



Enviro-Equipment Inc.
10120 Industrial Drive
Pineville NC 28134

Stock#: 1779

Dimensions: 8x18' Trailer (plus 4' tongue), 9,990lb GVWR

Description: Air Sparge and Soil Vapor Extraction Trailer

*****SVE EQUIPMENT*****

- Rotron EN808BA72MXL Regenerative Blower with 7.5HP 3PH XP Motor
 - o 90" WC Max Vacuum, 360 SCFM Max Flow
- 2" Vacuum Relief Valve
- Solberg CT-235P-300 Vacuum Air Filter, 3" NPT
- Solberg FS-31P-200 Dilution Air Filter Silencer with Brass Gate Valve
- AWS80-3 Air Water Separator Tank with LL, HL, HLA Float Switch
- Goulds NPE Series Transfer Pump with 1/2 HP 3PH Motor, Gate Valve, Sample Port, 0-30 PSIG Pressure Gauge, Discharge Point Through Wall with 1" Camlock End Connection
- Dwyer LPG4-D7722N 0-100" WC Vacuum Gauges
- Dwyer 1950-5-2F Low Vacuum Alarm Switch (5" WC)
- 3" GAC Bypass Loop for future addition of carbon tanks in vacuum line or oxidizer vapor control valve
- 3" Galvanized Steel Exhaust Line with Solberg SLCR300 Silencer, Temperature Gauge, Dwyer DS-300-3 Flow Sensor with Magnehelic Gauge for Calculating Air Flow, Exhaust Rain Cap Tee on Exterior
- 3" SCH 80 PVC Manifold Header with 10x Zones
- 10x 2" SCH 80 PVC Manifold Zones each with:
 - o Brass Gate Valve
 - o Dwyer LPG4-D7722N 0-100" WC Vacuum Gauges
 - o Sample Port
 - o 2" Rotameter Flow Meter 10-100 SCFM

*****AIR SPARGE EQUIPMENT*****

- Busch MM1142.BP Rotary Claw Air Compressor with 15HP 3PH TEFC Motor
 - o 100 CFM Max Flow, 30 PSIG Max Pressure
- AIHTI ACA-3302-3 Air to Air Heat Exchanger ducted to exterior with louvers
- 0-30 PSIG Gauges, 0-300F Temperature Gauges, Pressure Relief Valve
- 1" Blow Off Line with Brass Gate Valve and Muffler
- XP High Pressure and High Temperature Switches
- 1.5" Galvanized Steel Manifold Header with 15x Manifold Legs
- 15x 1" Manifold Legs Each With:
 - o 0-30 PSIG Pressure Gauge
 - o 1" Brass Gate Valve
 - o 1" Rotameter 1-15 CFM Range

*****CONTROL PANEL*****

- Nema 4 Control Enclosure with Controls on Inner Swing Door
- Air Sparge Motor, SVE Motor, Transfer Pump Motor and Heat Exchanger Motor Each Have:
 - o Hour Meter
 - o Illuminated Hand/Off/Auto Switch
 - o Contactor/Overload/Circuit Breaker
- Control Alarms with Red Alarm Lights for:
 - o Air Sparge High Temperature (Shuts down Air Sparge Compressor)
 - o Air Sparge High Pressure (Shuts Down Air Sparge Compressor)
 - o SVE Low Vacuum (Interlock To Shut Down Air Sparge Compressor)



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- AWS Tank High Level (Shuts down SVE Blower)
- Intrinsically Safe Relays for AWS Tank Level Floats to Operate Transfer Pump in Automatic Mode and High Level Alarm Float to Shut down SVE Blower
- Sensaphone Sentinel Cellular Telemetry Unit for Remote Alarm Notifications (Verizon 4G LTE). Master Control Relay to allow remote toggle of system control power on/off.

*****SYSTEM TRAILER*****

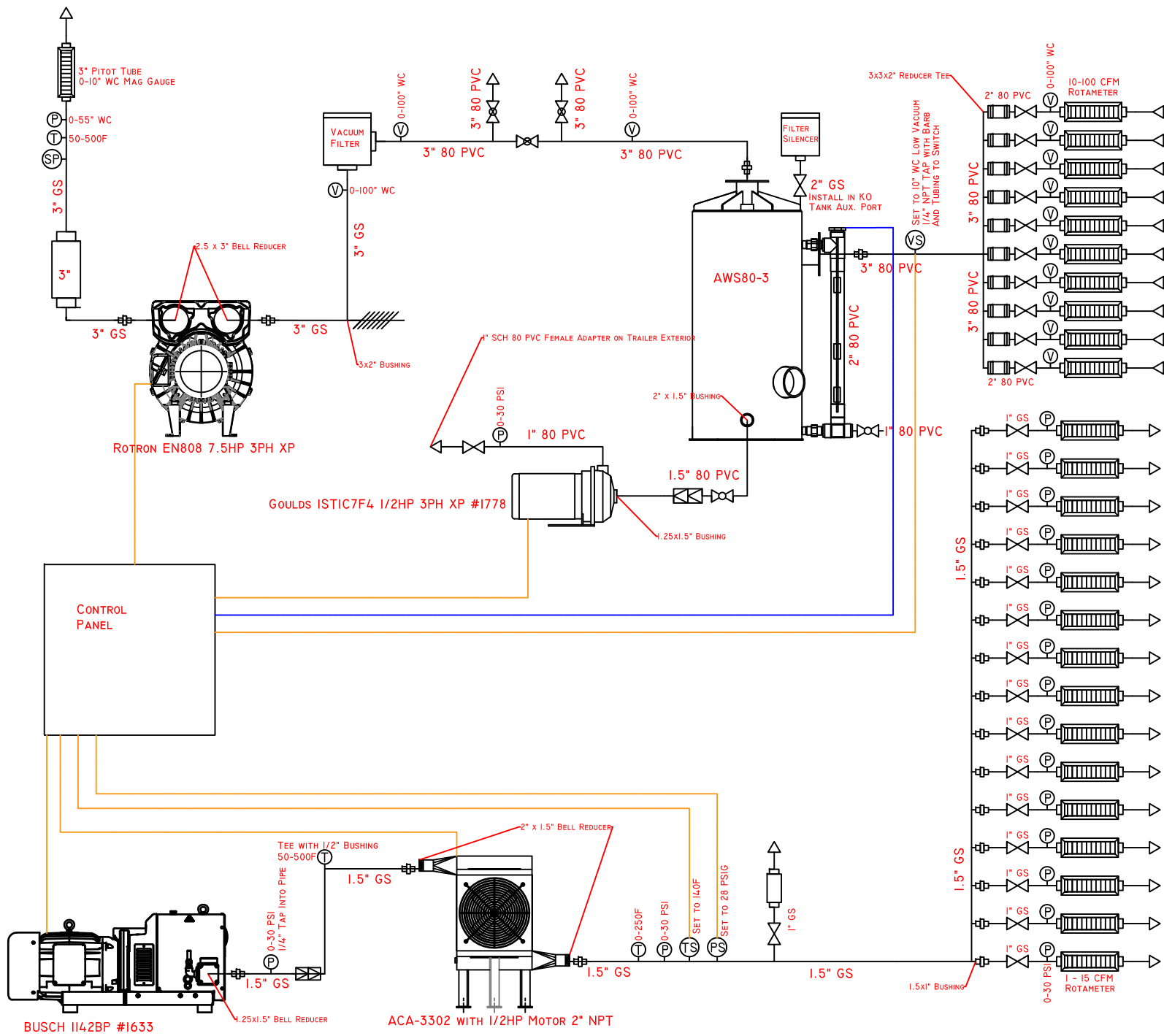
- Freedom Enclosed Cargo Trailer
 - 8' wide x 18' long x 7" Height Interior Dimensions
 - 4' Tongue, 2-5/16" Ball Hitch
 - 5000lb tandem axles
 - 3/4" Plywood Floor, 3/8" Plywood Walls
 - Side Access Door
 - 12" Explosion Proof Exhaust Fan with Thermostat
 - 3600 Watt Explosion Proof Heater with Thermostat
 - 2x Explosion Proof Light Fixtures with XP Light Switch
 - Interior Wiring Class 1 Div 2 Group D





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Pineville NC 28134





| SYMBOL | DESCRIPTION |
|--------|---------------------------|
| | SAMPLE PORT |
| | VACUUM SWITCH |
| | VACUUM GAUGE |
| | TEMPERATURE SWITCH |
| | PRESSURE SWITCH |
| | PRESSURE GAUGE |
| | TEMPERATURE GAUGE |
| | RELIEF VALVE |
| | SOLENOID VALVE |
| | WYE STRAINER |
| | CHECK VALVE |
| | GATE VALVE |
| | BALL VALVE |
| | VACUUM FILTER |
| | FILTER SILENCER |
| | EXHAUST MUFFLER |
| | FLOW METER |
| | TRANSFER PUMP |
| | VACUUM BLOWER |
| | AIR COMPRESSOR |
| | MOISTURE SEPARATOR |
| | HEAT EXCHANGER |
| | INTRINSICALLY SAFE WIRING |
| | POWER WIRING |
| | UNION |
| | FERNCO |

| | | | |
|---------------------------------------|----------------------------|-----------------------|--------------------------|
| TOLERANCES UNLESS OTHERWISE SPECIFIED | | CUSTOMER: EEl | |
| TITLE: P&ID AS SVE Trailer | | DATE: 5-25-23 | |
| SCALE: NTS | DRAWN BY: Evan Chew | CHECKED BY: EC | APPROVED BY: EC |
| DATE: 5-25-23 | SHEET: 1 | OF SHEETS: 1 | DRAWING NO.: 1779 |

| DATE | REVISION | BY | CHD |
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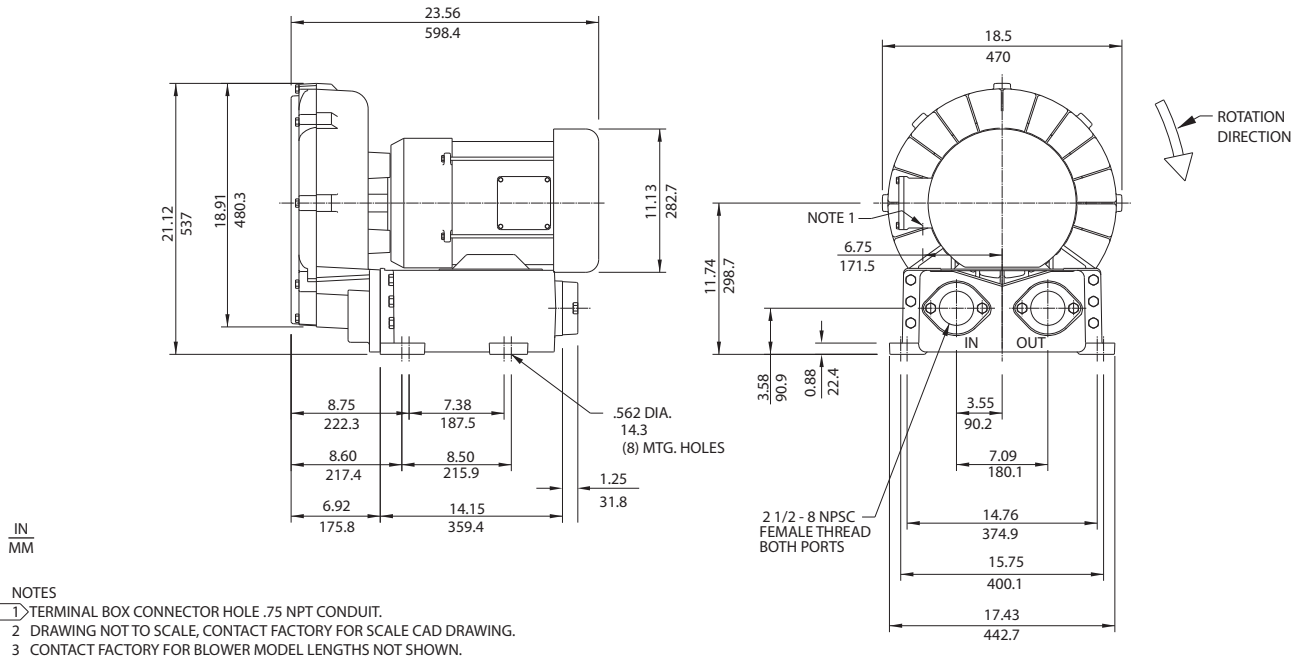
ENVIRO-EQUIPMENT, INC.
 10120 Industrial Drive
 Pineville, N.C. 28134
 PHONE 704-556-7723
 FAX 704-556-7728

Environmental / Chemical Processing Blowers

EN 808 & CP 808 Three-Phase

ROTRON®

Sealed Regenerative Blower w/Explosion-proof Motor



| Specification | Units | Part/ Model Number | | |
|------------------------------|----------|------------------------|------------------------|-------------------------|
| | | EN808BA72MXL 081229 | EN808BA86MXL 081230 | CP808FY72MXLR 081234 |
| Motor Enclosure - Shaft Mtl. | - | Explosion-proof-CS | Explosion-proof-CS | Chem XP-SS |
| Horsepower | - | 7.5 | 7.5 | 7.5 |
| Phase - Frequency | - | Three-60 hz | Three-60 hz | Three-60 hz |
| Voltage | AC | 230/460 | 575 | 230/460 |
| Motor Nameplate Amps | Amps (A) | 18.6/9.3 | 7.4 | 18.6/9.3 |
| Max. Blower Amps | Amps (A) | 22.0/11.0 | 8.1 | 22.0/11.0 |
| Inrush Amps | Amps (A) | 126/63 | 56 | 126/63 |
| Service Factor | - | 1.0 | 1.0 | 1.0 |
| Starter Size | - | 1/1 | 1 | 1/1 |
| Thermal Protection | - | Class B - Pilot Duty | Class B - Pilot Duty | Class B - Pilot Duty |
| XP Motor Class - Group | - | I-D, II-F&G | I-D, II-F&G | I-D, II-F&G |
| Shipping Weight | Lbs | 287 | 287 | 287 |
| | Kg | 130.2 | 130.2 | 130.2 |

Voltage - ROTRON motors are designed to handle a broad range of world voltages and power supply variations. Our dual voltage 3 phase motors are factory tested and certified to operate on both: **208-230/415-460 VAC-3 ph-60 Hz** and **190-208/380-415 VAC-3 ph-50 Hz**. Our dual voltage 1 phase motors are factory tested and certified to operate on both: **104-115/208-230 VAC-1 ph-60 Hz** and **100-110/200-220 VAC-1 ph-50 Hz**. All voltages above can handle a ±10% voltage fluctuation. Special wound motors can be ordered for voltages outside our certified range.

Operating Temperatures - Maximum operating temperature: Motor winding temperature (winding rise plus ambient) should not exceed 140°C for Class F rated motors or 120°C for Class B rated motors. Blower outlet air temperature should not exceed 140°C (air temperature rise plus inlet temperature). Performance curve maximum pressure and suction points are based on a 40°C inlet and ambient temperature. Consult factory for inlet or ambient temperatures above 40°C.

Maximum Blower Amps - Corresponds to the performance point at which the motor or blower temperature rise with a 40°C inlet and/or ambient temperature reaches the maximum operating temperature.

XP Motor Class - Group - See Explosive Atmosphere Classification Chart in Section I

This document is for informational purposes only and should not be considered as a binding description of the products or their performance in all applications. The performance data on this page depicts typical performance under controlled laboratory conditions. AMETEK is not responsible for blowers driven beyond factory specified speed, temperature, pressure, flow or without proper alignment. Actual performance will vary depending on the operating environment and application. AMETEK products are not designed for and should not be used in medical life support applications. AMETEK reserves the right to revise its products without notification. The above characteristics represent standard products. For product designed to meet specific applications, contact AMETEK Technical & Industrial Products Sales department.

Sealed Regenerative Blower w/Explosion-proof Motor

FEATURES

- Manufactured in the USA - ISO 9001 and NAFTA compliant
- Maximum flow: 360 SCFM
- Maximum pressure: 85 IWG
- Maximum vacuum: 90 IWG
- Standard motor: 7.5 HP, explosion-proof
- Cast aluminum blower housing, impeller, cover & manifold; cast iron flanges (threaded); teflon® lip seal
- UL & CSA approved motor with permanently sealed ball bearings for explosive gas atmospheres Class I Group D minimum
- Sealed blower assembly
- Quiet operation within OSHA standards

MOTOR OPTIONS

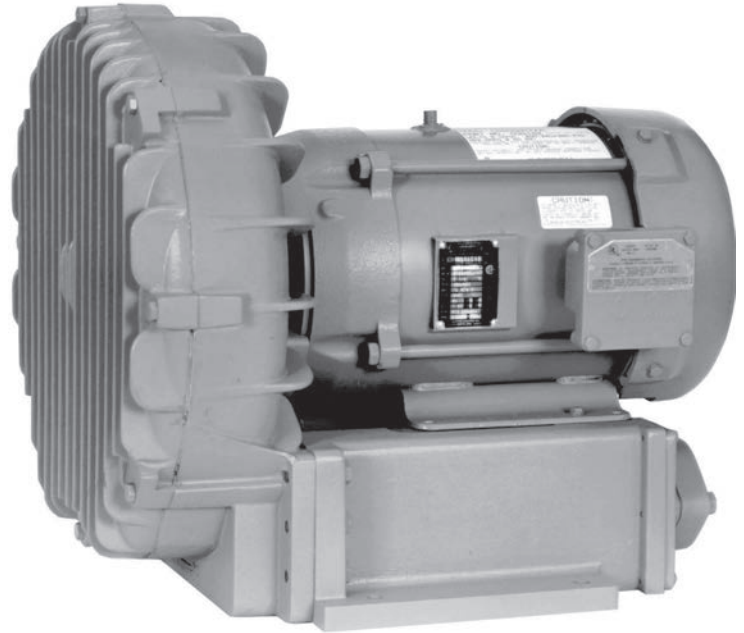
- International voltage & frequency (Hz)
- Chemical duty, high efficiency, inverter duty or industry-specific designs
- Various horsepower for application-specific needs

BLOWER OPTIONS

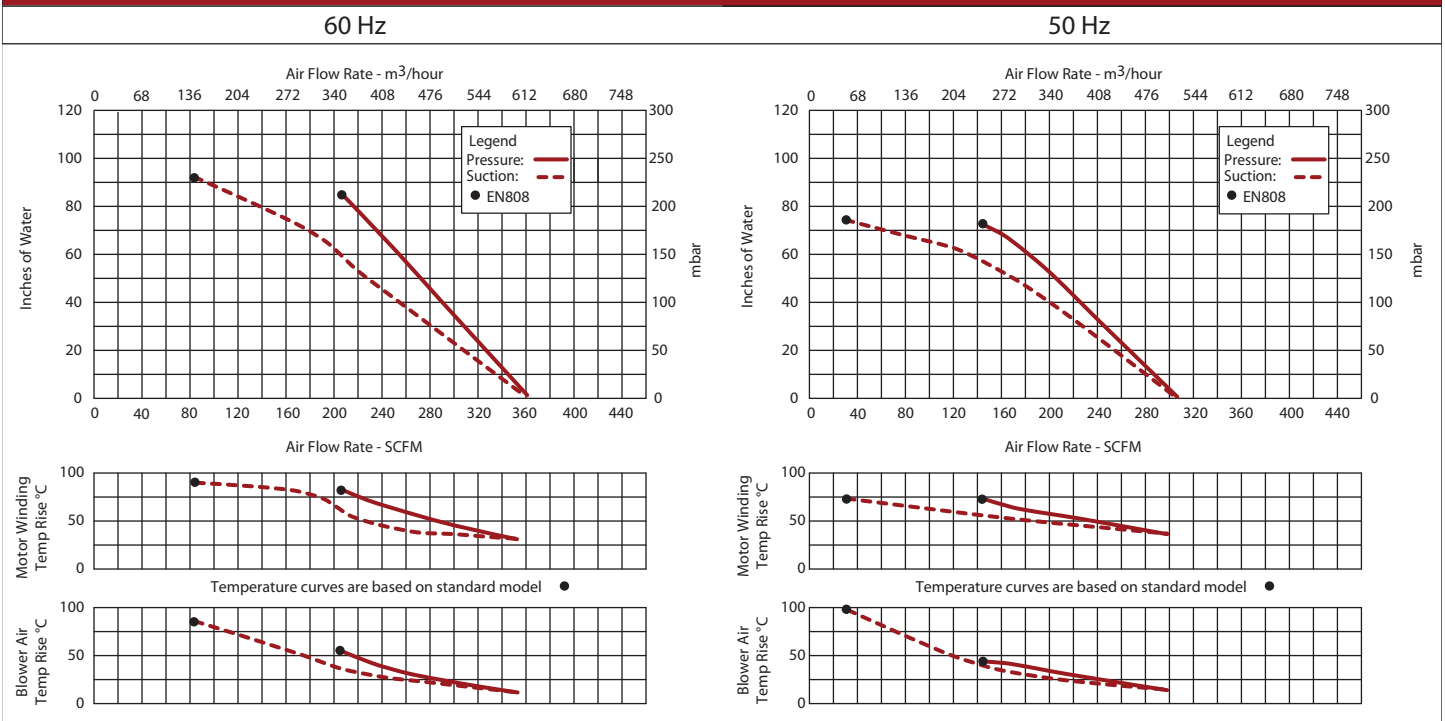
- Corrosion resistant surface treatments & sealing options
- Remote drive (motorless) models
- Slip-on or face flanges for application-specific needs

ACCESSORIES

- Flowmeters reading in SCFM
- Filters & moisture separators
- Pressure gauges, vacuum gauges, & relief valves
- Switches - air flow, pressure, vacuum, or temperature
- External mufflers for additional silencing
- Air knives (used on blow-off applications)
- Variable frequency drive package



Blower Performance at Standard Conditions



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Mink

MM 1104 – 1142 BP

MM 1202 – 1322 AP



MM 1104 BP

Description

The Busch Mink MM Series positive displacement pressure pumps feature a compact rotary claw design that is air cooled, dry-running and non-contacting. These features along with quality construction results in a pump that offers extremely high reliability and a long service life.

Maintenance-Free

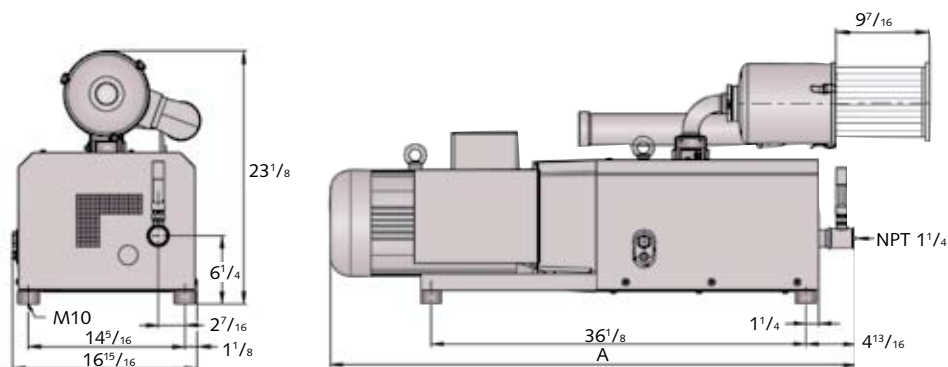
Non-contacting design – eliminates internal wear and parts to replace
Air cooling – no water levels to check and no cooling system to maintain
Dry running – no sealing or lubricating oil is needed in the pumping chamber, so there is minimal maintenance

Economical

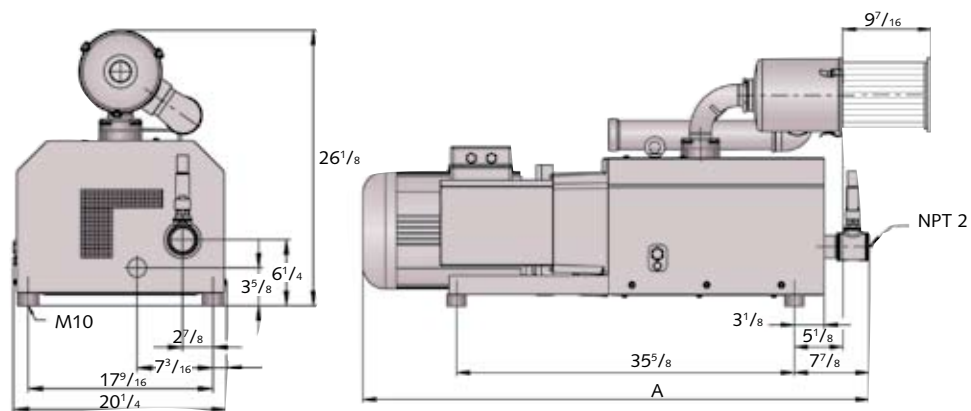
Operating costs are low because of the maintenance-free design and the reduced power requirements made possible by the Mink's high volumetric efficiency along with a non-contacting pumping chamber.



Dimensions

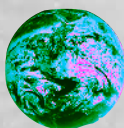


| Dimensions | MM 1104 BP | MM 1144 BP | MM 1102 BP | MM 1142 BP |
|------------|------------|------------|------------|------------|
|------------|------------|------------|------------|------------|



| Dimensions | MM 1202 AP | MM 1252 AP | MM 1322 AP |
|------------|------------|------------|------------|
| A | 49 1/4 | 53 3/8 | 53 15/16 |

All dimensions in inches unless otherwise noted.



Busch - all over the world in industry

ISO 9001-2000 Registered Company

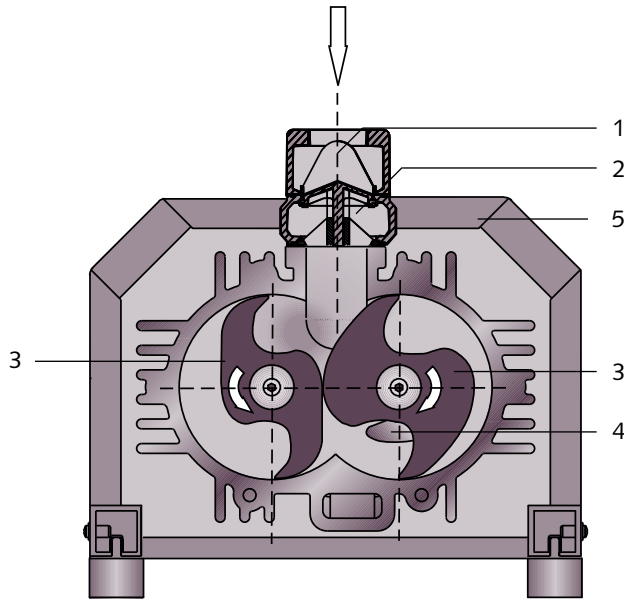
**Busch LLC 516 Viking Drive Virginia Beach, VA 23452
Phone (757) 463-7800 FAX (757) 463-7407**

**www.buschusa.com
1-800-USA-PUMP**

Amsterdam Barcelona Birmingham Basel Brussels Dublin Göteborg Helsinki Istanbul Copenhagen Kuala Lumpur Milan Maulburg Melbourne Montreal Moscow
New York New Plymouth Oslo Paris San Jose São Paulo Seoul Singapore Taipei Tokyo Vienna

Dry Rotary Claw Pressure Pumps

Operating Principle



- 1 Gas Inlet
- 2 Non-return valve
- 3 Claws
- 4 Gas outlet
- 5 Acoustic enclosure

Operating Principle

Inside the pump housing, two claw shaped rotors take in air as they rotate in opposite directions. The air is compressed by the rotors, then discharged through a silencer to atmosphere.

The non-return valve incorporated into the inlet flange prevents air from back flowing through the

pump when the pump is turned off. Mink MM dry rotary claw pressure pumps are directly driven by a flanged motor, and the two rotors are synchronized by gears. A wide range of accessories allows optimum adaptation to many applications.

Applications

Busch Mink MM dry rotary claw pressure pumps are used across a broad range of industries for many different applications and are well suited to applications where dust particles may be present. Mink MM pressure pumps are especially suited to:

Beverage industry

Environmental technology

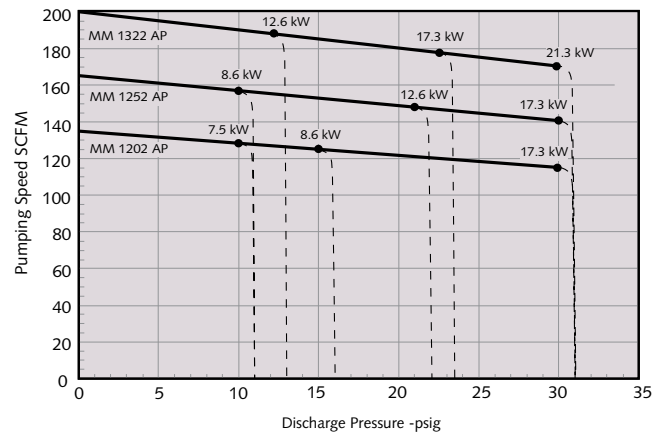
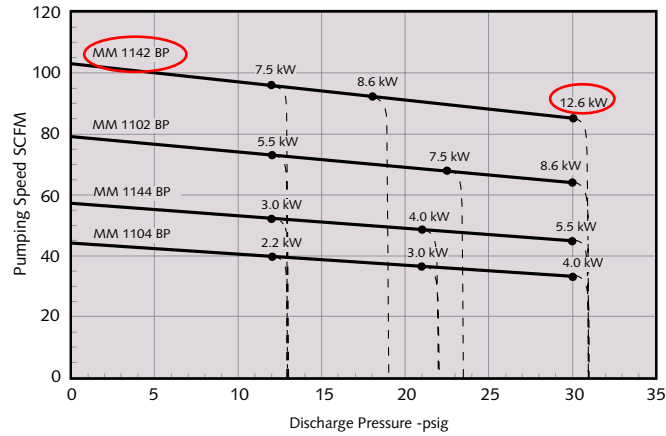
Pneumatic conveying

Printing industry



Technical Data

Pumping Speed vs. Discharge Pressure



Dashed lines represent pump performance for motor chosen.

| Technical Data | Nominal pumping speed SCFM | Motor Size kW (Hp) | Maximum pressure psig | Relief valve cracking pressure psig | Nominal motor speed RPM | Sound rating dBA | Weight approx. lbs |
|----------------|----------------------------|--------------------|-----------------------|-------------------------------------|-------------------------|------------------|--------------------|
| Mink MM Model | | | | | | | |
| | 1104 BP | 44 | 2.2 (3.0) | 13.0 | 12 | 1800 | 381 |
| | | 44 | 3.0 (4.0) | 22.0 | 21 | 1800 | 388 |
| | 44 | 4.0 (5.4) | 31.0 | 30 | 1800 | 73 | 396 |
| 1144 BP | 57 | 3.0 (4.0) | 13.0 | 12 | 1800 | 73 | 403 |
| | 57 | 4.0 (4.4) | 22.0 | 21 | 1800 | 73 | 411 |
| | 57 | 5.5 (7.5) | 31.0 | 30 | 1800 | 73 | 432 |
| 1102 BP | 79 | 5.5 (7.5) | 13.0 | 12 | 3600 | 81 | 425 |
| | 79 | 7.5 (10) | 23.5 | 22.5 | 3600 | 81 | 436 |
| | 79 | 8.6 (11.5) | 31.0 | 30 | 3600 | 81 | 444 |
| 1142 BP | 103 | 7.5 (10) | 13.0 | 12 | 3600 | 81 | 448 |
| | 103 | 8.6 (11.5) | 19.0 | 18 | 3600 | 81 | 456 |
| | 103 | 12.6 (17) | 31.0 | 30 | 3600 | 81 | 520 |
| 1202 AP | 135 | 7.5 (10.0) | 11.0 | 10 | 3600 | 82 | 519 |
| | 135 | 8.6 (11.5) | 16.0 | 15 | 3600 | 82 | 519 |
| | 135 | 17.3 (23.2) | 31.0 | 30 | 3600 | 82 | 519 |
| 1252 AP | 165 | 8.6 (11.5) | 11.0 | 10 | 3600 | 83 | 528 |
| | 165 | 12.6 (16.9) | 22.0 | 21 | 3600 | 83 | 528 |
| | 165 | 17.3 (23.2) | 31.0 | 30 | 3600 | 83 | 528 |
| 1322 AP | 200 | 12.6 (16.9) | 13.0 | 12 | 3600 | 85 | 550 |
| | 200 | 17.3 (23.2) | 23.5 | 22.5 | 3600 | 85 | 550 |
| | 200 | 21.3 (28.6) | 31.0 | 30 | 3600 | 85 | 550 |