



Stirring Machines



FastirTM

*Simple and Dependable ■ Eliminates Overdried Grain
Cuts Drying Time and Cost*

Stirring Facts

Stirring Eliminates Overdried Grain...Increases Airflow...Preserves Grain Quality.

The most efficient way to dry grain is to add heat, but you run the risk of overdrying the grain. A stirring machine is essential to prevent this.

Stirring mixes the driest grain at the bottom of the bin with the wetter grain

towards the top, resulting in more uniform moisture content. University tests show less than 1% variation from top to bottom in stirred grain. Stirring also loosens grain, reducing static pressure and increasing airflow, so grain dries more quickly and

efficiently. University tests show using a powered spreader increases airflow by 33%. Stirring also breaks up "hot spots" and extends storage life.

Stirring Pays - Even at low temperatures

While stirring is a must for in-bin drying with heat, it pays for itself quickly in low-temp or natural air drying situations as well.

Figures based on 10,000 bu. in a 30' diameter bin with a 10 hp fan and are estimates only. Costs based on \$.0935/kw/hr., 1.37/gal. LP and \$3.00/bu. corn.

With just a 10° temperature rise and 8 pt. moisture removal, you can easily see the benefits of adding a stirring machine. Imagine what the savings would be at higher temperatures!

	No Stirring	With Stirring
Time to Dry	600 hours	312 hours
Total Drying Costs (gas and electricity)	\$1997.36	\$1306.28
Cost of Overdrying Bottom Layers	\$1027.00	-
Total Cost	\$3024.36	\$1306.25
Annual Savings with Stirring Machine	-	\$1718.08

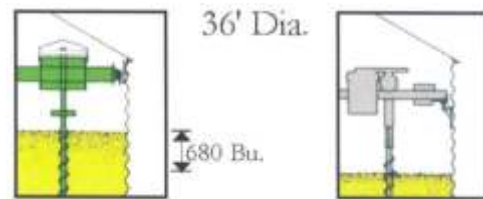
Sukup Stirring Machines Offer All of the Above Benefits, Plus:

- Sukup is the only company that offers a kit for easily adding more stirring augers as additional drying capacity is needed. Other brands would require a major overhaul or new machine.
- Heavy-duty gear motor gives greater reliability.
- Exclusive rotating contact is heated to stay dry under high moisture.



- For greater convenience and personal safety, the standard inside bin ladder may be used with Sukup stirring machines.
- Heavy-duty motors are fan cooled, totally enclosed and protected by a thermal overload. Single and three phase units available.
- A tilt switch on each auger controls forward movement for trouble-free operation.

- Sukup track mounts higher in the bin than any competing units, giving up to 680 bu. of extra storage in a 36' diameter bin.



Augers Are the Key to Optimum Stirring.

- Long-wearing, hard-faced down augers are standard on Sukup stirring machines.
- Down augers have 1" shafts and 1/4" hard-faced flighting.
- Various auger lengths are available to match bin sidewall heights. (For best operation, down auger length should not exceed 20'.)
- Sukup down augers are covered by a two-year unconditional warranty.

Who Creates the Biggest Stir?



Sukup Constant Pitch Augers

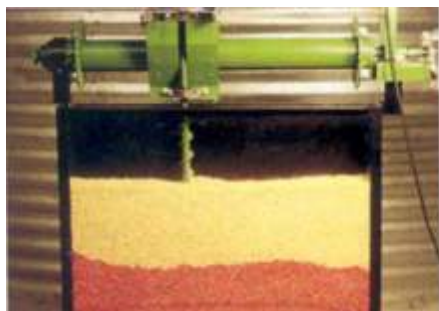


Brand "X" Graduated Pitch Augers

Sukup Augers Move More Grain

The pitch on Sukup augers is constant for better stirring. Constant pitch augers fill only at the bottom where the overdried grain is located. Other companies use graduated pitch augers which pick up small amounts of grain along the entire length, so less overdried grain is moved.

Compare the piles of grain produced by the augers in these photographs. It's plain to see that constant pitch augers move more grain!



Sukup augers are continuously working forward while they move in and out on the crosstube. This ensures that all grain is being stirred. Angled bearing(s),

along with the downward pull of the augers, ensure a positive, changing pattern. Constant pitch augers pull dried grain from the bottom (simulated by the

grain painted red in the photos above), thoroughly mixing it with the wetter grain at the top. This process also loosens the grain to increase airflow.

Fastir™ ...Causing a Big Stir!



Standard stabilizer kit prevents augers from working too far forward or lagging behind in tough drying conditions.

The Sukup Fastir™ is causing a big stir in the grain handling industry. Its patented mechanical reversing drive makes other stirring machines with cable or chain drives obsolete.

Simply Dependable

The patented, mechanical reversing drive on the Fastir™ is the only one of its kind, making it the simplest and most dependable stirring machine on the market. This patented drive mechanism is operated by a single drive wheel. The movement of a lever by the reversing plates changes the angle of this drive wheel to move the carriage in and out on the crosstube.



The simple process eliminates electric reversing switches, drive gearboxes,

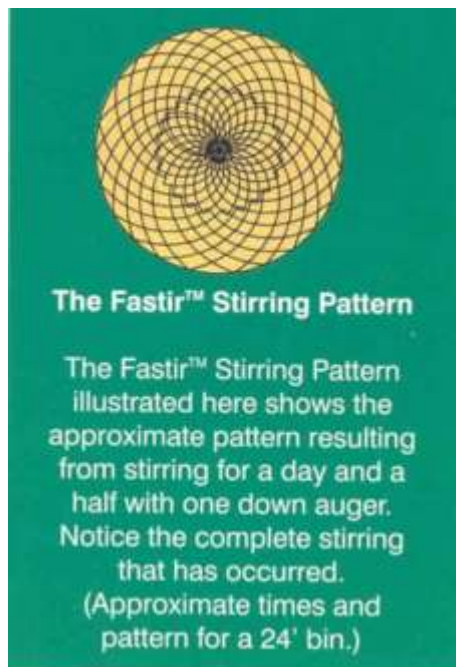
chains and cables.

The Fastir™ is the Ideal System for Large or Small Drying Operations.

- One primary carriage may be used to travel the entire length of the crosstube in smaller bins.
- A satellite carriage may be linked to the primary carriage for larger bins. Each carriage on 2 auger units travels about half the length of the crosstube.
- Up to three satellite carriages may be linked to the primary carriage for high capacity stirring applications. The satellite carriages on multiple auger units are positioned closer together to stir the larger volume of grain in the outer portion of the bin.



Offset hanger is standard on the Fastir™ to provide more stirring in the center of the bin.



The Fastir™ Stirring Pattern

The Fastir™ Stirring Pattern illustrated here shows the approximate pattern resulting from stirring for a day and a half with one down auger. Notice the complete stirring that has occurred. (Approximate times and pattern for a 24' bin.)

The Extras Add A Lot

Sukup adds a lot of extras to the Fastir™ to give you the most machine for your money. These extras add up to make the Fastir™ the best and most flexible stirring machine on the market, but they don't add any extra cost!

The Fastir™ Extras Include:

- Heavy-duty 4½" crosstube on machines under 40' and 5 ½" on 40' and larger diameter machines for maximum strength.
- Offset hangers provide better stirring in the center of the bin to break up the concentration of fines over the center sump.
- Angled shields on carriages allow stirring closer to the wall.
- No zerks to grease.
- CSA models available.



Down Auger Recommendations

Bin Dia.	Natural Air	Plenum Temp.		Cont. Flow Systems
		Up to 110°F	110° to 130°F	
15'-23'	1	2	3	3
24'-37'	2	3	4	4
40'-49'	3	4	5	5

Sukup augers can be used to stir corn, beans, rice, wheat, barley, sunflowers, popcorn, milo, sorghum, oats and fescue.

Sukup Fastir™ Plus

Stirs Along the Bin Wall

The Sukup Fastir™ Plus has all of the features of our standard Fastir™, like mechanical reversing and constant pitch down augers, but we've added a stationary auger to stir along the bin wall. This stationary auger ensures complete stirring around the outside of the bin, where a large portion of the grain is located.



Fastir™ Plus Down Auger Recommendations	Bin Diameter	# of Stirring Augers
	15'-24'	3
	27'-36'	4
	42'-48'	5

Drying & Storage Solutions



Sukup is the company to turn to for all your grain storage, drying and handling needs. Along with the simply dependable Fastir™, Sukup is also the leader in unloading equipment and fans and heaters. And, Sukup Grain Bins and Dryers have taken the market by storm. Turn to Sukup for all of your Grain Drying and Storage Solutions.



Sukup Centrifugal and Axial Fans give FANtastic™ Airflow!

Sukup fans are the key to more efficient drying because higher airflow dries grain faster, and Sukup fans have the highest airflow.

Adding a heater can dramatically increase your drying speed. And, a Sukup heater is the one to add. Sukup heaters are extremely efficient, as is shown by the intense blue flame present with any Sukup heater.



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