

Blowers - SUC-E for industrial purposes

Data sheet

Kongskilde's SUC blowers constitute a range of proven conveying blowers, which are an ideal energy source for a vast number of industrial material handling systems.

The Kongskilde electric-powered suction blowers type SUC-E are very suitable for a wide variety of applications.

Description

Our systems are low maintenance and can run effortlessly 24/7 ensuring a worry free operation.

The suction blowing system is ideally suited for conveying from

various collecting points to different destinations. The material can be moved horizontally and vertically. The high-performance Kongskilde suction blowers, combined with the simple and flexible Kongskilde OK pipe system, will fit in anywhere, irrespective of building facilities.

How A Suction Blower Works

The suction blower is a unique solution when flexible conveying is

needed and is used everywhere for transport of granules or flakes. It sucks the granules or flakes directly from the delivery point through a flexible or fixed pipe system.

At the blower, the material is led over to the pipe on the pressure side.

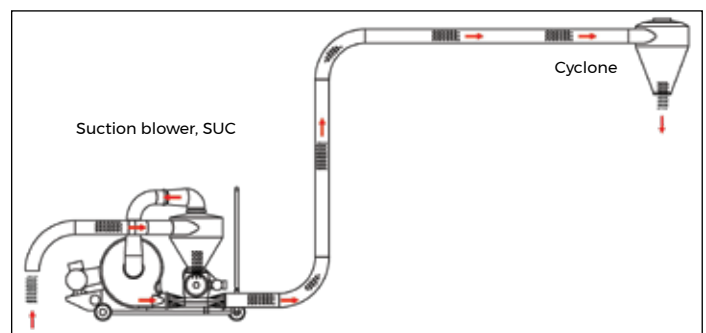
Pipes, bends, and diverters can be fitted so that the material is conveyed to its desired destination.



SUC 200 E suction blower used for emptying hopper rail cars with plastic pellets and conveying the pellets into storage silos.



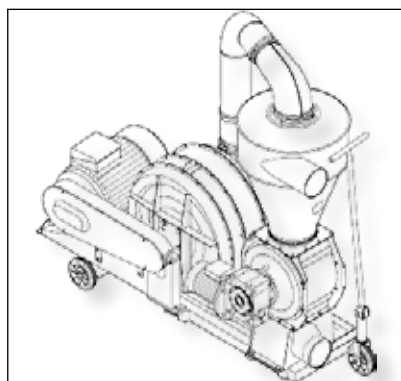
Suction blower used for conveying from and to multiple destinations. This SUC-E is trolley mounted and easy to move.



This system is ideally suited for applications requiring vacuum from multiple sources and then blowing material to various destinations using a combination of a vacuum and a pressure system. The example shown consists of a number of metres horizontal piping, 4 m vertical piping, two 90° bends, and an outlet cyclone.

Technical Data

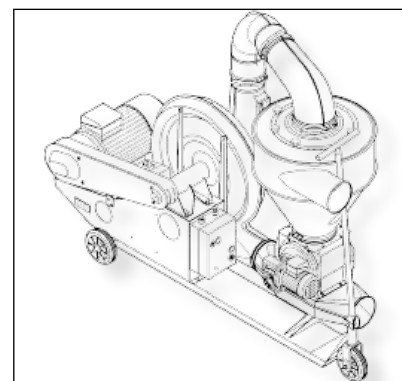
	SUC100 E	SUC150 E	SUC 200 E	SUC 300 E	SUC 500 E
Motor (blower) kW (HP)	7.5 (10)	11 (15)	15 (20)	22 (30)	37 (50)
Motor (rotary valve) kW (HP)	0.75 (1)	0.75 (1)	0.75 (1)	1.1 (1.5)	1.5 (2)
Electrical connection V/50 Hz	3 x 400	3 x 400	3 x 400	3 x 400	3 x 400
Total amp. consumption	18.3	26.6	33.1	49.6	78.6
Fuse amp. (suggested)	25	35	50	63	100
Motor (blower), rpm	3,000	3,000	3,000	3,000	3,000
Motor (rotary valve), rpm	1,500	1,500	1,500	1,500	1,500
Motor type (rotary valve)	B5 flange mounted IEC/DIN				
Weight incl. motor in kg	349	356	363	730	792
Air volume, app. m ³ /h	1,800	1,800	1,800	1,800	2,000
Max. air pressure, mm WG	950	1,300	1,700	2,400	4,000
Max. air speed in pipeline, app. m/s	25	25	25	25	25
Air is heated by app. °C	9	12	19	27	46
Rotor, rpm (blower)	3,650	4,200	4,700	3,450	4,300
Number of rotors	1	1	1	3	3
Rotary valve, rpm	60	60	70	35	60
No. of chambers in rotary valve	6	6	6	6	6
Vol/chamber of the rotary valve, litres	1.2	1.2	1.2	5.3	5.3
Conveying pipe, types	OK/OKR160 Ø=160 mm				
Control box IP55*	Automatic Star/Delta switch				



SUC 500 E industrial version with 37kW motor running the blower, and 1.5kW geared motor running the heavy-duty RF 40 rotary valve. The unit is also available at lower rated capacity with 22kW motor running the blower.



Control cabinet for automatic start/stop of the motor

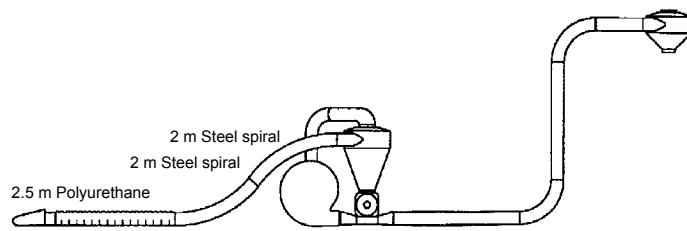


SUC 200 E industrial version of suction blower equipped with 15kW motor for running the blower, and heavy-duty RF 20 rotary valve. The unit is also available with smaller motors running the blower at lower rated capacity.

Conveying Distances

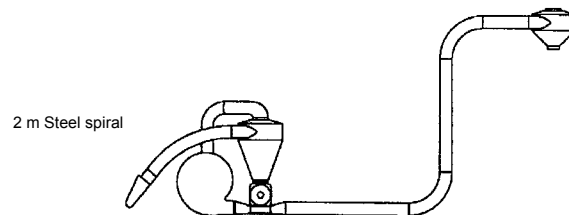
Conveying Capacities t/h for Plastic Granulate (650 kg/m³)

The standard type 1 suction pipeline consists of a horizontal universal suction head, a 2.3 m straight polyurethane suction hose and two 2 m steel spirals suction hoses.



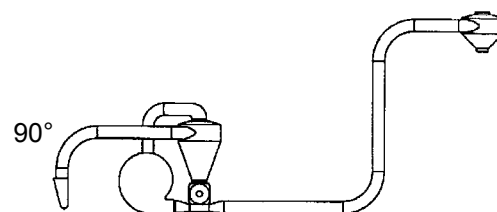
Conveying distance, m.	10	20	30	40	50	60	80	100	120	150	200
SUC 100	3.6	3.2	2.8	2.4	2.1	1.9	1.4	1.1	0.7	0.4	
SUC 150	6.2	5.6	5.2	4.8	4.4	4.0	3.3	2.8	2.4	1.8	
SUC 200	8.0	7.4	6.8	6.3	5.8	5.4	4.7	4.0	3.5	2.8	2.0
SUC 300	11.2	10.3	9.5	8.8	8.1	7.6	6.6	5.7	5.1	4.2	3.2
SUC 500	18.0	16.7	15.6	14.6	13.7	12.9	11.5	10.4	9.4	8.0	6.4

The standard type 2 suction pipeline consists of an universal suction head arranged at an angle of 45° in relation to vertical and a 2 m steel spiral suction head.



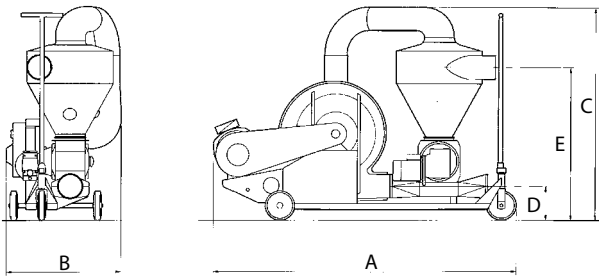
Conveying distance, m.	10	20	30	40	50	60	80	100	120	150	200
SUC 100	5.4	4.8	4.2	3.7	3.2	2.8	2.2	1.6	1.2	0.6	
SUC 150	9.2	8.2	7.4	6.7	6.1	5.5	4.6	3.8	3.2	2.4	
SUC 200	11.8	10.6	9.6	8.8	8.0	7.4	6.2	5.4	4.6	3.7	2.5
SUC 300	16.0	14.2	12.8	11.7	10.6	9.8	8.4	7.2	6.2	5.1	3.8
SUC 500	25.4	23.1	21.2	19.5	18.1	16.8	14.6	12.9	11.4	9.8	7.6

The standard type 3 suction pipeline consists of an universal suction head, a 90° bend and a horizontal 2 m pipe.



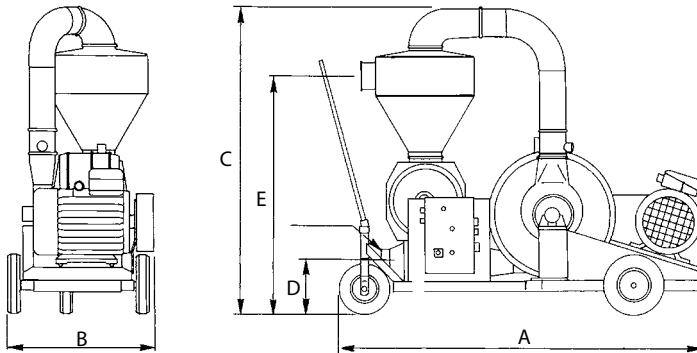
Conveying distance, m.	10	20	30	40	50	60	80	100	120	150	200
SUC 100	5.8	5.0	4.4	3.8	3.4	3.0	2.0	1.7	1.2	0.6	
SUC 150	9.9	8.8	7.9	7.0	6.4	5.8	4.8	3.9	3.3	2.3	
SUC 200	12.6	11.4	10.2	9.3	8.5	7.8	6.5	5.5	4.7	3.8	2.6
SUC 300	16.8	15.0	13.5	12.3	11.2	10.2	8.7	7.4	6.5	5.3	3.8
SUC 500	27.4	24.7	22.6	20.6	19.0	17.6	15.3	13.4	11.9	10.1	7.8

Dimensions



mm	A	B	C	D	E
SUC 100E	2,040	775	1,460	230	1,040
SUC 150E	2,050	775	1,460	230	1,040
SUC 200E	2,050	775	1,460	230	1,040

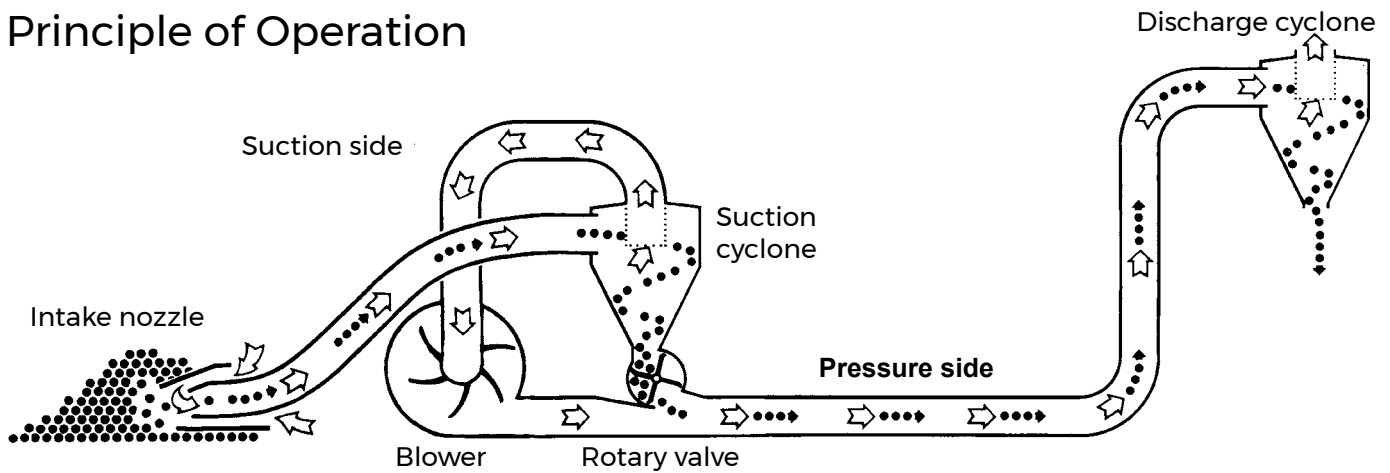
inches	A	B	C	D	E
SUC 150E	80.7	30.5	57.5	9.1	40.9
SUC 200E	80.7	30,5	57.5	9.1	40.9



mm	A	B	C	D	E
SUC 300E	2,235	913	1,820	308	1,418
SUC 500E	2,235	913	1,820	308	1,418

inches	A	B	C	D	E
SUC 300E	88	35.9	71.7	12.1	55.8
SUC 500E	88	35.9	71.7	12.1	55.8

Principle of Operation



The suction blower consists of a powerful blower and a rotary valve. Conveying is started by using the suction air of the blower to lift and accelerate the granulate towards the blower.

Just before the granulate reaches the blower housing it is separated from this air stream in a cyclone and dropped into

the rotary valve, whereas the air continues to the blower. The rotary valve conveys the granulate from the suction side in the cyclone to the pressure side in the transport pipe. The granulate is carried to the outlet cyclone in air stream.

In order to secure a balance between air and material, the suction blower is equipped with an adjustable intake nozzle.

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