Pneumatic Grain Moving System

4”, 5”, and 6” Systems
Conveniently, Efficiently Move Grain
High Quality, Industrial-Grade Components
Best Accessories in the Industry
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.

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.

Standard Cyclone System Components

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.

The Sukup Control Box (a PLC based system) features a digital ammeter, which is more accurate than analog meters. Other controls include: start/stop, fault indicators, and pressure gauge. A time delay clears grain from the system after the fill auger shuts down.

Power distribution block ready to accept incoming power. Complete motor circuit protection is standard.

Positive displacement pumps and electric motors with shielded belt drive provide the air pressure for Sukup Cyclone Systems. Blower components are mounted on a heavy-duty, galvanized skid. An industrial air filter on the blower cleans the air entering the system. A filter restriction gauge lets you know when the filter needs to be cleaned.

Dual Motor Drive option gives you up to 30 horsepower, even in areas where only single phase power is available.
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.

**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.

**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.

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

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

**Sight Glass** allows you to monitor grain flow and velocity.

**Adapter Kit** attaches the airlock to your Sukup Dryer.

**Dynamic Bleed Valve** regulates air pressure for higher grain quality.

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

**Silencer** reduces blower noise.

**Frequency drives** can run 3-phase motors on 1-phase, limit the amount of current at start up, and provide variable blower speed to control the amount of air in the tube. Factory variable frequency drive option provides the up to 50hp in areas where only single phase power is available.
### 4” System Estimated Capacities

<table>
<thead>
<tr>
<th>System</th>
<th>BPH 100 ft</th>
<th>BPH 200 ft</th>
<th>BPH 300 ft</th>
<th>BPH 400 ft</th>
</tr>
</thead>
<tbody>
<tr>
<td>4”, 15 HP</td>
<td>700</td>
<td>575</td>
<td>350</td>
<td>-</td>
</tr>
<tr>
<td>4”, 2x10 HP</td>
<td>700</td>
<td>575</td>
<td>350</td>
<td>-</td>
</tr>
<tr>
<td>4”, 20 HP</td>
<td>750</td>
<td>625</td>
<td>400</td>
<td>-</td>
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</tbody>
</table>

### 5” System Estimated Capacities

<table>
<thead>
<tr>
<th>System</th>
<th>BPH 100 ft</th>
<th>BPH 200 ft</th>
<th>BPH 300 ft</th>
<th>BPH 400 ft</th>
</tr>
</thead>
<tbody>
<tr>
<td>5”, 2x10 HP</td>
<td>800</td>
<td>650</td>
<td>450</td>
<td>-</td>
</tr>
<tr>
<td>5”, 2x15 HP</td>
<td>1100</td>
<td>925</td>
<td>650</td>
<td>-</td>
</tr>
<tr>
<td>5”, 20 HP</td>
<td>1200</td>
<td>1000</td>
<td>750</td>
<td>-</td>
</tr>
<tr>
<td>5”, 30 HP</td>
<td>1500</td>
<td>1250</td>
<td>900</td>
<td>-</td>
</tr>
<tr>
<td>5”, 40 HP</td>
<td>1700</td>
<td>1450</td>
<td>1050</td>
<td>400</td>
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</tbody>
</table>

### 6” System Estimated Capacities

<table>
<thead>
<tr>
<th>System</th>
<th>BPH 100 ft</th>
<th>BPH 200 ft</th>
<th>BPH 300 ft</th>
<th>BPH 400 ft</th>
</tr>
</thead>
<tbody>
<tr>
<td>6”, 40 HP</td>
<td>1800</td>
<td>1550</td>
<td>1150</td>
<td>500</td>
</tr>
<tr>
<td>6”, 50 HP</td>
<td>2100</td>
<td>1850</td>
<td>1450</td>
<td>800</td>
</tr>
<tr>
<td>6”, 60 HP</td>
<td>2250</td>
<td>2000</td>
<td>1600</td>
<td>950</td>
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<tr>
<td>6”, 75 HP</td>
<td>2400</td>
<td>2150</td>
<td>1750</td>
<td>1100</td>
</tr>
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</table>

**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.

**20’ & 40’ tubing**

- 14 ga. galvanized.

**Sidewall Bracket**

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

**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.