

Cyclone

Pneumatic Grain Moving System



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WHY A PNEUMATIC SYSTEM?

- A pneumatic (air) system is the **ideal grain conveying system for new and existing drying operations.**

This type of system is especially well-suited to moving grain from a continuous flow dryer into cooling and/or storage bins. An air system gives you flexibility that you can't get with traditional legs and conveyors. You can easily direct grain to multiple bins from one location, even around corners and into areas that are difficult to reach.

- An air system also makes expanding your system simple - to include more bins, just add more tubing. The Sukup Cyclone Pneumatic System is made up of heavy-duty, industrial-grade components and easy-to-use controls. The Sukup Cyclone is designed to give you years of trouble-free operation and is backed by Sukup's dedication to customer service and a one-year warranty.



Cyclone Accessories

- 30°, 60°, and 90° elbows are designed with straight ends for better connections and less grain damage.
- Offset tubes also available.

Pneumatic System Operation

- A pneumatic system is a convenient, efficient way to move grain; however, attention must be given to the operation of the system to maintain grain quality. This is true with any pneumatic grain moving system. The key to minimizing grain damage is controlling the velocity of the grain.
- If grain is moved too fast, it will be damaged. Grain speed is regulated by air pressure. Contrary to what you may think, the higher the pressure, the slower the grain moves, and the less damage that will occur. A rule of thumb is to have at least 3 psi of line pressure and to frequently check the quality of grain that is being discharged into storage.
- Make sure that tubing is properly installed and aligned and that the airlock is turning in the correct direction to utilize shear protection (counter clockwise when looking at the non-drive end of the airlock). Following these general rules of operation will help maintain grain quality. Refer to your Sukup Cyclone installation/operation manual for additional guidelines.

The Sukup Control Box (a PLC based system)



- Features a digital ammeter, which is more accurate than analog meters.

STANDARD CYCLONE SYSTEM COMPONENTS



The Rotary Airlock

- The Rotary Airlock used on Sukup Cyclone Systems is heavier and built better than any other available, resulting in longer life. The thicker vanes eliminate the need for adjustable tipped vanes.



Positive Displacement Blower

- Positive displacement TRI-LOBE blower and electric motors with shielded belt drive provide the air pressure for Sukup Cyclone Systems. Blower components are mounted on a heavy-duty, skid. TRI-LOBE blowers provide quieter operation than dual-lobe blowers plus they come standard with both inlet and outlet silencers. An industrial air filter on the blower cleans the air entering the system.

Cyclone

Accessories



- Silencer reduces blower noise.

7-Way Distributor Valve



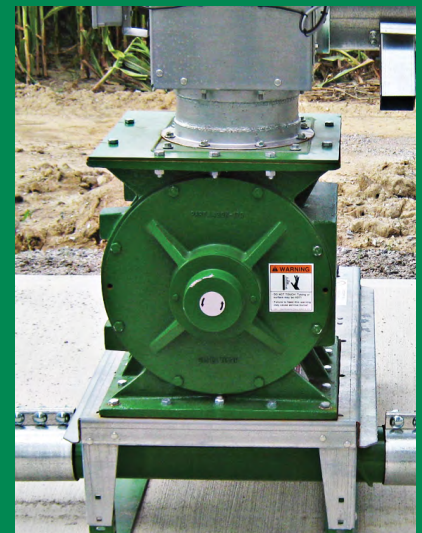
- 7-Way Distributor Valve **routes grain up to seven bins** quickly and easily. Can be mounted horizontally or vertically. When mounted vertically, the valve is operated from the bottom.



OPTIONAL: Pre-Cleaner extends filter life by removing up to 85% of dirt from the air before it enters the filter.



Sight Glass allows you to monitor grain flow and velocity.

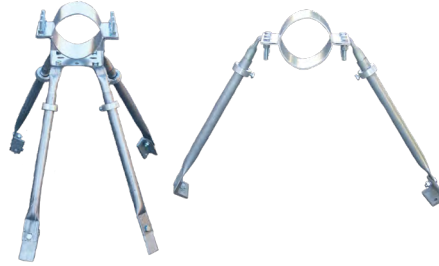


Adapter Kit attaches the airlock to your Sukup Dryer.

Support Brackets



- Sidewall Bracket
- The best in the industry!
- features three legs for better support and stability.



- Adjustable bipod or quad-pod support brackets. Adjustable legs come in two lengths:
- 15"-25" or 30"-45".

Sukup Deadhead

- A deadhead uses an expansion chamber to remove grain from the air stream. The Sukup deadhead is 10% larger than competing brands and features an all-galvanized construction. It can be moved away from the fill hole to allow you to fill the bin with an auxiliary auger.



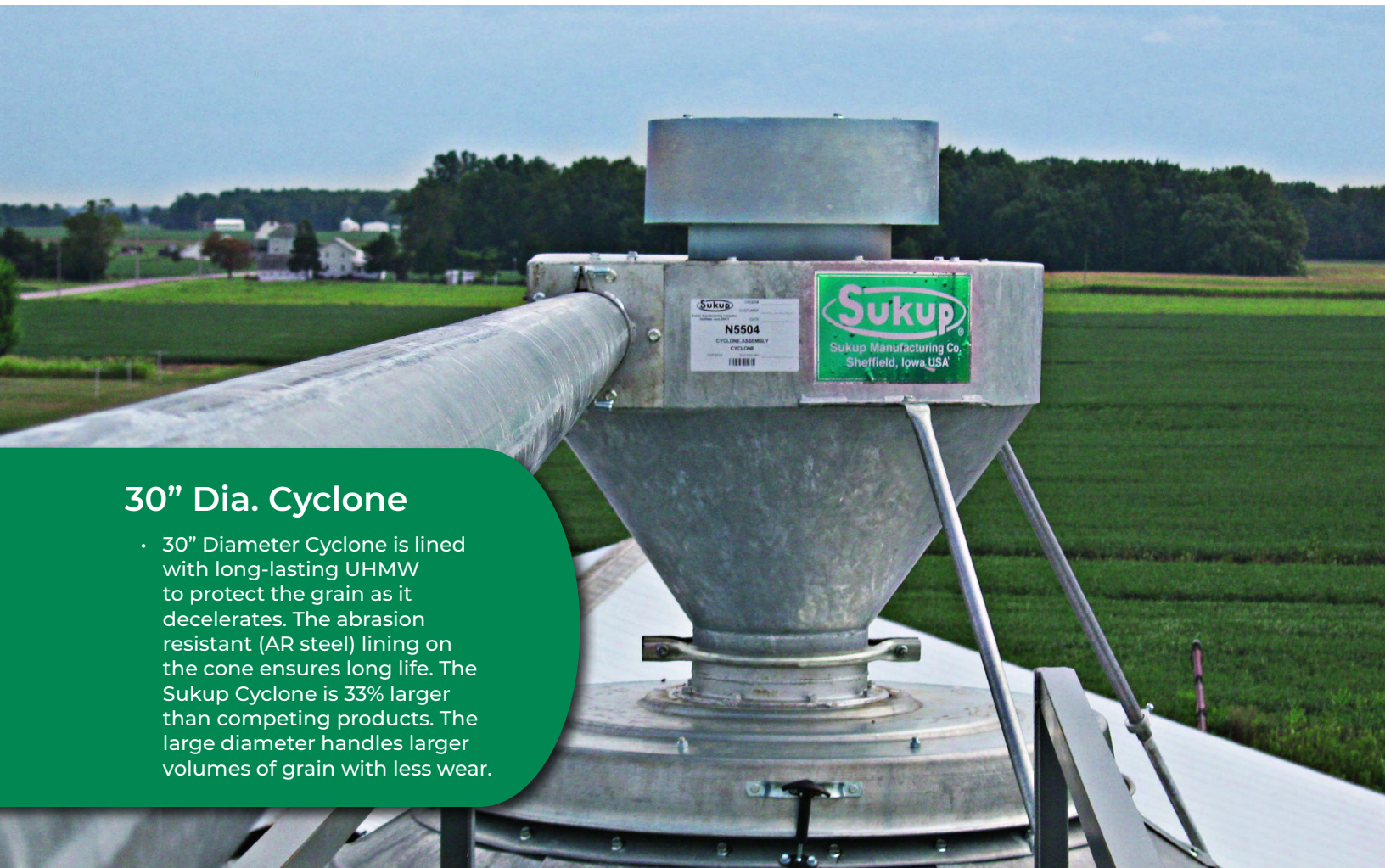
Telescoping Cam-lock System

- Telescoping Cam-lock System allows you to quickly and easily route grain to other tubes.



30" Dia. Cyclone

- 30" Diameter Cyclone is lined with long-lasting UHMW to protect the grain as it decelerates. The abrasion resistant (AR steel) lining on the cone ensures long life. The Sukup Cyclone is 33% larger than competing products. The large diameter handles larger volumes of grain with less wear.





20' & 40' tubing
- 14 ga. galvanized.

5" System Estimated Capacities

System	BPH 100 ft	BPH 200 ft	BPH 300 ft	BPH 400 ft
5", 20 HP	1200	1000	750	-
5", 30 HP	1500	1250	900	-
5", 40 HP	1700	1450	1050	400

6" System Estimated Capacities

System	BPH 100 ft	BPH 200 ft	BPH 300 ft	BPH 400 ft
6", 40 HP	1800	1550	1150	500
6", 50 HP	2100	1850	1450	800
6", 60 HP	2250	2000	1600	950
6", 75 HP	2400	2150	1750	1100

Notes: These capacities are estimates based on conveying corn and may vary depending on condition of the grain (test weight, moisture content, grain temperature, kernel shape, etc.) the ambient temperature and humidity, as well as the layout of each system. The effective length of a system is determined by adding the horizontal length to twice the vertical rise plus allowing 20 extra feet for each elbow.

Sukup Manufacturing Co. provides this information to assist you in choosing the optimal equipment for your situation. This information is calculated and is not a guarantee of product specifications or performance. Based on these factors, Sukup specifications should only be used as estimates, and not as a warranty, express or implied, of how a particular Sukup unit will perform under your operating conditions. Because we are continually improving Sukup products, changes may occur that may not be reflected in the specifications.

SUKUP HAS WHAT YOU NEED.

Sukup Grain Dryers

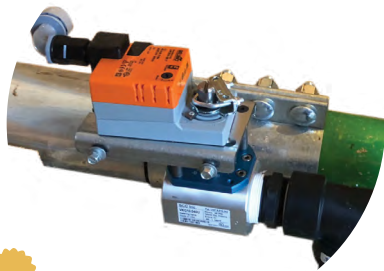
- The Sukup Grain Dryer's patented Quad Metering Rolls pull the drier, inner grain down the column faster, preventing overdrying and providing more even moisture content.
- QuadraTouch Pro™ controls make the Sukup Dryer easy to operate.
- Advanced self-diagnostics simplify trouble-shooting.
- Single fan/heater, dual fan/heater and double and triple stacked models are available.
- Stacked Dryers feature Sukup's exclusive Grain Cross-Over™ System to move grain from one side of the dryer to the other as it passes between columns.
- Sukup Dryers have received multiple AE50 awards from the American Society of Agricultural and Biological Engineers for outstanding engineering innovations in agriculture.
- Easy to interlock Cyclone System with Sukup dryer with two wires.





AIR SYSTEM CONTROLS

Controlling your pneumatic air system just got easier! Sukup now offers its Cyclone system with automated controls that seamlessly integrate with the QuadraTouch Pro™ dryer controls or an optional touch-panel display. This control system uses the same easy-to-use controls as the Sukup QuadraTouch Pro™ and can be fully integrated with your Sukup Dryer, so you can control both your air system and dryer from one convenient touchscreen unit. The control panel also enables your air system to run off of pressure control and has a factory upgrade variable frequency drive option for even better control and energy savings.



Patent Pending

Dynamic Bleed Valve

Standard

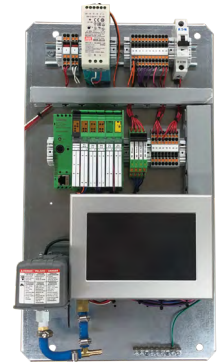
- Regulates air pressure for higher grain quality
- Patent Pending Auto Unplugging Feature



Variable Frequency DRIVE

Optional

- Controls motor and blower speed to regulate air pressure for improved grain quality
- Increases Energy Savings



PLC Based System

Standard

- Can be operated using the Sukup dryer QuadraTouch Pro Controls
- Optional touch-panel display for use without QuadraTouch Pro™
- Increased durability and reliability



**AIR SYSTEM CONTROLS
MADE EASY**

Sukup Manufacturing Co. is the world's largest family-owned and operated manufacturer of grain storage, drying, and handling equipment. The company is headquartered in America's heartland – Sheffield, Iowa – and covers over one million square feet of office, manufacturing, and warehouse space.

Sukup® constantly strives to push the boundaries of innovation and quality and currently holds the record for the world's largest grain bin that holds 2.2 million bushels of corn. The company prides itself on their philanthropic efforts in giving back to local, statewide, and international charities including the design and construction of Safe T Home®, a patented structure suitable for recovery efforts.



Take a look at Grain Dryers



Sukup QuadraTouch Pro™ SIMPLE, MENU-DRIVEN SYSTEM



EASY START-UP OPERATION

The Sukup QuadraTouch Pro™ control system, standard on all Sukup Dryers, was designed to be easy to use with simple menus guiding you through dryer functions. Operator inputs are simple with a pop-up keyboard for entering numbers. The QuadraTouch Pro™ can be placed up to 200' away from the dryer using just an Ethernet cable.



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