CONTINUOUS MIXED-FLOW UNDER FAN GRAIN DRYERS
We believe the **QUALITY** of your grain should reflect the **HARD WORK** you put into it.
THERE’S NOTHING STANDARD ABOUT SUPERIOR.

At Superior, we believe the quality of your grain should reflect the hard work you put into it. That’s why our EXCEL continuous mixed-flow dryers condition grain with a low-stress process that reduces moisture, not quality.

When we say a low-stress process, we mean for you, too. EXCEL dryers are easy to use and require little maintenance, and with throughput capabilities ranging from 735 to 7,500 bushels per hour, they can fit operations of any size.

From corn to soybeans to wheat to canola, EXCEL dryers gently condition any type of grain to the moisture levels necessary for long-term storage. And, just like our grain bins, Superior combines the latest innovations with the highest-quality materials to build the safest, most reliable, most efficient grain dryers available.

For superior grain quality, choose Superior EXCEL dryers.
MIXED-FLOW DESIGN

More than 40 years ago, EXCEL was one of the first mixed-flow dryers on the market, and we’ve been refining it ever since. From our unique adjustable burner transition to the largest corner venting in the industry, we’ve engineered every component to make a dryer that produces consistent heat for a consistent product.

Kernel Temperature
The key to preserving grain quality is maintaining optimal temperature throughout the dryer. Our mixed-flow process pushes heat up through alternating rows of ducts. This conditions grain from both sides and keeps all seeds the same temperature throughout the process. This consistent, gentle heat ensures that no kernel will be left too moist or over-dried.

Retention Time
With their industry-leading holding capacities, EXCEL dryers retain grain longer while maintaining a high rate of bushels per hour. Combined with consistent dryer temperature, longer retention time provides optimal heat transfer into the seeds’ cores and removes moisture without damaging kernels.
QUALITY PROCESS, QUALITY GRAIN

Low stress equals high grain quality. EXCEL dryers gently condition grain with a tempered heat over time so there is little stress to kernels. The results are excellent grain quality and high test weights, which means higher prices at the elevator.

- **Adjustable Burner Transition**
  The EXCEL dryer’s true burner transition can be opened or closed at the top to adjust airflow, eliminate hot or cold spots and ensure consistent temperature throughout the dryer.

- **Corner Venting**
  EXCEL dryers feature the largest corner venting in the industry. The true corner venting at the end of each column allows air to flow properly and prevents hot spots from forming in the dryer’s corners, which could cause the grain to overheat.

- **Drag Chain Conveyers**
  Grain that is still hot from drying is more susceptible to damage. Drag chain conveyers with durable, ultra-high-molecular-weight polyethylene paddles are gentler on recently conditioned grain than augers. They cause less breakage and cracking, which means less dockage at the elevator.

LOW COST, HIGH EFFICIENCY

EXCEL continuous mixed-flow dryers use significantly less BTUs than conventional screen dryers and airflows of only 40 cfm per bushel compared to 100 cfm. The results are high efficiency without losing drying capacity. In addition, upper plenum venting increases airflow and allows the dryer to be preheated faster, which speeds up the drying process.

- **Internal Vaporizer**
  EXCEL’s Schedule 80 internal vaporizer is the safest and most efficient in the industry. Its 2-inch line vaporizes the propane over more surface area. The vaporizer is in balanced plenum heat, which vaporizes propane more efficiently than harsh blast heat.

- **Fuel-Efficient Maxon Burner**
  The high-efficiency, low-emission Maxon burner requires less than a pound of pressure to produce 1 million BTUs per linear foot. It will keep your energy costs low even during high production.

- **Two Vapor Regulators**
  Two vapor regulators in EXCEL dryers ensure correct burner pressure. Superior places a Siemens double-valve body between the primary and secondary regulators. Together they provide step-down pressure and ensure that propane enters the burner at less than 2 psi for maximum propane efficiency.
Time is money. With our EXCEL dryers you’ll spend less time on maintenance and more time drying grain. We manufacture our dryers with G90 galvanized steel to prevent rust and wear and provide excellent durability for years to come. And we back every EXCEL dryer with a one-year warranty.

- **Single-Phase Power or Three-Phase Power**
  EXCEL dryers utilize single-phase as well as three-phase power to fit any farm situation. And with capabilities ranging from 735 to 7,500 bushels per hour, they can fit operations of any size, from small family farms to large commercial elevators.

- **Easy Expansion**
  Superior also designs EXCEL dryers for easy expansion so your dryer can grow with your operation. Models start at 10 tiers and can be easily expanded up to 26 tiers onsite.

- **Drop-Door Cleanouts**
  There’s no need to take any bolts or wing nuts off of EXCEL’s drop-door cleanouts. Instead, you can open them easily by flipping the handle on the over-center cam locks. The cleanouts make cleaning with an air hose easy, and everything can be blown out from top to bottom. The doors also act as an emergency cleanout.

- **Control Panel Temperature Regulator**
  The control panel contains a heater and cooling fan to regulate the temperature within the panel. It protects the unit from overheating or moisture buildup that could damage the control panel’s components.

- **Panel Circuit Transformer**
  The panel circuit transformer protects against power surges and feedback.

- **In-Panel Service-Rated Disconnect**
  With the in-panel service-rated disconnect, you don’t need to install an external disconnect as the main power shutoff.
SAFETY AND OPERATION

From top to bottom, EXCEL dryers are the safest on the market.

- **Flame Rod**
  To detect burner ignition, EXCEL dryers feature a flame rod rather than UV sensor for more accurate readings. The flame rod converts energy from the pilot flame into an electrical signal, which eliminates the possibility of getting a false positive reading. By comparison, UV detectors can misinterpret reflected sunlight as the pilot flame. This could cause the burner to open, and without an established flame the dryer could fill with flammable propane gas.

- **Liquid Gas Regulator**
  The liquid gas regulator prevents vapor lock by releasing the correct amount of liquid to the vaporizer. It also prevents the vaporizer from being overloaded with raw propane. This increases safety and saves you money by ensuring you won’t have to bleed excess propane into the air.

- **True Piloted Gas Train**
  EXCEL dryers have a true-piloted gas train that automatically shuts off after the burner is lit. If the main flame goes out, the pilot won’t reignite, and the dryer won’t fill with gas.

SAFETY and operation

EASY OPERATION, TOTAL CONTROL

EXCEL dryers are easy to use, and Superior offers options to give you the exact level of control you want with Dry Master.

- **GM2**
  The Dryer Master GM2 moisture monitor comes standard on all EXCEL dryers. The system monitors outgoing moisture for grains, and a digital panel displays the moisture information you need to manually adjust the dryer settings. And with data storage capabilities and an optional printer, it’s easy to keep track of previous dryer settings and moisture levels.

- **DM510**
  You’ll get even more detailed drying information and control with the Dryer Master DM510. The add-on panel reduces over- and under-drying, increases throughput and reduces energy use. The system monitors inlet and outlet moisture, drying temperature and discharge rate, and automatically adjusts dryer speed to reach the target discharge moisture level. An LCD display shows moisture and temperature settings. You also can choose to make your own adjustments in manual mode. You can print a summary of moisture readings from the day, as well as other data stored in a memory module. The DM510 also features DM-mobile so you can access drying information from a tablet, PC or smart phone. Superior can also customize a control panel so you can electronically monitor any aspect of the dryer or drying process. Additional information can be found at www.dryermaster.com.
From filling and unloading to dryer access, Superior offers several options so you can customize an EXCEL dryer to fit your operation.

▶ Gravity Fill
A gravity fill is standard on all models. With no motor and no moving parts, it is an efficient, low-maintenance filling solution.

▶ Scalper
If height is a restriction, EXCEL’s scalper is a low-profile filling option. The scalper is filled from one side and a drag chain conveyer carries grain across the top of the dryer to fill it evenly.

▶ 2-to-1 Transition
The 2-to-1 gravity transition comes standard on EXCEL dryers. Two drag chain conveyers, one on each side of the dryer, carry the conditioned grain from the bottom of the dryer toward the unloading point. The 2-to-1 gravity transition connects to both conveyers and gently funnels the grain to one unloading point.

▶ Cross-Drag Conveyer
The cross-drag conveyer connects to the dryer’s two drag chain conveyers and carries conditioned grain away from the dryer for storage or transportation. It is available in 14-, 19-, 24- and 29-foot lengths.

▶ Platforms
A 33-inch-wide catwalk that covers one side of the top of the dryer is standard. It extends the length of the dryer to 16, 24, 32, 40 or 48 feet. The end platforms are 30 inches deep and run the full 8-foot width of the dryer.

Optional wrap-around platforms cover the entire top of the dryer and provide 360-degree access to the scalper or gravity fill.

Superior also offers optional side platforms that are 33 inches wide and extend the length of the dryer. You’ll be able to see grain movement inside the process area from the side platforms.
Our bins have proven their strength and ability to protect crops from the harshest elements day after day, season after season, generation after generation. With capacities that range from 1,850 bushels to more than 790,000, they provide the freedom you need to hold crops for better returns. And all our farm bins come with the industry’s only lifetime roof warranty.

**FARM BINS**
- Bins range from 15- to 48-feet in diameter.
- Available with capacities ranging from 1,850 to 62,000 bushels.

**STIFFENED FARM BINS**
- Stiffened farm bins range from 15- to 54-foot diameters.
- Available with capacities ranging from 1,850 to 200,000 bushels.

**HOPPER BINS**
- Unstiffened models available in 15- to 27-foot diameters with capacities of 1,850 to 11,510 bushels.
- Stiffened models available in 18- to 30-foot diameters with capacities of 4,295 to 17,120 bushels.
- Standard ground control remote opener allows for safe and easy operation.

**COMMERCIAL BINS**
- Available in 60- to 105-foot diameters with capacities of 53,000 to 790,000 bushels.
- Structured roofs are standard on commercial bins.
- Patented sidewall lamination provides twice as much strength as competitive bins.
Excel Grain Dryer Specifications

<table>
<thead>
<tr>
<th>Excel Dryer Model</th>
<th>BPH Dry &amp; Cool 5 Pts</th>
<th>BPH Dry &amp; Cool 10 Pts</th>
<th>BPH H &amp; C Wheat 5 Pts</th>
<th>Total Bushel Holding Capacity</th>
<th>Total Fans &amp; HP</th>
<th>Total Fan HP</th>
<th>Total Dryer Height</th>
<th>Total Dryer Height Gravity Fill</th>
</tr>
</thead>
<tbody>
<tr>
<td>1610</td>
<td>1080</td>
<td>700</td>
<td>1100</td>
<td>1400</td>
<td>4-10 HP</td>
<td>40 HP</td>
<td>32.5</td>
<td>37.5</td>
</tr>
<tr>
<td>1612</td>
<td>1250</td>
<td>810</td>
<td>1270</td>
<td>1620</td>
<td>4-10 HP</td>
<td>40 HP</td>
<td>36.5</td>
<td>41.5</td>
</tr>
<tr>
<td>1614</td>
<td>1430</td>
<td>925</td>
<td>1420</td>
<td>1840</td>
<td>4-10 HP</td>
<td>40 HP</td>
<td>40.5</td>
<td>45.5</td>
</tr>
<tr>
<td>1616</td>
<td>1600</td>
<td>1030</td>
<td>1630</td>
<td>2070</td>
<td>4-10 HP</td>
<td>40 HP</td>
<td>44.5</td>
<td>49.5</td>
</tr>
<tr>
<td>1618</td>
<td>1770</td>
<td>1150</td>
<td>1810</td>
<td>2290</td>
<td>4-15 HP</td>
<td>60 HP</td>
<td>48.5</td>
<td>53.5</td>
</tr>
<tr>
<td>1620</td>
<td>1950</td>
<td>1250</td>
<td>1980</td>
<td>2490</td>
<td>4-15 HP</td>
<td>60 HP</td>
<td>52.5</td>
<td>57.5</td>
</tr>
<tr>
<td>1622</td>
<td>2120</td>
<td>1350</td>
<td>2140</td>
<td>2710</td>
<td>4-20 HP</td>
<td>80 HP</td>
<td>56.5</td>
<td>61.5</td>
</tr>
<tr>
<td>1624</td>
<td>2280</td>
<td>1460</td>
<td>2310</td>
<td>2920</td>
<td>4-20 HP</td>
<td>80 HP</td>
<td>60.5</td>
<td>65.5</td>
</tr>
<tr>
<td>2410</td>
<td>1620</td>
<td>1020</td>
<td>1620</td>
<td>2060</td>
<td>6-10 HP</td>
<td>45 HP</td>
<td>32.5</td>
<td>41.5</td>
</tr>
<tr>
<td>2412</td>
<td>1880</td>
<td>1220</td>
<td>1920</td>
<td>2430</td>
<td>6-10 HP</td>
<td>60 HP</td>
<td>36.5</td>
<td>45.5</td>
</tr>
<tr>
<td>2414</td>
<td>2130</td>
<td>1370</td>
<td>2165</td>
<td>2760</td>
<td>6-10 HP</td>
<td>60 HP</td>
<td>40.5</td>
<td>49.5</td>
</tr>
<tr>
<td>2416</td>
<td>2380</td>
<td>1520</td>
<td>2410</td>
<td>3090</td>
<td>6-10 HP</td>
<td>60 HP</td>
<td>44.5</td>
<td>53.5</td>
</tr>
<tr>
<td>2418</td>
<td>2645</td>
<td>1705</td>
<td>2665</td>
<td>3400</td>
<td>6-10 HP</td>
<td>90 HP</td>
<td>48.5</td>
<td>57.5</td>
</tr>
<tr>
<td>2420</td>
<td>2910</td>
<td>1890</td>
<td>2920</td>
<td>3710</td>
<td>6-15 HP</td>
<td>90 HP</td>
<td>52.5</td>
<td>61.5</td>
</tr>
<tr>
<td>2422</td>
<td>3160</td>
<td>2050</td>
<td>3207</td>
<td>4060</td>
<td>6-20 HP</td>
<td>120 HP</td>
<td>56.5</td>
<td>65.5</td>
</tr>
<tr>
<td>2424</td>
<td>3410</td>
<td>2205</td>
<td>3495</td>
<td>4410</td>
<td>6-20 HP</td>
<td>120 HP</td>
<td>60.5</td>
<td>69.5</td>
</tr>
<tr>
<td>3216</td>
<td>3190</td>
<td>2010</td>
<td>3215</td>
<td>4095</td>
<td>8-10 HP</td>
<td>80 HP</td>
<td>44.5</td>
<td>57.5</td>
</tr>
<tr>
<td>3218</td>
<td>3510</td>
<td>2300</td>
<td>3605</td>
<td>4510</td>
<td>8-15 HP</td>
<td>120 HP</td>
<td>48.5</td>
<td>61.5</td>
</tr>
<tr>
<td>3220</td>
<td>3890</td>
<td>2505</td>
<td>3915</td>
<td>4980</td>
<td>8-15 HP</td>
<td>120 HP</td>
<td>52.5</td>
<td>65.5</td>
</tr>
<tr>
<td>3222</td>
<td>4210</td>
<td>2705</td>
<td>4300</td>
<td>5405</td>
<td>8-20 HP</td>
<td>160 HP</td>
<td>56.5</td>
<td>69.5</td>
</tr>
<tr>
<td>3224</td>
<td>4570</td>
<td>2920</td>
<td>4630</td>
<td>5890</td>
<td>8-20 HP</td>
<td>160 HP</td>
<td>60.5</td>
<td>73.5</td>
</tr>
<tr>
<td>3226</td>
<td>4900</td>
<td>3190</td>
<td>4980</td>
<td>6305</td>
<td>8-20 HP</td>
<td>160 HP</td>
<td>64.5</td>
<td>77.5</td>
</tr>
<tr>
<td>4816</td>
<td>4790</td>
<td>3090</td>
<td>4860</td>
<td>6160</td>
<td>12-10 HP</td>
<td>120 HP</td>
<td>44.5</td>
<td>53.5</td>
</tr>
<tr>
<td>4818</td>
<td>5280</td>
<td>3405</td>
<td>5380</td>
<td>6795</td>
<td>12-15 HP</td>
<td>180 HP</td>
<td>48.5</td>
<td>57.5</td>
</tr>
<tr>
<td>4820</td>
<td>5795</td>
<td>3780</td>
<td>5905</td>
<td>7490</td>
<td>12-15 HP</td>
<td>180 HP</td>
<td>52.5</td>
<td>61.5</td>
</tr>
<tr>
<td>4822</td>
<td>6310</td>
<td>4100</td>
<td>6470</td>
<td>8170</td>
<td>12-20 HP</td>
<td>240 HP</td>
<td>56.5</td>
<td>65.5</td>
</tr>
<tr>
<td>4824</td>
<td>6810</td>
<td>4405</td>
<td>6970</td>
<td>8840</td>
<td>12-20 HP</td>
<td>240 HP</td>
<td>60.5</td>
<td>69.5</td>
</tr>
<tr>
<td>4826</td>
<td>7310</td>
<td>4710</td>
<td>7470</td>
<td>9510</td>
<td>12-20 HP</td>
<td>240 HP</td>
<td>64.5</td>
<td>73.5</td>
</tr>
</tbody>
</table>

* Total Height Under Fan Dryer Includes 6.5’ Stand
** Dryer Width: 8ft 2in (all models)