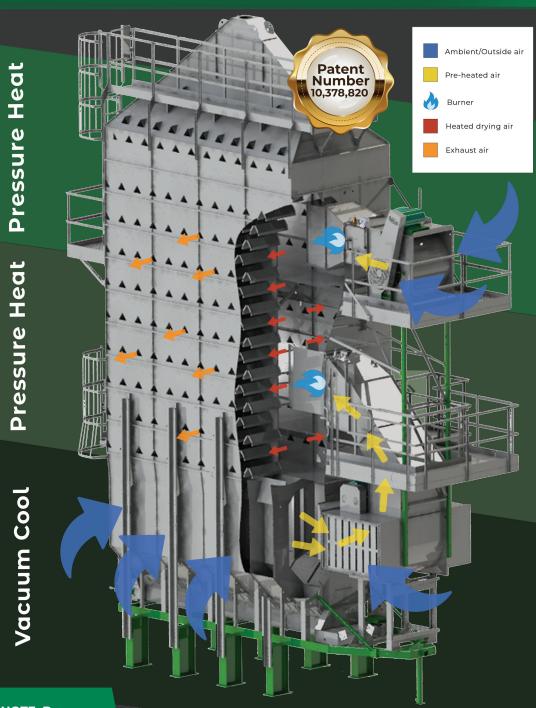


# **Mixed Flow** GRAIN DRYER

Patent Number 10,378,820

- Low Maintenance Cleaning
- Energy Efficient Vacuum Cooling
- Simple Single-Conveyor Unloading
- QuadraTouch Pro<sup>™</sup> Control System

# **MIXED FLOW GRAIN DRYER**

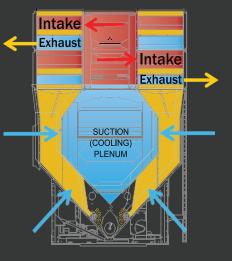


## VACUUM COOLING SUKUP® EXCLUSIVE

Sukup Manufacturing is the only company using this method in Mixed-Flow Dryers.

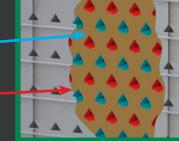
Drying occurs in the top tiers of Sukup Mixed-Flow Dryers. Vacuumcooling is accomplished in the bottom screened sections. Vacuum-cooling recovers heat during the cooling process, so Sukup Mixed Flow Dryers are more fuel-efficient than traditional pressure cool dryers.

Sukup Mixed Flow Dryers use approximately half the airflow per bushel and hold almost twice as many bushels than traditional cross-flow dryers. This results in improved grain quality and fuel efficiency.



NOTE: Because tiers are used for drying and screens are used for cooling, drying capacity of a 6-tier Sukup Mixed Flow Dryer is comparable to competitors' 8-tier models.





# SCREEN CLEANING

#### **NO LONGER NECESSARY**

With the large, triangle ducts along the sides of the Mixed Flow Dryers, saturated air flows through with ease without plugging up with fines and bee's wings. This eliminates any losses in capacity or efficiency due to debris build-up on conventional screen dryers. Also greatly reduces cleaning labor and time.



## SINGLE CONVEYOR UNLOADING SYSTEM SUKUP® EXCLUSIVE

Sukup Mixed Flow Dryers allow for a single conveyor unloading system. Which minimizes moving parts as compared to competing units requiring two or three conveyors.

**1.** Drag-Chain Unload Conveyors are standard and use our **2.** Static Moisture Sampler. It catches a sample of discharged grain, tests the moisture, and releases it, making it more accurate than testing moving grain.







## LOADING SYSTEMS

**3.** Auger Loading Systems or **4.** Gravity Loading Systems are available. Service platform is standard on both options.





# VERTICAL END DUCTS

#### SUKUP® EXCLUSIVE

- Patented vertical intake duct on front and back of column
- Creates more space for grain
- Decreases chance of plugging

# QUADRATOUCH PROM



## **UNMATCHED PERFORMANCE**

The QuadraTouch Pro<sup>™</sup> control system is featured on all Sukup<sup>®</sup> Dryers and was designed to be easy to use while eliminating around-the-clock monitoring and increasing productivity and efficiency.

### SIMPLE, MENU-DRIVEN SYSTEM

The QuadraTouch Pro™ control system featured on all Sukup Dryers is extremely easy to use.

- Simple menus guide you through dryer functions for easy start-up and operation.
- Operator inputs are easy with a pop-up keypad for entering drying temps or discharge moisture setpoints.





PLC-based

system is built to withstand harsh environments and has superior electrical noise protection, eliminating nuisance trips and providing a dependable system.

## S.M.A.R.T. LOOP<sup>TM</sup>

#### (Simultaneous Monitoring And Reaction Technology)

Uses incoming (if equipped) and outgoing moisture and grain temperature sensors with the advanced algorithm programming to increase dryer efficiency, reduce large swings in temperature and discharge moisture, and help the dryer run more efficiently.

### AUTOMATIC CONTROL IS STANDARD



Sukup was the first company to make true moisture sensing standard on its dryers.

- Moisture content information is collected from standard outgoing sensors.
- Critical adjustments are made to the metering roll speeds to maintain your desired discharge moisture content.
- Sukup modular moisture sensors are easily removed from the dryer for indoor storage in the off season.
- Auto control based on average grain temperature in the heat chamber is standard.





## **MIXED FLOW DRYER SPECIFICATIONS**

											CORN		WHEAT	CANOLA
Model	# Tiers Mixed Flow	Height <sup>(a)</sup> Level Auger	Height <sup>(a)</sup> Gravity Fill	Heating Vol. (Bu)	Total Holding (Bu)	Max Burner Output <sup>(b)</sup> (MMBtu)	Avg Burner Output <sup>(b)</sup> (MMBtu)	Lower Fan	Upper Fan	Transport Loads	Est. Cap <sup>(c)</sup> 20%-15% <sup>220°F (bu/hr)</sup>	Est Cap <sup>(c)</sup> 25%-15% 220°F (bu/hr)	Est Cap <sup>(c)</sup> 19%-14% <sup>180°F (bu/hr)</sup>	Est Cap <sup>(c)</sup> 15-10%, <sup>180°F (bu/hr)</sup>
16' DRYERS														
TM1606 (e)(f)	6	26' 11"	29' 2"	584	955	5	4	30 HP	None	2	709	367	613	479
TM1608 (d)(f)	8	30' 11"	33' 2"	778	1150	7	5	40 HP	None	3	945	489	817	639
TM1609 (d)(f)	9	32' 11"	35' 2"	875	1247	8	6	50 HP	None	3	1063	551	919	719
TM1610 (d)	10	34' 11"	37' 2"	973	1344	9	7	30 HP	(1)15 HP	3	1182	612	1021	798
TM1612 (d)	12	40' 11"	43' 2"	1167	1598	11	8	40 HP	(1)15 HP	3	1418	734	1225	958
TM1613 (d)	13	42' 11"	45' 2"	1264	1695	11	9	50 HP	(1)15 HP	3	1536	795	1328	1038
TM1614	14	44' 11"	47' 2"	1362	1793	12	9	30 HP	(2)15 HP	4	1654	856	1430	1118
TM1616	16	50'11"	53' 2"	1556	2047	14	11	40 HP	(2)15 HP	4	1891	979	1634	1278
TM1617	17	52' 11"	55' 2"	1653	2144	15	11	50 HP	(2)15 HP	4	2009	1040	1736	1357
24' DRYERS		1												
TM2405 (e)(f)	5	24' 11"	30' 2"	729	1293	7	5	40 HP	None	3	886	459	766	599
TM2406 (e)(f)	6	26' 11"	32' 2"	875	1439	8	6	50 HP	None	3	1063	551	919	719
TM2409 (d)	9	32' 11"	38' 2"	1313	1877	12	9	40 HP	(1)20 HP	4	1595	826	1379	1078
TM2410 (d)(f)	10	34' 11"	40' 2"	1459	2023	13	10	50 HP	(1)20 HP	4	1772	918	1532	1198
TM2413	13	42' 11"	48' 2"	1896	2550	17	13	40 HP	(2)20 HP	5	2304	1193	1991	1557
TM2414 (d)	14	44' 11"	50' 2"	2042	2695	18	14	50 HP	(2)20 HP	5	2481	1285	2144	1677
TM2418	18	54' 11"	60' 2"	2626	3399	24	18	50 HP	(3)20 HP	7	3190	1652	2757	2156
32' DRYERS														
TM3209 (d)(f)	9	32' 11"	41' 2"	1751	2506	16	12	(2)50 HP	None	4	2127	1101	1838	1437
TM3210 (d)	10	34' 11"	43' 2"	1945	2701	18	13	(2)30 HP	(1)30 HP	4	2363	1223	2042	1597
TM3212 (d)	12	40' 11"	49' 2"	2334	3208	21	16	(2)40 HP	(1)30 HP	5	2836	1468	2451	1916
TM3213 (d)	13	42' 11"	51' 2"	2529	3403	23	17	(2)50 HP	(1)30 HP	5	3072	1590	2655	2076
TM3214	14	44' 11"	53' 2"	2723	3597	25	18	(2)30 HP	(2)30 HP	5	3309	1713	2859	2236
TM3216	16	50' 11"	59' 2"	3112	4105	28	21	(2)40 HP	(2)30 HP	7	3781	1958	3268	2555
TM3217	17	52' 11"	61' 2"	3307	4300	30	22	(2)50 HP	(2)30 HP	7	4018	2080	3472	2715

(a) Height is frame to fill, legs not included. 3', 4' or 5' legs available, see previous page. NOTE: Expandable option adds 2' to height, double expandable option adds 4'.

(b) Maximum burner output based on 200°F temperature rise. Average burner output is 150°F temperature rise.

(c) Capacities are wet bushels based on computer estimates, drying principles, and field results. Variations may occur due to grain kernel size, cleanliness, variety, maturity levels, weather conditions, growing season, etc. Some varieties or applications require different plenum temperatures which may affect drying capacity.

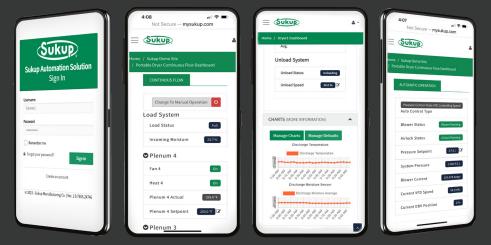
(d) Models may be ordered with Expandable Option, specify at order. NOTE: add 1 transport load where indicated, see chart above.

(e) Models are expandable as standard, heights reflect this.

(f) Models may be ordered with Double Expandable Option, specify at order. NOTE: add 1 transport load where indicated, see chart above.

NOTE: 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 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 advancing Sukup products, changes may occur that may not be reflected in the specifications.

# MYSUKUP<sup>™</sup> REMOTE **WEB ACCESS**



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.

MySukup allows you to monitor and control your Sukup<sup>®</sup> 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





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