

K KONGSKILDE
Grain Vacs / Suction Blowers



Kongskilde Grain Vacs – a Flexible and Dependable Conveying System

Kongskilde has been developing and manufacturing grain blowers since 1949 and is today one of the leading producers of grain vacs worldwide.

Kongskilde offers a wide range of electrical and tractor powered grain vacs with capacities up to 5,000 bushels of (120 tons) grain per hour. There is a suitable blower for every job.

Kongskilde's OK pipe system makes it is quick and easy to establish temporary and permanent pipelines.



SupraVac 2000 is the latest member of Kongskildes large product family of Grain Vacs.

With a capacity of up to 5,000 bushels (120 tons)/hour the SupraVac 2000 quickly loads even the largest farm trailers



The well known SUC TR trailer models with loading equipment in 3 different sizes - 500, 700 and 1000.



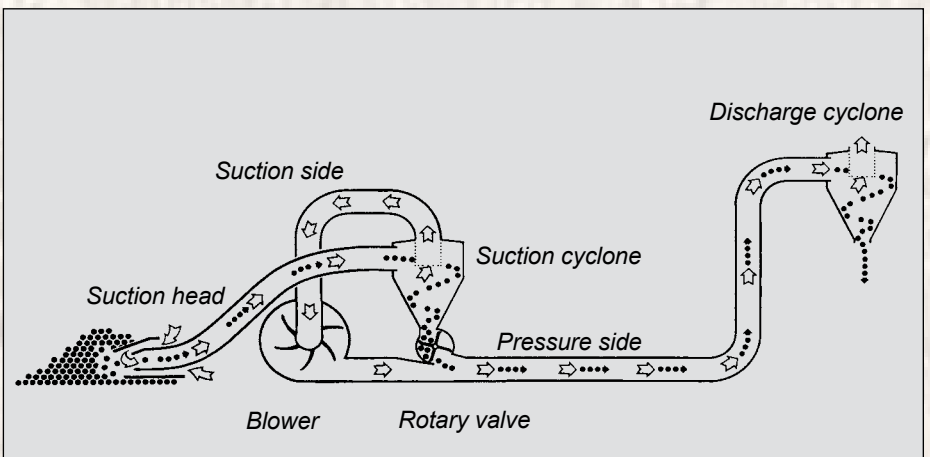
Electrical powered Grain Vacs type SUC-E are often used for permanent conveying systems. Choose between 5 different sizes with capacities up to 1,800 bushels (33 tons)/hour.



Tractor powered Grain Vacs type SUC-T mounted on the lift arm and driven by the PTO shaft. Available in 2 sizes with a capacity of up to 1,800 bushels (33 tons)/hour.

How a suction blower works

A vacuum created by the turbine-style blower draws a mixture of grain into the suction cyclone. Grain is separated from the air inside the suction cyclone while the air is returned to the blower. The grain drops into the rotary valve where it is fed into the air stream coming from the blower. The grain is directed through the pipeline to the discharge cyclone. A discharge cyclone decelerates the grain and allows it to gravity flow out of the bottom of the cyclone. Excess air is blown through the top of the discharge cyclone.





Grain Vacs – a Variety of Opportunities

Suction Blowers or grain vacs as they are more commonly referred to, are used for conveying most commodities in nearly all facets of agriculture. Whether the job is loading trucks from field piles, bunkers or filling grain bins, flat storage or tower silos, Kongskilde offers a variety of machines for all tasks. Grain vacs are equally utilized for load out work – directly from the grain bin unload auger tubes right down to final clean up.



Tractor Powered Grain Vacs - SupraVac 2000

The SupraVac 2000 is the ideal grain vac for today's farmer and commercial users. The SupraVac 2000 offers a flexible conveying solution with truck loading capacities up to 5,000 bushels (120 tons) per hour.

The PTO driven Supra Vac requires 150hp. The hydraulic folding boom allows for quick positioning for loading use and conveniently locks into place for transport and storage.

For storage loading duties, pipes are quickly connected to the SupraVac 2000 at the rear of the machine to blow into grain bins, flat storage or sealed tower silos. The SupraVac 2000 uses OK200 (8") piping for maximum capacity. The SupraVac 2000 is capable of using existing OK160 (6") Kongskilde pipe lines on storage structures at reduced capacity.

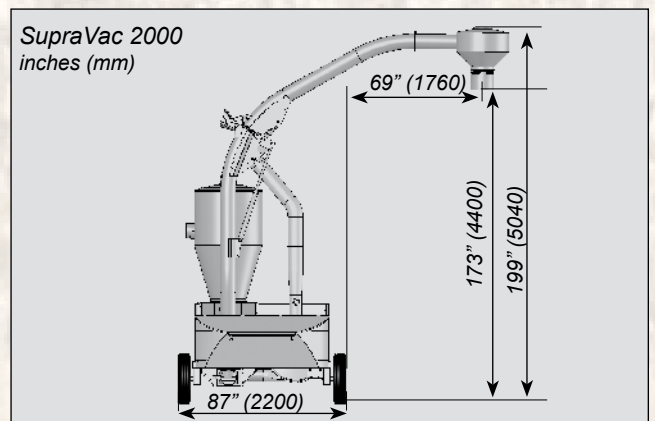


SupraVac 2000.



SupraVac 2000 with the loading equipment in transport position.

Technical Data	SupraVac 2000
PTO power, recommended min. hp	150
PTO shaft, rpm	1000
Weight, lbs (kg)	3530 (1600)
Air flow rate (blower) max. cfm (m3/h)	1940 (3300)
Conveying pipes, type (suction side)	OKR
Conveying pipes, type (pressure side)	OK/OKR
Conveying pipes, diameter inches (mm)	8 (200)



Tractor Powered Grain Vacs - SUC-TR and SUC-T Models

Kongskilde's models SUC-TR's are pull-type PTO driven grain vacs. This series blower can be used to load trucks or grain wagons directly from the field, bunkers, on-floor storage, tower silos or grain bins. They can also be used to convey commodities to storage where high capacity conveying is required. The SUC-TR is available in three sizes with conveying capacities up to 3,400 bushels (64 tons) per hour.

Kongskilde's models SUC-T's are 3-point hitch PTO driven grain vacs. This series blower can be used to convey commodities to where high capacity conveying is required, when no electrical power source is available. The SUC-T is available in two sizes with conveying capacities up to 1,800 bushels (33 tons) per hour.

Inches

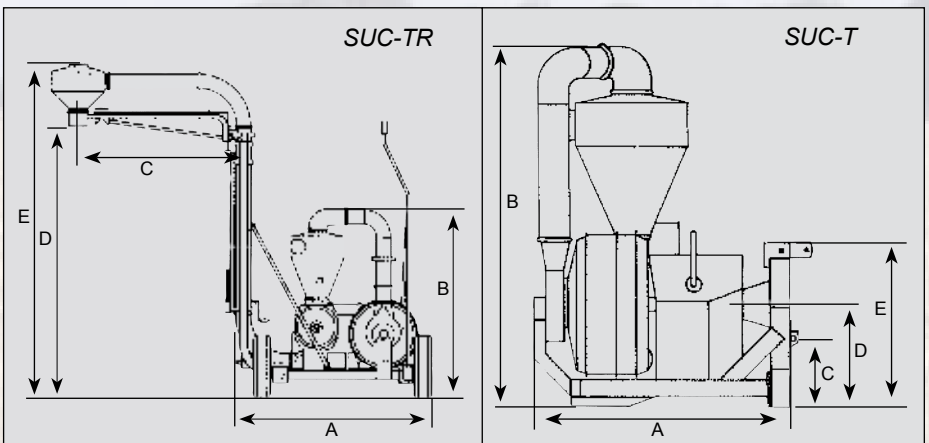
SUC-TR	500	700	1000
A	82.7	82.7	96.9
B	83.9	100.4	109.4
C	66.5	66.5	82.3
D (min/max)	113/151	118/173	119/174
E (min/max)	143/181	143/199	144/200

SUC-T	300	500
A	53.3	53.5
B	56.7	74.8
C	20.3	14.2
D	26.4	22.4
E	39.2	32.3

Metric, mm

SUC-TR	500	700	1000
A	2100	2100	2460
B	2130	2550	2780
C	1690	1690	2090
D (min/max)	2870/3840	2985/4395	3010/4420
E (min/max)	3620/4590	3635/5045	3660/5070

SUC-T	300	500
A	1355	1360
B	1440	1900
C	515	360
D	670	570
E	995	820



Technical Data	SUC 500TR	SUC 700 TR	SUC 1000TR	SUC 300T	SUC 500T
PTO power, recommended min. hp	65	85	120	45	65
PTO shaft, rpm	540	1000	1000	540	540
Weight, lbs (kg)	1810 (820)	1700 (770)	2315 (1050)	770 (350)	1310 (595)
Air flow rate (blower) max. cfm (m³/h)	1180 (2000)	1180 (2000)	1180 (2000)	1060 (1800)	1180 (2000)
Conveying pipes, type	OK/OKR	OK/OKR	OK/OKR	OK/OKR	OK/OKR
Conveying pipes, diameter inches (mm)	6 (160)	6 (160)	6 (160)	6 (160)	6 (160)

Electrical Powered Grain Vacs - SUC-E Models

Electrical powered grain vacs are often used at location where tractor power units are not an option. They can be used both indoors and outdoors for all types of conveying jobs including seed operations.

The SUC-E is equipped with a three-wheeled trolley, which makes the unit easy to move from place to place on hard surfaces. With five different sizes, you can choose the one that fits your capacity needs and power availability. Models from 10hp to 50hp are available with capacities up to 1,800 bushels (33 tons) per hour.



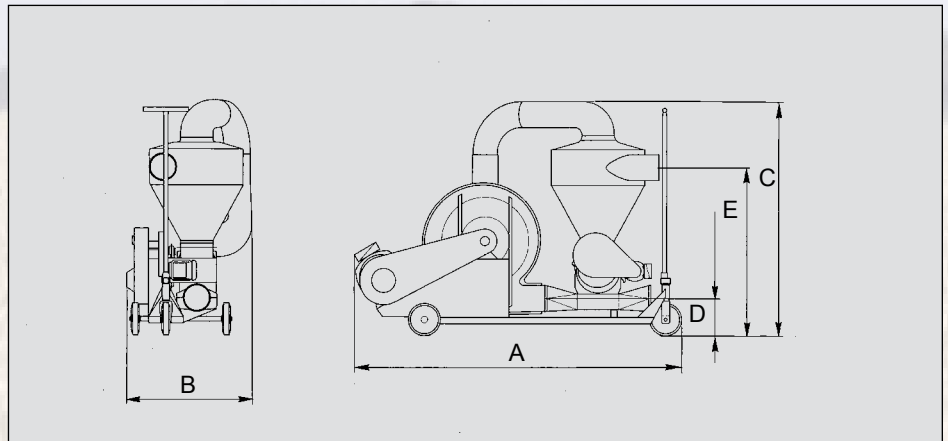
SUC 300E

Inches

SUC-E	100	150	200	300	500
A	80.3	80.7	80.7	82.3	88.0
B	30.5	30.5	30.5	42.3	35.9
C	57.5	57.5	57.5	61.0	71.6
D	9.0	9.0	9.0	12.3	12.1
E	40.9	40.9	40.9	45.3	55.8

Metric, mm

SUC-E	100	150	200	300	500
A	2040	2050	2050	2090	2235
B	775	775	775	1075	913
C	1460	1460	1460	1550	1820
D	230	230	230	313	308
E	1040	1040	1040	1150	1418



Technical Data	SUC 100E	SUC 150E	SUC 200E	SUC 300E	SUC 500E
Motor requirement (blower), hp	10	15	20	30	50
Motor requirement (rotary valve), hp	0.75	0.75	0.75	2.0	2.0
Weight (approx.) excl. of motors, lbs (kg)	320 (145)	320 (145)	320 (145)	615 (278)	835 (378)
Air flow rate, max.cfm (m ³ /h)	1060 (1800)	1060 (1800)	1060 (1800)	1060 (1800)	1180 (2000)
Conveying pipes, type	OK/OKR	OK/OKR	OK/OKR	OK/OKR	OK/OKR
Conveying pipes, diameter inches (mm)	6 (160)	6 (160)	6 (160)	6 (160)	6 (160)

Suction Heads

All grain vacs, either PTO or electrical powered can be equipped with various suction heads to suit specific tasks and required capacities.

Kongskilde offers a variety of suction heads for both OK160 and OK200 intake suction lines.



Universal Suction Head – An all-round suction head which can be used for many jobs including bulk storage when high capacities are needed.



Long Suction Head – For suction of grain of our pits with high conveying capacity. This head can be lengthened with 25.5 inches (65cm) extensions.



Round Suction Head – For sucking grain from bulk storage or use in common auger hoppers for maximum capacities. This head is available in both OK160 (6" for SUC Models 500-1000) and OK200 (8" for SupraVac).



Clean Up Head – Final clean up made easy with the extended handle, roller wheels on the bottom and a swivel link between the head and suction hose.



Short Suction Head – Used on an OK 160 pipe stub mounted directly on trucks or wagons. May be mounted on grain bin under-floor auger discharge tubes to draw directly out of the center of the bin. (Please consult with dealer about bin and auger preparation).

Kongskilde Fan Guard System

Crops such as soybeans, peas and edible beans that contain a lot of abrasive foreign material often accelerate wear on of the blower unit. Kongskilde has developed the Fan Guard System to enhance the life of the blower when conveying such crops. The Fan Guard System removes the majority of the dust and dirt particle from the air stream before they reach the blower housing.

The Fan Guard utilizes a high efficiency dust cyclone where the air must pass before entering the blower housing. This cyclone removes fine material which is collected in a canister directly under the cyclone. The canister can be emptied when the vac is not in use.

The Fan Guard System is available for SUC 100TR and SupraVac models.



Conveying Capacities

Conveying capacities for pneumatic conveying systems depend on variables such as the commodity, moisture content, temperature, and humidity and pipe layout.

The examples show capacities for various conveying distances.

Conveying Distances = The total length of the entire horizontal pipe + the vertical piping on both the suction side and pressure side including the suction hose.

Additional elbows or suction head extensions are not included in the rate chart. For every additional elbow on the pressure side, add 5' to the conveying distance. For every suction head extension on the suction side, add 2' to the conveying distance.

The capacities for the SupraVac 2000 apply when using Kongskildes OK200 pipe system (diameter approx 8"/200mm). For all the other grain vacs the capacities apply when using Kongskildes OK160 pipe system (diameter approx. 6"/160mm).

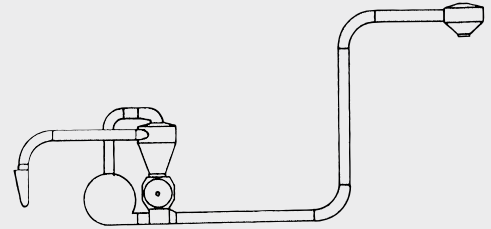
Conveying Capacities (bushels/hour) for corn

Suction pipeline

1 pcs. vertically placed round suction head
1 pcs. 90° bends
6.6 ft. horizontal piping

Pressure pipeline

A number of ft. of horizontal piping
13 ft. vertical piping
2 pcs. 90° bends
1 pcs. outlet cyclone



Conveying distance

(ft.)	33	66	100	130	165	195	260	330
SUC 100	290	250	215	190	205	145	110	85
SUC 150	490	435	390	345	315	285	235	195
SUC 200	625	560	505	455	420	380	320	270
SUC 300	830	740	665	605	550	505	430	365
SUC 500*	1350	1220	1110	1015	940	865	755	660
SUC 700*	1795	1630	1495	1380	1275	1185	1035	920
SUC 1000*	2600	2365	2165	2010	1850	1720	1500	1330
SupraVac 2000*	4730	4175	3625	3190	2795	2520	2170	1970

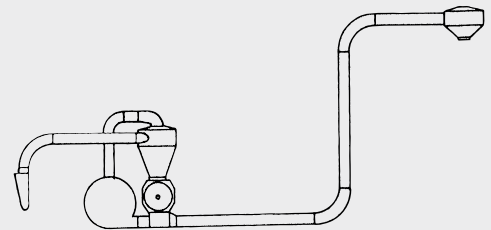
Conveying Capacities (tons/hour) for corn

Suction pipeline

1 pcs. vertically placed round suction head
1 pcs. 90° bends
6.6 ft (2 m) horizontal piping

Pressure pipeline

A number of metres of horizontal piping
13 ft. (4 m) vertical piping
2 pcs. 90° bends
1 pcs. outlet cyclone



Conveying distance

(metre)	10	20	30	40	50	60	80	100
SUC 100	7.3	6.3	5.5	4.8	4.2	3.7	2.8	2.1
SUC 150	12.4	11.0	9.9	8.8	8.0	7.2	6.0	4.9
SUC 200	15.8	14.2	12.8	11.6	10.6	9.7	8.1	6.9
SUC 300	21.0	18.8	16.9	15.4	14.0	12.8	10.9	9.3
SUC 500*	34.2	30.9	28.2	25.8	23.8	22.0	19.1	16.8
SUC 700*	45.5	41.4	37.9	35.0	32.4	30.1	26.3	23.3
SUC 1000*	66.0	60.0	55.0	51.0	47.0	43.6	38.1	33.8
SupraVac 2000*	120.0	106.0	92.0	81.0	71.0	64.0	55.0	50.0

*) Spec. round suction head.

The capacities stated are only guidelines, because other aspects can influence the capacity. Above capacities are with the stated suction pipeline lengths and extended pipelines.

Kongskilde Grain Vac and Kongskilde OK Piping - A Perfect Combination

With Kongskilde's OK pipe system, temporary as well as permanent pipelines are easily and quickly installed. The OK pipe system is a modular system with a wide assortment of straight pipes, telescoping pipes, elbows, diverters and cyclones in standard and heavy duty thickness'. The OK components are manufactured with rolled lips that are connected with quick release or bolt style clamps.

Different Pipe Diameters

The SupraVac 2000 uses OK200 piping (diameter 8"/200mm) in order to obtain the best possible conveying capacity. Transitions from OK200 to OK160 and 9" steel silo piping can be used but will reduce conveying capacity. All other Kongskilde grain vacs / suction blowers use OK160 piping.



Kongskilde Industries Inc.
2439 South Main Street - Unit 2
Bloomington Illinois 61704
USA
Tel: (309) 820-1090
Fax: (309) 820-1364
mail@kus.kongskilde.com
www.kongskilde.com