

Application

The Positive Displacement Vacuum Sequencing Blower is part of Coperion K-Tron's wide range of blower packages used for pneumatically conveying pellets, powders, and granular materials. It is specifically designed for use with Coperion K-Tron's 2400 Series vacuum sequencing receivers. It is controlled by the microprocessor or PLC controller that commands the entire 2400 Series system and includes a vacuum breaker valve to accommodate the system's continuous sequencing conveying. While material is being conveyed, the vacuum breaker valve remains closed to allow material to be conveyed from the source to the receiver. While the blower is idling between call signals, it opens automatically letting outside air to be drawn. The Coperion K-Tron PD Vacuum Sequencing Blower is designed for 50 mm [2 in] through 100 mm [4 in] conveying lines for systems up to 338 mbar(g) [10 in Hg] vacuum.

Selecting the right blower to operate at the correct speed is critical for maximum efficiency of any pneumatic conveying system. Before selecting a blower package, Coperion K-Tron system engineers carefully calculate the required performance of the blower and how it will respond to a specific application.

Design

The vacuum sequencing blower package incorporates an industry-proven positive displacement blower (rotary lobe type). The blower is dynamically balanced, and isolation pads are positioned between the blower and the base to reduce vibration and noise. Depending on the application, vacuum sequencing blower motors are available ranging from 4 to 18.5 kW [5 to 25 HP]. An adjustable motor mount accommodates the IEC or NEMA motor bolt pattern. A heavy-duty drive guard totally encloses the drive to protect plant personnel. The complete blower package is supported by a heavy-duty base that allows easy access for service and cleaning.

Noise level without sound enclosure ranges from 70 to 91 dB(A) depending on the actual configuration and installation of the vacuum sequencing blower package. Sound enclosures are available as an option.

Technical Data

Standard Mechanical Specifications

- Positive displacement blower (rotary lobe type)
- IEC or NEMA motor mount frame
- Heavy-duty blower base
- Totally enclosed drive guard
- Easy-to-read liquid filled gauge
- Chamber-absorptive type discharge silencer
- Vibration mounting pads
- Air-actuated vacuum breaker valve
- Mechanical vacuum relief valve
- OSHA and CE compliant
- Blower oil included

Hazardous Location Options:

- NEC Class I, Div. 1, Groups G & D
Class II, Div. 2, Groups E, F & G
- ATEX versions available upon request



Standard Electrical Specifications

- 200-230 / 380-460 volt, 3-phase, 50/60 cycle motor
- IEC motor - Efficiency per IEC 60034-30-1, IE3 level, with IP65 protection
- NEMA motor - NEMA Premium® Efficiency, severe duty, TEFC with IP54 protection

NOTE:

For blower performance information such as motor sizes and airflow ranges contact factory.

Options

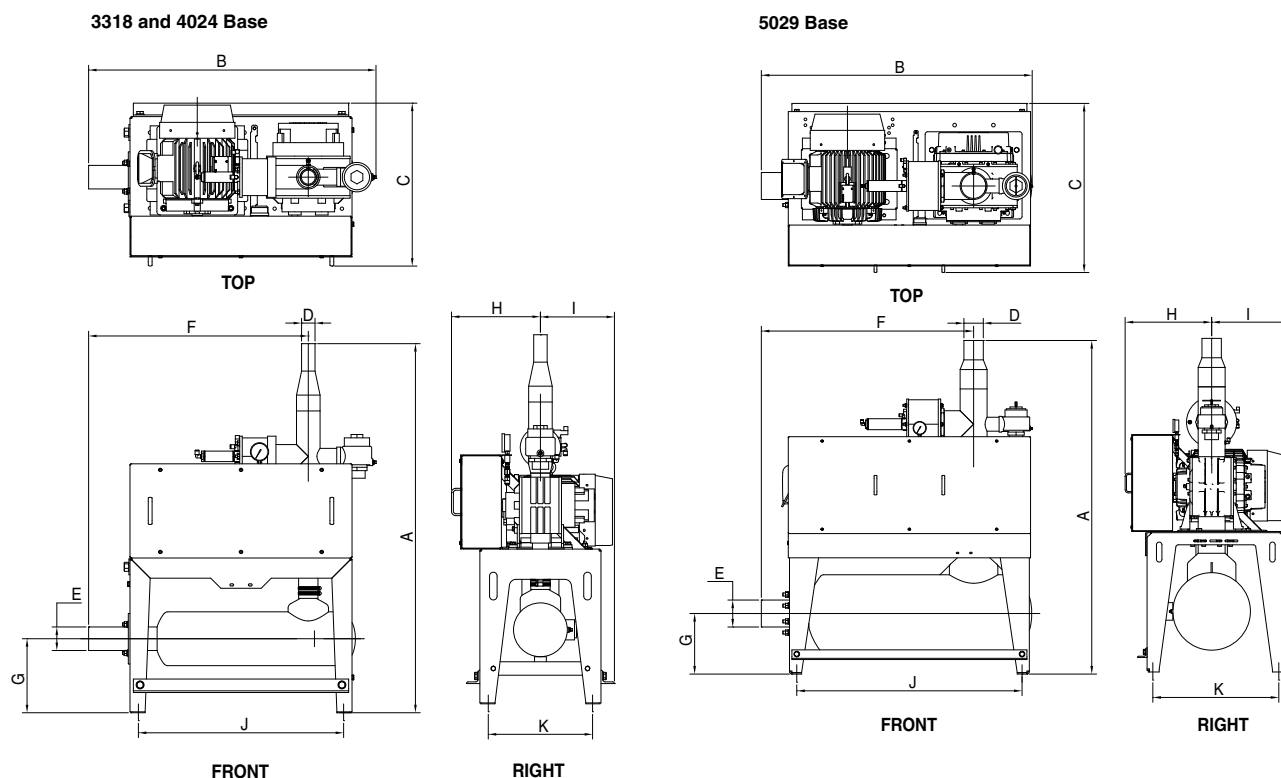
Mechanical

- Sound enclosures
- Rain caps
- Additional silencers
- Pipe couplings and size reducers
- Temperature switch
- Special voltage requirements

Electrical

- For CSA or UL certified solenoid contact factory

Dimensions of Vacuum Sequencing Blower mm [in]



GENERAL PART NO.	METRIC PART NO.	BASE	A	B	C	D	E	F	G	H	I (MAX)	J	K	ENCLOSURE
5158-100 ... 5158-113	5158-100M ... 5158-113M	3318	1370 [53.92]	1069 [42.1]	613 [24.13]	51 [2]	89 [3.5]	829 [32.65]	279 [11]	306 [12]	310 [12.19]	775 [30.5]	394 [15.5]	5309-152
5158-114 ... 5158-119	5158-114M ... 5158-119M	3318	1393 [54.86]	1085 [42.71]	615 [24.22]	51 [2]	89 [3.5]	829 [32.65]	279 [11]	336 [13.2]	279 [11]	775 [30.5]	394 [15.5]	5309-152
5158-120 ... 5158-126; 5158-130 ... 5158-131	5158-120M ... 5158-126M; 5158-130M ... 5158-131M	3318	1393 [54.86]	1085 [42.71]	615 [24.22]	76 [3]	89 [3.5]	829 [32.65]	279 [11]	336 [13.2]	279 [11]	775 [30.5]	394 [15.5]	5309-152
5158-127 ... 5158-129; 5158-132 ... 5158-137	5158-127M ... 5158-129M; 5158-132M ... 5158-137M	4024	1498 [58.97]	1225 [48.23]	768 [30.23]	76 [3]	114 [4.5]	969 [38.16]	279 [11]	366 [14.4]	402 [15.8]	950 [37.4]	545 [21.5]	5309-153
5158-140	5158-140M	4024	1498 [58.97]	1225 [48.23]	768 [30.23]	102 [4]	114 [4.5]	969 [38.16]	279 [11]	366 [14.4]	402 [15.8]	950 [37.4]	545 [21.5]	5309-153
5158-138, 5158-139	5158-138M, 5158-139M	5029	1749 [68.86]	1419 [55.9]	886 [34.9]	76 [3]	141.3 [5.56]	1112 [43.81]	317 [12.5]	453 [17.8]	432 [17]	1181 [46.5]	660 [26]	5309-154
5158-141 ... 5158-145	5158-141M ... 5158-145M	5029	1749 [68.86]	1419 [55.9]	886 [34.9]	102 [4]	141 [5.56]	1112 [43.81]	317 [12.5]	453 [17.8]	432 [17]	1181 [46.5]	660 [26]	5309-154

Caution: Measurements are for general reference only. Please consult dimensional drawing for exact measurements.