ZIMMERMAN

COMMERCIAL TOWER DRYERS

UNCOMPROMISING QUALITY
BUILT TO PERFORM

GSI Take control.

Founded by Walter Zimmerman in 1963, Zimmerman Grain Dryers established a reputation for durability, efficiency, and long-term performance. Innovations like vacuum cooling and stainless steel sidewalls set Zimmerman apart

Today, GSI carries that tradition forward with GSI Zimmerman Commercial Tower Dryers engineered for high-capacity, efficient operation. Backed by premium components and GSI's industry-leading service and support, Zimmerman continues to set the standard in commercial drying.

GRAIN PROTECTION

STARTING RIGHT FROM THE TOP

The Zimmerman Tower Dryer is designed to provide the optimum balance of time, airflow, and temperature to maintain premium grain quality.

Grain enters the dryer at the top and falls into a self–cleaning grain receiving chamber. The chamber creates a grain cushion, and with grain falling on grain, helps reduce plenum roof wear. This chamber also provides a means of distributing grain evenly around the dryer.

At the top of the dryer, the garner bin has a full 40 inches of wet grain storage and the area is completely sealed to help retain grain dust and particulates.

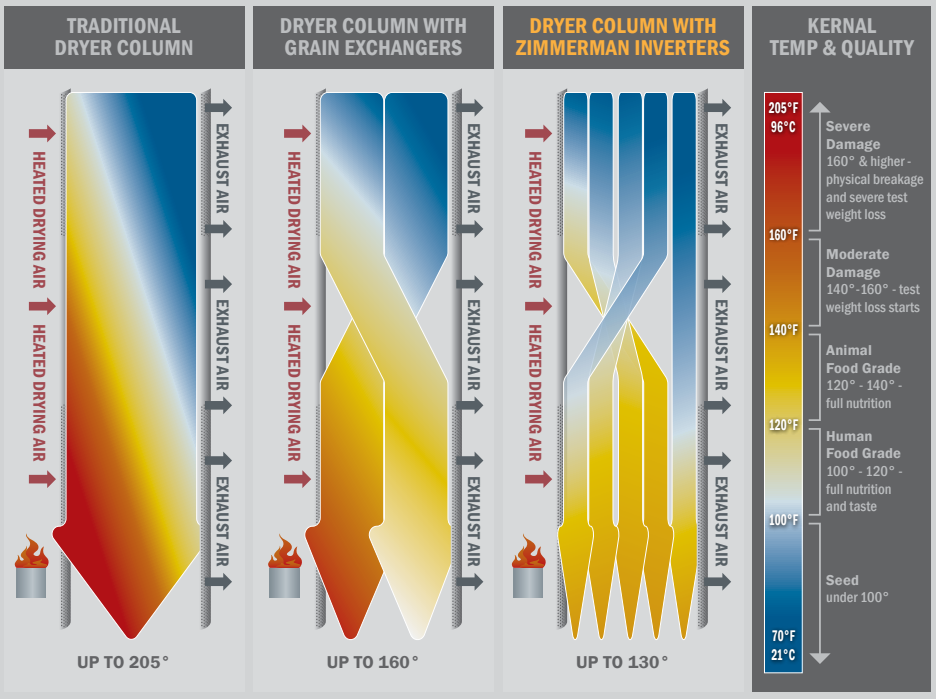
Grain moves down out of the garner area, and enters 12.75" wide grain drying columns in the heat section of the dryer.

Large column holding capacities result in long grain retention times in the drying section of the dryer. This long retention time, combined with low drying airflows and temperatures result in high quality, efficiently dried grain.

GRAIN INVERTERS

Midway down the heat section of the dryer are Zimmerman's patented (US6035544) grain inverters. By inverting all but the outside two inches of grain from the outside of the grain column to the inside, inverters promote even and consistent drying, higher test weights, maximum grain quality and reduced fuel usage.

The inverters redirect the warmest grain from the inside of the column to the wettest grain at the outside of the column. The wet grain remaining at the outer 2" of the column is dried using the captured heat. This process maintains optimal grain temperature.



TOUCH SCREEN CONTROLS

EASY TO OPERATE, EASY TO MAINTAIN

Dryer operation is performed with a state-of-the-art Allen-Bradley CompactLogix™ Programmable Logic Controller (PLC). This provides not only a complete safety monitoring and trouble-shooting menu but performs system verification and operator prompts during start-up and operation. Zimmerman PLC controls reduce timers, switches, and mechanics while providing built-in expandability and flexibility designed to meet changing operational and drying needs.

A large, high quality Allen-Bradley PanelView™ Plus 1000 touch screen controls all dryer functions and self-diagnoses dryer problems, eliminating the guesswork associated with traditional controllers. Zimmerman's intuitive PLC design means that facility employees can be brought up to speed on how to operate the dryer quickly and efficiently.

The Zimmerman control box is housed in a metal NEMA IV enclosure. The windowed design of the box allows all dryer operations to be viewed through the lockable windowed door and also protects all switches, indicators and controls. For convenient access to the monitor, the control box can be remote mounted up to 1,000-feet away or mounted at the dryer. The touch screen communicates with the dryer power box via an ethernet communication link.

FEATURES

- Provides instant information on a large backlit color display and makes the operation of the dryer simple.
- Easy-to-use touch screen provides visual feedback on the current dryer status, as well as a convenient means of setting operating parameters and options.
- Most set points and status screens are accessed by simply touching an on-screen object.
- Calculates total dryer time, bushels per hour and total bushels dried.
- Memory features maintain a history of past dryer operation and a permanent service record.
- The Zimmerman tower dryer constantly monitors for malfunctions and displays every fault eliminating any guess work while troubleshooting.

REMOTE DRYER MONITORING

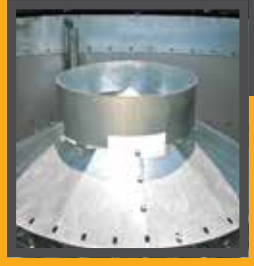
WATCHDOG™

Need more hands-on control over your drying? The optional WatchDog Remote Dryer Monitor is the perfect complement to the already innovative Zimmerman PLC control system that is defining the next generation in dryer controls.

WatchDog, a web-based application, works with the Zimmerman PLC dryer control system to allow remote monitoring of various dryer functions, such as moisture, temperature and dryer status, all from the convenience of any web-enabled device.

Except for the start-up menu, WatchDog lets you control anything remotely that can be controlled via the Zimmerman PLC touch screen.

FEATURES



Self cleaning cushion box on plenum roof reduces grain damage and plenum roof wear.

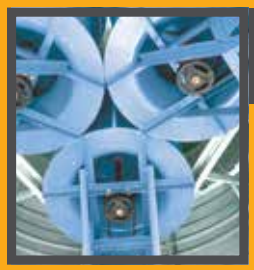
12.75" grain columns surrounding the heat plenum chamber allow grain to receive all BTU's from the burner, improving efficiency.

Inside and outside safety ladders, cages and catwalks provide safe and easy access to all areas of the dryer.

Patented (US6035544) Grain Inverters equalize moisture and temp of the grain column, improving quality and efficiency.

In-line Maxon NP-LE-AL series burners provide even heat and efficient combustion from either natural gas or LP vapor.

Walk-in heat section provides easy access for interior cleaning.



Internal inline, mixed flow centrifugal blowers deliver high volumetric airflow to the pressure heat and vacuum cool sections.

Walk-in cool section provides easy access to blowers and metering system.

Optional 24" leg extensions are available if more clearance is needed.

Industrial quality components (including Maxon valves and burners). Automatic motorized Maxon valves are available.

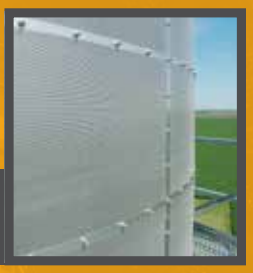
ZIMMERMAN

COMMERCIAL TOWER DRYERS

Gravity inlet does not require leveling auger, reducing the number of moving parts.

Stainless steel outside sheets extend dryer life. Screens utilize different size perforations to reduce particulate emissions.

Uniform low velocity heated air improves efficiency and quality as well as reducing particulate emissions.

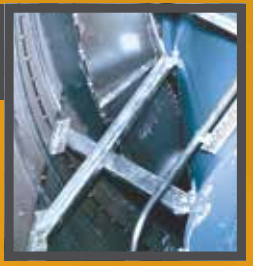


Heavy-duty overall construction results in an extra rigid structure on minimal of ground space.

Reducer cone equalizes air velocity past burners for optimum combustion and provides step-in access to burner assembly.

Self cleaning divider hopper separates the heating and cooling sections while preventing build-up of particulate matter.

Internal mounting provides the added benefit of ultra quiet operation as the surrounding grain creates a natural noise barrier.



Recycling heat from the cooling grain results in significant fuel savings.

Flow control system houses the moisture control sensor, insuring an accurate reading from sensor to the moisture control system.

Weather-proof NEMA IV cabinets and NEMA rated electrical components ensure safe and reliable operation in all conditions.

MIXED-FLOW BLOWERS

HIGH-VOLUME AIRFLOW, EFFICIENT HEAT DISTRIBUTION

All Zimmerman dryers are optimized to provide just the right amount of airflow. Too little airflow adversely affects capacity, too much airflow adversely affects the efficiency. Depending on the dryer size, one, three, or four industrial-duty mixed-flow blowers are used. Internally mounted, these in-line mixed flow blowers operate at slow speeds, which means low noise levels, low electrical usage and results in long blower and motor life.

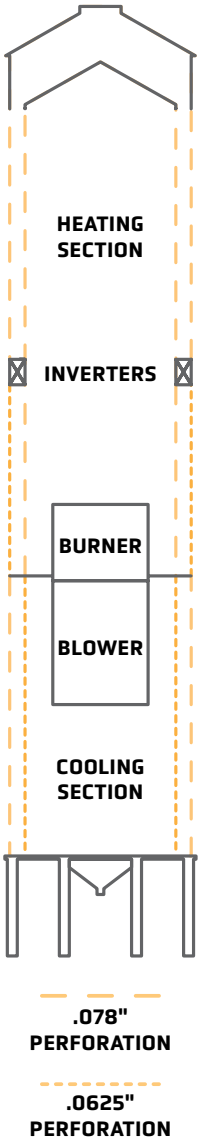
Unlike centrifugal fan designs on other dryers, airflow from the Zimmerman blowers is ducted across a Maxon Low Emission line burner, eliminating hot spots on the dryer and achieving optimal efficiency with airflow and heat distribution. The burner can operate on either natural gas or LP vapor. The burners are sized and profiled to provide even, efficient heat distribution to the drying section of the dryer. Aluminum burner body reduces burner maintenance. Fuel oil burners are optional.

MAXIMUM PARTICULATE RETENTION

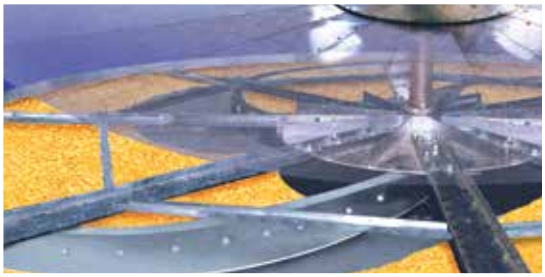
Zimmerman tower dryers retain bees' wings and particulate matter within the drying columns. The largest standard hole size on the exterior screening of the dryer is .078" diameter perforation. After the grain is turned, the perforation size drops to .0625" diameter.

Solid non-perforated exterior sheets are used at the grain inverters and at the top and bottom of the grain columns to help ensure that particulates are not expelled.

As grain exits the heat section of the dryer it enters the vacuum cooling section. Upon cooling, the warm air used to cool the grain is recycled through the blower(s), which means less energy is required to heat the air.



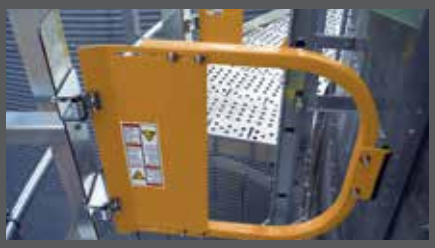
STATIC MOISTURE SAMPLER
Debris guards ensure a trash-free sample while a SideKick auger mixes and delivers a sample to the test chamber. Get the most accurate results as the reading used to monitor/calculate discharge grain moisture is taken while the grain is not flowing.



PATENTED ACCU-TROL METERING SYSTEM
Zimmerman's patented (US6073364, US6233843), field-proven and self-cleaning Accu-trol Metering System transfers grain from the dryer uniformly, and patented sweep discharge makes for easy dryer clean-out.

ACCESS

CATWALKS, LADDERS AND CAGES
Strong structural design and heavy-duty materials ensure access is safe and durable. Patent pending fan style catwalk conforms to fit the shape of dryer.



SWING GATES
Swing gates are installed on every platform access point for added safety.

EASY ACCESS
All areas of the dryer can be accessed through up to four entry points making cleanout, inspection and maintenance easy.

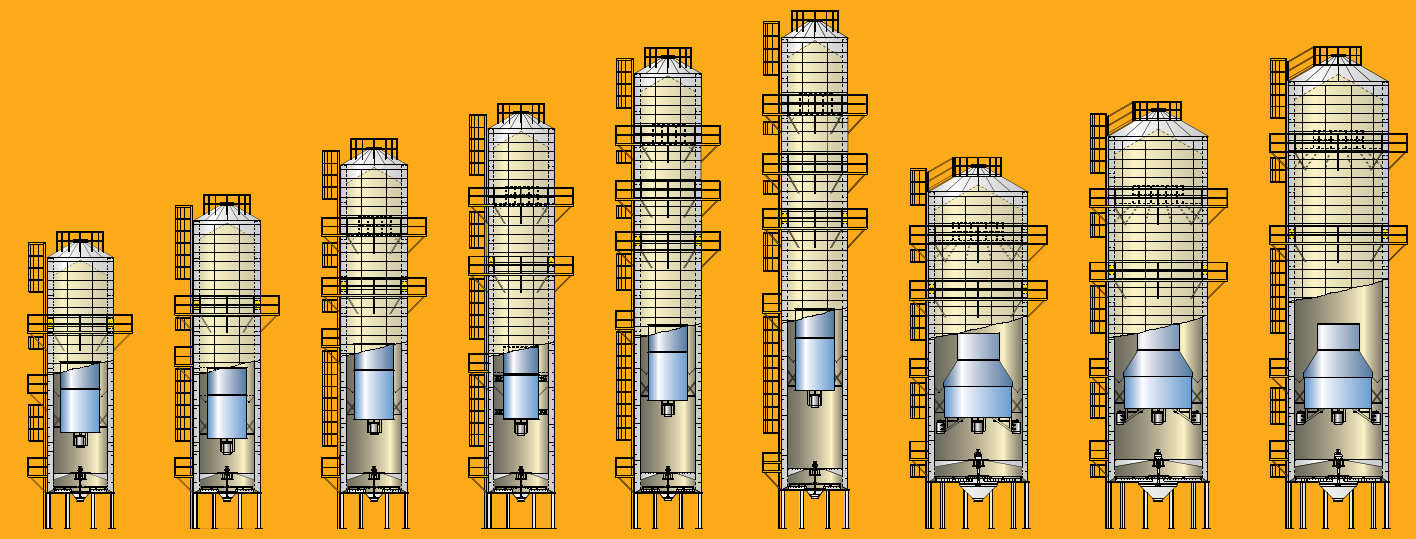
ZIMMERMAN TOWER DRYER SPECIFICATIONS

	Z-1210	Z-1512	Z-1816	Z-2018	Z-2420	Z-2724	Z-2521	Z-3026	Z-3531
DRYING CFM	60,500	77,100	81,800	98,600	108,300	118,400	121,950	145,200	175,800
COOLING CFM	30,250	38,550	40,900	49,300	54,150	59,200	60,975	72,600	87,900
BLOWER HP	60	75	75	100	100	125	3-40	3-50	3-60
METERING HP	1	1	1	1	1	1	1.5	1.5	1.5
BURNER CAPACITY (BTU X 1000)	13,068	16,654	17,669	21,298	23,393	25,574	26,341	31,363	37,973
AVERAGE HEAT (BTU X 1000)	7,514	9,576	10,160	12,246	13,451	14,705	15,146	18,034	21,834
GRAIN COLUMN	12-3/4"	12-3/4"	12-3/4"	12-3/4"	12-3/4"	12-3/4"	12-3/4"	12-3/4"	12-3/4"
TOWER DIAMETER[1]	12'	12'	12'	12'	12'	12'	18'	18'	18'
OVERALL HEIGHT[2]	52'4"	59'0"	69'0"	75'8"	85'8"	92'4"	66'0"	76'0"	86'0"
WET HOLDING (BU)	335	335	335	335	335	335	731	731	731
HEAT HOLDING (BU)	719	914	1,158	1,256	1,499	1,693	1,511	1,813	2,210
COOL HOLDING (BU)	305	305	354	451	500	500	529	680	737
UNLOAD HOLDING	48	48	48	48	48	48	144	144	144
TOTAL COLUMN HOLDING	1,024	1,219	1,512	1,707	1,999	2,193	2,040	2,493	2,947
TOTAL DRYER HOLDING (BU)	1,407	1,602	1,895	2,090	2,382	2,576	2,915	3,368	3,822
BPH CAPACITY[3] (20% - 15%)	1,200	1,500	1,800	2,000	2,400	2,700	2,500	3,000	3,500
BPH CAPACITY[3] (25% - 15%)	720	900	1,080	1,200	1,440	1,620	1,500	1,800	2,100

1 – Dimensions exclude outside catwalk, See models below for diameter with catwalk.

2 – Overall height includes 60" discharge height but not include the 20" inlet spout.

3 – Capacities listed are wet bushels/tonnes, for mature #2 shelled dent corn at listed moisture content and are estimates based on drying principles, field results and computer simulation. Variance may occur due to grain's physiological factors (kernel size, chemical composition, variety, maturity), excessive fines, adverse weather conditions, etc.



Z-1210
12' dia. x 52'4" h.
19' dia. w/Catwalks

Z-1512
12' dia. x 59'0" h.
19' dia. w/Catwalks

Z-1816
12' dia. x 69'0" h.
19' dia. w/Catwalks

Z-2018
12' dia. x 75'8" h.
19' dia. w/Catwalks

Z-2420
12' dia. x 85'8" h.
19' dia. w/Catwalks

Z-2724
12' dia. x 92'4" h.
19' dia. w/Catwalks

Z-2521
18' dia. x 66'0" h.
25' dia. w/Catwalks

Z-3026
18' dia. x 76'0" h.
25' dia. w/Catwalks

Z-3531
18' dia. x 86'0" h.
25' dia. w/Catwalks

All dryers are shown at relative size.

	Z-4036	Z-4742	Z-5046	Z-6055	Z-7060	Z-8572	Z-10090	Z-12010
DRYING CFM	192,750	213,600	282,000	304,800	337,500	409,500	500,000	546,000
COOLING CFM	96,375	106,800	141,000	152,400	168,750	204,750	250,000	273,000
BLOWER HP	3-75	3-75	3-100	3-100	3-125	3-150	4-125	4-150
METERING HP	1.5	1.5	2	2	2	2	3	3
BURNER CAPACITY (BTU X 1000)	41,634	46,138	60,192	65,837	72,900	88,450	108,000	117,936
AVERAGE HEAT (BTU X 1000)	23,940	26,529	35,024	37,856	41,918	50,860	62,100	67,813
GRAIN COLUMN	12-3/4"	12-3/4"	12-3/4"	12-3/4"	12-3/4"	12-3/4"	12-3/4"	12-3/4"
TOWER DIAMETER[1]	18'	18'	24'	24'	24'	24'	30'	30'
OVERALL HEIGHT[2]	96'0"	109'4"	97'10"	107'10"	117'10"	134'6"	129'8"	156'4"
WET HOLDING (BU)	731	731	1,279	1,279	1,279	1,279	1,977	1,977
HEAT HOLDING (BU)	2,512	2,964	3,479	4,042	4,452	5,268	6,030	7,575
COOL HOLDING (BU)	888	1,038	1,126	1,177	1,381	1,585	1,846	2,361
UNLOAD HOLDING	144	144	287	287	287	287	475	475
TOTAL COLUMN HOLDING	3,400	4,002	4,605	5,219	5,833	6,853	7,876	9,936
TOTAL DRYER HOLDING (BU)	4,275	4,877	6,171	6,785	7,399	8,419	10,328	12,388
BPH CAPACITY[3] (20% - 15%)	4,000	4,700	5,000	6,000	7,000	8,500	10,000	12,000
BPH CAPACITY[3] (25% - 15%)	2,400	2,820	3,000	3,600	4,200	5,100	6,000	7,200

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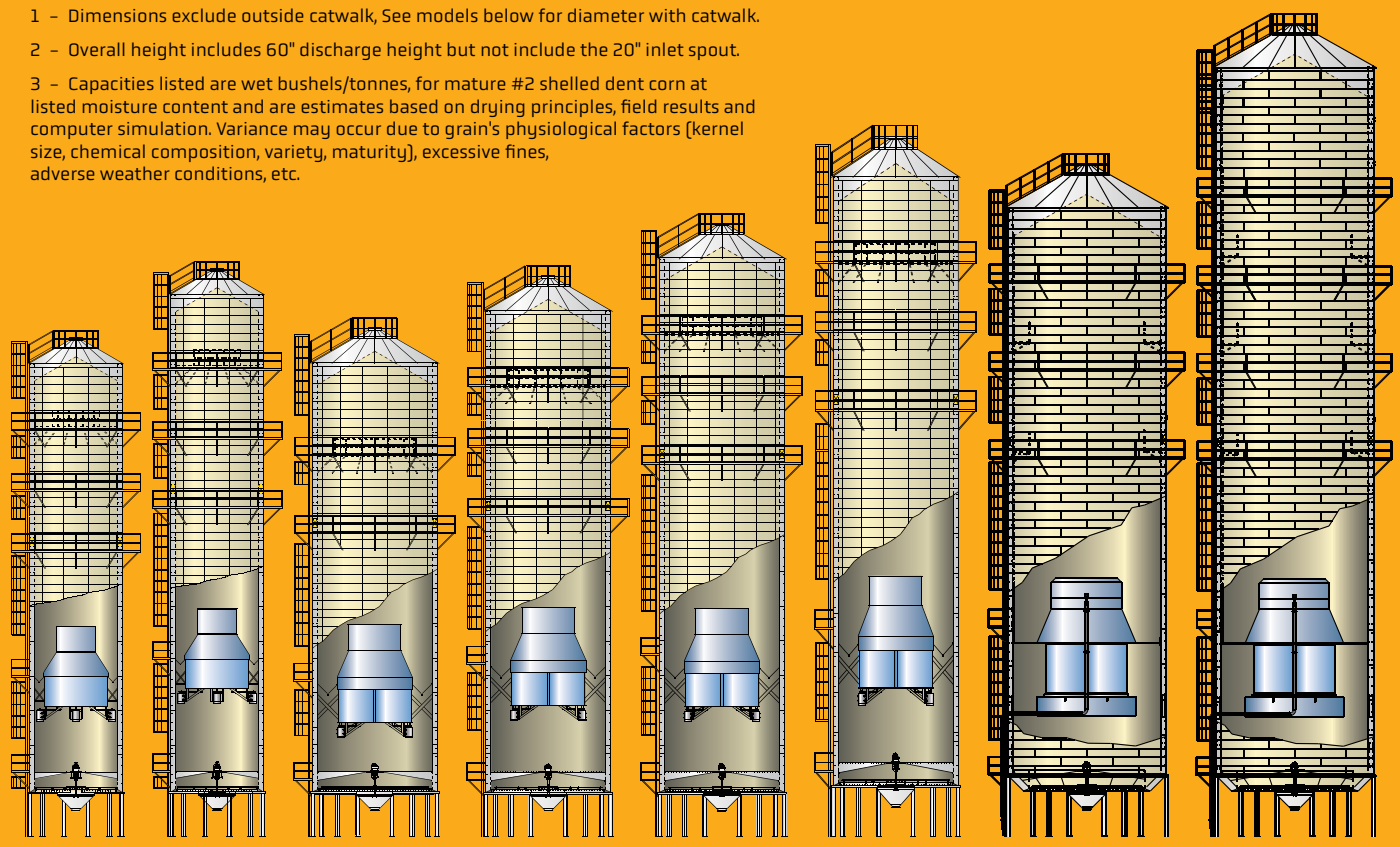

Z-4036
18' dia. x 96'-0" h.
25' dia. w/Catwalks

Z-4742
18' dia. x 109'4" h.
25' dia. w/Catwalks

Z-5046
24' dia. x 97'10" h.
32' dia. w/Catwalks

Z-6055
24' dia. x 107'10" h.
32' dia. w/Catwalks

Z-7060
24' dia. x 117'10" h.
32' dia. w/Catwalks

Z-8572
24' dia. x 134'6" h.
32' dia. w/Catwalks

Z-10090
30' dia. x 129'8" h.
38' dia. w/Catwalks

Z-12010
30' dia. x 156'4" h.
38' dia. w/Catwalks

All dryers are shown at relative size.

Visit grainsystems.com
for product specs and info

Contact your GSI Dealer for more information.

ZM-010 / JANUARY 2026