

Application

The Positive Displacement Pressure 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 pressure system. The Coperion K-Tron PD Pressure Blower is designed for 50 mm [2 in] through 273 mm [10.75 in] conveying systems up to 1 bar(g) [15 psi(g)] pressure.

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 pressure 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, blower motors are available ranging from 2.2 to 112 kW [3 to 150 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 97 dB(A) depending on the actual configuration and installation of the 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 pressure gauge
- Inlet filter/silencer
- Chamber-absorptive type discharge silencer
- Vibration mounting pads
- Check valve
- Mechanical relief valve
- IP65 [NEMA 4, 4X] adjustable pressure 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 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

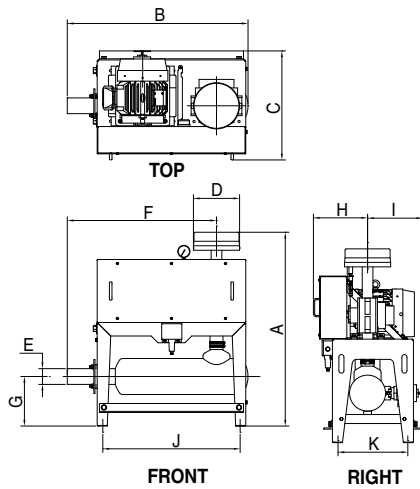
- Sound enclosure
- Additional silencers
- Pipe couplings and size reducers
- After coolers
- Temperature switch
- Special voltage requirements

Electrical

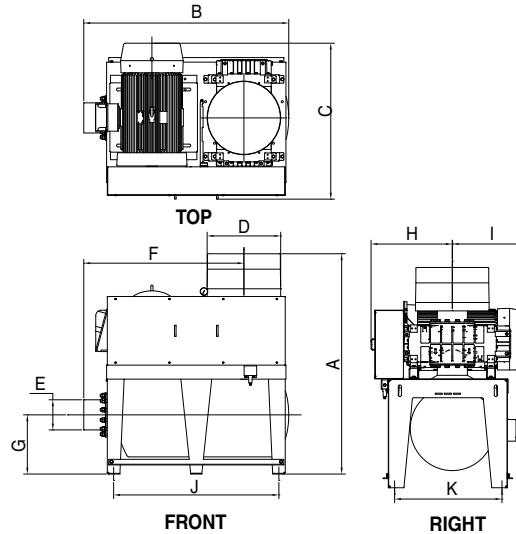
- For CSA or UL certified solenoid contact factory

Dimensions of Pressure 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
5180-100 ... 5180-113	5180-100M ... 5180-113M	3318	1093 [43.05]	1020 [40.15]	615 [24.22]	260 [10.25]	89 [3.5]	842 [33.15]	279 [11]	306 [12.03]	311 [12.23]	775 [30.5]	394 [15.5]	5309-152
5180-114 ... 5180-128	5180-114M ... 5180-128M	3318	1138 [44.81]	1048 [646.49]	646 [25.45]	413 [16.25]	89 [3.5]	842 [33.15]	279 [11]	336 [13.22]	311 [12.23]	775 [30.5]	394 [15.5]	5309-152
5180-129 ... 5180-135	5180-129M ... 5180-135M	4024	1170 [46.06]	1210 [47.65]	768 [30.23]	413 [16.25]	89 [3.5]	982 [11]	279 [13.88]	341 [17.85]	427 [16.81]	950 [37.39]	543 [21.39]	5309-153
5180-139 ... 5180-155	5180-139M ... 5180-155M	4024	1231 [48.46]	1210 [47.65]	806 [31.73]	413 [16.25]	89 [3.5]	982 [38.65]	279 [11]	353 [13.88]	453 [17.85]	950 [37.39]	543 [21.39]	5309-153
5180-156 ... 5180-165	5180-156M ... 5180-165M	4024	1246 [49.04]	1210 [47.65]	806 [31.73]	413 [16.25]	114 [4.5]	982 [38.65]	279 [11]	449 [17.68]	357 [14.05]	950 [37.39]	543 [21.39]	5309-153
5180-166 ... 5180-175	5180-166M ... 5180-175M	4024	1168 [46]	1210 [47.65]	806 [30.23]	413 [16.25]	89 [3.5]	982 [38.65]	279 [11]	373 [14.67]	395 [15.56]	950 [37.39]	543 [21.39]	5309-153
5180-178 ... 5180-187	5180-178M ... 5180-187M	4024	1236 [48.25]	1210 [47.65]	806 [31.73]	413 [16.25]	114 [4.5]	982 [38.65]	279 [11]	366 [14.4]	440 [17.34]	950 [37.39]	543 [21.39]	5309-153
5180-188 ... 5180-196	5180-188M ... 5180-196M	5029	1461 [57.5]	1443 [56.81]	946 [37.25]	413 [16.25]	141 [5.56]	1138 [44.81]	311 [12.25]	511 [20.13]	435 [17.13]	1181 [46.5]	660 [26]	5309-154
5180-197 ... 5180-205	5180-197M ... 5180-205M	4024	1226 [48.25]	1210 [47.65]	806 [31.73]	413 [16.25]	114 [4.5]	982 [38.65]	279 [11]	419 [16.49]	387 [15.24]	950 [37.39]	543 [21.39]	5309-153
5180-206 ... 5180-218	5180-206M ... 5180-218M	5029	1410 [55.53]	1434 [56.47]	902 [35.5]	514 [20.25]	141 [5.56]	1130 [44.47]	318 [12.5]	454 [17.86]	448 [17.65]	1181 [46.5]	660 [26]	5309-154
5180-219 ... 5180-243	5180-219M ... 5180-243M	5029	1568 [61.75]	1442 [56.77]	1007 [39.63]	514 [20.25]	168 [6.63]	1137 [44.77]	305 [12]	562 [22.13]	445 [17.5]	1181 [46.5]	660 [26]	5309-154
5180-244 ... 5180-257	5180-244M ... 5180-257M	5029	1486 [58.5]	1442 [56.77]	967 [38.06]	514 [20.25]	168 [6.63]	1137 [44.77]	292 [11.5]	453 [21.37]	424 [16.69]	1181 [46.5]	660 [26]	5309-154
5180-258 ... 5180-266	5180-258M ... 5180-266M	5029	1569 [61.75]	1442 [56.77]	949 [37.36]	514 [20.25]	168 [6.63]	1137 [44.77]	324 [12.75]	496 [19.53]	453 [17.82]	1181 [46.5]	660 [26]	5309-154
5180-267 ... 5180-276	5180-267M ... 5180-276M	5839	1751 [68.94]	1672 [65.83]	1135 [44.7]	514 [20.25]	219 [8.63]	1329 [52.33]	405 [15.94]	523 [20.67]	613 [24.13]	1384 [54.5]	905 [35.63]	5309-155
5180-277 ... 5180-291	5180-277M ... 5180-291M	5839	1713 [67.44]	1662 [65.45]	1259 [49.55]	508 [20]	219 [8.63]	1329 [52.33]	392 [15.44]	668 [26.32]	590 [23.24]	1384 [54.5]	905 [35.63]	5309-155
5180-292 ... 5180-302	5180-292M ... 5180-296M	6440	1864 [73.38]	1840 [72.45]	1381 [54.35]	514 [20.25]	219 [8.63]	1434 [54.45]	467 [18.38]	714 [28.12]	592 [23.32]	1498 [58.97]	973 [38.30]	5309-156
5180-310 ... 5180-324	5180-310M ... 5180-322M	6440	1819 [71.63]	1840 [72.45]	1307 [51.44]	508 [20]	219 [8.63]	1434 [56.45]	537 [21.13]	635 [25]	672 [26.44]	1498 [58.97]	973 [38.30]	5309-156
5180-325 ... 5180-335	5180-325M ... 5180-335M	5839	1713 [67.44]	1662 [65.45]	1259 [49.55]	508 [20]	219 [8.63]	1329 [52.33]	392 [15.44]	668 [26.32]	590 [23.24]	1384 [54.5]	905 [35.63]	5309-155
5180-336 ... 5180-343	5180-336M ... 5180-343M	6440	2073 [81.63]	1858 [73.15]	1336 [52.6]	664 [26.13]	273 [10.75]	1452 [57.15]	473 [18.63]	670 [26.37]	666 [26.24]	1498 [58.97]	973 [38.30]	5309-156
5180-344 ... 5180-376	5180-344M ... 5180-376M	6440	1997 [78.63]	1858 [73.15]	1414 [55.66]	667 [26.25]	273 [10.75]	1452 [57.15]	537 [21.13]	737 [29]	677 [26.67]	1498 [58.97]	973 [38.30]	5309-156

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