

# SUPERB ENERGY MISER® SQ SERIES CROSS FLOW DRYER



## **Choice of Drying Modes**



#### **Full Heat Continuous Flow Dryers**



**SQ D Series**Full Heat - Single Zone

**SQ E Series** 

## **Continuous Flow Dryers with Louvers**



Modified Full Heat - Single Zone or Two-Zone

**Pressure Heat / Pressure Cool** 

Pressure Heat / Vacuum Cool

# Full Heat Continuous Flow Dryers Using Two Temperature Zones



Modified Full Heat - Single Zone or Two-Zone Pressure Heat / Pressure Cool

# **Continuous Flow Dryers with Louvers and Hot Air Return Ducts**



SQ A Series
Modified Full Heat - Single Zone or Two-Zone
Pressure Heat / Pressure Cool
Pressure Heat / Vacuum Cool
Hot Air Return Ducts

## **EVENFLO® Unloading System**

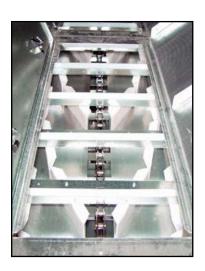
## Unique EVENFLO® Unloading System Is Part of Brock's Difference by Design

- Gentle handling of the grain using the EVENFLO®
   System's efficient, slow-moving drag-style conveyor.
- Patented conveyor unloading system replaces auger and metering rolls.
- Even unloading of grain columns with proven ability to pass most debris.
- More durable and safer to operate than auger systems.

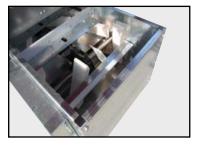


Take-up adjustments are located at both ends of the conveyer. This feature helps you to easily adjust the chain if needed.

# How Does the Brock EVENFLO® Dryer Unloading System Work?



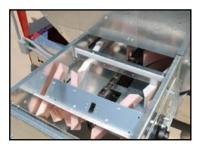
- The top portion of the chain conveyor passes by the column of dried grain, continuously removing grain from the column.
- Grain is then carried to square holes allowing the grain to fall through to the bottom trough.
- Paddles on the conveyor move the dried grain to the dryer discharge.



Clean up between crops or at the end of the drying season is easy:

- The top cover of the conveyor assembly can be removed for safer, easier cleaning.
- · No meter rolls to clean.





The EVENFLO® System's uniform unloading of grain dryer columns provides consistent drying results. Slow, straight-line movement of grain is also ideal for sensor accuracy in monitoring exit moisture content.



Low horsepower, variablespeed AC motor is used to economically power the EVENFLO System.





## **Features For Meeting Your**



#### **Moisture Equalizers**

**Patented Brock** MOISTURE **EQUALIZER®** System maintains grain quality by moving the hottest and driest grain



through the dryer faster for greater drying uniformity and less over-drying.

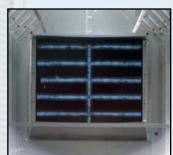
#### **Stainless Steel Outer Skins**

Stainless steel outer 18-gauge perforated skins are standard on all SUPERB ENERGY MISER® SQ. Series Dryers for a lifetime of satisfaction. With proper care and maintenance, stainless steel perforated skins offer long life and high asset retention value. Screen perforations available for multiple commodities.

#### **Efficient Full Flame-Wall Burner**

Brock's full flame-wall burner with stainless steel baffles provides a generous square footage of flame surface and

distributes heat evenly to all the grain columns. Using a shorter flame, this fuelefficient Brock burner burns cleanly and provides uniform plenum temperatures to help maintain top grain quality. Optional stainlesssteel burner is available.



#### **Vertical Access Plenum Door**

A 42- x 22-inch (1067- x 559-mm) vertical access door is provided for easy access to the dryer's plenum areas. A door safety switch is standard on all SUPERB **ENERGY MISER Cross Flow** Dryers. If the door is opened during operation, the dryer will shut down.



#### **Perforated Wet Garner Bin**

The drying process starts in the perforated wet garner bin. Heated air is routed from the dryer through this temporary grain holding area to pre-heat and begin drying the wet grain.



#### **Unobstructed Heat Movement**

The SQ Series Dryer's unique built-in vaporizer is located out of the burner's airflow to ensure uniform heat distribution.



## **On-Farm Grain Drying Needs**



## Variable Width Grain Column

A narrower upper grain column allows moisture-saturated drying air to escape. This variable width design dries more effectively than a larger holding capacity with a wider grain column.



#### **Super Quiet Drying**

The SQ Series Dryers use a super quiet double-width, double-inlet centrifugal blower as standard equipment. This blower provides maximum airflow and efficiency while minimizing sound levels.



#### **Easy Access for Service**

Access entrances at both the top and bottom of the dryer make it easy to service industrial-grade plumbing, burner, fan, motor, bearings, belts, linear limits, and the front of the unloading system. Optional Brock catwalk packages (full or half) provide a secure platform to help protect workers from slips and falls when they are completing dryer service inspections or other maintenance procedures.









#### **Cool Air Control**

Adjustable cooling louvers help control grain temperature by regulating the amount of cool air used for vacuum-cooling mode.





# **Series Dryer Specifications**

## **Dryer Specifications**

MODEL	SQ8	SQ12	SQ16	SQ20	SQ24	SQ28	SQ32	SQ36	SQ40		
Total Fan HP	10	10	15	20	25	30	40	50	50		
Auger Load HP	2	3	3	5	5	7.5	7.5	10	10		
Chain Unload HP	2	2	2	2	2	2	2	3	3		
Column Length	8' 2" 2.5 m	12' 3" 3.7 m	16' 4" 5.0 m	20' 5" 6.2 m	24' 6" 7.5 m	28' 7" 8.7 m	32' 8" 10.0 m	36' 9" 11.2 m	40' 10" 12.5 m		
Overall Length	19' 5.8 m	23' 1" 7.0 m	27' 2" 8.3 m	31' 3" 9.5 m	36' 4" 11.1 m	40' 5" 12.3 m	44' 6" 13.6 m	48' 7" 14.8 m	52' 8" 16.1 m		
Overall Height	14' 2" 4.3 m	14' 2" 4.3 m	14' 2" 4.3 m	14' 2" 4.3 m	14' 2" 4.3 m	14' 2" 4.3 m	14' 2" 4.3 m	14' 2" 4.3 m	14' 2" 4.3 m		
Bushels Held mt*	163 bu 4.14 mt	245 bu 6.22 mt	326 bu 8.28 mt	408 bu 10.36 mt	490 bu 12.45 mt	572 bu 14.53 mt	654 bu 16.61 mt	734 bu 18.64 mt	815 bu 20.70 mt		
SQ-A/E Dryers											
Overall Width (SQ-A Dryers)	NA	NA	10' 2" 3.1 m	10' 2" 3.1 m	10' 2" 3.1 m	10' 2" 3.1 m	10' 2" 3.1 m	10' 2" 3.1 m	10' 2" 3.1 m		
Overall Width (SQ-E Dryers)	NA	NA	7' 9" 2.4 m	7' 9" 2.4 m	7' 9" 2.4 m	7' 9" 2.4 m	7' 9" 2.4 m	7' 9" 2.4 m	7' 9" 2.4 m		
Burner Rating** (SQ-A, E Dryers)	NA	NA	4.3	6.6	7.5	7.9	9.5	12.6	13.4		
SQ-D/M Dryers											
Overall Width (SQ-D, M Dryers)	7' 4" 2.2 m	7' 4" 2.2 m	7' 4" 2.2 m	7' 4" 2.2 m	7' 4" 2.2 m	7' 4" 2.2 m	7' 4" 2.2 m	7' 4" 2.2 m	7' 4" 2.2 m		
Burner Rating** (SQ-D, M Dryers)	4.4	4.8	6.3	8.5	10.9	11.9	14.4	15.9	16.5		

#### SUPERB ENERGY MISER® SQ Series Dryers use the following model descriptions:

- A Continuous flow dryer with louvers and hot air return duct and capable of full heat, pressure heat/pressure cool drying or pressure heat/vacuum cool drying.
- **E** Continuous flow dryer with louvers and capable of full heat drying, pressure heat/pressure cool drying or pressure heat/vacuum cool drying.
- D Continuous flow dryer capable of full heat drying.
- M Continuous flow dryer using two temperature zones and capable of either full heat or pressure heat/pressure cool drying.
- \*Metric ton = bushel corn x .0254
- \*\*Maximum burner capacity in million BTUs/hour



## **SQ Series Dryer Capacities**



## **Drying Capacity\* - Wet Bushels Per Hour**

DRYER MODELS	Per Hour	SQ8	SQ12	SQ16	SQ20	SQ24	SQ28	SQ32	SQ36	SQ40	
Full Heat - Single Zone (Model D)											
Corn 25.5% to 15.5%**	Bushels	248	351	466	591	740	830	969	1066	1153	
	Metric Tons	6.3	8.9	11.8	15.0	18.8	21.1	24.6	27.1	29.3	
Full Heat - Single Zone (Model D)											
Corn 20.5% to 15.5%**	Bushels	405	579	770	976	1211	1371	1601	1761	1905	
	Metric Tons	10.3	14.7	19.6	24.8	30.8	34.8	40.7	44.7	48.4	
Modified Full Heat - Single Zone (Models M,E,A) (doors in divider floor)											
Corn 25.5% to 15.5%	Bushels	N/A	N/A	447	567	710	796	930	1023	1107	
	Metric Tons	_	_	11.4	14.4	18.0	20.2	23.6	26.0	28.1	
Modified Full Heat - Single Zone (Models M,E,A) (doors in divider floor)											
Corn 20.5% to 15.5%	Bushels	N/A	N/A	740	937	1163	1316	1537	1691	1830	
	Metric Tons	_	_	18.8	23.8	29.5	33.4	39.0	43.0	46.5	
Pressure Heat - Two-Zone (Model M)											
Corn 25.5% to 15.5%	Bushels	N/A	N/A	422	535	670	751	877	965	1044	
COTT 23.3% to 13.3%	Metric Tons	_	_	10.7	13.6	17.0	19.1	22.3	24.5	26.5	
Pressure Heat - Two	-Zone (Mode	el M)									
Corn 20.5% to 15.5%	Bushels	N/A	N/A	687	871	1091	1223	1428	1571	1700	
COM 20.5% to 15.5%	Metric Tons	_	_	17.4	22.1	27.7	31.1	36.3	39.9	43.2	
Pressure Heat & Cool - Two-Zone (Models M,E,A)											
Corn 25.5% to 15.5%	Bushels	N/A	N/A	261	332	416	467	542	600	647	
	Metric Tons	_	_	6.6	8.4	10.6	11.9	13.8	15.2	16.4	
Pressure Heat & Coo	I - Two-Zon	e (Mode	Is M,E,A	)							
Corn 20.5% to 15.5%	Bushels	N/A	N/A	401	508	637	714	833	916	991	
	Metric Tons	_	_	10.2	12.9	16.2	18.1	21.2	23.3	25.2	
Pressure Heat & Vac	uum Cool - <sup>-</sup>	Two-Zon	e (Mode	els E,A)							
Corn 25.5% to 15.5%	Bushels	N/A	N/A	294	366	454	519	595	673	740	
	Metric Tons	_	_	7.5	9.3	11.5	13.2	15.1	17.1	18.8	
Pressure Heat & Vac	uum Cool - <sup>-</sup>	Two-Zon	e (Mode	els E,A)							
Corn 20.5% to 15.5%	Bushels	N/A	N/A	435	541	654	758	879	983	1077	
	Metric Tons		_	11.0	13.7	16.6	19.3	22.3	25.0	27.4	
Pressure Heat & Vacuum Cool - Two-Zone w/ Hot Air Return Ducts (Model A)											
Corn 25.5% to 15.5%	Bushels	N/A	N/A	288	358	419	499	580	657	724	
	Metric Tons			7.3	9.1	10.6	12.7	14.7	16.7	18.4	
Pressure Heat & Vacuum Cool - Two-Zone w/ Hot Air Return Ducts (Model A)											
Corn 20.5% to 15.5%	Bushels	N/A	N/A	435	541	654	758	879	983	1077	
	Metric Tons	_	_	11.0	13.7	16.6	19.3	22.3	25.0	27.4	

<sup>\*</sup>Drying capacities are the result of a combination of field tests and averages of customer-reported capacities. These capacities should be attainable in one pass with mature, unfrozen, clean (maximum of 2% fines) grain when operating the dryer at the recommended drying temperature. Drying capacities will vary depending upon weather conditions, hybrid variety, grain maturity, and cleanliness of the grain.

<sup>\*\*</sup>Final moisture in bin after steeping and cooling. Final moisture in bin can be affected by ambient conditions, steeping times and cooling rates.

## **Advanced Electronic Grain Drying Control**

#### **INTUI-DRY®** Dryer Control Option

It's innovative. It's intuitive. It's mission control made simple. The INTUI-DRY® Controller's proven drying algorithms and straight-forward controls take grain drying to the next level.

#### **Built From The Ground Up**

From the solid-state components to the all-new software system, Brock took a clean-slate approach to build one of the most reliable and intuitive dryer management systems. INTUI-DRY Control also has quick connectors and fewer components for easy maintenance.

#### **Easy Connections**

It connects to your dryer with standard Ethernet cable. If your grain drying system already has PLC controls, the INTUI-DRY Control can signal the PLC via three digital outputs that key conditions are occurring and can take a key action when signaled by the PLC through a digital input.



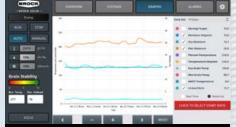
#### **Remote Control**

Web-based monitoring of the INTUI-DRY Controller gives you enhanced remote access through your smartphone, tablet or laptop computer.





The **SYSTEMS screen** provides detailed access and control of main dryer systems.



The **GRAPHS screen** clearly outlines both wet and dry moisture percentages, so you can track trends throughout the day or further back in time.



The **ALARMS screen** lets you quickly see alarm events with codes and accurate timestamps.

### TrueGrain™ Moisture Sensor System Option with Parallel Sensing Technology™

Set your grain dryer moisture level more precisely. With Brock's exclusive patent pending TrueGrain™ System, grain passes through a parallel sensing field in a fixed vertical chamber that isolates outside factors. This advancement allows your Brock dryer to output more accurate grain moisture levels and more consistent profitability.

See this one-of-a-kind technology at brockgrain.com/TrueGrain







-BROCK SOLID®

Safeguarding Your Grain® Since 1957

#### **BROCK GRAIN SYSTEMS**

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