



Axial Fans

ECONOMICAL DRYING AND AERATION



- Maximum Airflow at Lower Static Pressures
- For Aeration or Drying
- Galvanized Housings Resist Rust



Sukup Axial Fans – More

More For Your Money!

Compare! Not all fans are alike. Sukup Axial Fans give the highest airflows at low cost. Sukup high performance axial fans are ideal for lower static pressures found in aeration or in-bin drying. Sukup also backs their fans with a two-year warranty on components.

Ensuring Top Quality

- All Sukup Fans and Heaters are thoroughly tested prior to shipping.



Engineered for High Performance

- Sukup engineers designed a cast aluminum blade to give more airflow from the electricity consumed.
- The 3500 RPM motors used in Sukup Axial Fans have been specially engineered for Sukup's high-performance blades.

Close Blade Tip Clearance

- Unique, square end plates maintain accurate roundness of the housing to allow Sukup to utilize a closer fan blade tip clearance for maximum airflow.
- The close tip clearance increases airflow by preventing air from blowing back through the area between the blade and the housing.
- Square end plates also give uniform support all around the housing while eliminating legs that concentrate stress and distort the housing.

High Efficiency

- All fan blades are precision-balanced for vibration-free operation. The large hub on the blade prevents back leakage of air at higher static pressures.
- Blades are secured to the motor shaft with Trantorque bushings to ensure the most secure attachment, as well as serviceability.



- Patented built-in venturi (air intake) on 24" or larger fans increases airflow. Patent # 5,615,999.
- Sukup exclusive square end plates maintain accurate roundness of the housing and give uniform support all around.
- Plated screen guard bolts over air intake for added safety.
- Galvanized housing resists rust.
- Sturdy, convenient handles on 24" & 28" fans make it easier to install and move fans. Patent # 6,857,850.

Aeration Fans

Sukup 12"-18" fans are ideal for applications where static pressure is less than 2".

- Totally-enclosed motors have been designed for years of trouble-free operation.
- Fans can easily be mounted to push or pull air.
- Trantorque bushings allow easy installation – only one nut to tighten and no keys to put in.

- 12" and 14" fans come wired with cord. 18" is available with or without controls.
- Change wiring easily on the dual-voltage motor, since the connection box is on the end of the motor, rather than on one side.

12"	3/4 or 1 hp
14"	1 1/2 hp
18"	2 or 3 hp



Airflow For Your Money

Drying Fans

Sukup 24" and 28" fans are designed for grain drying at lower static pressures. Not only do these fans easily adapt to Sukup Heaters, but they may also be used alone for pressure aeration. The 24" and 28" fans have all of the features listed on the previous page as well as:

- Maximum airflow at lower static pressures.
- Inlet venturi to improve air intake.
- 230 volt 1 or 3 phase or 460 volt 3 phase.


- Heavy-duty motors for dependable operation.
- CSA and CE models available.
- Control box with start/stop buttons, magnetic starters, and 110 volt interlock for heater standard.
- For pressure aeration only. Not for suction aeration.

24"
24"
28"

5-7 hp
7-10 hp
10-15 hp



Axial Heaters

- Starfire-type burner provides critical gas and air mixture for high efficiency and even heat distribution.
- Sukup heaters ignite quickly, even at low gas pressures.
- Three year warranty on the solid state circuit board. 
- Thermostat, humidistat, high-low thermostat or modulating valve available.
- Air straightening vanes provide better heat distribution.
- Galvanized housings resist rust.
- CSA models available.
- Available for use with vapor propane, liquid propane (with vaporizer) or natural gas.
- Two-way adjustment on vaporizer allows operation over a wider range of outside temperatures.



Typical Temperature Rise:
high-temp models: 50°-180°F
low-temp models: 25°-75°F
super-low temp models: 10°-30°F

- The exclusive Sukup vaporizer high limit features manual reset, so you can tell if the vaporizer needs to be adjusted.

- Stainless Steel Flame Sensor is more reliable and will last longer than flame probes.



- Extra safety features increase reliability.

Stainless steel flame sensor

Transition high limit shuts off heater if the temperature entering the bin gets too hot.

Pressure relief valves

Vapor high limit

Burner high limit

Purge delay

Spring-loaded solenoids

Grounded electrical components

- Optional Differential Controller limits plenum temperature to within 10° of ambient air temperature. Use with super-low temp heaters.

- Optional Deluxe Control Box includes a static pressure gauge and thermometer. Available as single or dual controls.



- Optional dual burner controls are needed if there is more than one heater on a bin, so that they cycle on and off together for even heat.

Specifications & Accessories

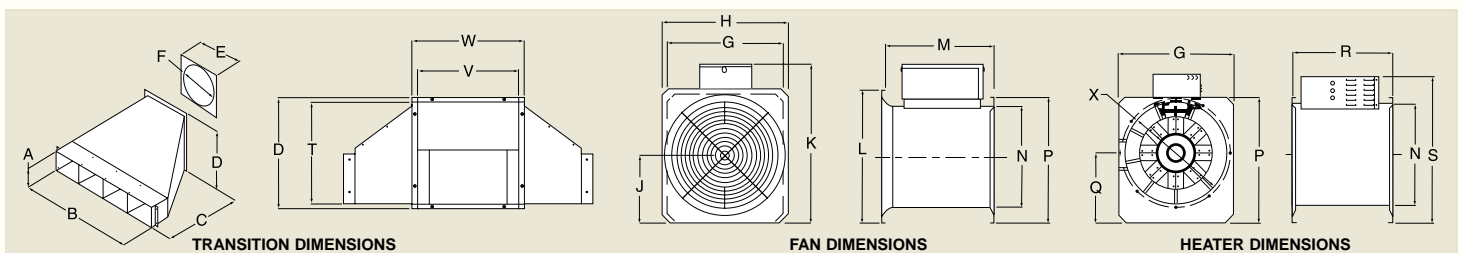
Certified Airflow* for Axial Fans – CFM

Model		Static Pressure-inches of water								
		0	1	2	3	4	5	6	7	8
24"	5-7 HP	12,800	11,750	10,300	8600	6250	3350	1900	600	0
24"	7-10 HP	15,200	13,750	12,250	10,500	7600	3900	2100	400	0
28"	10-15 HP	19,050	17,300	15,600	13,600	11,100	7350	4800	2800	700

* Sukup Manufacturing Co. certifies that the airflow for the fan models above has been determined by an INDEPENDENT airflow testing laboratory.

Airflows for Aeration Applications — CFM

Model		Static Pressure (inches of water)										
		0	0.5	1	1.5	2	2.5	3	3.5	4	4.5	5
12"	3/4 hp	1900	1675	1290	815	550	325	100	0	0	0	0
12"	1hp	2308	1963	1460	876	595	305	0	0	0	0	0
14"	1½ hp	3132	2852	2526	2126	1511	1040	720	0	0	0	0
18"	1½-2 hp	5450	4850	4250	3600	2800	2000	1500	1050	0	0	0
18"	3 hp	7000	6600	6150	5575	4850	3950	3100	2400	1900	1700	1300



Axial Fan and Heater Dimensions (inches)

DIA	A	B	C	D	E	F	G	H	J	K	L	M	N	P	Q	R	S	T	V	W	X
12"	10¼	40¼	36	20½	20	12¾	14½	14½	7	14¾	14½	16½	12½	14½	—	—	—	18¼	18	20	—
14"	10¼	40¼	36	20½	20	14¾	16½	16½	8	16½	16½	16½	14¾	16½	—	—	—	18¼	18	20	—
18"	10¼	40¼	36	20½	20	18¾	19½	19½	10	24½	19½	18¼	18¾	19½	10	24¼	28½	18¼	18	20	19½
24"	10¼	55¼	38	31½	31½	24¼	27½	30	16½	38	31½	26½	24¾	30½	16½	24¼	38	28½	28½	31½	26
24"	11	47	38	31½	31½	24¼	—	—	—	—	—	—	—	—	—	—	—	28½	28½	31½	—
26"	—	—	—	—	—	28½	—	—	—	—	—	—	26¼	28½	14¼	24¼	36	28½	28½	31½	27¼
28"	10¼	55¼	38	31½	31½	—	31½	33½	18¼	42	35½	26½	28¾	34½	18¼	24¼	41½	28½	28½	31½	29¾
28"	11	47	38	31½	—	—	—	—	—	—	—	—	—	—	—	—	—	28½	28½	31½	—

Accessories

Sukup Transitions

- Galvanized steel for long life.
- All seams overlap to prevent air leakage.
- Easily bolt together.
- Special nutserts are attached directly to the sheet metal, so only one tool is needed to tighten bolts for assembly.
- Rubber strip provided to seal beneath transition.

Fan Cover

- Galvanized cover slides over fan inlet to seal bin from outside elements.
- Prevents "windmilling" of motor when not in use.
- Available for all axial fans.

Axial Fan Shutters

- Backdraft shutters easily clamp onto fan outlet for multi-fan installations.



Warning! To prevent serious injury or death:

- Frequently inspect all mechanical and electrical components.
- Lock out all power and have another person present whenever servicing equipment.
- Check for gas leaks before operating.
- Keep all shields away from moving parts or hot surfaces.
- Never operate heater without airflow. Heater must be electrically interlocked with fan. Whenever this is not possible, an air switch kit must be added to the heater.
- Clean under floor, as fines may cause a bin fire.



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