M-D Pneumatics®

# Rotary Positive Displacement Blowers

*M-D Pneumatics® Blower Solutions*

M-D Pneumatics | www.md-kinney.com | (800) 825-6937

# CP SERIES

M-D Pneumatics rotary positive displacement blowers combine rugged performance with flexibility as drop-in replacements to fit a variety of applications. CP Series blowers can be field converted from horizontal to vertical flow, or vice versa, without any special tools or additional components and are designed to be interchangeable with equivalent sizes of Roots Universal RAI® and many Sutorbilt® Legend® blowers.

**CONSTANT PROTECTION:** Standard on all models, triple lip seals extend the life of the seal and have been shown to provide longer bearing life. Magnetic drain plugs keep particles from moving through bearings and seals.

**REDUCED NOISE VERSIONS AVAILABLE:** CP Series standard models feature a bi-lobe design with integral shafts. Many models are available with tri-lobe rotors and a specially tuned housing to reduce blower noise.

**LUBRICATION:** Many CP Series blower models include dual oil splash lubrication at both gear end and drive end of the blower. Splash lubrication provides longer bearing and seal life through improved heat dissipation versus grease lubrication.

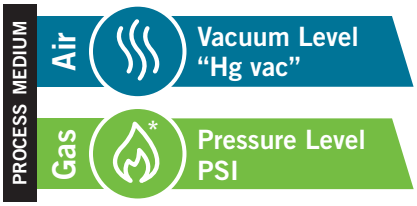
**HELICAL GEARING:** Timed with precision helical gears keyed to the rotor shafts, not taper-fit spur gears as offered by other manufacturers which have greater backlash, can slip and lose timing. Helical gears are quieter, reducing mechanical noise.

**STRONGER BEARINGS:** All CP Series blowers include double-row ball bearings at the gear end, stronger than single-row ball bearings offered by other manufacturers. Drive shaft bearing is cylindrical roller type for additional strength against side loading from V-belt drives. CP Series bearing life is as much as 50% greater than models offered by other manufacturers.

**METRIC AVAILABILITY:** CP Series blowers are available with metric drive shaft and process connections.

| Model | Standard Model/6 | | Models with Splash Lubrication/7 | |
|---|---|---|---|---|
| | CFM / m3/h | HP / kW | CFM / m3/h | HP / kW |
| 2002 | 8-64 / 17-109 | 1-5 / 1-4 | - | - |
| 2004 | 24-137 / 41-233 | 1-6 / 1-4 | - | - |
| 3002 | 22-136 / 37-231 | 4-12 / 1-9 | 22-136 / 37-231 | 4-12 / 3-9 |
| 3003 | 30-181 / 51-308 | 1-12 / 1-9 | 30-181 / 51-308 | 2-15 / 9-11 |
| 3006 | 60-310 / 102-527 | 1-12 / 1-9 | 60-310 / 102-527 | 5-30 / 4-22 |
| 4002 | 18-184 / 31-313 | 1-15 / 1-11 | 18-184 / 31-313 | 2-15 / 9-11 |
| 4005 | 40-373 / 68-634 | 1-24 / 1-18 | 40-373 / 68-634 | 3-32 / 2-24 |
| 4007 | 54-492 / 92-836 | 1-18 / 1-19 | 54-492 / 92-836 | 4-43 / 3-32 |
| 5003 | 41-324 / 70-550 | 1-25 / 1-19 | 41-324 / 70-550 | 3-29 / 2-22 |
| 5006 | 68-543 / 116-923 | 1-5 / 1-4 | 68-543 / 116-923 | 4-50 / 3-37 |
| 5009 | 130-824 / 221-1400 | 1-6 / 1-4 | 130-824 / 221-1400 | 6-49 / 4-37 |
| 6005 | 91-497 / 155-844 | 4-12 / 1-9 | 91-497 / 155-844 | 5-47 / 4-35 |
| 6008 | 146-798 / 248-1356 | 1-12 / 1-9 | 146-798 / 248-1356 | 7-47 / 5-35 |
| 6015 | 273-1494 / 464-2538 | 1-12 / 1-9 | 273-1494 / 464-2538 | 14-54 / 10-40 |
| 7006 | 171-734 / 291-1247 | 1-15 / 1-11 | - | - |
| 7011 | 322-1356 / 547-2304 | 1-24 / 1-18 | - | - |
| 7018 | 560-2240 / 951-3806 | 1-18 / 1-19 | - | - |

## Product Key




**Process Gas*

## TYPICAL APPLICATIONS

- Pneumatic Conveying
- Vacuum Excavation
- Dust Collection
- Carpet Cleaning
- Air Sparging
- Dairy Milking
- Wastewater Aeration

# EQUALIZER DF

The M-D Pneumatics Equalizer DF blower is designed to be interchangeable with equivalent models from competing manufacturers. This blower offers distinct advantages such as a one-piece housing in a compact design, helical gearing to reduce noise, higher pressure capability (18 PSIG on most models), drop-in replacement, and field convertible flow configuration simply by rearranging oil breathers, drains, and changing the mounting feet.

**HIGHER PRESSURE CAPABILITY:** Most models are rated to 18 PSIG discharge pressure. This provides you with an increased level of security due to built-in safety factors.

**DESIGNED FOR TRUE, DROP-IN REPLACEMENT:** Dimensionally interchangeable with competing models, even to the point of matching the port connector bolt patterns.

## TYPICAL APPLICATIONS

*Equalizer DF & RM*

- **Pneumatic Conveying**
- **Dust Collection**
- **Carpet Cleaning**
- **Air Sparging**
- **Dairy Milking**
- **Compost Aeration**

**POSITIVE END CLEARANCES:** End clearances are positively established (versus floating) at the blower gear end, eliminating the risk of shifting end clearances that reduce unnecessary rotor and end plate wear. This design improves flow performance and extends overall blower life.

**POLISHED SEALING SURFACES:** All shaft surfaces in contact with sealing members are polished to reduce seal wear and risk of leakage.

**HELICAL GEARING:** Helical gearing reduces backlash and mechanical noise as compared to spur gears offered by other manufacturers.

**ROTORS WITH INTEGRAL SHAFTS:** Precision machined and dynamically balanced ductile iron rotors with large, integrally cast shafts provide single, unitized rotors to prevent clash as a result of the impeller moving on its shaft.

| Model | CFM / m3/h | HP / kW |
|---|---|---|
| 4504 | 39-416 / 66-707 | 2-39 / 1-29 |
| 4506 | 82-619 / 139-1052 | 2-56 / 1-42 |
| 4509 | 125-919 / 212-1562 | 2-80 / 2-59 |
| 4512 | 169-1226 / 287-2083 | 3-88 / 2-66 |

# EQUALIZER RM

The M-D Pneumatics EQUALIZER RM rotary positive displacement blower offers many distinct advantages, such as a one-piece housing in a compact design, helical gearing to reduce noise, 4.5” & 6” gear diameters, bi-rotational rotors with integrally cast shafts, and field convertible flow configuration.

**HELICAL GEARING:** Blowers are time with precision helical gears which reduces backlash and mechanical noise as compared to spur gears offered by others. Keyed interference fit reduces the risk of slippage of the gear on the shaft and loss of timing, one of the leading causes of blower failure.

**METRIC AVAILABILITY:** Blowers are available with metric drive shaft and process connections.

**ROTORS WITH INTEGRAL SHAFTS:** Blowers include precision machined and dynamically balanced ductile iron rotors with large, integrally cast shafts to provide a single unitized rotor to prevent clash of the impeller moving on its shaft.

**ONE-PIECE HOUSING:** Blower includes a housing constructed of a single piece of precision machined cast iron, rather than a two-piece housing which is subject to misalignment and loss of operating clearances.

| Model | CFM / m3/h | HP / kW |
|---|---|---|
| 4606 | 85-645 / 145-1097 | 2-58 / 2-43 |
| 4609 | 129-946 / 219-1608 | 2-82 / 2-61 |
| 4612 | 173-1253 / 294-2130 | 3-90 / 2-67 |
| 6012 | 350-1667 / 595-2834 | 4-119 / 3-89 |
| 6016 | 494-2232/ 840-3794 | 5-157 / 4-117 |
| 6024 | 830-3358 / 1411-5709 | 7-157 / 5-117 |

# PD PLUS

The M-D Pneumatics PD Plus is a long-established line of premium, high-pressure industrial, heavy-duty blower model ranging from 3.25” to 12” gear diameter and 2.5” to 48” rotor length. Offered in air and gas configurations rated up to 18 PSI / 17“ Hg vac.

**VERTICAL & HORIZONTAL AIR FLOW:** Seal areas are vented to atmosphere to relieve process pressure against the internal lip seals, and to provide oil-free air.

**VERTICAL & HORIZONTAL SINGLE-ENVELOPE GAS SERVICE:** Vent openings are tapped and plugged to prevent gas leakage. These fittings can also accept an inert gas purge for positive containment of process gas.

**VERTICAL & HORIZONTAL DOUBLE-ENVELOPE GAS SERVICE:** This series is built to laboratory standards where virtually complete sealing is required. The drive shaft is mechanically sealed and the oil sumps are plugged to provide an even higher degree of leakage protection.

**OPTIONAL COOLING COILS:** All vertical flow 5500 PD PLUS models are available with cooling coils to provide cooling of lubricating oil with less than 0.5 GPM cooling water for high performance applications.

| Model | CFM / m3/h | HP / kW | Model | CFM / m3/h | HP / kW |
|---|---|---|---|---|---|
| 3202 | 8-90 / 14-153 | 1-9 / 1-6 | 7017 | 601-2807 / 1022-4772 | 7-226 / 5-169 |
| 3204 | 12-146 / 20-248 | 1-13 / 1-10 | 7021 | 783-3478 / 1331-5913 | 8-244 / 6-182 |
| 3206 | 21-220 / 36-374 | 1-18 / 1-3 | 7026 | 1052-4314 / 1788-7334 | 10-242 / 1-180 |
| 3210 | 37-368 / 63-626 | 1-28 / 1-21 | 9016 | 354-3028 / 602-5148 | 6-215 / 4-160 |
| 4009 | 49-497 / 83-845 | 2-45 / 1-34 | 9020 | 465-3986 / 791-6776 | 7-280 / 5-209 |
| 4012 | 87-682 / 148-1159 | 2-51 / 2-38 | 9027 | 620-5315 / 1054-9036 | 8-371 / 6-276 |
| 5507 | 99-794 / 168-1350 | 3-70 / 2-52 | 1215 | 284-3764 / 483-6399 | 6-271 / 5-202 |
| 5511 | 152-1171 / 258-1991 | 3-96 / 2-62 | 1224 | 494-6036 / 840-10261 | 9-427 / 6-318 |
| 5514 | 490-1522 / 833-2587 | 4-95 / 3-71 | 1230 | 618-7546 / 1051-12828 | 10-496 / 8-370 |
| 5518 | 350-1962 / 596-3335 | 4-94 / 3-70 | 1236 | 771-9065 / 1311-15411 | 12-385 / 9-287 |
| 7010 | 349-1690 / 593-2873 | 4-143 / 3-107 | 1248 | 1304-9273 / 2217-15764 | 15-267 / 11-199 |
| 7013 | 445-2148 / 757-3652 | 6-183 / 5-136 | | | |

## TYPICAL APPLICATIONS

*PD Plus & QX*

- **Pneumatic Conveying**
- **Steam Compression**
- **Vapor Recovery**
- **Soil Vapor Extraction**
- **Process Gas Boosting**

**SPECIAL TESTING:** ASME PTC-9 (1 PSIG slip method), hydrostatic testing to 150 PSIG (10.35 bar g), pressure gas testing to 100 PSIG (6.9 bar g), and seal leakage testing.

**SPECIAL MATERIALS:** Special materials available include stainless steel, carbon steel, or ductile iron models. Bi-Protec® is available as a Nickel/ Armoloy® special coating.

# QX

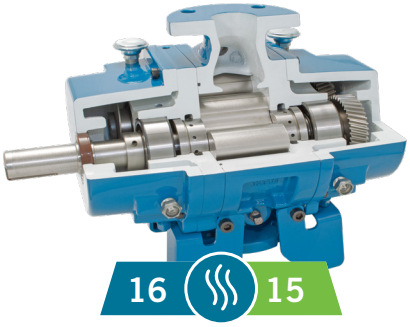
The M-D Pneumatics Qx is a high pressure industrial blower that provides high efficiency at high pressure and vacuum. Bi-direction, tri-lobe rotor design offers reduced pulsation and lower noise levels while its large integral shaft rotors prevent loosening over time.

**LUBRICATION:** Oil lubrication on both ends with easy to view sight glasses allowing quick maintenance.

**STRONGER BEARINGS:** QX has larger bearings than any other blower in same gear sizes which can lead to longer life, offering L10 bearing life of up to 200,000 hours. They include double-ball bearings on the timing gear end. For additional strength, single roller bearings are used on the drive shaft end of the machine.

**HELICAL GEARING:** Qx blowers utilize precision helical gears, keyed to the rotor shafts. Helical gears are quieter reducing mechanical noise.

**SEALS:** Qx blowers are fitted as standard with piston ring labyrinth process/oil seals. Piston ring seals provide high efficiency, long life and reliability. The oil chamber is vented to atmosphere providing oil-free air.




| Model | CFM / m3/h | HP / kW |
|---|---|---|
| 3203 | 17-164 / 29-279 | 2-18 / 2-14 |
| 3205 | 21-255 / 36-433 | 3-27 / 2-20 |
| 3208 | 36-413 / 54-702 | 3-41 / 2-31 |
| 4606 | 98-540 / 166-918 | 4-42 / 3-31 |
| 4610 | 158-897 / 268-1524 | 7-67 / 5-50 |
| 6009 | 286-1059 / 486-1800 | 10-89 / 8-67 |
| 6015 | 460-1766 / 782-3002 | 16-176 / 12-131 |

# TRANSPORT BLOWERS

## T855 | T1055

For pneumatic conveying of products, M-D Pneumatics dry bulk transport blowers are proudly crafted in the USA with rugged construction providing solid, lasting performance. They are able to unload a variety of products from fine powders to food products to pebbles.

| | T855 Specifications | T1055 Specifications |
|---|---|---|
| Air Flow | 250-1000 CFM | 450-1300 CFM |
| Pressure | 20 psi continuous | 18 psi continuous |
| Vacuum | 17" Hg continuous | 17" Hg continuous |
| RPM | 1000 - 3000 | 1450 - 3000 |
| Blower Weight | 376 lbs | 446 lbs |
| Dimensions | 22.7"L x 12.13"H x 17.97"D | 25.2"L x 12.13"H x 17.97"D |

**CAPABILITY:** T855 & T1055 models include oil tanks at both ends, broad flow capabilities, large drive shaft and bearings, and up to 20 psi capability.

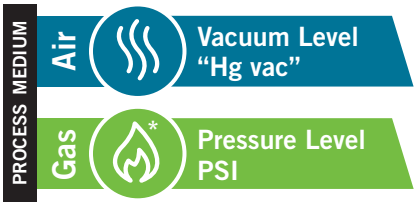
**LONGEST BEARING LIFE:** The M-D Pneumatics design with larger bearings than competitive brands delivers a more reliable machine with a longer life cycle. The bearing load rating is significantly higher than the closest competitor, resulting in hundreds of dollars saved in maintenance costs over time.

**QUIET:** Transport blowers are engineered with built-in silencing chambers for noise reduction.

**IP69K RATED BREATHER:** Industry-leading breather designed to withstand high pressure cleaning to keep water out of oil.

**SIMPLE DESIGN:** The T855/T1055 design has fewer sealing surfaces which means there are fewer parts, fewer leak paths, and fewer areas that could allow salt or debris to collect and corrode.

## Product Key




*Process Gas

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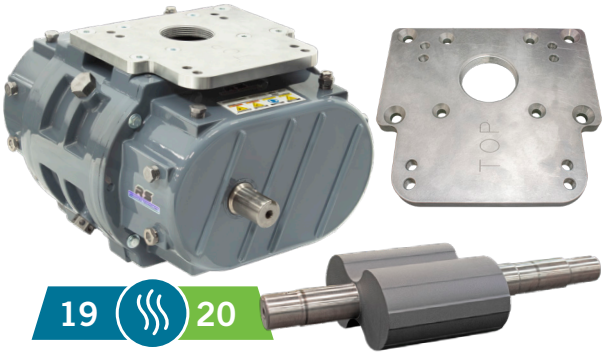
**FEWER OIL CHANGES:** The largest transport blower oil sumps belong to M-D Pneumatics. Gain more efficiency with fewer oil changes and spend more time hauling. The larger sumps also mean better cooling than previous models.

## T855 with RS Advanced Technology™ | T855RS

M-D Pneumatics' new T855 transport blower with RS Advanced Technology offers the most expansive range of flow than any blower in the transport market when it comes to pneumatic conveying of product. Able to operate at slower speeds while moving more product than its predecessors, the T855RS can reduce offload times by as much as 25%†. This results in significantly reduced fuel consumption, while offering all of the same enhanced features as our standard T855 transport blower.

**PATENT PENDING TECHNOLOGY:** Equipped with RS Advanced Technology, a patent pending,specialized coating applied to the rotors, the T855RS enhancement drastically reduces "slip", or air that is inefficiently trapped and recirculated in the blower rather than being pushed out through the discharge. With the T855RS, more discharge air is pushed out while cooler inlet air is being taken in, resulting in less torque required, more "useful"air being put to work, lower temperatures, and quieter operation.

**OPTIONAL ADAPTOR PLATE:** The T855RS runs at similar speeds as other manufacturers' models, eliminating the need to change PTO. Our exclusive adaptor plate allows you to replace screw-style models and still use your existing bracket, significantly reducing maintenance downtime and costing less than installing a new screw-style blower. Available as a stand-alone item.

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*RS Advanced Technology patent pending coating on rotor lobes for reduced slip and optional lightweight aluminum adaptor plate displayed with blower.*

| | T855RS Specifications |
|---|---|
| Air Flow | 121-1010 CFM |
| Pressure | 20 psi continuous |
| Vacuum | 18" Hg continuous |
| RPM | 1000 - 3000 |
| Blower Weight | 376 lbs |
| Dimensions | 22.7"L x 12.13"H x 17.97"D |

*† Savings per truck, based on dry cement hauling field tests performed in 2020*

# MD BLOWER PACKAGES

Based on decades of building high quality blowers, M-D Pneumatics is proud to introduce the new MD compact rotary blower package. MD open (non-enclosure) pressure packages are a dependable and economical high-volume air source for many applications such as pneumatic conveying and wastewater aeration. MD blower packages offer many distinct advantages.

**SHORTER DELIVERY TIME FRAME:** By standardizing open blower packages for common operating conditions, many MD blower packages can be quickly assembled and shipped meaning you no longer have to wait weeks or months for delivery.

**MOUNTING BASE WITH INTEGRAL SILENCER:** We now offer an integrated discharge silencer / base. Automatic belt tensioning means no downtime to tighten and re-tighten belts and minimizes chances of unplanned downtime due to belt breakage.

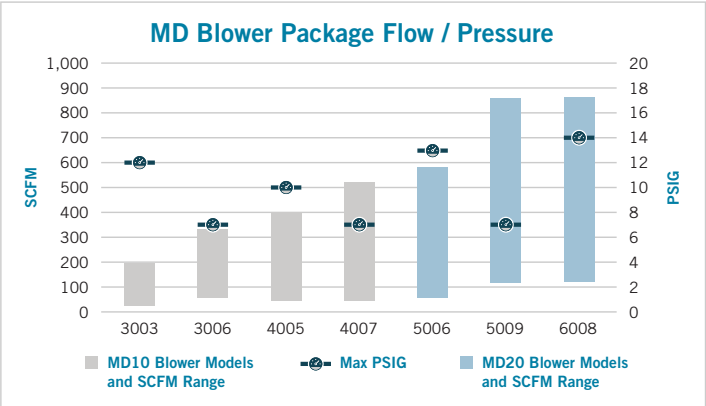
**FACTORY BUILT AND WARRANTED:** Built in our manufacturing facility in Missouri under rigorous quality standards. All rotary blower packages are covered by a factory warranty of 18 months after installation, not to exceed 24 months after shipment.

## OPTIONAL ACCESSORIES

- Unloading Valve
- Swing Check Valve
- Temperature Gauge
- Single Point Oil Draining Kit

## TYPICAL APPLICATIONS

- Pneumatic Conveying
- Air Sparging
- Wastewater Aeration
- Compost Aeration
- Dairy Milking




# QUBE™ BLOWER PACKAGES

Featuring the Qx blower, QUBE is the perfect, quiet solution for major industries including pneumatic conveying, wastewater aeration, plastics, cement and more.

- Maintenance-friendly noise enclosure with easy access
- Compact footprint
  Oil drain/level gauge accessible from front for easy oil change
- Mounting base includes integral fork truck pockets for easy transportation and positioning
- Automatic V-belt tensioning system with visual indicator
- Factory assembled and warranted

## TYPICAL APPLICATIONS

- Pneumatic Conveying
- Wastewater Aeration
- Vacuum Cleaning
- Air Sparging
- Dust Collection
- Compost Aeration
- Dairy Milking
- Bulk Unloading & Loading
- Fluidization/Agitation of Dense Powders
- High Performance Industrial Applications

# MPAK+ BLOWER PACKAGES

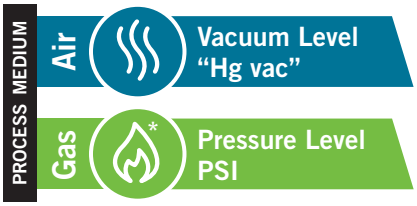
Featuring the CP Blower, the MPAK+ is the cost effective, quiet enclose blower package that customers have been looking for. This package can be used in pneumatic conveying, plastics, wastewater, cement and many more applications where a factory built, quiet enclosed package is preferred!

- Maintenance-friendly noise enclosure
  - » Significant noise reduction
  - » Easy maintenance access
  - » Factory assembled/shipped enclosed
- Value engineered
  - » Low cost, factory assembled
  - » Designed for quick delivery
- Oil drain/ 3-D sight gauge accessible from front for easy oil change
- Compact footprint: Built for side-by-side installation
- Oil/oil lubricated CP blowers for ease of lubricant inventory
- Factory assembled and factory warranted including:
  - » High efficiency electric motor
  - » Discharge check valve
  - » Relief valve
  - » Process gauges
  - » Optional accessories and controls available
  - » Outdoor weather hood optional

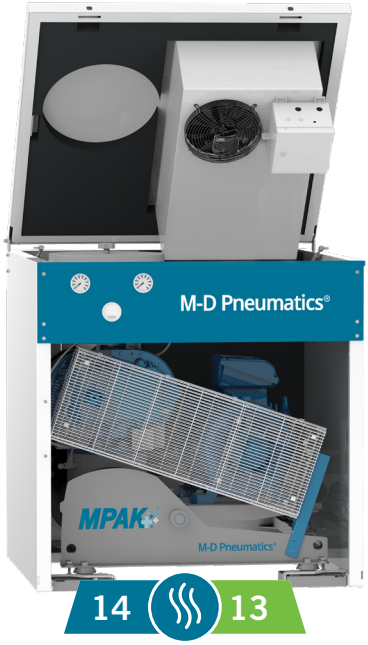
## TYPICAL APPLICATIONS

- » **Pneumatic Conveying**
- » **Wastewater Aeration**
- » **Vacuum Cleaning**
- » **Air Sparging**
- » **Dust Collection**
- » **Compost Aeration**
- » **Dairy Milking**
- » **Bulk Unloading & Loading**
- » **Fluidization/Agitation of Dense Powders**
- » **High Performance Industrial Applications**

### Product Key




*Process Gas




# Engineered Solutions

For special applications requiring engineered blower packages, we can design and manufacture specifically to your requirements. M-D Pneumatics can supply custom packages with two-stage blowers, high vacuum boosters, liquid injection systems, plus much more. Blower design, materials of construction, seals, and accessories can be selected to ensure performance to meet all operating conditions of your application. Testing and certification are available.

- Flow ranges to 9000 CFM (15300 m³/h)
- Approval drawings provided
- Multi-stage blower packages available for high pressure operation
- Control systems for automatic operation available

### SINGLE-SOURCE FACTORY WARRANTY

Because we design, engineer and build our own blower packages, we warranty the entire package, including its components.

## CONTACT US

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MD-BC-FAM 2nd Ed. 1/24