



Commercial Solutions™



Bins - Dryers - Material Handling - Buildings

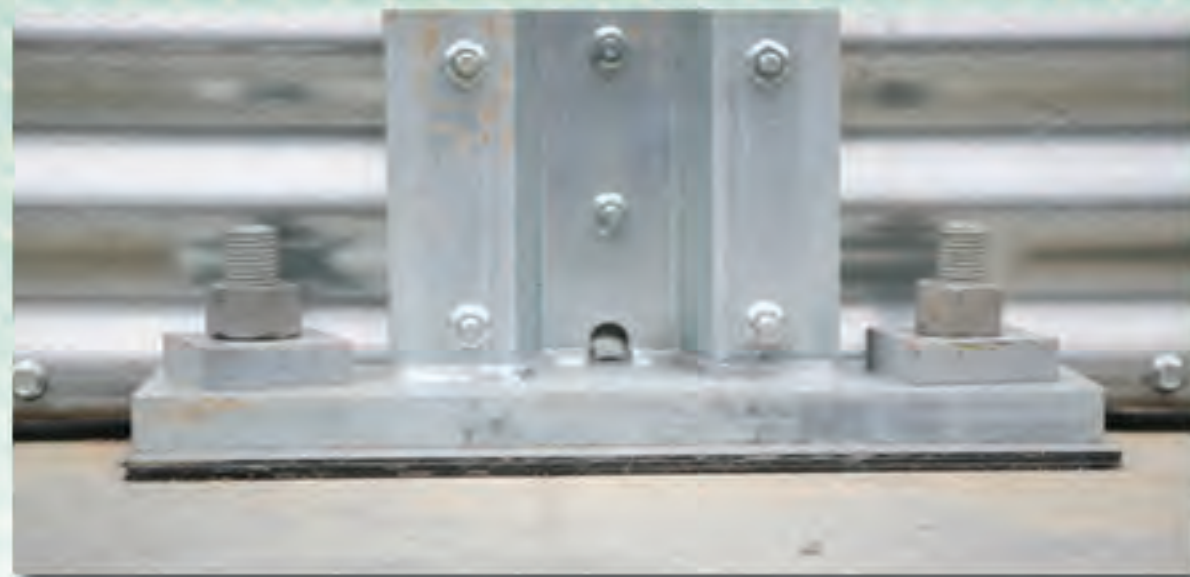
COMMERCIAL BINS



1.9 Million Bushel Bin Available

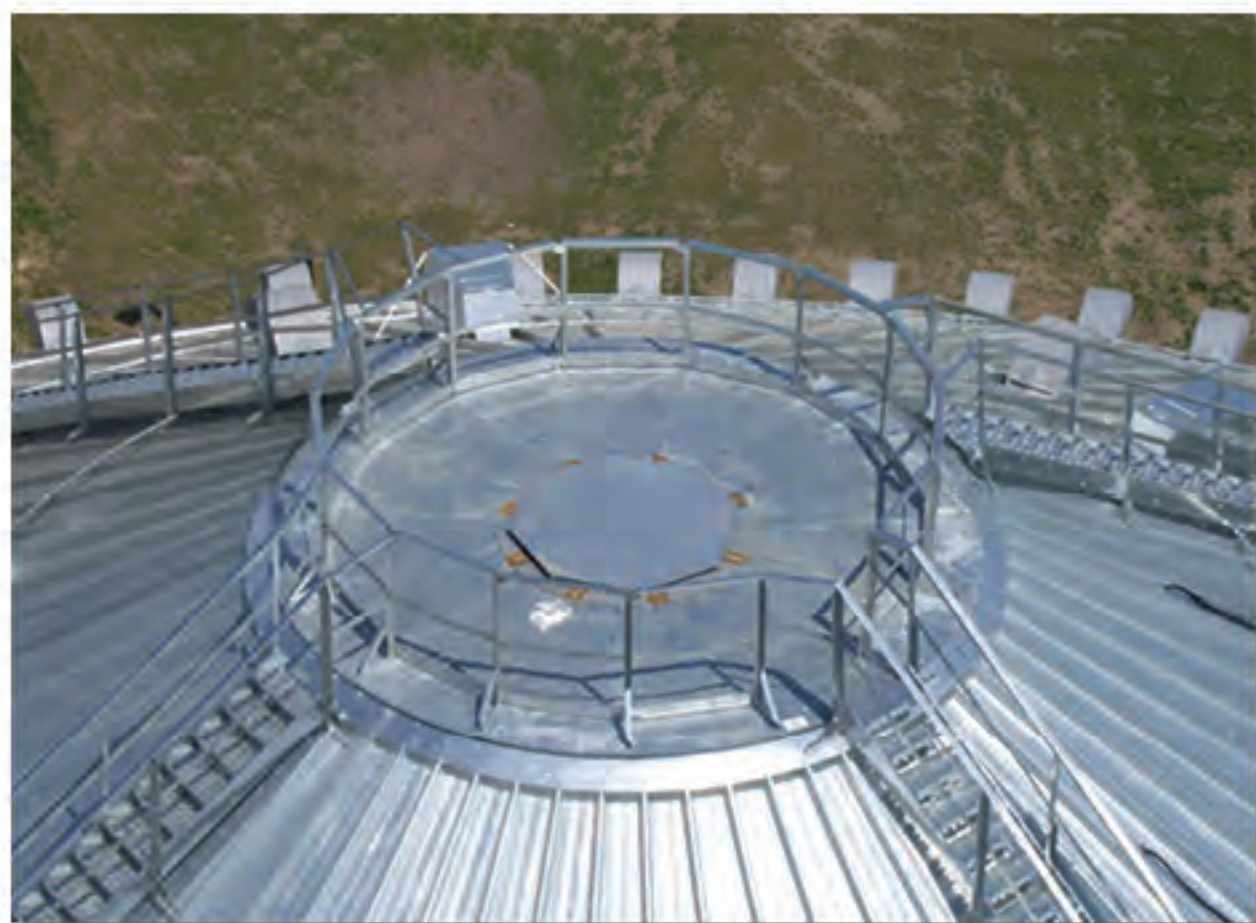
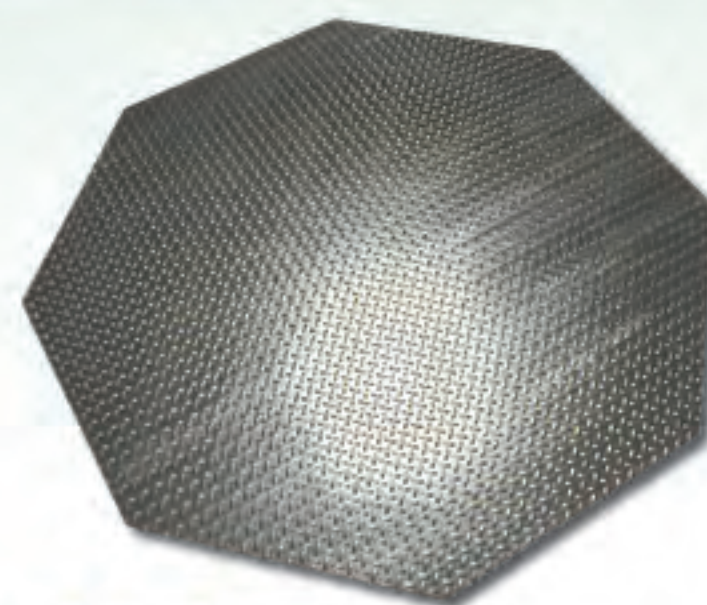
Million Bushel Bins

More grain means more bushels, and that means bigger bins. We've answered the call for more storage with our 135' and 156' Commercial Bins. With 1.47 million and 1.9 million bushel capacities respectively, you can maximize your storage space, while minimizing the number of bins. Our 135' was the first ever fully-erected free-span bin to hold over one million bushels. 135' and 156' bins are both designed to be unloaded in a single pass partly due to the new stiffener base design.



Sukup Commercial Peak Lids

Sukup commercial G115 roofs come equipped with a 1/4" thick, 60" diameter, diamond deck steel peak lid that provides a solid base for conveying equipment or fill spouts. The diamond decking provides a non-slip surface for improved worker safety. The lid can be cut on-site to match your conveyor or down spout requirements.



Exceptional Peak Load Rating

Sukup offers 8,000, 15,000, 30,000, 50,000 and 100,000 lbs. peak load ratings. The strength of the Sukup 30,000 lb. roof comes from double C-shaped channels forming I-beam rafters with C-shaped purlins. Rafters and purlins are manufactured from 70,000 PSI tensile strength galvanized steel. The rafters on 75' bins and larger, 50,000 lb and 100,000 lb roofs are constructed with 65,000 PSI tensile strength I-beams.

50,000 & 100,000 lb. Peak Deck Sizes:

- 10' across on 48' bin
- 12' across on 54'-60' bin
- 16' across on 72'-135' bin
- 21' across on 156' bin

Commercial Bin Sizes (Other sizes available on request)

Dia.	Peak Heights Available	Max. Cap. Available (Bu)	Max Rings	Standard Roof Peak Load	Optional Roof Peak Load
42'	45' 6" - 122' 6"	132,900	30	15,000	8,000*; 30,000 or 50,000
48'	47' 4" - 124' 4"	174,400	30	15,000	8,000*; 30,000 or 50,000
54'	49' 2" - 126' 2"	221,700	30	15,000	30,000 or 50,000
60'	51' 1" - 128' 1"	275,000	30	15,000	30,000 or 50,000
72'	55' 1" - 132' 1"	399,500	30	30,000	15,000* or 50,000
75'	56' 0" - 133' 0"	434,500	30	30,000	15,000* or 50,000
78'	56' 11" - 133' 11"	471,000	30	30,000	15,000* or 50,000
90'	60' 8" - 137' 8"	632,800	30	30,000	15,000*; 50,000 or 100,000
105'	61' 9" - 138' 9"	871,000	30	50,000	30,000* or 100,000
135'	70' 11" - 147' 11"	1,471,600	30	50,000	100,000
156'	75' 7" - 148' 11"	1,935,800	29	50,000	100,000

Foundation specifications must be designed by a qualified engineer based on local soil conditions. Soil boring test must be done by a competent engineering firm and foundation construction must be done by a knowledgeable concrete contractor.

Above roof peak loads meet ASCE 7-10 for unbalanced roof snow of 40 psf ground snow zone and 105 mph wind zone unless marked by asterisks.

*These roofs meet ASCE 7-10 for uniformly distributed roof snow of 40 psf ground snow zone and 105 mph wind zone.

High Strength Steel Sidewall Sheets

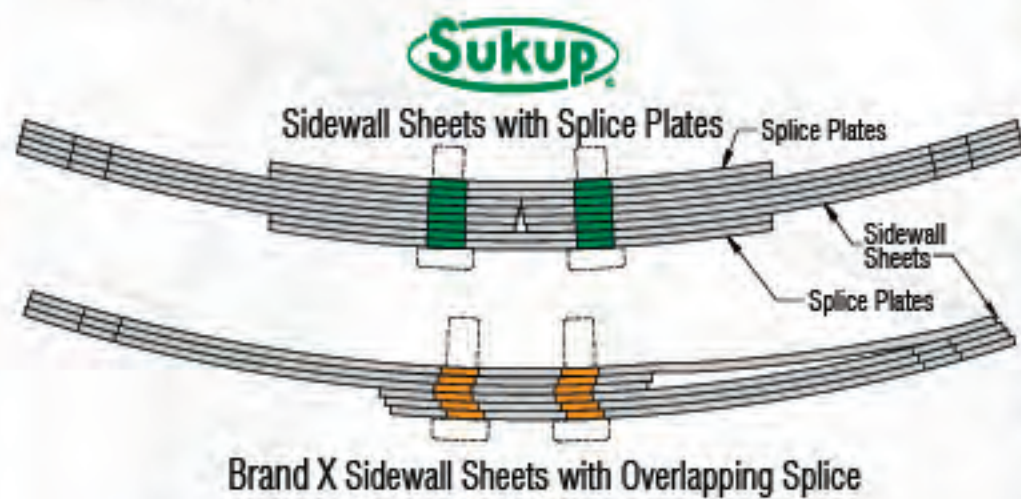
Sukup uses a minimum 70,000 to 75,000 PSI tensile strength steel to provide better hoop tension load carrying capacity. The 4" wide corrugations on Sukup sidewall sheets create less resistance and friction, putting less vertical stress on the side wall and allow grain to flow more easily. Sukup sheets are 44" high, so there are fewer rings, seams and bolts than bins with 32" sidewall sheets.

Sukup Strong

Bins designed for 105 mph per ASCE7-10.

Laminated Splice Plate

On larger commercial bins, our patented laminated splice plates ensure there are no gaps along the sidewall seams and are quick to assemble because the bolts fit easily into the properly aligned holes. The double shear connection is designed to maximize the strength of the seams.



Optimum Bolt Usage

The vertical bolt pattern on Sukup Commercial Bins has been evaluated for optimum performance and convenient erection. Sukup engineers use solid imaging computer design analysis to determine the proper bolt size to ensure the integrity of the seams while minimizing the number of bolts needed in order to speed erection and keep costs in line.

Commercial Stiffeners

Sukup commercial stiffeners are made from 70,000 PSI minimum tensile strength galvanized steel and are computer-engineered specifically to make them extra strong. Sukup stiffeners are externally mounted. External stiffeners provide excellent support and prevent the accumulation of grain and the resulting spoilage that can occur with internal stiffeners. Wind rings are used to provide greater rigidity to Sukup Commercial Bins when they are empty. Two or three stiffeners are provided per sidewall sheet.

Top Quality Bolts

All bolts on Sukup Commercial Bins are SAE Grade 8.2 (the highest standard in the industry) with 1000-hour plating. The SAE Grade 8.2 ensures that Sukup bolts will hold up to the stresses placed on them. The 1000-hour plating ensures the long life of Sukup Commercial Bins.



44" Single-Ring



60" Walk-Through



Skid Steer (Out-swing Door)

Easy Access

- A 44", single-ring door is standard on Sukup Commercial Bins. It features Hammer Head latches and the inner panels lay flat against the sidewall when open.
 - A 60" walk-through door is also available as a convenient option to help enter and exit with ease.
 - Optional Out-swing or In-swing Skid Steer doors are also available for even greater access.
 - Sukup side draw systems are also an option on Commercial Bins. through 105'
- (As with any side draw, the grain must be emptied to a uniform height on the sidewall before refilling. Use only Sukup designed side draw units with Sukup Commercial Bins. Never add a side draw system to an existing bin.)



HOPPER BINS

Sukup Medium-Duty and Heavy-Duty Hopper Bottom Bins are among the strongest in the industry with wide corrugations, extra-strong stiffeners and heavy-gauge hopper panels.

- Tank portion features the same quality sidewall construction as standard Sukup Bins, as well as the same roof.
- Hoppers are made of heavy-gauge, galvanized steel for strength and durability.
- Standard hoppers are 45°. 60° hoppers also available in some sizes.
- 16" unload outlet has a rack and pinion slide gate standard and hand wheel extension.
- 22" unload outlet has a rack and pinion slide gate option.



Sukup Heavy-Duty Hopper Bins

- 15'-48' diameter. 3-24 rings, 45° hopper standard, 60' available on request.
- May be mounted on overhead super structures for loading of semis or rail cars.
- Can be used to store cool, dry grain for an extended period of time.
- All base configurations start with 70,000 psi tensile strength steel, wide flange (I-beam) legs.
- L-shaped cross-bracing between the legs adds more stability.
- Hopper ring flashing covers the ledge where the tank and cone join to prevent grain from accumulating on the ledge (bottom).



COMMERCIAL ACCESSORIES



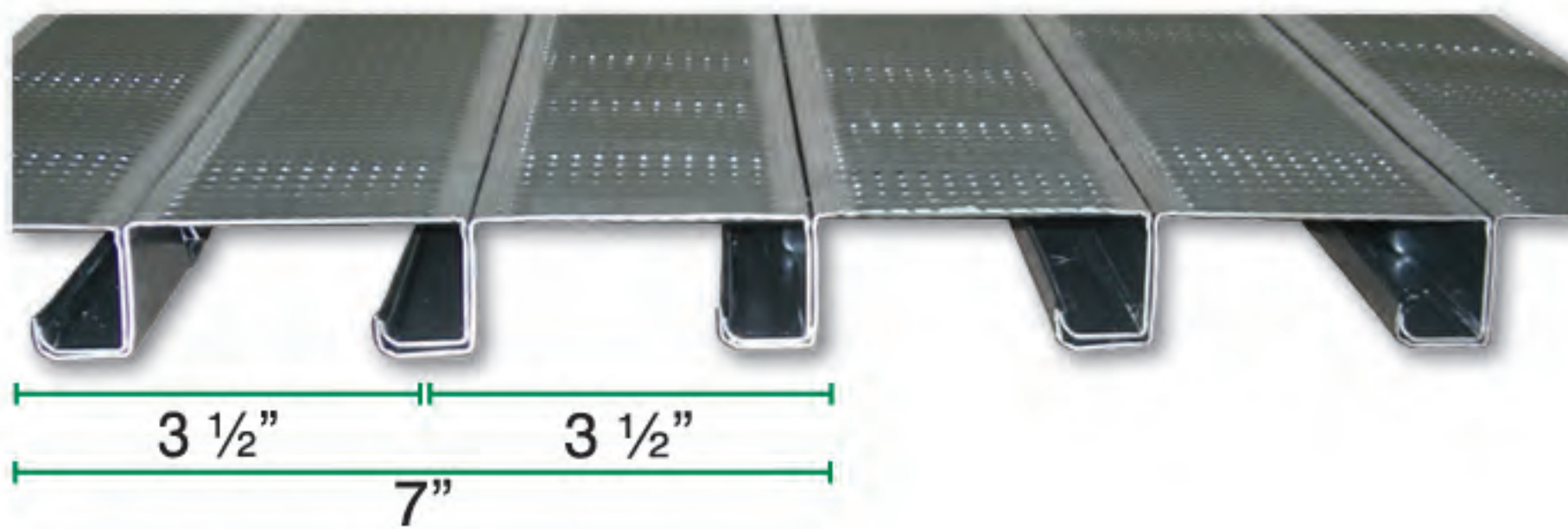
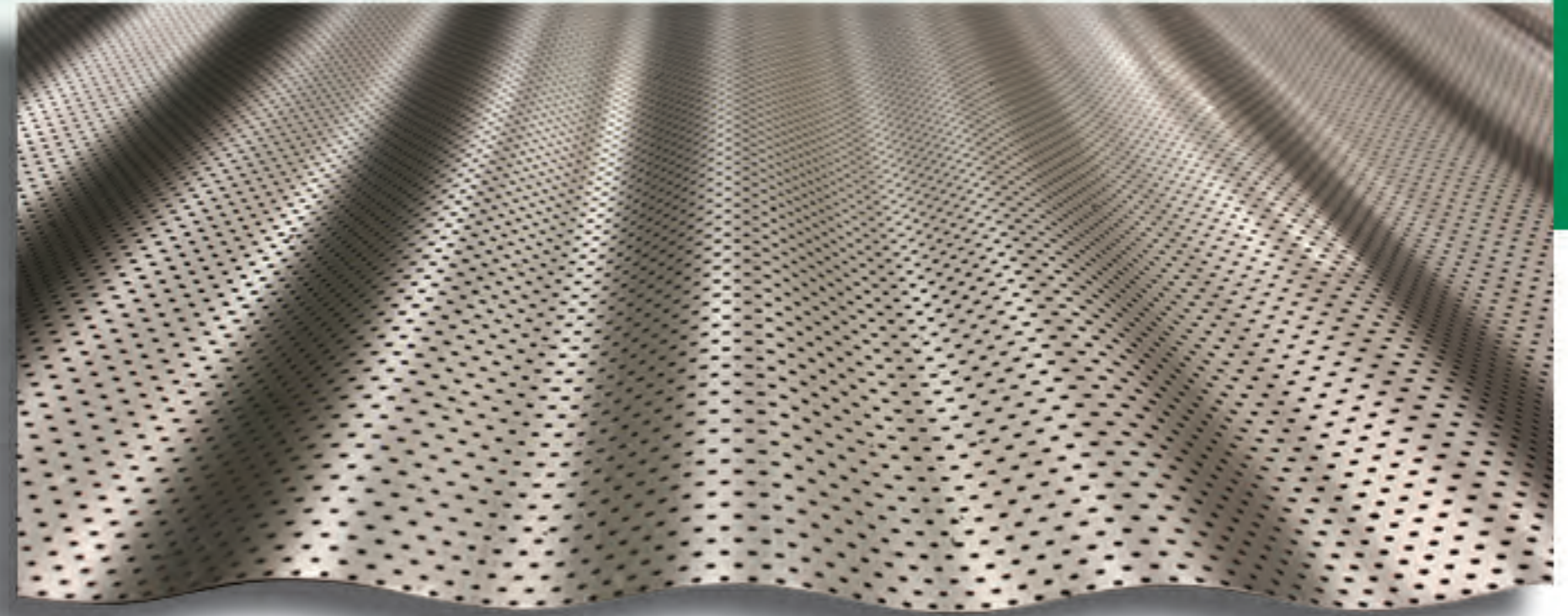
Centrifugal Fans

- 1750 RPM single inlet fans from 3 - 50 hp. Dual inlet fans from 30-50 hp
- Centrifugal Fans offer quiet operation.
- Sukup was the first in the industry to offer adjustable legs for easy leveling and support.
- Exclusive lip on fans forms a tight seal with the transition to prevent air leakage.
- Hi-Speed (3500 RPM) fans 3 - 60 hp and 18"-28" in-line centrifugal fans are available for higher static pressure conditions found with small grains and deep grain.

Corrugated Flooring

Tunnel Aeration Alternative

Sukup offers a simple, corrugated flooring option for tunnel aeration. Corrugated galvanized steel sheets (44" L x 88" W with one corrugation overlap) are available solid or perforated. Installed over Flat Top Super Supports™, this flooring offers quick, simple tunnel aeration.



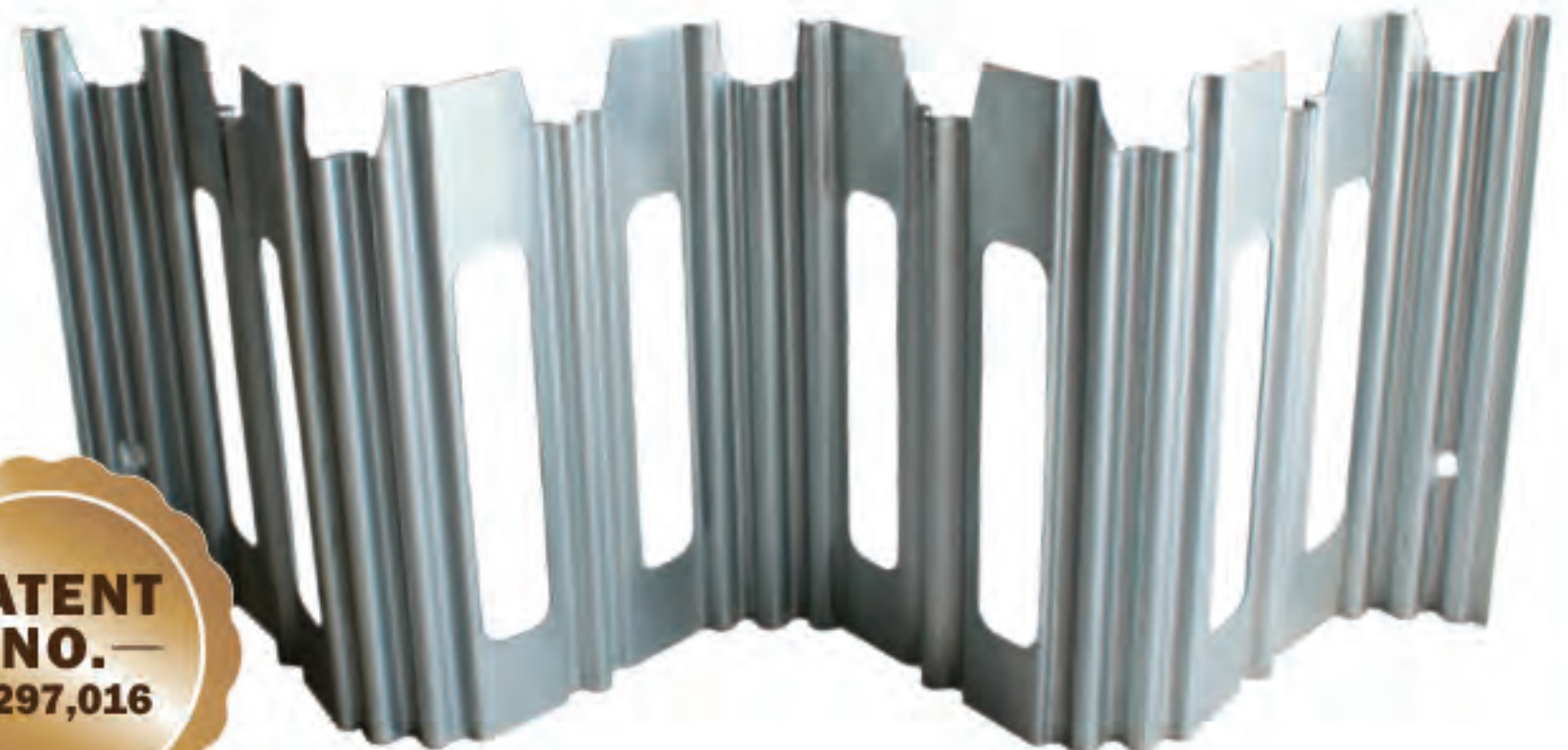
Heavy-Duty Perforated For Deeper Grain Depths

- Sukup Heavy-Duty Perforated Floors were designed for situations where perforated floors are preferred but higher grain depths are needed.
- Sukup Heavy-Duty Perforated Floor planks have weight-bearing support every 3 1/2", rather than 7", so they are able to withstand deeper grain depths.
- Shipped in 7" wide planks.

SuperWave® Supports

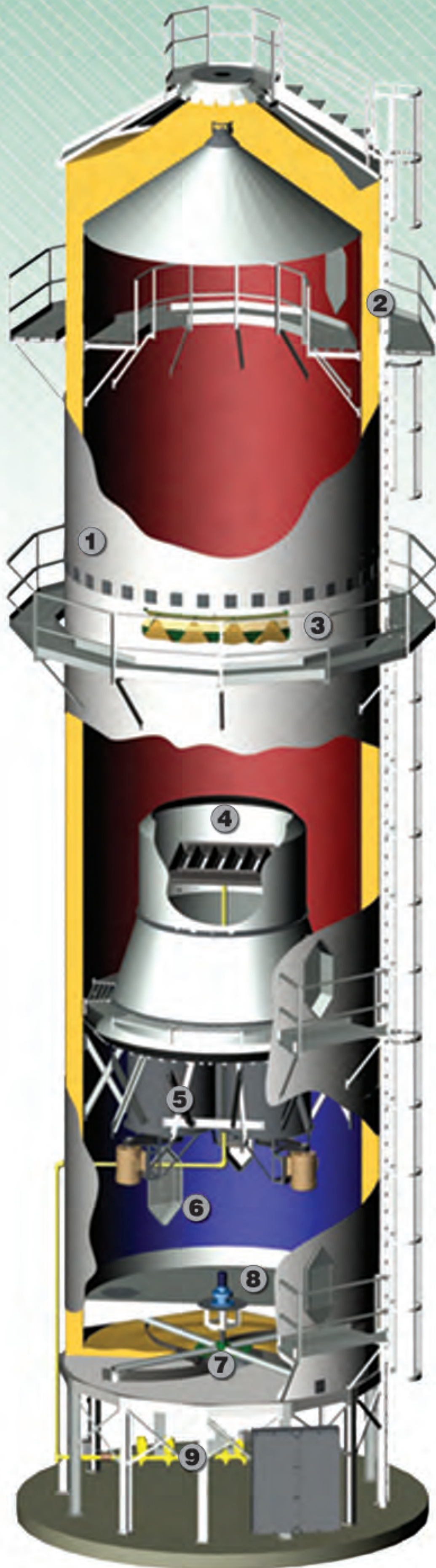
Sheet Metal Support

- Stamped metal supports work with all Sukup floor planks, but they are particularly well-suited to our Heavy-Duty Perforated Floors.
- Unique wave design provides excellent strength and stability at an economical price.
- Tabs provide support under the crown of the floor plank.
- Can be used with the deepest grain depths.



**PATENT
NO.
8,297,016**

TOWER DRYERS

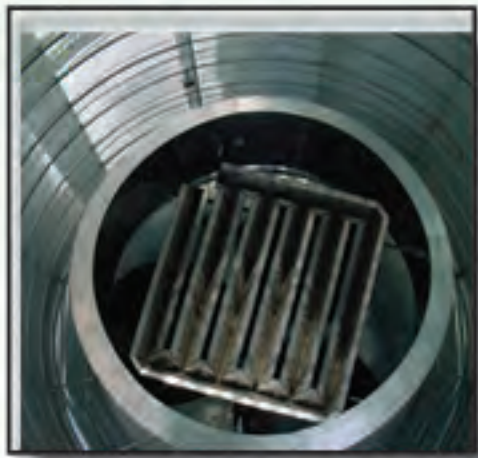


Features

- 1 Stainless Steel** outer screens, nuts, and bolts resist rust and keep your dryer looking good for years to come.
- 2 12^{3/4}" Wide Grain Columns** for longer air retention and maximum efficiency.
- 3 Grain Exchangers** move grain from the inside of the column to the outside for more even moisture content and consistent grain temperature. Solid outer sheeting in the grain exchanger section maintains balanced heat/air distribution in the plenum and helps to avoid blowing large amounts of particulate matter into the atmosphere.
- 4 Low Pressure Burner** is aluminum so holes do not rust shut, giving wide operating temperature range, high fuel efficiency, and low emissions.
- 5 Industrial Grade In-Line Centrifugal Blowers** quietly provide high airflow even with vacuum cooling.
- 6 Louvered Air Vents** allow control over the amount of ambient air being pulled through the grain for cooling.
- 7 Unload Rotor, Curved Paddles, and Grain Table** are stainless steel for long life. The paddles sweep grain from the outer columns to the center discharge hopper.
- 8 Inverter Rated AC Motor and Positive-Lubricated Gearbox** drive the unload rotor giving variable grain discharge rates.
 - **Unload Rate** is controlled automatically based on grain temperature or moisture. Unload rate can also be manually controlled.
- 9 Pipetrain has Two Standard Safety Shut-Off Valves** that are electronically operated from the touchscreen. The push of a button activates the heater.
 - **Electronic Mod-Valve** heater control maintains a fuel efficient, steady plenum temperature.
 - **Incoming and Outgoing Moisture Sensors** are standard.

Vacuum Cooling Efficiency Advantage

The Sukup Tower Dryer operates in a heat/vacuum cool mode. The blower(s) and burner are located inside the dryer between the heating and cooling chambers, eliminating ducting and leaving more room for the unload area. Air is pulled through the grain at the bottom of the dryer, cooling the grain while heating the air. The air is then pulled into the blowers, through the burner and into the drying chamber. *Reclaiming heat from the grain creates greater efficiency because less fuel is required to get the air to drying temperature.*



Balanced Moisture Content

Grain enters the top of the dryer through a load system that is controlled by rotary switches that allow choke fill (dryer is kept full of grain all the time) or demand fill (the load system is turned on and off as needed). The grain then flows down the dryer in a 12^{3/4}" thick column. Drying occurs in the top 2/3 of the dryer with the grain being inverted halfway down the drying section by Grain Exchangers.

Cooling

The grain flows down the column into the cooling chamber (bottom 1/3 of dryer) and spills out onto the stainless steel table of the unload chamber. A large rotor with curved paddles (the only moving part of the dryer) sweeps grain to the center of the dryer and out the discharge hopper.

Simple Operation

The temperature of the air in the drying chamber and the speed of the unload rotor are adjustable. The operator



selects a desired drying temperature and the speed of the unload rotor is varied to obtain desired moisture output. Unload rotor speed is adjusted automatically based on the grain temperature in the bottom of the heat chamber or on the incoming and outgoing moisture content. If necessary, the unload rotor speed can be adjusted manually.

Tower Dryer Sizes

	U0810	U1010	U1210	U1510	U1812	U2012	U2412	U2712	U3018	U3518	U4018	U4718	U5024	U6024	U7024	U10030
Bu/Hr. 20%-15%*	850	1000	1270	1500	1800	2000	2400	2700	3000	3500	4000	4700	5000	6000	7000	10,000
Bu/Hr. 25%-15%*	510	600	760	900	1080	1200	1440	1620	1800	2100	2400	2820	3000	3600	4200	6000
Grain Column	12.75"	12.75"	12.75"	12.75"	12.75"	12.75"	12.75"	12.75"	12.75"	12.75"	12.75"	12.75"	12.75"	12.75"	12.75"	12.75"
Tower Diameter	10'6"	10'6"	10'6"	10'6"	12'0"	12'0"	12'0"	12'0"	18'0"	18'0"	18'0"	18'0"	24'0"	24'0"	24'0"	30'0"
Overall Height	46'10"	50'2"	50'2"	63'7"	69'	76'	86'	93'	76'	86'	96'	109'	100'	110'	120'	127'

*Bu/hr. (bushels per hour) listed are wet bushels, No. 2 shelled yellow corn at listed moisture content and are estimates based on drying principles, field results and/or computer simulation at 50° ambient temperature and 60% humidity at 220° F average plenum temperature.

Sukup Manufacturing Co. provides the information contained within this brochure to assist you in choosing the optimal equipment for your situation. Many factors, such as grain variety, maturity levels, grain cleanliness, weather conditions and operation/management, can affect the performance of your equipment and results may vary. 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, expressed 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

The Sukup QuadraTouch™ Pro control system creates: EASY START-UP & OPERATION



SIMPLE, MENU-DRIVEN SYSTEM

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 keypad for entering numbers. The QuadraTouch Pro™ can be placed up to 200' away from the dryer using just an Ethernet cable.

THE QuadraTouch Pro™ is a PLC-BASED SYSTEM.

The PLC (Programmable Logic Controller) is a rugged controller built to withstand harsh environments and offer superior electrical noise protection, eliminating nuisance shut downs and providing you with a reliable system.

Two options for REMOTE MONITORING

Remote Monitoring Software Allows You to View the QuadraTouch™ Pro Screen On Your Computer

You can set up a network on location with dryer or through the internet to view it anywhere and adjust settings including temperature and moisture.



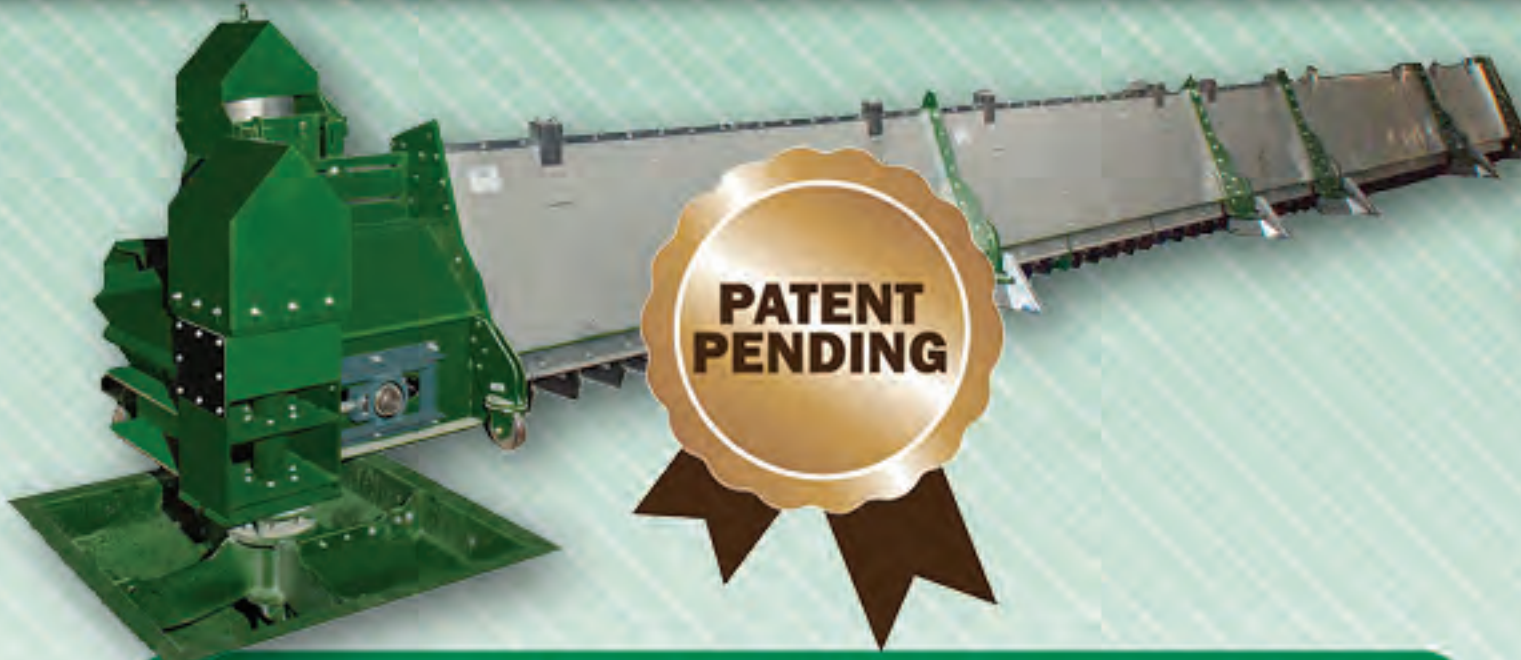
The GSM Phone Modem Works with QuadraTouch™ Pro Controls and Operates Through GSM Cell Phone Service



If the dryer shuts down, the GSM service sends a text message to a predetermined cell phone number, noting the fault. You can also text message the dryer to receive current dryer status, or adjust moisture, unload speed, and plenum temperature settings.

ZERO-ENTRY COMMERCIAL SWEEPS

Up to 10,000 BPH



Paddle Sweep

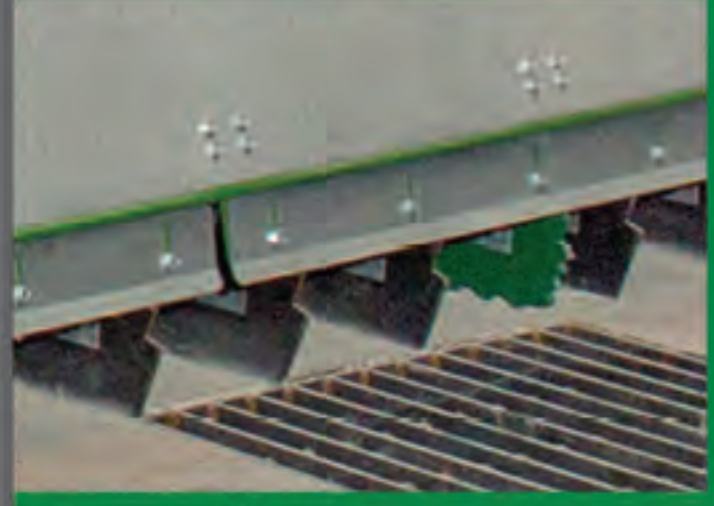
Auger Sweep



Heavy-Duty Frame designed to provide optimal strength to withstand the intense pressure of deep grain depths.



Adjustable Front Auger Shields reduce overfeeding of the auger.



Adjustable Front Paddle Shields reduce overfeeding of the sweep.



Heavy-Duty Steel Wheels with bronze bushings.



Patented Pivot Point allows the sweep to "free-float" to account for variations in concrete.



Patented Pivot Point allows the sweep to "free-float" to account for variations in concrete.

Commercial Sweeps



Shallow Center Sump is cast in place and requires less concrete, saving you construction costs. Deeper design is also available.

Explosion-Proof Motors and industrial grade gear box and bearings for greater safety and durability.

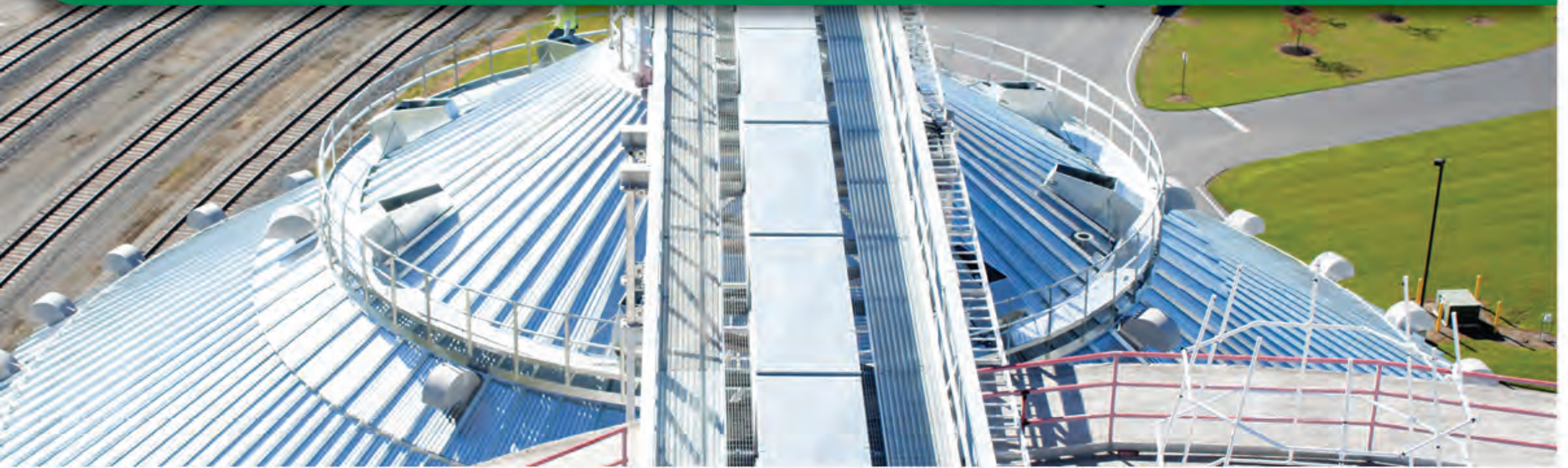
Heavy-Duty Zero-Entry Explosion-Proof Rotating Contact provides power to the sweep. There is no need to enter the bin.

Emergency Stop Button for enhanced safety.

Zero-Entry Automatic Touch Screen Controls allow the pushers' start and stop points to be user programmed on the touch screen to keep the paddles running efficiently based on a particular situation. In automatic mode, the controller senses chain load and advances the sweep without overloading the chain motor, preventing spinning of the pusher tires, which can cause extra wear. The sweep controls also have a manual mode that allows the operator to control sweep advancement

Programmable Logic Controller (PLC) provides greater reliability.

COMMERCIAL DRAG CONVEYORS



General Specifications

- 14" & 18" - 81XHH (2.609" pitch) chain std.
- 22" & 26" - WH124 (4.00" pitch) chain std. upgradeable to WH124 HD (4.063" pitch)
- 30" & 34" - WH132 (6.050" pitch) chain std. upgradeable to WH150X HD (6.050" pitch) and WH159 (6.125" pitch)
- Dodge bearings
Head - S2000, Imperial ISAF or USAF500
Imperial IP option up to 4 15/16"
- Target chain speed - 150 FPM
- Dust-tight and waterproof
- All wear components replaceable



Head Specifications

- Sides - up to 1/4" complete with welded bearing mount
- Hot dipped galvanized
- Bearing mounts horizontally
All head bearings are spherical roller bearings
- Upper end quarter can be removed allowing shaft/bearing/sprocket to be easily removed
- Sprockets are split design
Chain pitch 6" or greater use hunting (skip) tooth sprockets standard

Tail Specifications

- Sides - up to 3/16" welded
- Hot-dipped galvanized
- Take-up assembly utilizes a center or top pull, wide-slot bearing design
- Tail shaft drilled and tapped for a speed switch (1/2-13UNC)
- Sprockets are split design
Sprocket styles and shielding same as head

Trough Specifications

- 3-piece design with a removable bottom
- Body sections - up to 26" tall are 10 ga. galvanized
Taller sizes - 7 ga. galvanized
- Bottoms - 3/16" (AR200 standard)
Optional: 1/4" or 3/8" - AR200 or AR400
- Sides - up to 7 ga. with welded 1/4" flanges
- Side liners - 10 ga. bolted in (AR200 standard)
Optional: 3/16" or 1/4" - AR200 or AR400 Heavier liners and bottoms available upon request
- Replaceable rail returns equipped with standard 3/16" abrasion resistant cap. Upgradeable to 1/4" AR200 standard, AR400 optional
- Trough sections hot dipped galvanized. Bottoms hot-dipped. Liners and rails unpainted
- Our patented hip-style conveyor covers provides a weather-tight seal that leaves no area for water to leak into the conveyor



	Model	Chain Speed (FPM)			
		100	125	150	175
Capacities	1214	3432 BPH	4290 BPH	5148 BPH	6005 BPH
	2014	5556 BPH	6946 BPH	8335 BPH	9724 BPH
	1618	6724 BPH	8406 BPH	10087 BPH	11768 BPH
	2018	8185 BPH	10231 BPH	12277 BPH	14323 BPH
	2022	10280 BPH	12849 BPH	15419 BPH	17989 BPH
	2622	13423 BPH	16779 BPH	20135 BPH	23491 BPH
	2626	16855 BPH	21069 BPH	25283 BPH	29497 BPH
	3226	20803 BPH	26003 BPH	31204 BPH	36405 BPH
	3230	24333 BPH	30416 BPH	36499 BPH	42582 BPH
	3630	27411 BPH	34264 BPH	41116 BPH	47969 BPH
	3434	30375 BPH	37969 BPH	45563 BPH	53157 BPH
	3834	33989 BPH	42486 BPH	50984 BPH	59481 BPH
	4434	39410 BPH	49262 BPH	59115 BPH	68967 BPH



BUCKET ELEVATORS

UP TO
60,000 BPH



Low Impact Head Design

The Sukup bucket elevator head features an innovative controlled design. Instead of the product bouncing off the interior of the head, it slides gently along the contour of the hood. Additionally, the hood is set back from the housing by an inch eliminating the catch point found in other elevators. As a result, product damage and back-legging are minimized; and the need for an internal shroud is eliminated.

Bucket Elevator Sizes		
Size	Capacity Range - BPH	Trunking size
24"	1500-5000	13" x 10"
30"	4000-7500	18" x 12"
36"	6000-10,000	18" x 12"
42"	8,000-20,000	22" x 14"
48"	15,000	22" x 14"
48"	20,000	32" x 14"
48"	25000	40" x 14"
48"	30000	44" x 14"
48"	40000	58" x 14"
48"	50000	70" x 14"
48"	60000	70" x 14"



Bearings

Sukup utilizes Roller Bearings for head shaft sizes 3 15/16" and larger. Split Roller Bearings come standard on 5 7/16" and larger head shaft sizes.



Buckets

We use high-density, non-sparking, polyethylene buckets. Nylon, Urethane, and Steel buckets are optional when using highly abrasive materials. Vented buckets are also available.

Belting

Static conductive, Oil resistant, and Fire Retardant (SOFR) rubber belting is standard on all Sukup bucket elevators. We even supply ten extra feet of belting with every order to facilitate any belt-splicing configuration you would like to use.

Heavy Gauge Trunking

12 or 10 ga. trunking units are standard on all elevators with 10,000 bph (or more) capacities.



Bucket Elevators

Squaring Plates with Alignment Pins

Our squaring plates with alignment pins (patented) are placed at top and bottom of every section to align trunking and eliminate the nightmare of twisted trunk sections. They make it easy to build square and parallel trunking for no hassle construction.



PATENT NO. 8,668,079

Squaring Plates Ease Assembly

"The squaring plates made the trunking easy to assemble. Having one end held together with squaring plates made it easy to hold the other end while trying to put an entire section of trunking together. The ladder and rest platforms also assembled easily."

-Lodermeier's Inc. Goodhue, MN

SUPPORT TOWERS/CATWALKS

Leg Support Towers

Sukup leg support towers are an excellent choice for supporting bucket elevators. Towers eliminate the need for guying cables that clutter your facility and eat up valuable real estate. In addition to providing the vertical support for the elevator legs, the towers can be designed to support bulk weighers, cleaners, and distributors – either inside or outside the tower.

STANDARD FEATURES

- Hot-dipped galvanized finish
- Structural ASTM A325 hardware
- Knock-down design for economical shipping
- Modules available in 20', 10' and 5' sections
- Engineered for wind, seismic, cleaner, catwalk and other loads
- Inverted V-Bracing on 14' x 14' and larger, X-Bracing on 12' x 12' and smaller

OPTIONAL FEATURES

- Access bracing to accommodate spouting, catwalks, conveyors, etc.
- Catwalk support beams
- Stairs – wrap around or switch back
- Interior or exterior platforms



Handrail Truss Catwalk

- Welded tubular side construction; bolt in bottom
- Knock-down design for economical shipping
- Hot-dipped galvanized finish
- Standard 2' walkway
- 5', 8', 9', 10' and 20' sections available. Bolt together different combinations of sections to provide overall catwalk lengths in increments of 1', starting at 13'.
- Patent pending wing plates provide a solid connection and offer more resistance to torsion than current connection methods offered by competitors.



**PATENT
PENDING**



STEEL BUILDINGS



Total Customization

The clear span design of Sukup Steel Buildings permits you to adapt the space to your specific needs. The sturdy, rigid frame structure allows plenty of open area to house machinery and equipment, but is easily customizable to add office space. You can get everything you are looking for in a Sukup Steel Building.

Exterior Wall Panels

- 26 ga.
- 36" coverage
- 1 1/4" rib height
- Offered in Galvalume® + and all Sukup standard colors



Standing Seam Roof

The seams on Sukup standing seam roofs (optional) are mechanically rolled in the field to create a 360° double-lock seam. This seam creates a tight, durable, virtually leak-proof seal. Sukup also offers a more economical screw-down roof.



Sukup Buildings Feature:

- Clear span up to 200' for large open areas.
- Multi-span construction available to reduce cost.
- Purlins, girts and eave struts are pre-punched to ensure a proper fit and speed installation. This translates to lower construction costs.
- Purlins, girts and eave struts are galvanized for long life.
- Sukup wall and roof panels are made from Galvalume® + AZ-55 substrate for extreme corrosion resistance, so they will look good for years to come.
- Choose from twelve exterior and trim colors.



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