

Application

The Positive Displacement Vacuum Blower is part of Coperion K-Tron's wide range of blower packages used for pneumatically conveying pellets, powders, and granular materials in a continuous vacuum system. The Coperion K-Tron PD Vacuum Blower is designed for 50 mm [2 in] through 273 mm [10.75 in] conveying lines for systems up to 474 mbar(g) [14 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 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 blower motors are available ranging from 2.2 to 75 kW [3 to 100 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 95 dB(A) depending on the actual configuration and installation of the vacuum 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
- IP65 [NEMA 4, 4X] adjustable vacuum switch
- 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 VAC, 3-phase, 50/60 Hz 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.



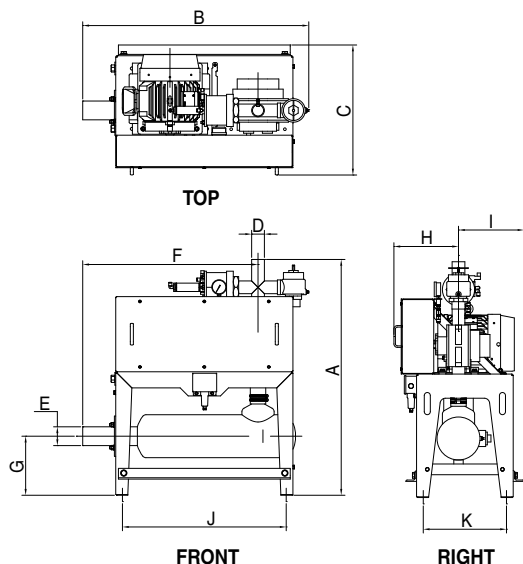
Options

Mechanical

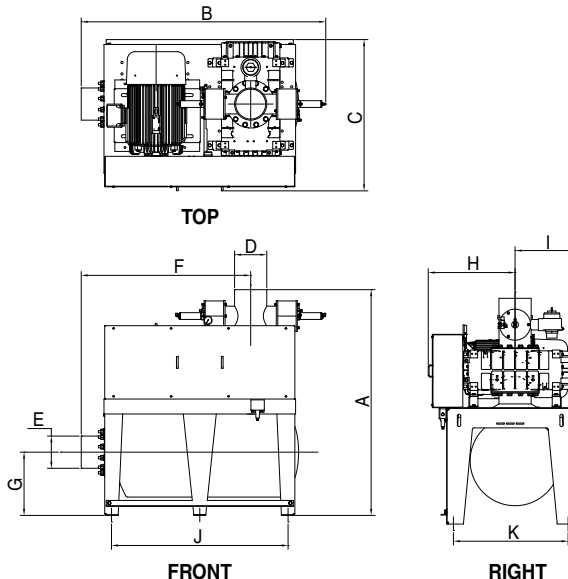
- Sound enclosures
- Rain caps
- Additional silencers
- Pipe couplings and size reducers
- Temperature switch
- Special voltage requirements

Dimensions of Vacuum Blower mm [in]

3318, 4024 and 5029 Base



5839 and 6440 Base



GENERAL PART NO.	METRIC PART NO.	BASE	A	B	C	D	E	F	G	H	I (MAX)	J	K	ENCLOSURE
5182-100 ... 5182-109	5182-100M ... 5182-109M	3318	1119 [44.06]	1023 [40.28]	610 [24.02]	60 [2.4]	89 [3.5]	826 [32.52]	279 [10.98]	306 [12.05]	305 [12.00]	648 [25.51]	393 [15.47]	5309-152
5182-110 ... 5182-118	5182-110M ... 5182-118M	4024	1363 [53.66]	1226 [48.27]	766 [30.16]	114 [4.5]	114 [4.5]	965 [37.99]	283 [11.14]	453 [17.83]	279 [10.98]	826 [32.52]	546 [21.5]	5309-153
5182-119 ... 5182-140	5182-119M ... 5182-140M	3318	1168 [45.99]	1048 [41.26]	609 [23.98]	89 [3.5]	89 [3.5]	826 [32.52]	279 [10.98]	335 [13.19]	272 [10.71]	648 [25.51]	393 [15.47]	5309-152
5182-141 ... 5182-144	N/A	4024	1200 [47.24]	1188 [46.77]	763 [30.04]	89 [3.5]	89 [3.5]	965 [37.99]	279 [10.98]	341 [13.42]	346 [13.62]	826 [32.52]	546 [21.50]	5309-153
5182-145 ... 5182-154	5182-145M ... 5182-154M	4024	1237 [48.70]	1226 [48.27]	765 [30.12]	114 [4.5]	114 [4.5]	965 [37.99]	283 [11.14]	372 [14.65]	362 [14.25]	826 [32.52]	546 [21.50]	5309-153
5182-155 ... 5182-163	5182-155M ... 5182-162M	5029	1575 [62.00]	1430 [56.30]	895 [35.24]	114 [4.5]	141 [5.56]	1126 [44.33]	311 [12.24]	516 [20.31]	322 [12.67]	1092 [42.99]	664 [26.14]	5309-154
5182-164 ... 5182-177	5182-164M ... 5182-177M	5029	1495 [58.86]	1430 [56.30]	891 [35.08]	141 [5.56]	141 [5.56]	1126 [44.33]	318 [12.52]	458 [18.03]	377 [14.84]	1092 [42.99]	664 [26.14]	5309-154
5182-178 ... 5182-190	5182-178M ... 5182-190M	5029	1638 [64.49]	1435 [56.50]	891 [35.08]	168 [6.63]	168 [6.63]	1118 [44.02]	305 [12.01]	567 [22.32]	311 [12.24]	1092 [42.99]	664 [26.14]	5309-154
5182-191 ... 5182-203	5182-191M ... 5182-203M	5029	1638 [64.49]	1435 [56.50]	891 [35.08]	168 [6.63]	168 [6.63]	1118 [44.02]	324 [12.75]	501 [19.72]	406 [15.98]	1092 [42.99]	664 [26.14]	5309-154
5182-204 ... 5182-219	5182-204M ... 5182-219M	5839	1846 [72.68]	1834 [72.20]	1142 [44.96]	219 [8.63]	219 [8.63]	1308 [51.50]	405 [15.94]	527 [20.75]	426 [16.77]	1245 [49.02]	886 [34.88]	5309-155
5182-220 ... 5182-242	5182-220M ... 5182-242M	5839	1808 [71.18]	1834 [72.20]	1138 [44.80]	219 [8.63]	219 [8.63]	1308 [51.50]	392 [15.43]	673 [26.50]	318 [12.52]	1245 [49.02]	886 [34.88]	5309-155
5182-243 ... 5182-261	5182-243M ... 5182-261M	6440	1915 [75.39]	1939 [76.34]	1285 [50.60]	219 [8.63]	219 [8.63]	1413 [55.63]	537 [21.14]	639 [25.16]	398 [15.67]	1321 [52.01]	943 [37.13]	5309-156
5182-262 ... 5182-284	5182-262M ... 5182-284M	6440	1915 [75.39]	2068 [81.42]	1289 [50.75]	273 [10.75]	273 [10.75]	1432 [56.38]	537 [21.14]	740 [29.13]	445 [17.52]	1321 [52.01]	943 [37.13]	5309-156

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