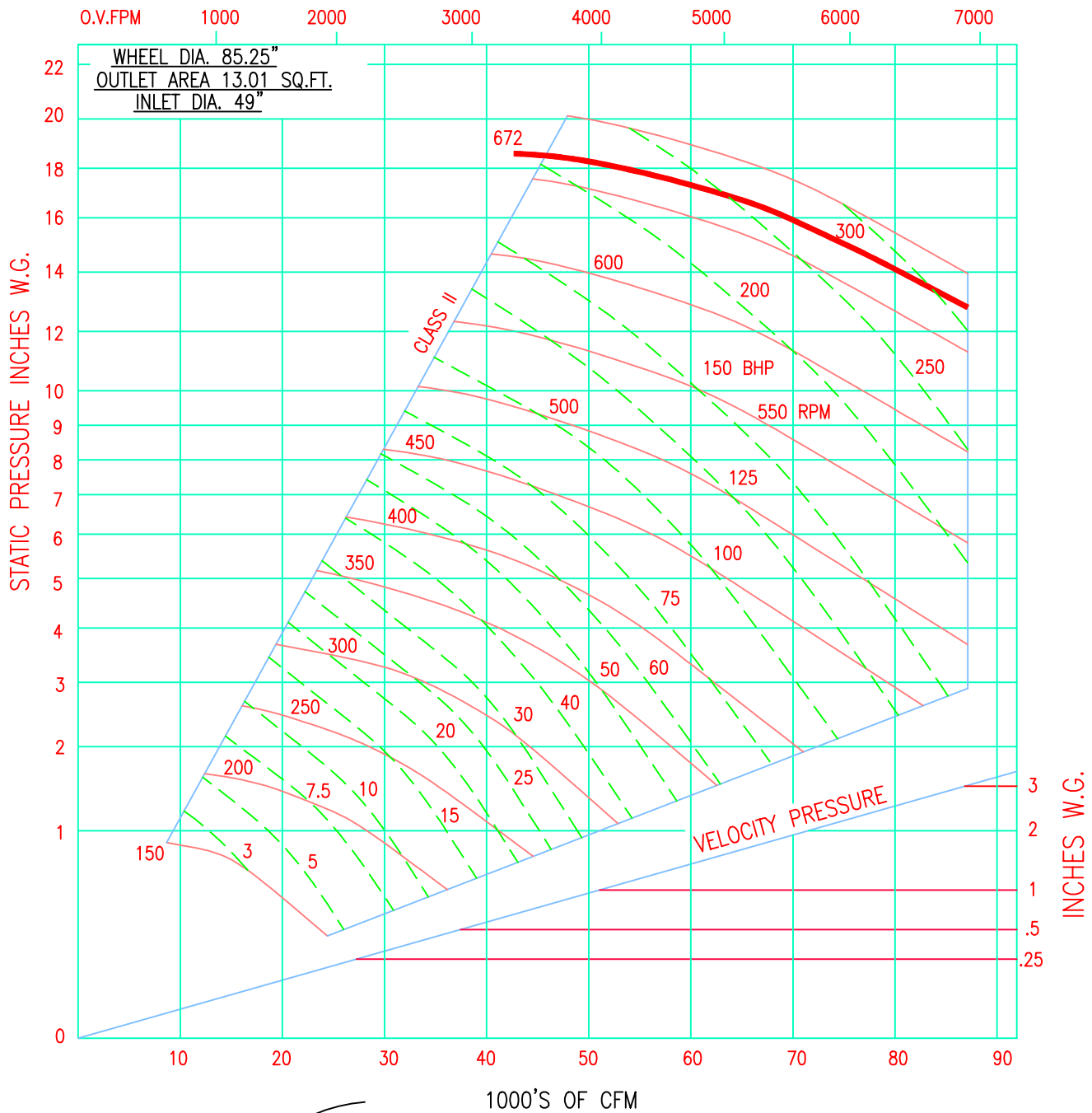
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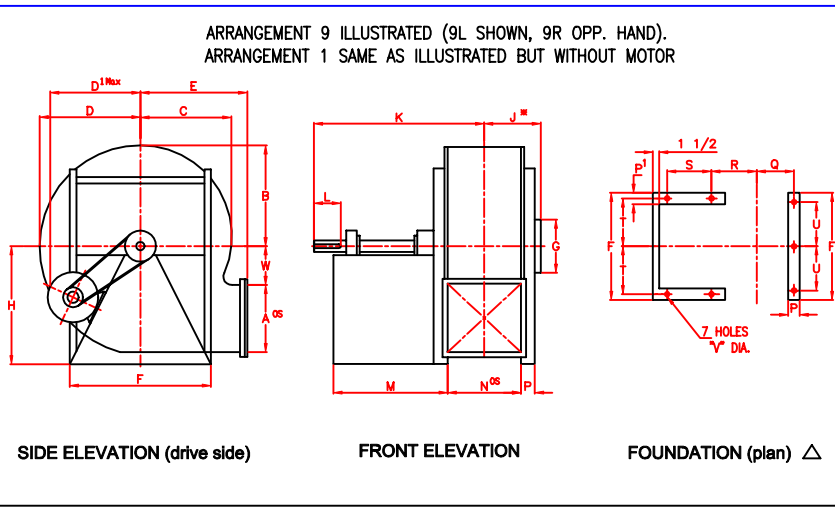
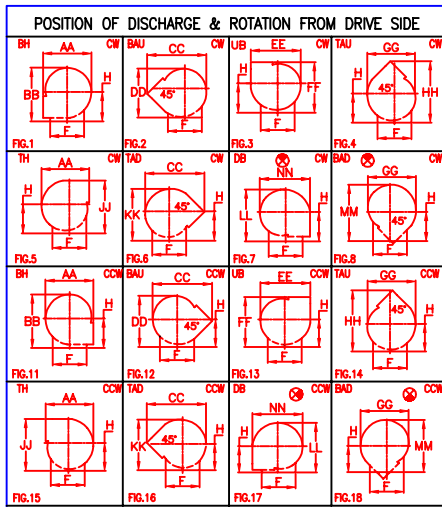
"CLOCK WISE" WHEEL SHOWN



"CLOCK WISE" WHEEL SHOWN



"CLOCK WISE" WHEEL SHOWN



DIMENSIONS - INCHES (DOUBLE LETTER DIMENSIONS ARE FOR OVERALL REFERENCE ONLY)

| FAN SIZE | WHEEL DIA. | SHAFT DIA. | | | KEYWAY SIZE | | | A | B | C | D | D ¹ | E | F | G | H | K | L | M | N | P | P ¹ |
|----------|------------|------------|---------|---------|-------------|----------|----------|----------|----------|----------|----------|----------------|----------|----------|-----------|--------|----------|----------|-----------|----------|----------|----------------|
| | | CL I | CL II | CL III | CL I | CL II | CL III | | | | | | | | | | | | | | | |
| 23 | 40 | 2 3/16 | 2 7/16 | 2 11/16 | 1/2x1/4 | 5/8x5/16 | 5/8x5/16 | 22 1/8 | 29 3/16 | 26 5/16 | 32 1/16 | 34 5/16 | 29 5/8 | 37 | 23 | 39 | 50 3/16 | 7 | 34 1/2 | 19 5/16 | 2 1/2 | 2 1/2 |
| 26 | 45 1/8 | 2 3/16 | 2 11/16 | 2 15/16 | 1/2x1/4 | 5/8x5/16 | 3/4x3/8 | 24 15/16 | 32 15/16 | 29 11/16 | 36 3/16 | 37 3/4 | 33 3/16 | 42 1/2 | 26 | 44 | 52 15/16 | 7 | 36 1/16 | 22 3/16 | 2 1/2 | 3 |
| 29 | 50 1/2 | 2 7/16 | 2 11/16 | 3 3/16 | 5/8x5/16 | 5/8x5/16 | 3/4x3/8 | 27 3/4 | 36 13/16 | 33 3/16 | 40 7/16 | 41 9/16 | 37 | 46 1/4 | 29 | 48 | 58 3/4 | 8 1/2 | 39 1/16 | 24 17/32 | 2 1/2 | 3 |
| 33 | 57 1/2 | 2 7/16 | 2 15/16 | 3 3/16 | 5/8x5/16 | 3/4x3/8 | 3/4x3/8 | 31 3/4 | 41 15/16 | 37 3/4 | 46 | 43 1/8 | 41 15/16 | 51 3/4 | 33 | 54 | 60 7/8 | 8 1/2 | 39 9/16 | 27 11/16 | 2 1/2 | 4 |
| 37 | 64 3/8 | 2 11/16 | 3 3/16 | 3 7/16 | 5/8x5/16 | 3/4x3/8 | 7/8x7/16 | 35 1/2 | 46 7/8 | 42 1/2 | 51 1/2 | 45 13/16 | 46 13/16 | 57 1/2 | 37 | 60 | 62 9/16 | 8 1/2 | 39 9/16 | 31 | 3 | 4 |
| FAN SIZE | Q | R | S | T | U | V | W | XO WHEEL | XB WHEEL | AA | BB | CC | DD | EE | FF | GG | HH | JJ | KK | LL | MM | |
| | | | | | | | | J | J | | | | | | | | | | | | | |
| 23 | 10 7/8 | 13 5/8 | 25 | 17 3/8 | 15 1/2 | 7/8 | 12 3/4 | 15 21/32 | 15 1/8 | 61 11/16 | 68 3/16 | 76 3/16 | 66 3/4 | 64 1/2 | 68 5/8 | 62 3/8 | 84 5/8 | 73 7/8 | 72 1/2 | 71 1/16 | 69 5/8 | |
| 26 | 12 5/16 | 16 1/16 | 26 1/2 | 20 | 18 | 7/8 | 14 7/16 | 17 7/32 | 16 5/8 | 69 3/8 | 76 15/16 | 85 13/16 | 75 1/4 | 72 5/16 | 77 3/16 | 69 1/8 | 95 5/16 | 83 3/8 | 81 7/8 | 80 3/16 | 78 1/2 | |
| 29 | 13 1/2 | 17 1/4 | 29 1/2 | 21 7/8 | 19 3/4 | 7/8 | 16 5/16 | 18 7/32 | 17 9/16 | 77 7/16 | 84 13/16 | 96 | 83 | 80 15/16 | 85 | 77 1/4 | 105 5/16 | 92 1/16 | 90 3/8 | 88 1/2 | 86 5/8 | |
| 33 | 15 1/8 | 18 13/16 | 30 | 24 3/8 | 21 7/8 | 1 | 18 7/16 | 19 29/32 | 19 5/32 | 87 15/16 | 95 15/16 | 109 1/4 | 94 | 92 1/8 | 95 15/16 | 88 | 119 1/8 | 104 3/16 | 102 1/8 | 100 | 98 1/8 | |
| 37 | 17 | 20 1/2 | 30 | 27 1/4 | 24 3/4 | 1 | 20 5/8 | 23 3/16 | 22 11/32 | 98 5/16 | 106 7/8 | 122 | 104 9/16 | 103 | 106 13/16 | 98 3/8 | 132 3/4 | 116 1/8 | 113 13/16 | 111 1/2 | 109 3/16 | |

| FAN SIZE | MAXIMUM MOTOR | | | ARRANGEMENT 9 DRIVE CENTERS | | | | | | | | | | | | | | | |
|----------|---------------|----------|------|-----------------------------|------|---------------|------|---------------|------|---------------|------|---------------|------|---------------|------|---------------|------|---------------|------|
| | T-FRAMES | U-FRAMES | | FRAME 182-184 | | FRAME 213-215 | | FRAME 254-256 | | FRAME 284-286 | | FRAME 324-326 | | FRAME 364-365 | | FRAME 404-405 | | FRAME 444-445 | |
| | ODP&TEFC | ODP | TEFC | MIN. | MAX. | MIN. | MAX. | MIN. | MAX. | MIN. | MAX. | MIN. | MAX. | MIN. | MAX. | MIN. | MAX. | MIN. | MAX. |
| 23 | 365T | 365 | 365 | 22.3 | 25 | 24.6 | 27.6 | 26.3 | 29.8 | 27.1 | 31 | 29.2 | 33.6 | 29.5 | 34.5 | | | | |
| 26 | 405T | 405 | 405 | 21.8 | 24.5 | 24.1 | 27.1 | 26 | 29.3 | 26.7 | 30.5 | 28.8 | 33.3 | 30.1 | 35.1 | 30.6 | 36.3 | | |
| 29 | 444T | 445 | 444 | | | 24.7 | 27.7 | 26.5 | 30 | 27.3 | 31.1 | 29.5 | 33.8 | 30.7 | 35.7 | 32.5 | 38.3 | 33 | 39 |
| 33 | 444T | 445 | 444 | | | 27.7 | 31 | 28.2 | 31.7 | 28.3 | 32.2 | 29 | 33.3 | 31.5 | 36.5 | 34.5 | 40.5 | 37 | 43.5 |
| 37 | 444T | 445 | 444 | | | | | 30.2 | 33.6 | 32 | 36 | 35 | 39.6 | 37.5 | 42.8 | 40.7 | 46.8 | 43.2 | 49.7 |

| ITEM NO | IDENTIFICATION | ARRGT | NO. REQ'D | FAN SIZE | FIG. NO. | WHEEL TYPE | CL. | PERFORMANCE | | | | | | MOTOR DATA | | | |
|---------|----------------|-------|-----------|----------|----------|------------|-----|-------------|------|----|--------|-------|-----|------------|------|--------|---------|
| | | | | | | | | CFM | O.V. | SP | R.P.M. | TEMP. | BHP | ELEV. | H.P. | R.P.M. | CURRENT |
| | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | |

| ITEM NO | MOTOR BASE | DRIVE DATA | | | | MOTOR POS. | VIBRATION BASE TYPE | PADS TYPE | SPECIAL FEATURES |
|---------|------------|--------------|------------|-------|--------|------------|---------------------|-----------|------------------|
| | | MOTOR PULLEY | FAN PULLEY | BELTS | CENTER | | | | |
| | | | | | | | | | |
| | | | | | | | | | |

NOTES

Δ When vibration or unitary base is furnished disregard foundation plan shown above and refer to vibration or unitary base Dwg.
Refer to order acknowledgment for shipping details.

OPTIONAL ACCESSORIES

A=FLANGED INLET PUNCHED
B=CLEANOUT DOOR-BOLTED
C=CLEANOUT DOOR-QUICK CLAMP
D=CLEANOUT DOOR-PLUG TYPE
E=DRAIN OPENING
F=SPECIAL FINISH-SEE NOTES
G=SHAFT SEAL
H=SPARK RESIST.CONST.(SEE NOTES)
J=OUTLET DAMPER
K=SHAFT AND BRG. GUARD
L=HEAVY DUTY HOUSING
M=SHAFT COOLER AND GUARD
N=INLET SCREEN
P=HEAVY DUTY L.S. WHEEL
Q=HORIZONTAL SPLIT HOUSING
R=BELT GUARD
S=EXT. GREASE FITTINGS
T=MOUNT MOTOR & DRIVES
U=INLET BOX
V=INLET BOX DAMPER
W=SLIP FIT INLET



SERIES 9000
ARRANGEMENT 1 & 9 SISW CLASSES I, II & III
FIXED DISCHARGE - SIZES 23 TO 37

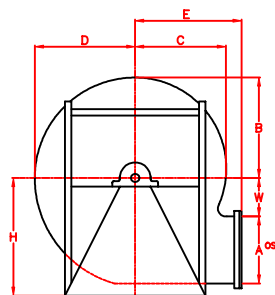
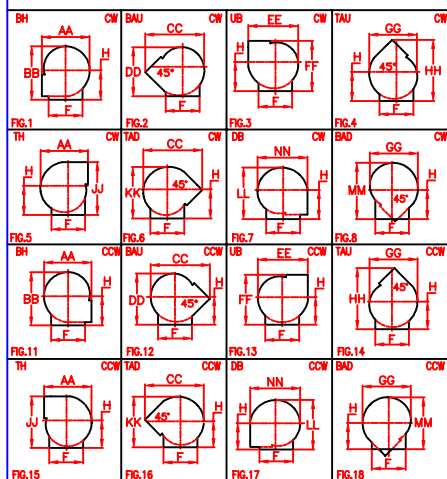
SHELDONS ENGINEERING

www.sheldonsengineering.com
sales@sheldonsengineering.com

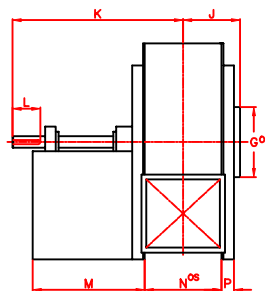
| | | | |
|--|------|--------------|--------------|
| FURNISHED FOR SALES PURPOSE DIMENSIONS NOT CERTIFIED | DATE | SUBMITTED BY | SALES OFFICE |
| DRAWING CERTIFIED BY S.E. FURNISHED FOR APPROVAL - NOT RELEASED FOR PRODUCTION | DATE | ENGINEER | SO# |
| DRAWING CERTIFIED BY S.E. APPROVAL NOT REQUIRED-RELEASED FOR PRODUCTION | DATE | ENGINEER | DWG# |

* WHEEL TYPES: XO = Long Shavings, XB = Air/Material

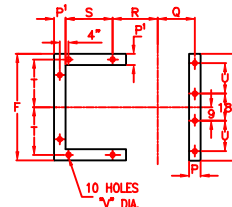
POSITION OF DISCHARGE & ROTATION FROM DRIVE SIDE



SIDE ELEVATION (drive side)



FRONT ELEVATION



FOUNDATION (plan)

DIMENSIONS - INCHES (DOUBLE LETTER DIMENSIONS ARE FOR OVERALL REFERENCE ONLY)

| FAN SIZE | WHEEL DIA. | SHAFT DIA. | | KEYWAY SIZE | | A | B | C | D | E | F | G | H | | | | | | K | L | M | N |
|-------------|---------------|------------|---------|-------------|----------|---------|----------|---------|---------|---------|----|----|----------------|----------------|----------------|----------------|----------------|----------------|--------|-------|---------|--------|
| | | CL II | CL III | CL II | CL III | | | | | | | | FIG. 1 & 11 | FIG. 2 & 12 | FIG. 3 & 13 | FIG. 4 & 14 | FIG. 5 & 15 | FIG. 6 & 16 | | | | |
| 41 | 71 1/4 | 3 7/16 | 3 11/16 | 7/8x7/16 | 7/8x7/16 | 39 1/4 | 51 7/8 | 46 3/4 | 57 | 52 3/32 | 74 | 41 | 67 | 64 | 61 1/2 | 59 | 56 1/2 | 56 1/2 | 66 | 8 1/2 | 44 5/16 | 34 1/2 |
| 45 | 78 1/4 | 3 11/16 | 3 15/16 | 7/8x7/16 | 1"x1/2 | 43 1/16 | 56 15/16 | 51 5/16 | 62 9/16 | 57 | 74 | 45 | 72 1/2 | 72 1/2 | 67 | 64 | 61 1/2 | 59 | 67 5/8 | 8 1/2 | 44 5/16 | 37 3/4 |

| FAN SIZE | P | P ¹ | Q | R | S | T | T ¹ | U | V | W | XO WHEEL ¹ J | XB WHEEL ¹ J | AA | BB | CC | DD | EE | FF | GG | HH | JJ | KK |
|----------|---|----------------|--------|--------|---------|----|----------------|----|-------|--------|----------------------------|----------------------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| 41 | 4 | 5 | 19 3/4 | 23 1/4 | 32 5/16 | 35 | 20 | 21 | 15/16 | 22 7/8 | 24 1/2 | 23 1/4 | 114 | 119 | 142 | 114 | 122 | 115 | 117 | 142 | 122 | 116 |
| 45 | 4 | 5 | 21 3/8 | 24 7/8 | 32 5/16 | 35 | 20 | 21 | 15/16 | 25 1/8 | | 25 1/32 | 125 | 130 | 155 | 127 | 134 | 125 | 128 | 155 | 133 | 125 |

| ITEM NO. | IDENTIFICATION | ARRGT | NO. REQ'D | FAN SIZE | FIG. NO. | WHEEL TYPE | CL. | PERFORMANCE | | | | | | MOTOR DATA | | | | | |
|----------|----------------|-------|-----------|----------|----------|------------|-----|-------------|------|----|--------|-------|-----|------------|------|--------|---------|-------|------|
| | | | | | | | | CFM | O.V. | SP | R.P.M. | TEMP. | BHP | ELEV. | H.P. | R.P.M. | CURRENT | FRAME | TYPE |
| | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | |

| ITEM NO. | MOTOR BASE | DRIVE DATA | | | | MOTOR POS. | VIBRATION BASE TYPE | PADS TYPE | SPECIAL FEATURES |
|----------|------------|--------------|------------|-------|--------|------------|---------------------|-----------|------------------|
| | | MOTOR PULLEY | FAN PULLEY | BELTS | CENTER | | | | |
| | | | | | | | | | |
| | | | | | | | | | |
| | | | | | | | | | |

NOTES

SPECIAL FEATURES

A=FLANGED INLET
B=FLANGED OUTLET
C=CLEANOUT DOOR-BOLTED
D=CLEANOUT DOOR-QUICK CLAMP
E=CLEANOUT DOOR-PLUG TYPE
F=DRAIN OPENING
G=SPECIAL FINISH-SEE NOTES
H=SHAFT SEAL
J=SPARK RESIST.CONST.(SEE NOTES)
K=OUTLET DAMPER -ST'D
L=OUTLET DAMPER-PARAFLO
M=HEAVY DUTY HOUSING
N=STAINLESS STEEL (SEE NOTES)
P=COOLING WHEEL
Q=INLET SCREEN
R=HEAVY DUTY L.S. WHEEL
S=INSULATION STUDS
T=SLIP FIT INLET

CUSTOMER _____

JOB NAME _____

LOCATION _____

P.O.# _____

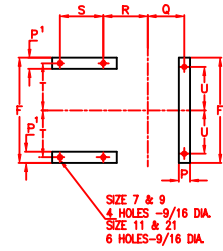
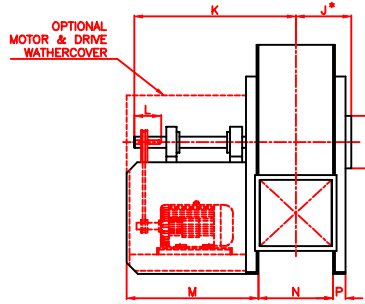
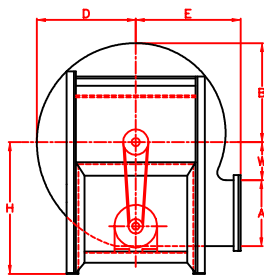


SERIES 9000
ARRANGEMENT 1 & 9 SISW CLASSES II & III
FIXED DISCHARGE - SIZES 41 & 45
SHELDONS ENGINEERING

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sales@sheldonsengineering.com

| | | | |
|---|------|--------------|--------------|
| FURNISHED FOR SALES PURPOSE DIMENSIONS NOT CERTIFIED | DATE | SUBMITTED BY | SALES OFFICE |
| DRAWING CERTIFIED BY S.E. APPROVAL-NOT RELEASED FOR PRODUCTION | DATE | ENGINEER | SO# |
| DRAWING CERTIFIED BY S.E. APPROVAL-NOT REQUIRED-RELEASED FOR PRODUCTION | DATE | ENGINEER | DWG# |

* WHEEL TYPES: XO = Long Shavings, XB = Air/Material



DIMENSIONS - INCHES (DOUBLE LETTER DIMENSIONS ARE FOR OVERALL REFERENCE ONLY)

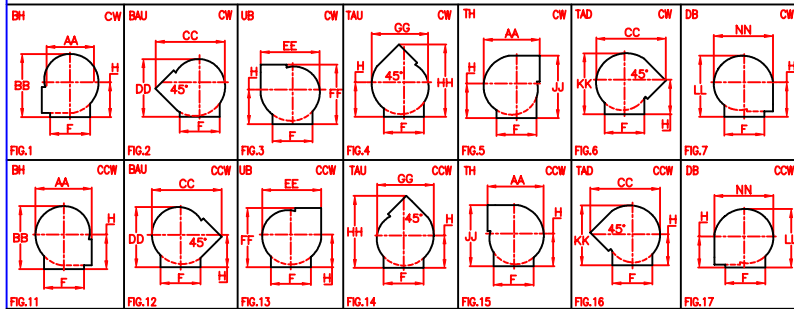
| FAN SIZE | WHEEL TYPE | | SHAFT DIA. | | KEYWAY SIZE | | A | B | D | E | F | F' | G | H | K | L | M |
|----------|------------|--------|------------|---------|-------------|----------|---------|----------|----------|----------|--------|--------|----|----|---------|-------|--------|
| | XO | XB | CL I | CL II | CL I | CL II | | | | | | | | | | | |
| 7 | 12 1/4 | 12 1/4 | 15/16 | 1 3/16 | 1/4x1/8 | 1/4x1/8 | 6 13/16 | 8 7/8 | 9 3/4 | 9 5/16 | 14 5/8 | | 7 | 17 | 20 9/16 | 3 | 18 1/2 |
| 11 | 19 1/8 | 19 1/8 | 1 3/16 | 1 7/16 | 1/4x1/8 | 3/8x3/16 | 10 5/8 | 13 15/16 | 15 5/16 | 14 1/2 | 17 3/8 | 13 1/2 | 11 | 20 | 26 5/16 | 4 | 22 3/4 |
| 13 | 22 5/8 | 22 5/8 | 1 3/16 | 1 7/16 | 1/4x1/8 | 3/8x3/16 | 12 5/8 | 16 9/16 | 18 3/16 | 16 15/16 | 21 | 17 | 13 | 23 | 32 7/16 | 4 1/2 | 28 |
| 15 | 26 1/8 | 26 1/8 | 1 7/16 | 1 15/16 | 3/8x3/16 | 1/2x1/4 | 14 1/2 | 19 1/16 | 20 15/16 | 19 3/8 | 18 3/8 | 18 1/2 | 15 | 26 | 35 3/8 | 5 1/4 | 30 |
| 17 | 29 5/8 | 29 5/8 | 1 7/16 | 1 15/16 | 3/8x3/16 | 1/2x1/4 | 16 7/16 | 21 9/16 | 23 11/16 | 21 3/4 | 21 | 21 | 17 | 29 | 38 9/16 | 5 1/2 | 32 1/2 |
| 19 | 33 | 33 | 1 11/16 | 2 3/16 | 3/8x3/16 | 1/2x1/4 | 18 1/4 | 24 | 26 3/8 | 24 3/16 | 22 3/8 | 23 | 19 | 32 | 41 3/8 | 5 3/4 | 34 3/8 |
| 21 | 36 1/2 | 36 1/2 | 1 15/16 | 2 3/16 | 1/2x1/4 | 1/2x1/4 | 20 3/16 | 26 9/16 | 29 3/16 | 26 5/8 | 26 3/8 | 25 | 21 | 35 | 42 1/4 | 5 3/4 | 34 3/8 |

| FAN SIZE | N | P | P' | Q | R | S | T | U | W | MAX. FRAME |
|----------|----------|-------|-------|---------|----------|---------|---------|--------|---------|------------|
| 7 | 6 5/16 | | 1 5/8 | | 6 23/32 | 11 5/8 | 6 9/16 | | 3 13/16 | 145T |
| 11 | 9 5/16 | 1 1/2 | 1 5/8 | 5 17/32 | 8 3/32 | 15 7/8 | 7 15/16 | 4 1/2 | 6 1/16 | 215T |
| 13 | 11 1/16 | 2 | 1 5/8 | 6 21/32 | 9 1/32 | 21 1/16 | 10 1/8 | 7 1/16 | 7 3/16 | 215T |
| 15 | 12 3/4 | 2 | 2 1/8 | 7 1/2 | 9 7/8 | 23 1/16 | 8 7/16 | 8 3/16 | 8 5/16 | 215T |
| 17 | 14 3/8 | 2 | 2 1/8 | 8 5/16 | 10 11/16 | 25 1/2 | 9 5/8 | 9 3/16 | 9 3/8 | 215T |
| 19 | 6 | 2 | 2 1/8 | 9 1/8 | 11 1/2 | 27 3/8 | 10 7/16 | 10 1/4 | 10 1/2 | 236T |
| 21 | 17 11/16 | 2 | 2 1/8 | 9 31/32 | 12 11/32 | 27 3/4 | 12 7/16 | 11 1/4 | 11 5/8 | 236T |

OPTIONAL ACCESSORIES

A=FLANGED INLET
 B=FLANGED OUTLET
 C=CLEANOUT DOOR-BOLTED
 D=CLEANOUT DOOR-QUICK CLAMP
 E=CLEANOUT DOOR-PLUG TYPE
 F=DRAIN OPENING
 G=SPECIAL FINISH-SEE NOTES
 H=SHAFT SEAL
 J=OUTLET DAMPER
 K=HEAVY DUTY HOUSING
 L=COOLING WHEEL
 M=INLET SCREEN
 N=HEAVY DUTY XO WHEEL
 P=BELT GUARD
 Q=SLIP FIT INLET
 R=MOTOR AND DRIVE WEATHERCOVER
 S=XB WHEEL

POSITION OF DISCHARGE & ROTATION FROM DRIVE SIDE



| ITEM NO. | IDENTIFICATION | NO. REQD. | WHEEL DATA | | FIG. NO. | PERFORMANCE | | | | | | |
|----------|----------------|-----------|------------|------|----------|-------------|------|----|--------|-----|-------|-------|
| | | | SIZE | TYPE | | CFM | O.V. | SP | R.P.M. | BHP | TEMP. | ELEV. |
| | | | | | | | | | | | | |
| | | | | | | | | | | | | |
| | | | | | | | | | | | | |
| | | | | | | | | | | | | |

| ITEM NO. | MOTOR DATA | | | | | DRIVE DATA | | | | |
|----------|------------|--------|---------|-------|------|--------------|------------|-------|--------|------------------|
| | H.P. | R.P.M. | CURRENT | FRAME | TYPE | MOTOR PULLEY | FAN PULLEY | BELTS | CENTER | SPECIAL FEATURES |
| | | | | | | | | | | |
| | | | | | | | | | | |
| | | | | | | | | | | |

NOTES

CUSTOMER _____
 JOB NAME _____ P.O.# _____
 LOCATION _____



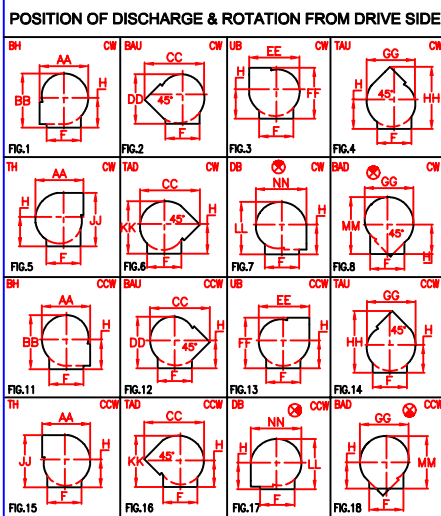
SERIES 9000
ARRANGEMENT 10 SISW CLASSES II & III
FIXED DISCHARGE

SHELDONS ENGINEERING

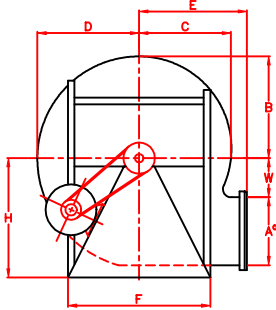
www.sheldonsengineering.com
sales@sheldonsengineering.com

| | | | |
|---|------|--------------|--------------|
| FURNISHED FOR SALES PURPOSE-DIMENSIONS NOT CERTIFIED | DATE | SUBMITTED BY | SALES OFFICE |
| DRAWING CERTIFIED BY S.E. APPROVAL-NOT RELEASED FOR PRODUCTION | DATE | ENGINEER | SO# |
| DRAWING CERTIFIED BY S.E. APPROVAL-NOT REQUIRED-RELEASED FOR PRODUCTION | DATE | ENGINEER | DWG# |

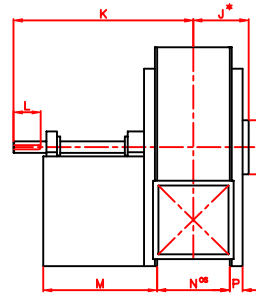
* WHEEL TYPES: XO = Long Shavings, XB = Air/Material



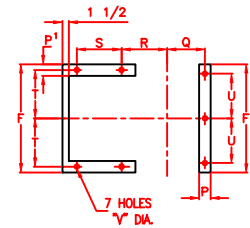
ARRANGEMENT 9 ILLUSTRATED (9L SHOWN, 9R OPP. HAND).
ARRANGEMENT 1 SAME AS ILLUSTRATED BUT WITHOUT MOTOR



SIDE ELEVATION (drive side)



FRONT ELEVATION



FOUNDATION (plan) Δ

DIMENSIONS - INCHES (DOUBLE LETTER DIMENSIONS ARE FOR OVERALL REFERENCE ONLY)

| FAN SIZE | WHEEL DIA. | SHAFT DIA. | KEYWAY SIZE | A | B | C | D | E | F | G | H | K | L | M | N | P | P ¹ | Q |
|----------|------------|------------|-------------|----------|---------|----------|----------|----------|--------|----|----|---------|--------|----------|----------|-------|----------------|----------|
| 23 | 40 | 3 7/16 | 7/8 x 7/16 | 22 1/8 | 29 5/8 | 26 3/4 | 32 1/2 | 30 1/8 | 37 | 23 | 39 | 51 5/8 | 8 1/2 | 34 3/16 | 19 5/16 | 2 1/2 | 3 | 10 13/16 |
| 26 | 45 1/8 | 3 11/16 | 7/8 x 7/16 | 24 15/16 | 33 3/8 | 30 1/8 | 36 5/8 | 33 11/16 | 42 1/2 | 26 | 44 | 54 5/16 | 8 | 36 21/32 | 22 3/16 | 2 1/2 | 3 | 12 5/16 |
| 29 | 50 1/2 | 3 15/16 | 1 x 1/2 | 27 3/4 | 37 5/16 | 33 11/16 | 40 15/16 | 37 1/2 | 46 1/4 | 29 | 48 | 58 | 11 1/2 | 35 3/4 | 24 1/2 | 2 1/2 | 3 | 13 3/8 |
| 33 | 57 1/2 | 4 3/16 | 1 x 1/2 | 31 3/4 | 42 9/16 | 38 5/16 | 46 9/16 | 42 7/16 | 51 3/4 | 33 | 54 | 64 1/8 | 11 1/2 | 40 17/32 | 27 11/16 | 2 1/2 | 3 | 15 1/8 |

| FAN SIZE | R | S | T | U | V | W | J | AA | BB | CC | DD | EE | FF | GG | HH | JJ | KK |
|----------|----------|--------|--------|--------|-----|---------|----------|---------|---------|----------|---------|--------|----------|--------|-----------|----------|----------|
| 23 | 14 19/32 | 28 | 17 1/4 | 15 1/2 | 7/8 | 12 3/4 | 15 21/32 | 62 5/8 | 68 5/8 | 78 7/16 | 67 3/16 | 66 1/2 | 69 1/8 | 62 1/8 | 86 3/8 | 75 7/8 | 72 15/16 |
| 26 | 16 3/8 | 30 1/8 | 20 | 18 | 7/8 | 14 7/16 | 17 7/32 | 70 5/16 | 77 3/8 | 88 1/16 | 75 3/4 | 74 3/4 | 77 11/16 | 70 | 97 1/16 | 85 3/8 | 82 1/4 |
| 29 | 15 1/4 | 31 1/2 | 22 | 19 3/4 | 7/8 | 16 5/16 | 18 7/32 | 78 7/16 | 85 5/16 | 98 1/4 | 83 1/2 | 83 3/8 | 85 1/2 | 78 1/4 | 107 1/16 | 94 1/16 | 90 3/4 |
| 33 | 19 1/8 | 34 | 24 5/8 | 21 7/8 | 1 | 18 7/16 | 19 29/32 | 89 | 96 9/16 | 111 7/16 | 94 3/8 | 94 3/4 | 96 7/16 | 89 | 120 15/16 | 106 3/16 | 102 5/8 |

| MAXIMUM MOTOR | | | | ARRANGEMENT 9 DRIVE CENTERS | | | | | | | | | | | | | | | |
|---------------|----------|----------|---------------|-----------------------------|---------------|---------------|---------------|---------------|---------------|---------------|------|------|------|------|------|------|------|------|------|
| FAN SIZE | T-FRAMES | U-FRAMES | FRAME 182-184 | FRAME 213-215 | FRAME 254-256 | FRAME 284-286 | FRAME 324-326 | FRAME 364-365 | FRAME 404-405 | FRAME 444-445 | | | | | | | | | |
| | ODP&TEFC | ODP | TEFC | MIN. | MAX. | MIN. | MAX. | MIN. | MAX. | MIN. | MAX. | MIN. | MAX. | MIN. | MAX. | MIN. | MAX. | MIN. | MAX. |
| 23 | 365T | 365 | 365 | 22.3 | 25 | 24.6 | 27.6 | 26.3 | 29.8 | 27.1 | 31 | 28.9 | 32.9 | 29.5 | 34.5 | | | | |
| 26 | 405T | 405 | 405 | 22.6 | 24.3 | 24.8 | 26.9 | 26.7 | 28.8 | 27.4 | 29.9 | 29.6 | 32.7 | 30.8 | 34.5 | 31.0 | 35.4 | | |
| 29 | 444T | 445 | 444 | | | 25.3 | 27.4 | 27.0 | 29.2 | 28 | 30.5 | 30.1 | 33.2 | 31.5 | 35.2 | 33.1 | 37.6 | 33.6 | 38.5 |
| 33 | 444T | 445 | 444 | | | 30.1 | 32.3 | 30.5 | 32.6 | 30.7 | 33.2 | 31.3 | 34.4 | 33.8 | 37.6 | 36.9 | 41.6 | 39.4 | 44.4 |

| ITEM NO. | IDENTIFICATION | ARRGT | NO. REQD. | FAN SIZE | FIG. NO. | WHEEL TYPE | CL. | PERFORMANCE | | | | | | | MOTOR DATA | | | | |
|----------|----------------|-------|-----------|----------|----------|------------|-----|-------------|------|----|--------|-------|-----|-------|------------|--------|---------|-------|------|
| | | | | | | | | CFM | O.V. | SP | R.P.M. | TEMP. | BHP | ELEV. | H.P. | R.P.M. | CURRENT | FRAME | TYPE |
| | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | |

| ITEM NO. | MOTOR BASE | DRIVE DATA | | | | MOTOR POS. | VIBRATION BASE TYPE | PADS TYPE | SPECIAL FEATURES |
|----------|------------|--------------|------------|-------|--------|------------|---------------------|-----------|------------------|
| | | MOTOR PULLEY | FAN PULLEY | BELTS | CENTER | | | | |
| | | | | | | | | | |
| | | | | | | | | | |
| | | | | | | | | | |
| | | | | | | | | | |

NOTES

When vibration or unitary base is furnished disregard foundation plan shown above and refer to vibration or unitary base Dwg.
Refer to order acknowledgment for shipping details.

OPTIONAL ACCESSORIES

A=FLANGED INLET
B=CLEANOUT DOOR-BOLTED 9 O'CLOCK
C=CLEANOUT DOOR-QUICK CLAMP
D=CLEANOUT DOOR-PLUG TYPE
E=DRAIN OPENING
F=SPECIAL FINISH-SEE NOTES
G=SHAFT SEAL
H=SPARK RESIST.CONST.(SEE NOTES)
J=OUTLET DAMPER
K=SHAFT AND BRG. GUARD
L=HEAVY DUTY HOUSING
M=SHAFT COOLER AND GUARD
N=INLET SCREEN
P=HEAVY DUTY L.S. WHEEL
Q=HORIZONTAL SPLIT HOUSING
R=BELT GUARD
S=EXT. GREASE FITTINGS
T=MOUNT MOTOR & DRIVES
U=INLET BOX
V=INLET BOX DAMPER
W=FLANGED OUTLET
X=SPRAY NOZZLE 2"NPT @11 O'CLOCK

CUSTOMER _____

JOB NAME _____

LOCATION _____

P.O.# _____

SERIES 9000

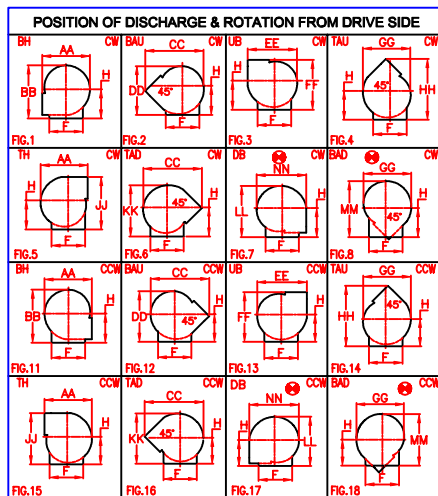
**ARRANGEMENT 1 & 9 SISW CLASS IV
FIXED DISCHARGE - SIZES 23 TO 33**

SHELDONS ENGINEERING

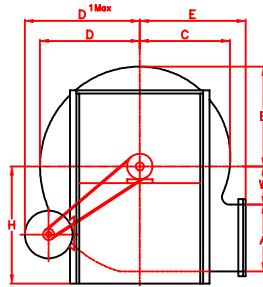
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|--|------|--------------|--------------|
| FURNISHED FOR SALES PURPOSES-DIMENSIONS NOT CERTIFIED | DATE | SUBMITTED BY | SALES OFFICE |
| DRAWING CERTIFIED BY S.E. FURNISHED FOR APPROVAL-NOT RELEASED FOR PRODUCTION | DATE | ENGINEER | SO# |
| DRAWING CERTIFIED BY S.E. APPROVAL NOT REQUIRED-RELEASED FOR PRODUCTION | DATE | ENGINEER | DWG# |

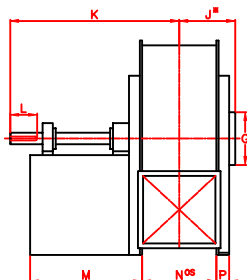
* WHEEL TYPES: XO = Long Shavings, XB = Air/Material



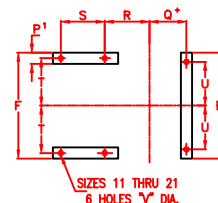
ARRANGEMENT 9 ILLUSTRATED (9L SHOWN, 9R OPP. HAND).
ARRANGEMENT 1 SAME AS ILLUSTRATED BUT WITHOUT MOTOR



SIDE ELEVATION (drive side)



FRONT ELEVATION



FOUNDATION (plan) ▲

DIMENSIONS - INCHES (DOUBLE LETTER DIMENSIONS ARE FOR OVERALL REFERENCE ONLY)

| FAN SIZE | WHEEL DIA. | SHAFT DIA. | KEYWAY SIZE | A | B | C | D | E | F | F' | G | H | K | L | M | N | P | P' | Ø |
|----------|------------|------------|-------------|---------|---------|----------|----------|----------|--------|--------|----|----|----------|-------|----------|----------|-------|-------|---------|
| 11 | 19 1/8 | 1 15/16 | 1/2x1/4 | 10 5/8 | 14 7/16 | 13 1/6 | 15 13/16 | 15 | 18 | 13 1/2 | 11 | 20 | 29 1/8 | 4 1/2 | 19 13/16 | 9 5/16 | 1 1/2 | 1 1/2 | 5 17/32 |
| 13 | 22 5/8 | 2 3/16 | 1/2x1/4 | 12 5/8 | 17 1/16 | 15 7/16 | 18 11/16 | 17 7/16 | 21 | 17 | 13 | 23 | 35 5/8 | 5 1/2 | 25 1/8 | 11 1/16 | 2 | 2 | 6 21/32 |
| 15 | 26 1/8 | 2 7/16 | 5/8x5/16 | 14 1/2 | 19 9/16 | 17 11/16 | 21 7/16 | 19 7/8 | 24 | 18 1/2 | 15 | 26 | 38 7/16 | 6 | 26 3/8 | 12 3/4 | 2 | 2 | 7 1/2 |
| 17 | 29 5/8 | 2 11/16 | 5/8x5/16 | 16 7/16 | 22 1/16 | 19 15/16 | 24 3/16 | 22 1/4 | 27 | 21 | 17 | 29 | 41 15/16 | 6 | 30 3/16 | 14 3/8 | 2 | 3 | 8 5/16 |
| 19 | 33 | 2 15/16 | 3/4x3/8 | 18 1/4 | 24 1/2 | 22 1/8 | 26 7/8 | 24 11/16 | 30 | 23 | 19 | 32 | 45 3/8 | 7 | 31 3/8 | 16 | 2 | 3 | 9 1/8 |
| 21 | 36 1/2 | 3 3/16 | 3/4x3/8 | 20 3/16 | 27 1/16 | 24 7/16 | 29 11/16 | 27 1/8 | 33 1/2 | 25 | 21 | 35 | 46 5/8 | 7 | 31 3/4 | 17 11/16 | 2 | 3 | 9 11/32 |

+ FOR TYPE "C" SPARK RESISTANT CONSTRUCTION 200 F AND ABOVE, ADD 3/8" TO DIMENSIONS SHOWN.

| FAN SIZE | R | S | T | U | V | W | LS WHEEL* | AA | BB | CC | DD | EE | FF | GG | HH | JJ | KK | LL | MM | NN |
|----------|----------|---------|--------|--------|-----|--------|-----------|----------|---------|---------|---------|--------|----------|--------|---------|---------|---------|----------|----------|--------|
| 11 | 8 3/32 | 15 3/4 | 8 3/8 | 4 1/2 | 1/2 | 6 1/16 | 8 3/32 | 30 13/16 | 34 7/16 | 38 5/8 | 33 3/4 | 32 5/8 | 35 | 30 1/4 | 43 1/2 | 38 3/16 | 36 1/2 | 35 13/16 | 35 1/8 | 31 1/8 |
| 13 | 9 1/32 | 20 3/4 | 9 5/8 | 7 1/16 | 5/8 | 7 3/16 | 9 7/32 | 36 1/8 | 40 1/16 | 45 1/4 | 39 1/4 | 38 3/8 | 40 7/16 | 35 3/4 | 50 7/16 | 44 5/16 | 42 1/2 | 41 11/16 | 40 7/8 | 36 7/8 |
| 15 | 8 7/8 | 23 | 11 1/8 | 8 3/16 | 5/8 | 8 5/16 | 10 1/8 | 41 5/16 | 45 9/16 | 51 3/4 | 44 5/8 | 43 7/8 | 45 7/8 | 41 | 57 1/4 | 50 5/16 | 48 3/8 | 47 7/16 | 46 1/2 | 42 3/8 |
| 17 | 11 11/16 | 24 5/16 | 12 1/4 | 9 3/16 | 5/8 | 9 3/8 | 11 1/16 | 46 7/16 | 51 1/16 | 58 3/16 | 50 | 49 3/8 | 51 1/4 | 46 1/4 | 64 1/16 | 56 5/16 | 54 1/4 | 53 3/16 | 52 1/8 | 47 7/8 |
| 19 | 12 7/8 | 25 1/4 | 13 3/4 | 10 1/4 | 5/8 | 10 1/2 | 12 | 51 9/16 | 56 1/2 | 64 9/16 | 55 5/16 | 54 3/4 | 56 11/16 | 51 3/8 | 70 7/8 | 62 1/4 | 60 1/16 | 58 7/8 | 57 11/16 | 53 1/4 |
| 21 | 13 23/32 | 25 5/8 | 15 1/2 | 11 1/4 | 5/8 | 11 5/8 | 14 1/32 | 56 13/16 | 62 1/16 | 71 1/8 | 60 3/4 | 60 3/8 | 62 1/8 | 56 3/4 | 77 3/4 | 68 5/16 | 66 | 64 11/16 | 63 3/8 | 58 7/8 |

| | | MAXIMUM MOTOR | | ARRANGEMENT 9 DRIVE CENTERS | | | | | | | | | | | | | | | |
|-------------|----------|---------------|------|-----------------------------|------|---------------|-------|---------------|-------|---------------|-------|---------------|-------|---------------|-------|---------------|-------|---------------|-------|
| FAN SIZE | T-FRAMES | U-FRAMES | | FRAME 56 | | FRAME 143-145 | | FRAME 182-184 | | FRAME 213-215 | | FRAME 254-256 | | FRAME 284-286 | | FRAME 324-326 | | FRAME 364-365 | |
| | ODP&TEFC | ODP | TEFC | MIN. | MAX. | MIN. | MAX. | MIN. | MAX. | MIN. | MAX. | MIN. | MAX. | MIN. | MAX. | MIN. | MAX. | MIN. | MAX. |
| 11 | 215T | 215 | 215 | | | 14.5 | 16.8 | 15.5 | 17.68 | 16.5 | 18.6 | | | | | | | | |
| 13 | 256T | 256 | 256 | | | 16.0 | 18.3 | 17.0 | 19.25 | 17.62 | 20 | 18.75 | 21.43 | | | | | | |
| 15 | 286 | 286U | 286U | | | 18.0 | 20.43 | 18.75 | 21.0 | 19.25 | 21.87 | 20.0 | 22.87 | 20.43 | 23.56 | | | | |
| 17 | 326 | 326 | 326 | | | | | 19.93 | 22.25 | 20.37 | 23.06 | 21.12 | 24.06 | 21.5 | 24.68 | 22.75 | 26.67 | | |
| 19 | 365 | 365U | 365U | | | | | 21.37 | 23.87 | 21.87 | 24.6 | 22.5 | 25.56 | 22.81 | 26.25 | 23.62 | 27.43 | 24.5 | 28.75 |
| 21 | 365 | 365U | 365U | | | | | | | 22.75 | 25.68 | 23.31 | 26.56 | 23.62 | 27.18 | 24.25 | 28.37 | 24.75 | 29.25 |

| ITEM NO. | IDENTIFICATION | ARRGT | NO. REQD. | FAN SIZE | FIG. NO. | WHEEL TYPE | CL. | PERFORMANCE | | | | | | MOTOR DATA | | | | | |
|----------|----------------|-------|-----------|----------|----------|------------|-----|-------------|------|----|--------|-------|-----|------------|------|--------|---------|-------|------|
| | | | | | | | | CFM | O.V. | SP | R.P.M. | TEMP. | BHP | ELEV. | H.P. | R.P.M. | CURRENT | FRAME | TYPE |
| | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | |

| ITEM NO. | MOTOR BASE | DRIVE DATA | | | | MOTOR POS. | VIBRATION BASE TYPE | PADS TYPE | SPECIAL FEATURES |
|----------|------------|--------------|------------|-------|--------|------------|---------------------|-----------|------------------|
| | | MOTOR PULLEY | FAN PULLEY | BELTS | CENTER | | | | |
| | | | | | | | | | |
| | | | | | | | | | |
| | | | | | | | | | |

NOTES

⊗ Flanged outlet is not std. on DB & BAD units. When flanged outlet (punched) is required on DB (Fig.7&17) or BAD (Fig.8&18) units.

▲ When vibration or unitary base is furnished disregard foundation plan shown above and refer to vibration or unitary base Dwg.

Refer to order acknowledgment for shipping details.

OPTIONAL ACCESSORIES

A=FLANGED INLET
PUNCHED □ UNPUNCHED
B=CLEANOUT DOOR-BOLTED
C=CLEANOUT DOOR-QUICK CLAMP
D=CLEANOUT DOOR-PLUG TYPE
E=DRAIN OPENING
F=SPECIAL FINISH-SEE NOTES
G=SHAFT SEAL
H=SPARK RESIST.CONST.(SEE NOTES)
J=OUTLET DAMPER
K=HEAVY DUTY HOUSING
L=COOLING WHEEL

M=INLET SCREEN
N=HEAVY DUTY L.S. WHEEL
P=BELT GUARD
Q=SHAFT/BEARING GUARD
R=EXT. GREASE FITTING
S=MOUNT MOTOR & DRIVES
T=INLET BOX
U=INLET BOX DAMPER
V=PUNCHED FLANGED OUTLET
DB & BAD ONLY
W=SLIP FIT INLET

CUSTOMER _____
JOB NAME _____ P.O.# _____
LOCATION _____

SERIES 9000
ARRANGEMENT 1 & 9 SISW CLASS IV
FIXED DISCHARGE - SIZES 11 TO 21

SHELDONS ENGINEERING

www.sheldonsengineering.com
sales@sheldonsengineering.com

| | | | |
|---|------|--------------|--------------|
| FURNISHED FOR SALES PURPOSE DIMENSIONS NOT CERTIFIED | DATE | SUBMITTED BY | SALES OFFICE |
| DRAWING CERTIFIED BY S.E. APPROVAL-NOT RELEASED FOR PRODUCTION | DATE | ENGINEER | SO# |
| DRAWING CERTIFIED BY S.E. APPROVAL-NOT REQUIRED-RELEASED FOR PRODUCTION | DATE | ENGINEER | DWG# |

* WHEEL TYPES: XO = Long Shavings, XB = Air/Material







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