



Tower Dryers



- **1,200 - 12,000 bu/hr**
- **QuadraTouch Pro™ Controls** • **Industrial Grade Components**



ADVANTAGES

1 ROTARY SENSOR for choke fill or demand fill are standard.

2 STAINLESS STEEL outer screens, nuts, and bolts resist rust and keep your dryer looking good for years to come.

PERFORATED SHEETS allow air to move easily through the grain, yet retain the bulk of the particulate matter.

3 GRAIN EXCHANGERS move grain from inside of the column to the outside for more even moisture content and consistent grain temperature.

SOLID OUTER SHEETING in GRAIN EXCHANGER SECTION to maintain balanced heat/air distribution in the plenum and 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.

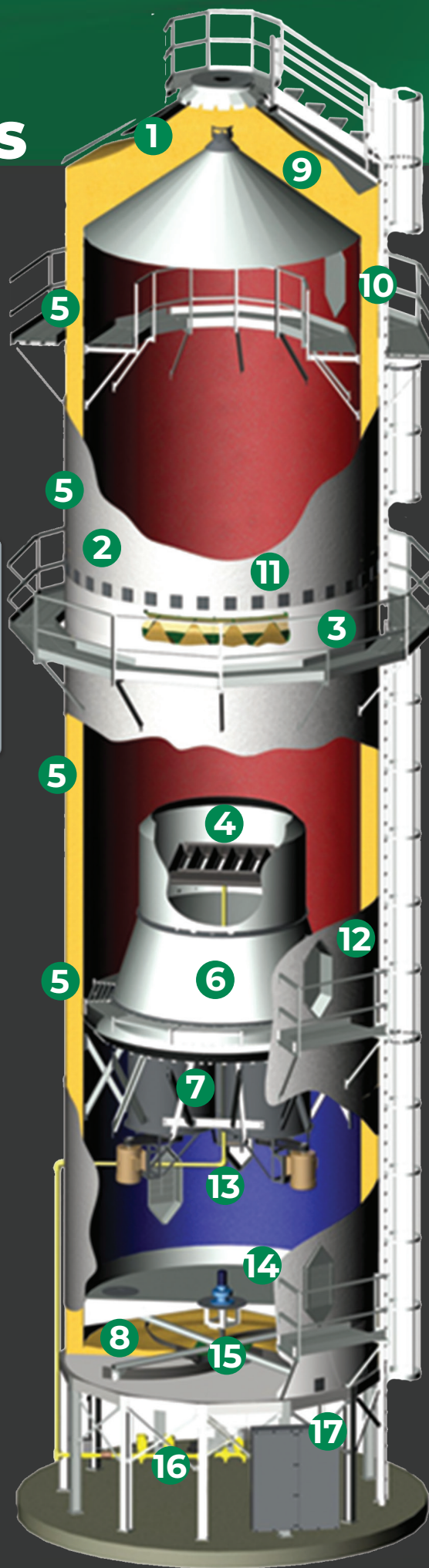
5 MULTI-POINT GRAIN TEMP SENSOR monitors grain temperature throughout the heat chamber.

6 REDUCER CONE channels the air from blower(s) evenly past the burner unit.

7 INDUSTRIAL GRADE IN-LINE CENTRIFUGAL BLOWERS quietly provide high airflow even with vacuum cooling.

8 LEVELING WHEELS (patented) on paddles ensure consistent grain flow, maximum removal, and keep unload paddles from scraping against the floor.

9 EXTRA-LARGE WET HOLDING BIN features solid sheeting to keep grain dust and particulate matter confined within the dryer.



10 12 3/4" WIDE GRAIN COLUMNS for longer air retention and maximum efficiency.

11 TWO CLEAN-OUT DOORS per panel in grain exchange section allow for easy removal of debris.

12 ENTRY AREAS in outer screens and reducer cone allow access to the burner area for easy interior cleaning.

13 LOUVERED AIR VENTS allow control over the amount of ambient air being pulled through the grain for cooling.

14 GEARBOX requires minimal maintenance, since it maintains positive lubrication even with variable speed operation.

15 POSITIVE UNLOADING SYSTEM uses paddles to evenly sweep grain to the center discharge hopper.

PADDLES and GRAIN TABLE on UNLOAD SYSTEM are stainless steel for long life.

16 PIPETRAIN has TWO STANDARD SAFETY SHUT-OFF VALVES operated electronically from the touchscreen. The push of a button activates the heater.

17 MAIN POWER BOX holds all of the electrical controls such as fan motor starters, PLCs, and VFDs.

SIGNALS FOR AUXILIARY CONTROLS on incoming/ outgoing side are standard and adjustable.

UNLOAD RATE is controlled automatically based on grain temperature or moisture. Unload rate can also be manually controlled.

SPOUT ON DISCHARGE provides a safe and easy way to sample grain for calibrating moisture sensor.

INCOMING AND OUTGOING MOISTURE SENSORS are standard.

ELECTRONIC MOD-VALVE heater control maintains a fuel efficient, steady plenum temperature.

GALVANIZED LEGS are hot-dipped on stick built towers for resistance to rusting.

ANGLE RING INLET AND DISCHARGE allow for easy hook-up to fill and take-away equipment.

An Efficient Dryer that's easy to use... We have your Solutions®

VACUUM COOLING EFFICIENCY ADVANTAGE

- The Sukup® Tower Dryer operates in a heat/vacuum cool mode.
- The **1.** blower(s) and **2.** 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. Reclaiming heat from the grain means less fuel is required to get the air to drying temperature. The air is then pulled into the blowers, through the burner and into the drying chamber.



EFFORTLESS 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 manually or automatically based on the grain temperature in the bottom of the heat chamber or on the incoming and outgoing moisture content.

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 3/4 of the dryer with the grain being inverted halfway down the drying section by Grain Exchangers.
- Inverting the grain takes the faster-drying grain from the inside of the column and moves it to the outside, resulting in more balanced moisture content.

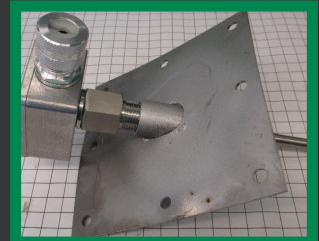
GRAIN FLOW

- The grain then flows into the cooling chamber and spills out onto the flat, stainless steel grain table of the unload chamber.
- A large rotor with curved stainless steel paddles (the only moving part of the dryer) sweeps grain to the center of the dryer and out the discharge hopper.



MULTI POINT GRAIN TEMPERATURE SENSING

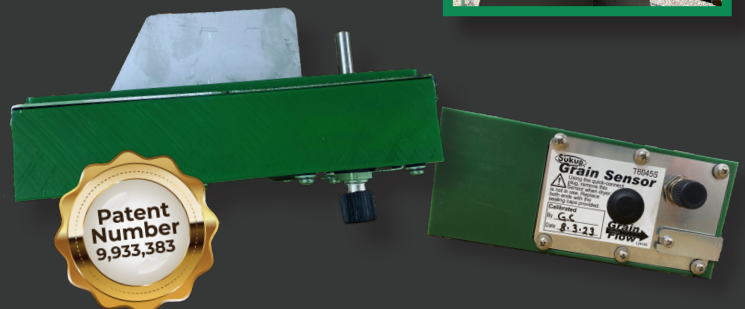
- Tower dryers use multi point grain column sensors.
- Readings from the sensors are fed into control software, helping improve dryer performance.



Column temperature sensor in mounting plate

STATIC MOISTURE SAMPLER

- The Static Moisture Sampler tests the grain as it leaves the dryer.
- It catches a sample of grain, measures the moisture and temperature then drops it.
- The moisture sensor is mounted vertically to minimize any fines buildup.
- There is also a large opening for the operator to take a grain sample.



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.

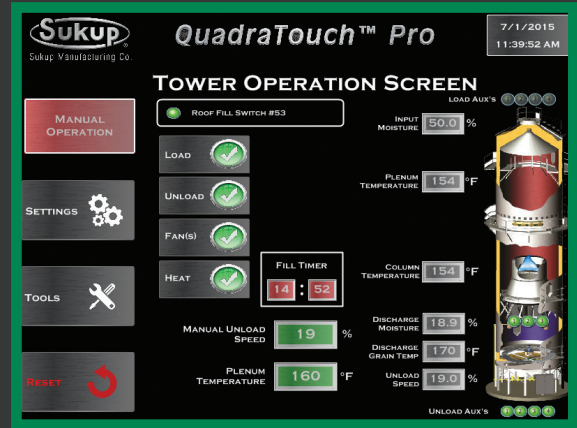


THE QuadraTouch Pro™ IS A PLC-BASED SYSTEM.

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

COMPREHENSIVE INFORMATION WITH THE TOUCH OF A BUTTON

The easy to use Sukup QuadraTouch Pro™ control system gives you access to information critical for your operation.

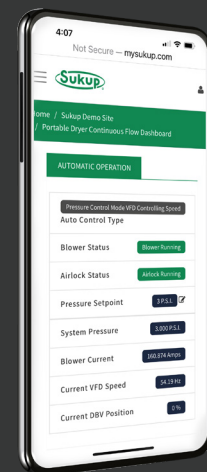
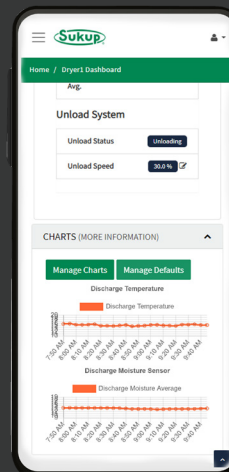
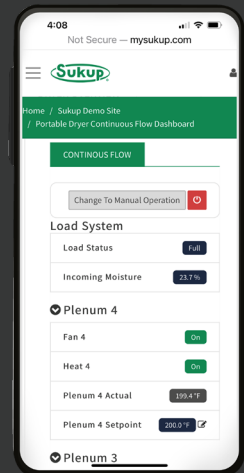
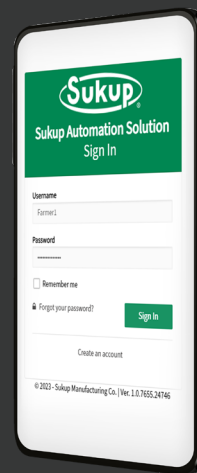


MYSUKUP REMOTE WEB ACCESS

MySukup allows you to monitor and control your Sukup Dryer from a smart phone, tablet, or PC.

FEATURES:

- Dryer shutdown alerts
- View dryer performance charts
- Ability to switch between manual and auto unload control
- Adjust moisture and/or temperature settings
- Shut dryer off remotely
- Set up multiple users with permission to view only, or view and make changes



Must have internet access via Ethernet cable at QuadraTouch Pro™ control system to use. Requires yearly license fee. Please note that the dryer cannot be started remotely.



Tower Dryer SPECIFICATIONS

	U1212	U1512	U1812	U2012	U2412	U2712
Bu/Hr. 20%-15% Corn*	1270	1500	1800	2000	2400	2700
Bu/Hr. 25%-15% Corn*	760	900	1080	1200	1440	1620
Heat Holding Bu.	765	924	1113	1275	1521	1691
Cool Holding Bu.	308	308	400	434	481	505
Total Holding Bu.	1392	1551	1982	2178	2471	2671
Drying Airflow (CFM)	55,000	67,000	85,600	94,600	110,300	117,500
Max. Burner Btu/Hr (x 1000)**	12,000	15,000	18,490	20,434	23,825	27,000
Avg. Burner Btu/Hr (x 1000)**	7500	9400	10,632	11,749	13,699	14,600
Blower HP	60	75	75	100	100	125
AC Drive Metering HP	1 ½	1 ½	1 ½	1 ½	1 ½	1 ½
Grain Column	12.75"	12.75"	12.75"	12.75"	12.75"	12.75"
Tower Diameter	12'0"	12'0"	12'0"	12'0"	12'0"	12' 0"
Overall Height***	52'	59'	69'	76'	86'	93'
Full Load Amp. (230v/460v)	164/82	223/114	223/114	290/147	290/147	NA/176

	U3018	U3518	U4018	U4718	U5024	U6024	U7024	U10030	U12030
Bu/Hr. 20%-15% Corn*	3000	3500	4000	4700	5000	6000	7000	10,000	12,000
Bu/Hr. 25%-15% Corn*	1800	2100	2400	2820	3000	3600	4200	6000	7200
Heat Holding Bu.	1925	2208	2642	2941	3469	4026	4436	6266	7,818
Cool Holding Bu.	642	812	831	1136	1238	1295	1499	2117	2,761
Total Holding Bu.	3543	3996	4449	5053	6336	6950	7564	10,684	13,260
Drying Airflow (CFM)	148,200	174,300	206,400	226,200	275,100	296,100	343,500	495,000	550,000
Max. Burner Btu/Hr (x 1000)**	32,011	37,649	44,582	48,859	59,422	63,958	74,196	106,000	118,000
Avg. Burner Btu/Hr (x 1000)**	18,406	21,648	25,635	28,094	34,167	36,776	42,663	63,500	70,800
Blower HP	(3) 50	(3) 60	(3) 75	(3) 75	(3) 100	(3) 100	(3) 125	(4) 125	(4) 150
AC Drive Metering HP	2	2	2	2	3	3	3	7.5	7.5
Grain Column	12.75"	12.75"	12.75"	12.75"	12.75"	12.75"	12.75"	12.75"	12.75"
Tower Diameter	18'0"	18'0"	18'0"	18'0"	24'0"	24'0"	24'0"	30' 0"	30'0"
Overall Height***	76'	86'	96'	109'	100'	110'	120'	127'	153'
Full Load Amp. (230v/460v)	390/196	462/233	566/285	566/285	743/374	743/374	NA/455	NA/692	NA/731

Sukup Manufacturing Co. provides this information 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 tower dryer 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, 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.

*Capacities listed are wet-basis ESTIMATES based on drying principles, field results, and computer simulations at 50° F ambient temperature, 60% humidity, drying a minimum of US #2 Yellow Corn at 220° F average plenum temperature. Variations may occur due to grain kernel size, variety, maturity levels, excessive fines, adverse weather conditions, etc. This information is provided to assist in choosing optimal equipment, it is not a guarantee of dryer performance.

**6-9 psi incoming pressure required for natural gas or vapor propane dryers.

***Overall height measurement is from foundation to grain inlet.

DRYING, STORAGE, and HANDLING SOLUTIONS®

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.



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