Pneumatic Grain Conveying

Tractor-Powered Suction Blowers

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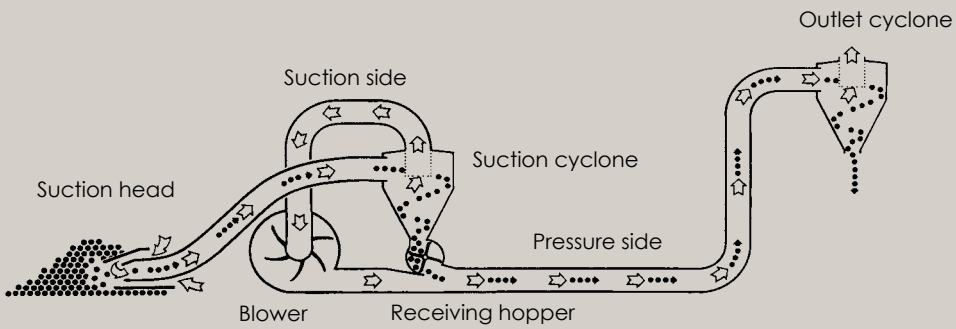
Suction Blowers



How a suction blower works

The suction blower is a unique solution when flexible conveying is needed and is used everywhere for transporting grain. It sucks grain directly from the floor or pit through a flexible or fixed pipe system.

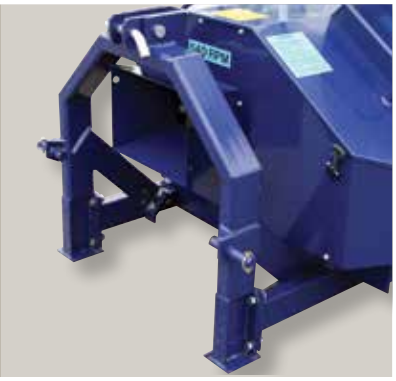
At the blower, the grain is led over to the pipe on the pressure side.

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

Benefits

- Tractor-powered models are independent of electric power supply
- Moves the grain horizontally, vertically and around corners
- Can be used in fields for loading grain
- No requirements for configuration of buildings or grain pit
- Indoor storage means that it is less exposed to the weather
- If higher capacity is needed, the suction blower can be replaced by a larger model

Tractor Powered Suction Blowers
Type SUC –T



Three-point attachment to tractor lift.

SUC 500T compact construction.

Three-stage blower on SUC 500T provides high pressure for grain conveying.

Automatic air control is standard on tractor-powered blowers.

Tractor-powered suction blowers type SUC-T is attached to the tractor's three-point linkage. Capacities up to 44 t/h.
Also available without suction equipment for pure compressed air conveying. Provides approx. 20% increased capacity.

Technical specifications	**SUC 300 T**	**SUC 500 T**
Recommended min. power of tractor PTO kW/hp	34/45	48/65
PTO shaft speed, rpm	540	540
PTO shaft dimension, tractor side	1 3/8" / 6 splines	1 3/8" / 6 splines
Weight, kg	350	595
Blower max. air output, m^3/h	1800	2000
Type of conveying pipe	OK/OKR	OK/OKR
Diameter of the conveying pipe, mm	160	160

Tractor Powered Suction Blowers
Type SUC-TR

The blower's loading equipment ready for road transport.

The TR models loading equipment is ideal for loading lorries and trucks.

Powerful blower with up to 4 steps provides great conveying out-put.

The belts can be tightened without using tools, although tools are required to gain access to the belts.

Trailer models type SUC-TR are powered by the tractor PTO shaft.
Loading equipment is standard on SUC-TR models. You use the loading equipment when you are loading grain onto a truck or lorry.

Technical specifications	**SUC 500 TR**		**SUC 700 TR**	**SUC 1000 TR**
Recommended min. power of tractor PTO kW/hp	48/65	48/65	62/85	90/120
PTO shaft speed, rpm	540	1000	1000	1000
PTO shaft dimension, tractor side	1 3/8" 6 splines	1 3/8" 21 splines	1 3/8" 21 splines	1 3/8" 21 splines
Weight, kg	820	730	770	1050
Blower max. air output, m^3/h	1800	1800	1800	1800
Type of conveying pipe	OK/OKR	OK/OKR	OK/OKR	OK/OKR
Diameter of the conveying pipe, mm	160	160	160	160

Selecting the Suction Head for the Suction Blower

The suction head makes the difference
The suction blower can be used with different types of suction heads to suit any specific conveying job.

Universal Suction head:
A flexible solution for versatile applications.

Long suction head:
Suitable for conveying from grain pits.

Round suction head:
For suction from opening in the silo wall.

Suction head for cleaning purposes:
Easily picks up the last remnants of grain on the floor.

Short suction head:
For conveying directly from a vehicle or floor drying wall

Conveying of Crops with High Dust Content

Crops sometimes contain abrasive particles such as soil dust, and it is inevitable that some of the dust will be sucked through the blower. When working at high capacities, large amounts of dust may be carried with the grain.

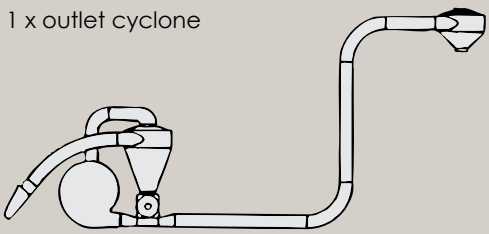
Excessive wear of the blower is avoided by fitting the Fan Guard system, which filters out the dust before it enters the blower. SUC 1000 TR and SupraVac 2000 are available with the Fan Guard system.

Conveying Capacities for Suction Blowers

Example 1

Suction pipeline
1 x universal suction head
1 x 2 m steel flex hose

Pressure pipeline
A number of metres of horizontal piping
4 m vertical piping
2 x 90° bends
1 x outlet cyclone

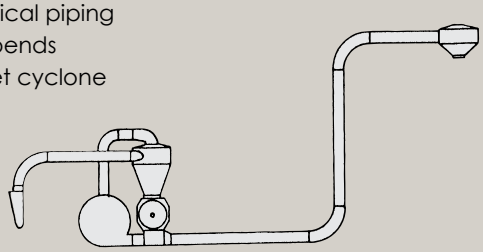


Conveying distance	Metres							
Model	10	20	30	40	50	60	80	100
SUC 100	6.8	6.0	5.2	4.6	4.0	3.5	2.7	2.0
SUC 150	11.5	10.3	9.3	8.4	7.6	6.9	5.7	4.8
SUC 200	14.7	13.3	12.0	11.0	10.0	9.2	7.8	6.7
SUC 300	19.6	17.7	16.0	14.6	13.3	12.3	10.5	9.0
SUC 500	31.8	28.9	26.5	24.4	22.6	21.0	18.3	16.1
SUC 700	42.1	38.6	35.5	32.9	30.6	28.6	25.1	22.4
SUC 1000*	61.0	56.0	51.5	47.7	44.4	41.5	36.4	32.5
SupraVac 2000	111.0	91.0	82.0	71.0	64.0	59.0	52.0	43.0

Example 2

Suction pipeline
1 x vertically-fixed universal suction head
1 x 90° bends
1 x 2 m horizontal piping

Pressure pipeline
A number of metres of horizontal piping
4 m vertical piping
2 x 90° bends
1 x outlet cyclone



Conveying distance	Metres							
Model	10	20	30	40	50	60	80	100
SUC 100	7.1	6.2	5.4	4.7	4.1	3.6	2.7	2.0
SUC 150	12.1	10.7	9.6	8.6	7.8	7.0	5.8	4.8
SUC 200	15.7	13.9	12.5	11.2	10.1	9.1	7.5	6.2
SUC 300	20.4	18.2	16.4	14.9	13.6	12.5	10.6	9.1
SUC 500	33.2	30.1	27.4	25.1	23.1	21.4	18.6	16.3
SUC 700	44.2	40.3	36.9	34.0	31.5	29.3	25.6	22.7
SUC 1000*	64.0	58.4	53.5	49.3	45.7	42.5	37.1	32.9
SupraVac 2000	120.0	106.0	92.0	81.0	71.0	64.0	55.0	50.0

Conveying capacities in the tables are listed as wheat as t/hour. The examples are for guidance purposes, as several factors influence the capacity. The capacities in the tables apply for the suction length indicated above the table.

*) Spec. round suction head.

Use the wide range of OK piping components, that are available and take advantage of the pipe components' easy connection method.

Capacities
High performance is achieved when:
- The flexible modular OK piping system is used.
- The correct pipe diameter is used.
- The grain is dry – i.e. max. 15% H_2O.
- OK 200 piping for SupraVac
- OK 160 piping for all other models