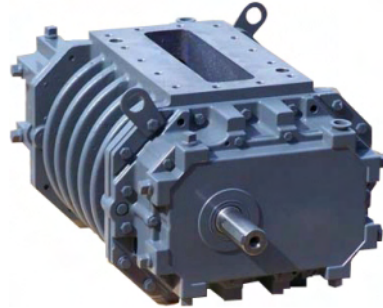




**Roots**

## 800 RAM X

Part Number – call 816-741-0282



RAM X Tri-lobe rotary positive displacement blowers feature ROOTS WHISPAIR™ discharge design which, when combined with tri-lobe impellers, delivers quieter operation than conventional tri-lobe blowers.

- Heavy-duty unit with integral-shaft ductile iron impellers with an involute profile
- Rigid one-piece casing, headplates and end covers are grey iron
- Carburized and ground alloy steel spur timing gears
- Cylindrical roller bearings
- Piston rings reduce air leakage
- Hydrodynamic oil seals prevents oil from entering the air chamber
- Splash oil lubricated gears on drive and gear ends
- Detachable steel mounting feet
- Horizontal and vertical configurations available



816-741-0282

### Quick Specs

|                                    |                 |
|------------------------------------|-----------------|
| Flow Range                         | to 4319 CFM     |
| Max ΔPressure                      | 15 PSI          |
| Max ΔVacuum                        | 16" Hg          |
| Maximum RPM                        | 2670            |
| Minimum RPM                        | 480             |
| Max ΔT                             | 230°F           |
| Option 1 - Rectangular Connection  | 14" x 26"       |
| Option 2 - Flange Connection       | 12" Flange      |
| Shaft Dia.                         | 70mm/2.75"      |
| Min Sheave Dia.                    | 13.2"           |
| Drive End Lubrication              | Oil             |
| Gear End Lubrication               | Oil             |
| Oil Sump Horiz Config              | ~376 oz         |
| Oil Sump Vert Config               | ~224 oz         |
| Bare Unit Weight                   | 2000 lbs (1)    |
| Bare Unit Weight w/Adapters & Feet | 2300 lbs (2)    |
| Shipping Weight on Skid            | ~2050 lbs (1)   |
| Shipping Weight on Skid            | ~2350 lbs (2)   |
| Recommended to Ship Via            | Truck           |
| Container                          | Wood Skid       |
| Skid Size (L x W x H)              | 54" x 48" x 36" |





816-741-0282

**RAM X™ Blowers Parts List - Models 800 and 1000**

| Item Number | Part Name                   | Quantity |
|-------------|-----------------------------|----------|
| 1           | Headplate                   | 2        |
| 3           | Gearbox                     | 1        |
| 4           | Timing Gears                | 2        |
| 5           | End Cover                   | 1        |
| 7           | Gasket – Gearbox/Cover      | 2        |
| 10          | Shims                       | Lot      |
| 11          | Cylinder                    | 1        |
| 12          | Impeller & Shaft Drive      | 1        |
| 13          | Impeller & Shaft Driven     | 1        |
| 14          | Bearing Roller              | 4        |
| 16          | Pin, Dowel (Pull Out)       | 4        |
| 17          | Pin, Dowel                  | 2        |
| 19          | Key Square                  | 1        |
| 21          | Breather                    | 2        |
| 22          | Plug, Pipe                  | 12       |
| 23          | Screw, Cap Hex Hd.          | *        |
| 27/27A      | Seal, Hydrodynamic          | 4        |
| 28          | Piston, Ring-Seal           | 4        |
| 29          | Washer, Wavy Spring         | 2        |
| 31          | Gear Nut                    | 2        |
| 32          | Scr, Cap Hex Hd.            | 16       |
| 33          | Seal, Hydrodynamic          | 1        |
| 34          | Brg. Clamp Plate - D. E.    | 2        |
| 35          | Lock Washer - Spring        | 16       |
| 37          | Sight Plug - Oil Level      | 2        |
| 38          | Sleeve, Shaft               | 4        |
| 40          | Slinger - D.E. (Top Drive)  | 1        |
| 46          | Slinger - G.E.              | 1        |
| 54          | Brg Clamp Plate - G. E.     | 2        |
| 55          | Screw, Cap Butt. HD.        | 2        |
| 56          | Washer, Plain               | 2        |
| 60          | Screw, Cap Butt. HD.        | 1        |
| 64          | Pin, Spring                 | 1        |
| 65          | Coupling Pipe               | 2        |
| 66          | Close Nipple                | 2        |
| 73          | Blower Foot - RH (optional) | 2        |
| 74          | Blower Foot - LH (optional) | 2        |
| 78          | Capscrews                   | 6        |
| 88          | Anti Rotation Ball          | 4        |
| 210         | Inlet/Discharge Gasket      | 2        |
| 85.1        | Plug, Pipe                  | 2        |
| 87          | Scr, Cap BH                 | 2        |
| 88          | Anti Rotation Ball          | 4        |
| 90          | BSHG-RDCG                   | 2        |
| 91          | Washer, Plain Flat          | 2        |
| 92          | Washer, Plain Flat          | 2        |
| 93          | Washer                      | 2        |
| 94          | Oil Leader                  | 2        |
| 95          | Cap Screw                   | 4        |
| 210         | Inlet/Discharge Gasket      | 2        |

\*Quantity varies by blower.

**F YdUjf ' ? ]hg'**

Repair kits are bundled with the parts you need to complete a standard repair. It is more cost effective to buy a repair kit than to purchase individual parts. However, if you need parts not listed in the kit, it is recommended that you call Pathfinder Systems for parts pricing.

Hcdž @Zžcf 'F][ \ h8 f]j YG UZif6 cHca 'G UZicfXYf 'D#B' - ' \$+%&F ?Ł D#B' - ' \$+%&F ? ? ]hžf', \$\$!\$\$\$ F5AL'

| #Ya | EIm | ? ]h8 YgW]dHcb'                  | D#B'     |
|-----|-----|----------------------------------|----------|
| *   | 2   | Sleeve Seal Install Tool Drive   | 13365029 |
| *   | 1   | Sleeve Seal Install Tool Inboard | 13728004 |
| 7   | 2   | Gasket Headplate                 | 57178021 |
| 10  | 1   | Shim Set                         | 64095020 |
| 14  | 4   | Antirotation Bearing             | 92870020 |
| 27  | 2   | Hydrodynamic Seal, (PTFE) CW     | 13309023 |
| 27A | 2   | Hydrodynamic Seal, (PTFE) CCW    | 13309024 |
| 28  | 4   | Piston, Ring Seal                | 12283005 |
| 29  | 2   | Washer, Spring, Wavy             | 10135019 |
| 31  | 2   | Hex Cap Screw 7/8                | 12467017 |
| 33  | 1   | Hydrodynamic Seal, (PTFE)        | 13440004 |
| 37  | 1   | Sight Plug Oil Level ¾           | 12066001 |
| 38  | 4   | Sleeve, GE & OGE 800 RCS-J       | 57161020 |
| 40  | 1   | Slinger DE                       | 67884012 |
| 46  | 1   | Slinger GE                       | 66996012 |
| 48  | 2   | Washer, Plain Flat               | 10181013 |
| 49  | 2   | Screw Cap 3/8-16                 | 10219003 |
| 62  | 1   | Screw Cap Hex Head 7/8-9         | 10342001 |
| 69  | 2   | Washer, HDN                      | 12750003 |
| 74  | 1   | Pin, Spring 3/16x1               | 10068054 |
| 88  | 4   | Anti-rotational Ball 1/4         | 10409010 |

\*A special tool is required to install the uni-directional seal.



816-741-0282

**Table 2 - Recommended Oil Grades**

| Ambient*<br>Temperature °F (°C) | ISO<br>Viscosity No. |
|---------------------------------|----------------------|
| Above 90° (32°)                 | 320                  |
| 32° to 90° (0° to 32°)          | 220                  |
| 0° to 32° (-18° to 0°)          | 150                  |
| Below 0° (-18°)                 | 100                  |

\*Ambient temperature is defined as the temperature of the space in which the blower and drive are located.

Use a good grade of **industrial type** non-detergent, rust inhibiting, anti-foaming oil and of correct viscosity per Table 2. Roots synthetic oil (Roots P/N 813-106-) is **specified and recommended**. Roots does not recommend automotive type lubricants, as they are not formulated with the properties mentioned above.

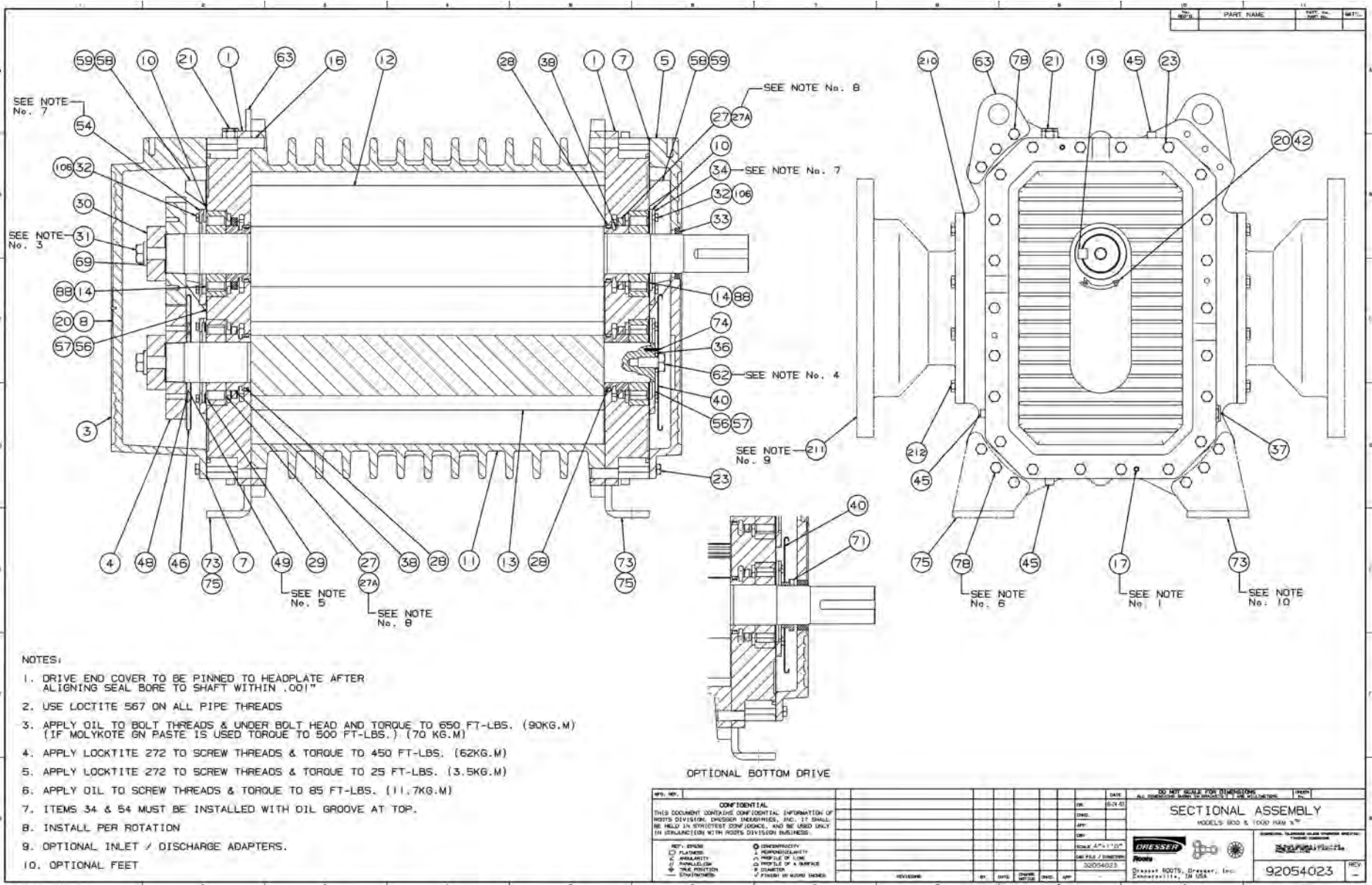
**Due to sludge build-up and seal leakage problems, Roots recommendation is DO NOT USE Mobil SHC synthetic oils in ROOTS blowers.**

**Table 3 - RAM X™ Approximate Oil Sump Capacities**

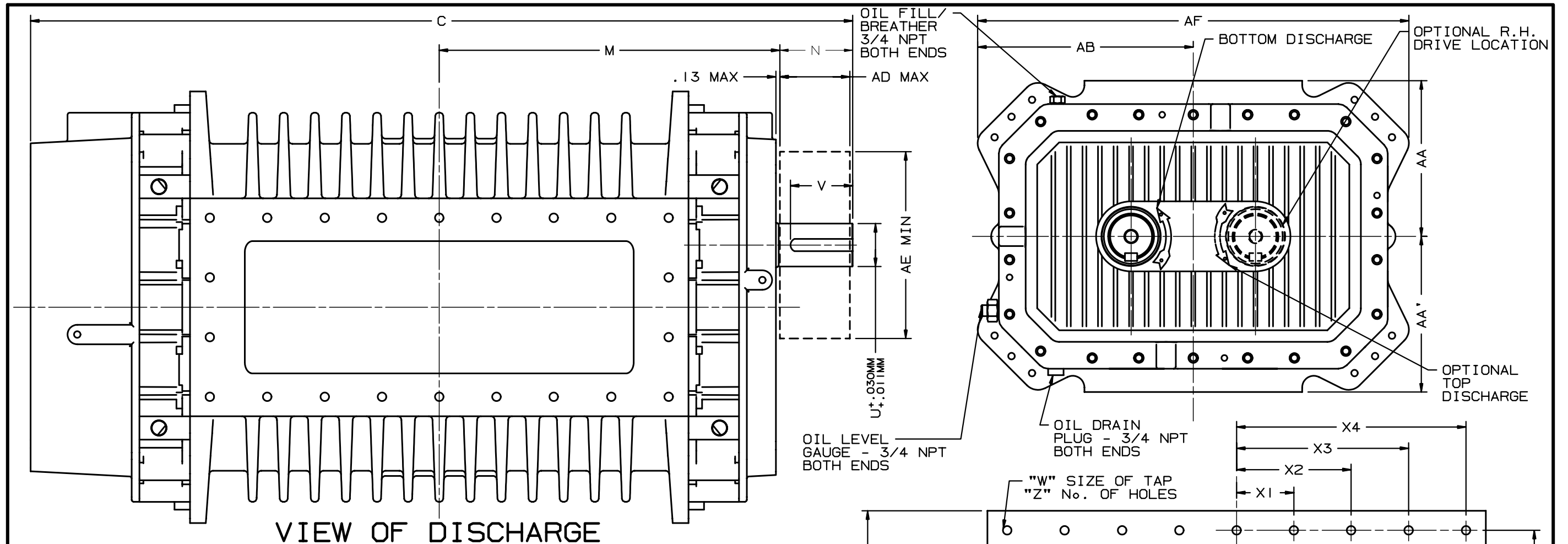
| Model Number/<br>Drive Shaft Location | Gearbox      |        | Drive End    |        |
|---------------------------------------|--------------|--------|--------------|--------|
|                                       | Fluid Ounces | Liters | Fluid Ounces | Liters |
| 155,225,280 (left or right)           | 36           | 1.06   | 19           | 0.56   |
| 155, 225, 280 (top or bottom)         | 18           | 0.52   | 9            | 0.27   |
| 400, 500 (left or right)              | 95           | 2.81   | 50           | 1.48   |
| 400, 500 (top or bottom)              | 55           | 1.63   | 28           | 0.83   |
| 600, 770 (left or right)              | 155          | 4.59   | 70           | 2.07   |
| 600, 770 (top or bottom)              | 80           | 2.37   | 40           | 1.18   |
| 800, 1000 (left or right)             | 256          | 7.6    | 120          | 3.5    |
| 800, 1000 (top or bottom)             | 144          | 4.3    | 80           | 2.37   |

These capacities are provided to assist stocking the correct amount of oil. Exact sump capacity may differ slightly. See "Lubrication" section for proper filling instructions.

| ROOTS® Synthetic Oil: ISO-VG-320 Grade |             |
|--|-------------|
|  | Part Number |
| Quart                                  | 13106004    |
| Gallon                                 | 13106005    |
| Case (12 qts)                          | 13106007    |
| ROOTS® Synthetic Oil: ISO-VG-220 Grade |             |
|  | Part Number |
| Quart                                  | 13106001    |
| Gallon                                 | 13106002    |
| Case (12 qts)                          | 13106008    |
| ROOTS® Synthetic Oil: ISO-VG-150 Grade |             |
|  | Part Number |
| Quart                                  | 13106020    |
| Gallon                                 | 13106021    |
| Case (12 qts)                          | 13106023    |
| 5 Gallon Pail                          | 13106022    |
| 55 Gallon Drum                         | 13106025    |
| ROOTS® Synthetic Oil: ISO-VG-100 Grade |             |
|  | Part Number |
| Quart                                  | 13106011    |
| Gallon                                 | 13106012    |
| Case (12 qts)                          | 13106014    |
| 5 Gallon Pail                          | 13106013    |
| 55 Gallon Drum                         | 13106016    |



Assembly of RAM X™ Tri-Lobe Blowers Models 800 & 1000



VIEW OF DISCHARGE

INLET & DISCHARGE FLANGES TO MATE FLUSH & SQUARE WITH FLAT FACE FLANGE ONLY. USE FULL FACE GASKETS.

V-BELT DRIVEN UNITS: MOTOR TO BE LOCATED ON INLET SIDE OF HORIZONTAL FLOW UNITS & ON DRIVE SHAFT SIDE OF VERTICAL FLOW UNITS.

AD - MAXIMUM SHEAVE WIDTH (SEE OVERHUNG LOAD LIMIT K-24102)

AE - MINIMUM SHEAVE DIAMETER (SEE OVERHUNG LOAD LIMIT K-24102)

ALL DIMENSIONS IN INCHES UNLESS OTHERWISE SPECIFIED METRIC DIMENSIONAL #90776021

| DISCH. LOCATION | DRIVE LOCATION |     |
|-----------------|----------------|-----|
|                 | LH             | RH  |
| TOP             | CW             | CCW |
| BOTTOM          | CCW            | CW  |

UNIT IS BUILT TO CUSTOMERS SPECIFIED ORIENTATION

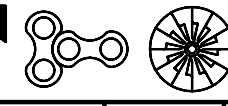
| MODEL | C     | M     | N    | U<br>MM | V<br>MM | KEYWAY<br>MM | INLET<br>AA | DISCH<br>AA' | AB    | AD   | AE    | AF    | AG    | AH   | AJ    | AK    | JAK   | APPROX<br>WEIGHT |
|-------|-------|-------|------|---------|---------|--------------|-------------|--------------|-------|------|-------|-------|-------|------|-------|-------|-------|------------------|
| 800   | 46.98 | 18.70 | 4.94 | 70.0    | 102.0   | 20.0X8.0     | 10.00       | 10.00        | 13.86 | 7.19 | 13.20 | 27.72 | 20.00 | 8.50 | 14.00 | 26.00 | 26.00 | 2000 LBS         |
| 1000  | 52.98 | 21.71 | "    | "       | "       | 20.0X8.0     | "           | "            | "     | "    | "     | "     | 25.00 | "    | "     | 32.00 | 32.00 | 2500 LBS         |

| MODEL | X1   | X2   | X3    | X4    | Y1   | Y2   | W     | Z  |
|-------|------|------|-------|-------|------|------|-------|----|
| 800   | 3.91 | 7.82 | -     | 11.75 | 1.92 | 5.75 | M16x2 | 18 |
| 1000  | 3.68 | 7.36 | 11.06 | 14.75 | 1.92 | 5.75 | M16x2 | 22 |

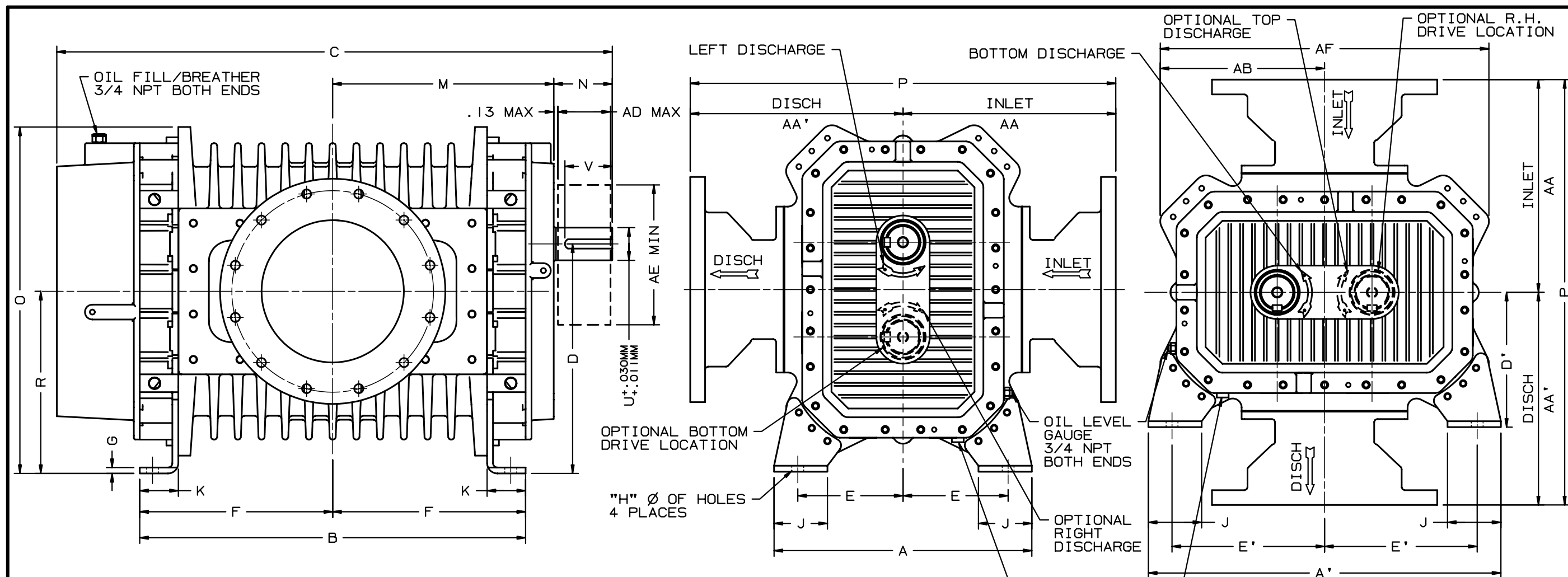
CERTIFIED CORRECT FOR  
 CUSTOMER ORDER No. \_\_\_\_\_  
 ROOTS ORDER No. \_\_\_\_\_  
 DATE \_\_\_\_\_

| REVISIONS | BY | CHANGE<br>NOTICE | CHKD. | APP. | V-BELT DRIVE DATA |
|-----------|----|------------------|-------|------|-------------------|
|           |    |                  |       |      | BELTS             |
|           |    |                  |       |      | DRIVE SHEAVE      |
|           |    |                  |       |      | DRIVEN SHEAVE     |
|           |    |                  |       |      | CENTER DISTANCE   |

RAM X™  
 TRI-LOBE BLOWERS  
 MODELS 800 & 1000



Dresser ROOTS, Dresser, Inc.  
 Connersville, IN USA



INLET & DISCHARGE FLANGES TO MATE FLUSH & SQUARE WITH FLAT FACE FLANGE ONLY. USE FULL FACE GASKETS.

V-BELT DRIVEN UNITS: MOTOR TO BE LOCATED ON INLET SIDE OF BLOWER.

AD - MAXIMUM SHEAVE WIDTH (SEE OVERHUNG LOAD LIMIT K-24102)

AE - MINIMUM SHEAVE DIAMETER (SEE OVERHUNG LOAD LIMIT K-24102)

ALL DIMENSIONS IN INCHES UNLESS OTHERWISE SPECIFIED METRIC DIMENSIONAL #92520021

| ANSI FLANGE DIMENSIONS |       |       |       |    |       |      |
|------------------------|-------|-------|-------|----|-------|------|
|                        | FA    | FB    | FC    | FD | FE    | FG   |
| 12 FLG                 | 12.00 | 17.00 | 19.00 | 12 | .88-9 | 1.25 |
| 14 FLG                 | 14.00 | 18.75 | 21.00 | 12 | .88-9 | 1.50 |

FA - FLANGE OPENING  
 FB - FLANGE BOLT CIRCLE  
 FC - FLANGE O.D.  
 FD - No. TAPPED HOLES  
 FE - SIZE OF TAPPED HOLES  
 FG - DEPTH OF TAP

| DRIVE LOCATION  |                |     |
|-----------------|----------------|-----|
| DISCH. LOCATION | DRIVE LOCATION |     |
|                 | LH             | RH  |
| TOP             | CW             | CCW |
| BOTTOM          | CCW            | CW  |

UNIT IS BUILT TO CUSTOMERS SPECIFIED ORIENTATION

| MODEL | A     | A'    | B     | C     | D    | D'   | E    | E'    | F     | G   | H    | J    | K    | M     | N    | O     | P     | R     | U     | V     | KEYWAY   | INLET | DISCH | AB    | AD   | AE    | AF    | INLET/ DISCH FLANGE SIZE | APPROX WEIGHT |
|-------|-------|-------|-------|-------|------|------|------|-------|-------|-----|------|------|------|-------|------|-------|-------|-------|-------|-------|----------|-------|-------|-------|------|-------|-------|--------------------------|---------------|
|       |       |       |       |       |      |      |      |       |       |     |      |      |      |       |      |       |       |       | MM    | MM    | MM       | AA    | AA'   |       |      |       |       |                          |               |
| 800   | 21.74 | 29.73 | 32.54 | 46.98 | 9.36 | 1.37 | 8.87 | 12.87 | 16.27 | 0.5 | 1.00 | 4.50 | 3.25 | 18.70 | 4.94 | 29.23 | 35.89 | 15.37 | 70.00 | 102.0 | 20.0X8.0 | 17.94 | 17.94 | 13.86 | 7.19 | 13.20 | 27.72 | 12"                      | 2300 LBS      |
| 1000  | "     | "     | 38.55 | 52.98 | "    | "    | "    | "     | 19.27 | "   | "    | "    | "    | 21.71 | "    | "     | 36.38 | "     | "     | "     | 20.0X8.0 | 18.19 | 18.19 | "     | "    | "     | "     | 14"                      | 2870 LBS      |

| CERTIFIED CORRECT FOR |                 |      |  | V-BELT DRIVE DATA |       |      |                 | RAM X™ TRILOBE BLOWERS |      | DRESSER Roots |  | Dresser ROOTS, Dresser, Inc. Connersville, IN USA |  | 92519021 |  | REV. |
|-----------------------|-----------------|------|--|-------------------|-------|------|-----------------|------------------------|------|---------------|--|---|--|----------|--|------|
| CUSTOMER ORDER No.    | ROOTS ORDER No. | DATE |  | BY                | CHKD. | APP. | CENTER DISTANCE | DR                     | CHKD | APP           |  |   |  |          |  |      |
|                       |                 |      |  |                   |       |      |                 |                        |      |               |  |   |  |          |  |      |

PRINTED IN U.S.A.

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# ROOTS

Blowers Compressors Exhausters

## RAM X™

### ROOTS™ RAM X™ Tri-Lobe Rotary Positive Displacement Blowers

Models 155, 225, 280, 400, 500, 600, 770, 800, 1000

The ROOTS™ RAM X™ tri-lobe positive displacement blower has been designed to incorporate the latest technology for reduced noise and vibration and minimal downstream pulse. This series is based upon the field operation success of ROOTS RAM™ blower series and features state-of-the-art engineering based on tri-lobe principles originally designed by Roots.

#### BLOWER DESCRIPTION

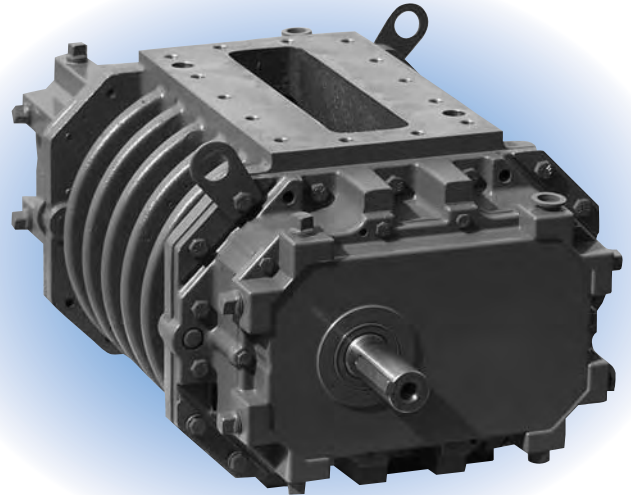
RAM X tri-lobe rotary blowers are heavy-duty units with high strength integral-shaft ductile iron impellers designed for maximum efficiency. The blowers feature ROOTS WHISPAIR™ discharge design which, when combined with tri-lobe impellers, delivers quieter operation than conventional tri-lobe blowers.

The headplates and rigid, one-piece cylinder are cast iron, while the drive-end and gear covers are aluminum (cast iron for models 600-1000). Carburized and ground alloy steel spur timing gears are taper mounted on the shafts and are secured with a locknut (bolt for models 800-1000). Cylindrical roller bearings are used to accept side loads from v-belt drives.

Piston rings reduce air leakage through the shaft openings in the headplates and hydrodynamic oil seals prevent lubricant from entering the air chamber. RAM X blowers incorporate thrust control, with splash oil lubrication at both ends of the blower.

All model sizes are designed with detachable rugged steel mounting feet which permit in-field adaptability to either vertical or horizontal installation requirements.

The top shaft is adaptable for drive on side outlet blow-



ers, and either shaft can be extended for drive on top or bottom outlet blowers.

#### DESIGN FEATURES AND BENEFITS

- Tri-lobe impellers for less vibration and minimal downstream pulse
- WHISPAIR discharge design combined with tri-lobe impellers for quieter operation than conventional tri-lobe blowers
- Carburized and ground alloy steel timing gears for long life and consistent performance
- Cylindrical roller bearings for longer bearing life
- Piston ring seals for less air leakage
- Splash lubrication from oil sumps with sight glasses on each end for easy maintenance
- Detachable feet and drive shaft extension to adapt to horizontal or vertical configuration

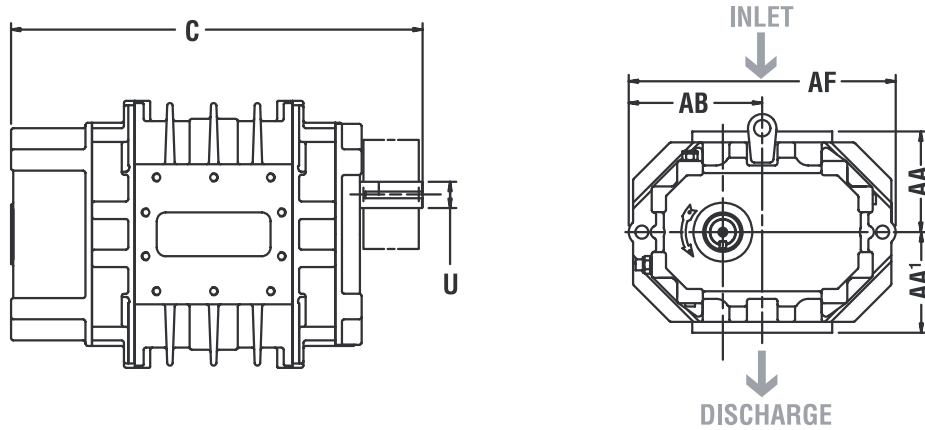
#### WARRANTY PERIOD

Models 155-500: Twenty-four (24) months from date of original unit start-up or 30 months from date of original shipment, whichever occurs first.

Models 600-1000: Twelve (12) months from date of original unit start-up or 18 months from date of original shipment, whichever occurs first.



# OUTLINE DRAWING & DIMENSIONS



Dimensions are in inches (except U and Keyway are mm), weight is in pounds.

| Model | C     | U  | Keyway     | AA   | AA'  | AB    | AF    | Approx. Wt. |
|-------|-------|----|------------|------|------|-------|-------|-------------|
| 155   | 23.50 | 35 | 10 x 5.0   | 5.75 | 5.75 | 7.63  | 15.25 | 300         |
| 225   | 27.50 | 35 | 10 x 5.0   | 5.75 | 5.75 | 7.63  | 15.25 | 360         |
| 280   | 30.75 | 35 | 10 x 5.0   | 5.75 | 5.75 | 7.63  | 15.25 | 420         |
| 400   | 33.56 | 50 | 14.0 x 5.5 | 7.25 | 7.25 | 10.0  | 20.0  | 730         |
| 500   | 37.73 | 50 | 14.0 x 5.5 | 7.25 | 7.25 | 10.0  | 20.0  | 850         |
| 600   | 41.17 | 60 | 18.0 x 7.0 | 8.63 | 8.63 | 11.63 | 23.25 | 1325        |
| 770   | 46.92 | 60 | 18.0 x 7.0 | 8.63 | 8.63 | 11.63 | 23.25 | 1540        |
| 800   | 46.98 | 70 | 20.0 x 8.0 | 10.0 | 10.0 | 13.86 | 27.72 | 2000        |
| 1000  | 52.98 | 70 | 20.0 x 8.0 | 10.0 | 10.0 | 13.86 | 27.72 | 2500        |

## PERFORMANCE TABLE

| Model | Speed RPM | 4 PSI |       | 6 PSI |       | 8 PSI |       | 10 PSI |        | 12 PSI |       | 15 PSI |       | Max. Vacuum |      |       |
|-------|-----------|-------|-------|-------|-------|-------|-------|--------|--------|--------|-------|--------|-------|-------------|------|-------|
|       |           | CFM   | BHP   | CFM   | BHP   | CFM   | BHP   | CFM    | BHP    | CFM    | BHP   | CFM    | BHP   | "HG         | CFM  | BHP   |
| 155   | 2000      | 317   | 7.2   | 301   | 10.6  | 288   | 13.9  | 276    | 17.3   | 266    | 20.7  | 251    | 25.7  | 15          | 253  | 12.6  |
|       | 3560      | 618   | 14.8  | 602   | 20.8  | 589   | 26.8  | 577    | 32.8   | 567    | 38.8  | 553    | 47.8  | 16          | 545  | 24.7  |
|       | 4750      | 847   | 22.8  | 832   | 30.8  | 818   | 38.8  | 807    | 46.7   | 796    | 54.7  | 782    | 66.7  | 16          | 774  | 34.4  |
| 225   | 2000      | 459   | 10.3  | 436   | 15.2  | 417   | 20.1  | 400    | 25     | 385    | 29.8  | 364    | 37.2  | 15          | 366  | 18.2  |
|       | 3560      | 895   | 20.9  | 872   | 29.5  | 853   | 38.2  | 836    | 46.9   | 821    | 55.6  | 800    | 68.6  | 16          | 789  | 35.6  |
|       | 4750      | 1227  | 31.5  | 1205  | 43.1  | 1186  | 54.7  | 1169   | 66.3   | 1154   | 77.9  | 1133   | 95.2  | 16          | 1122 | 49.2  |
| 280   | 2000      | 573   | 13.01 | 545   | 19.1  | 521   | 25.2  | 500    | 31.3   | 481    | 37.4  |        |       | 15          | 458  | 22.7  |
|       | 3560      | 1118  | 26.3  | 1090  | 37.1  | 1066  | 48    | 1045   | 58.8   | 1026   | 69.7  |        |       | 16          | 986  | 44.6  |
|       | 4750      | 1534  | 39.9  | 1506  | 54.5  | 1482  | 68.9  | 1461   | 83.4   | 1442   | 97.8  |        |       | 16          | 1402 | 61.7  |
| 400   | 1500      | 801   | 18.2  | 758   | 26.8  | 721   | 35.5  | 689    | 44.2   | 660    | 52.8  |        |       | 14          | 648  | 30.1  |
|       | 2500      | 1463  | 33    | 1420  | 47.04 | 1383  | 61.8  | 1351   | 76.3   | 1322   | 90.7  | 1283   | 112   | 16          | 1261 | 58.3  |
|       | 3560      | 2165  | 53.1  | 2122  | 73.6  | 2085  | 94.2  | 2053   | 114.72 | 2024   | 135.3 | 1985   | 166.1 | 16          | 1963 | 85.9  |
| 500   | 1500      | 995   | 23    | 941   | 33.8  | 896   | 44.5  | 856    | 55.3   | 820    | 66    |        |       | 14          | 805  | 37.6  |
|       | 2500      | 1817  | 43.1  | 1763  | 61    | 1718  | 78.9  | 1678   | 96.8   | 1642   | 114.8 |        |       | 16          | 1566 | 73.4  |
|       | 3560      | 2688  | 72.1  | 2634  | 97.6  | 2589  | 123.1 | 2549   | 148.6  | 2513   | 174.1 |        |       | 16          | 2437 | 109.6 |
| 600   | 1400      | 1360  | 31.3  | 1294  | 45.7  | 1238  | 60.1  | 1189   | 74.6   | 1144   | 89    |        |       | 14          | 1127 | 50.7  |
|       | 2200      | 2307  | 54.8  | 2240  | 77.4  | 2184  | 100.1 | 2135   | 122.8  | 2090   | 145.5 | 2030   | 179.6 | 16          | 1998 | 93.1  |
|       | 3050      | 3312  | 88    | 3246  | 119.4 | 3190  | 150.9 | 3141   | 182.3  | 3096   | 213.8 | 3035   | 261   | 16          | 3003 | 134.8 |
| 770   | 1400      | 1705  | 39.1  | 1622  | 57.2  | 1552  | 75.3  | 1490   | 93.4   | 1434   | 111.5 |        |       | 14          | 1413 | 63.5  |
|       | 2200      | 2892  | 68.1  | 2809  | 96.6  | 2738  | 125   | 2676   | 153.5  | 2620   | 181.9 |        |       | 16          | 2504 | 116.5 |
|       | 3050      | 4152  | 108.9 | 4069  | 148.4 | 3999  | 187.8 | 3937   | 227.3  | 3881   | 266.7 |        |       | 16          | 3765 | 168.3 |
| 800   | 1300      | 1898  | 43.3  | 1808  | 63.3  | 1732  | 83.3  | 1666   | 103.4  | 1605   | 123.4 |        |       | 14          | 1582 | 70.3  |
|       | 1900      | 2958  | 68.6  | 2868  | 97.9  | 2793  | 127.2 | 2726   | 156.5  | 2666   | 185.7 | 2584   | 229.6 | 16          | 2541 | 119.2 |
|       | 2670      | 4319  | 110.3 | 4229  | 151.5 | 4153  | 192.6 | 4086   | 233.7  | 4026   | 274.9 | 3945   | 336.6 | 16          | 3901 | 174   |
| 1000  | 1300      | 2372  | 54.0  | 2260  | 79    | 2166  | 104.1 | 2082   | 129.1  | 2007   | 154.1 |        |       | 14          | 1978 | 87.8  |
|       | 1900      | 3698  | 85.4  | 3586  | 122   | 3491  | 158.6 | 3408   | 195.2  | 3332   | 231.8 |        |       | 16          | 3176 | 148.9 |
|       | 2670      | 5399  | 136.9 | 5287  | 188.3 | 5192  | 239.8 | 5109   | 291.2  | 5033   | 342.6 |        |       | 16          | 4877 | 217.1 |

Notes: 1. Pressure ratings are based on inlet at standard pressure of 14.7 psia, standard temperature of 68° F and specific gravity of 1.0.  
2. Vacuum ratings are based on inlet air at standard temperature of 68° F, discharge of 30" Hga and specific gravity of 1.0.



Roots

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S-RAMX-EAX2 rev.0907

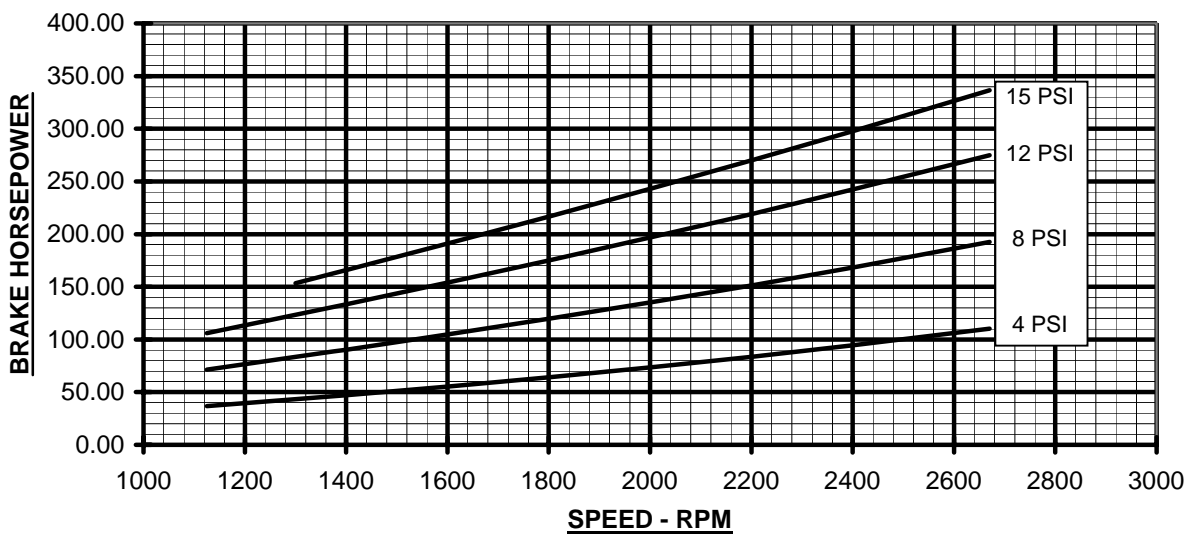
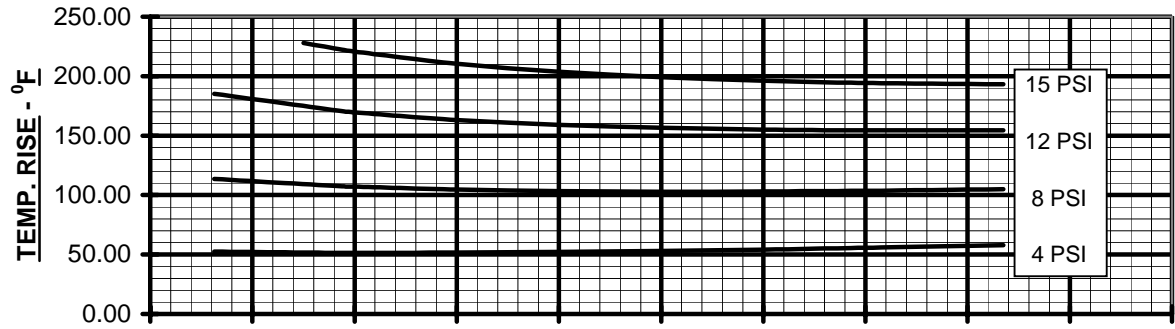
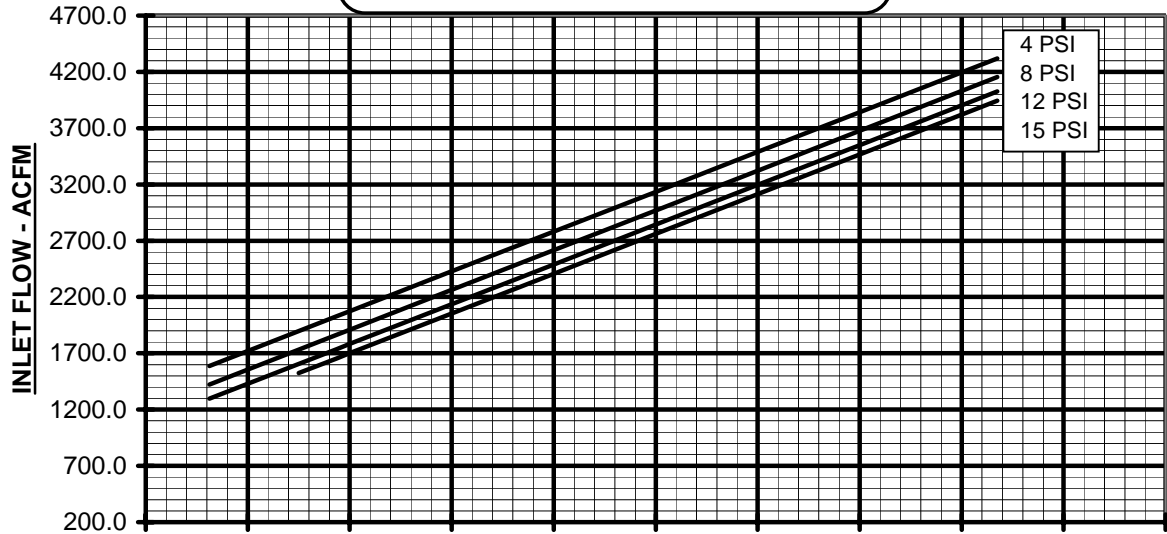
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PERFORMANCE BASED ON AIR,  
INLET PRESSURE = 14.7 PSIA  
INLET TEMPERATURE = 68 °F  
APRIL 2007

**PRESSURE PERFORMANCE**  
**RAM X™ TRI-LOBE BLOWER SIZE 800**  
MAX. PRESSURE RISE = 15 PSI  
MAX. SPEED = 2670 RPM





**VACUUM PERFORMANCE**  
**RAM X™ TRI-LOBE BLOWER SIZE 800**  
 MAX. VACUUM = 16" HG  
 MAX. SPEED = 2670 RPM

PERFORMANCE BASED ON AIR,  
 INLET TEMPERATURE = 68°F  
 DISCH. PRESSURE = 30" HGA  
 MARCH 2007

