

MICROSYSTEMS: WEIGHT LOSS & WEIGHT GAIN

MICRO INGREDIENT SYSTEMS



PROVEN & DEPENDABLE™

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MICRO INGREDIENT SYSTEMS



PROVEN & DEPENDABLE

From receiving to load-out, each day your facility moves, weighs, loads, and samples millions of tons of material. The success of your operation relies not only on the quality of the commodity but the dependability of the equipment used to keep it moving. InterSystems' bulk material handling systems offer the speed and reliability you need to satisfy customers and grow profits.

From a modest beginning in 1959 as a maker of cardboard doors for rail boxcars, InterSystems has evolved into a worldwide manufacturer of a full line of bulk material handling equipment. Placing a customer-centric focus on the engineering and manufacturing process, InterSystems' product solutions include bucket elevators, bulk weighers, enclosed belt conveyors, en-masse and self-cleaning en-masse conveyors, gravity screeners, truck probes, automatic samplers, micro ingredient systems, bolted bin systems and distributors. Purchased by GSI in 2014, InterSystems' material handling equipment can be found around the world at grain elevators, in processing plants and at port facilities handling a wide variety of commodities including grains, powders, rock and wood pellets.

InterSystems believes that "custom" is standard, displaying a willingness to change in order to meet the needs of your specific applications with a solution. Behind each product line is an engineer leading a team dedicated to design improvements which promote efficiency and keep current with changes in industry regulations. Our in-house customer service team is on-call to assist with replacement parts or installation questions and can deploy a field technician to analyze problems and recommend solutions. InterSystems does it all while maintaining industry-leading delivery times.

MICROSYSTEMS: WEIGHT LOSS & WEIGHT GAIN

PRECISELY CONTROL INGREDIENT BATCH WEIGHING

Micro ingredient systems help reduce manufacturing costs, increase plant efficiency, provide better traceability and inventory control, and offer a safer environment. InterSystems offers both weight gain and weight loss systems to help accurately and precisely control ingredient batch weighing. The 304 stainless steel construction of the bins, shroud, end plates and weigh hopper (installed on a solid structural steel frame) provides more protection against pitting and corrosion.



Weight Gain System

Both Weight Gain and Weight Loss systems are available with a variety of bin sizes and configurations. The dust-tight design provides maximum cleanliness. The systems are designed to offer easy access and disassembly for service. Both are compatible with any major batch control system. An electric motor auger drive with variable speed control provides the necessary power. A variety of options are available including work platforms, locking lids with dust collection, and a variety of augers designed to increase speed and or accuracy. Both models operate seamlessly with the InterSystems' Kleen-Drag Conveyor which transports the ingredients to a mixer. While both weight gain and weight loss systems share these similarities, the differences between them should be considered when selecting which option is best for your specific needs.



Weight Loss System

WEIGHT GAIN (MS1)

Weight gain models are the industry standard. They are typically constructed for hand-add ingredients but can be altered to be fed by bulk bags.

WEIGHT LOSS (MS2)

Weight loss systems offer the ultimate in flexibility and accuracy. Each bin within a weight loss system acts as its own scale, allowing for continuous inventory of any product at any time. Multiple VFDs can be used to reduce batch times by running more than one bin simultaneously. A standard proximity switch on each bin lid alerts that a bin lid is open which helps reduce errors and provides traceability.

QUANTITY OF MS BINS	2	4	6	8	10	12	14	16	18	20	22	24	26	28	30
VOLUMETRIC CAPACITY 200 LB SCALE	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
VOLUMETRIC CAPACITY 500 LB SCALE	4.5	6	7.5	9	10.5	12	13.5	15	16.5	18	19.5	21	22.5	24	25.5
MS1 DISCHARGE LENGTH	28"	41"	54"	67"	80"	93"	106"	119"	132"	145"	158"	171"	184"	197"	210"
MS2 DISCHARGE LENGTH		34"		64"		94"		124"		154"		184"		214"	

MICROSYSTEMS: WEIGHT GAIN

DUST-TIGHT DESIGN

The weigh hopper shroud is designed to contain batching system dust and prevent wind currents within the plant from affecting scaling accuracy.



Access doors on the shroud are provided to allow easy cleaning and inspection of the weigh hopper.

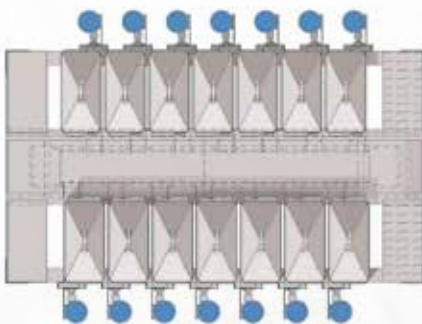


A feeder manifold with dust seals is provided for the top of the weigh hopper shroud.

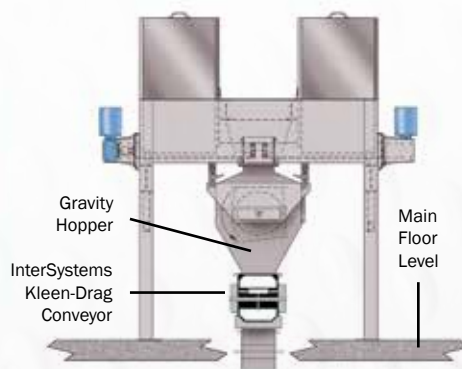
WEIGHT GAIN WITH ENCLOSING SHROUD

Weigh hoppers under micro bins can meet requirements for higher volumetric capacity. After micro ingredients are weighed in the weigh hopper, they are discharged into an InterSystems Kleen-Drag conveyor.

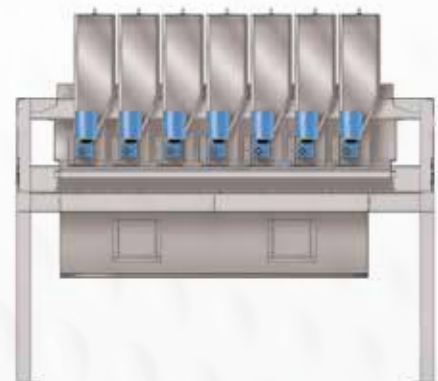
PLAN VIEW



END VIEW

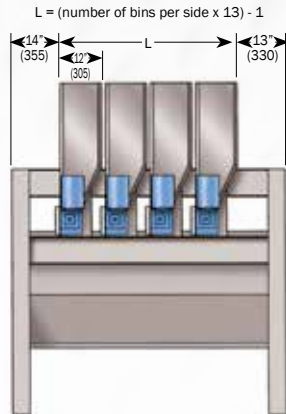
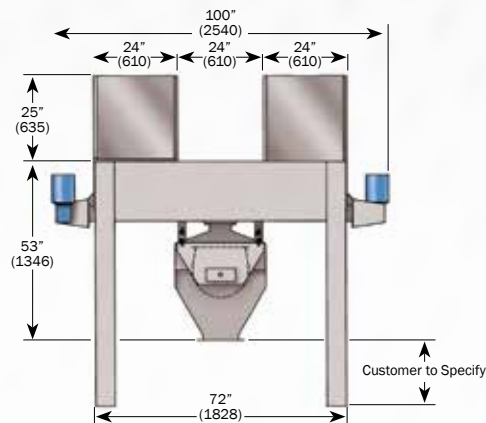


SIDE VIEW

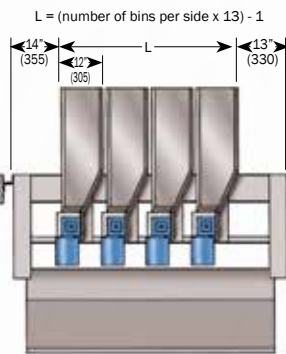
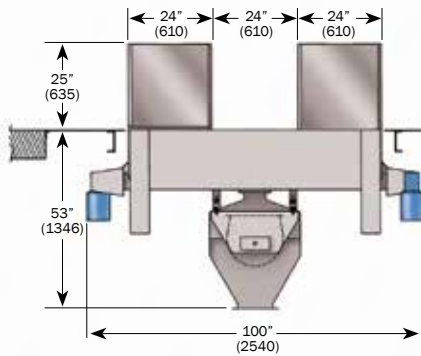


DIMENSIONS

TYPICAL ABOVE FLOOR UNIT



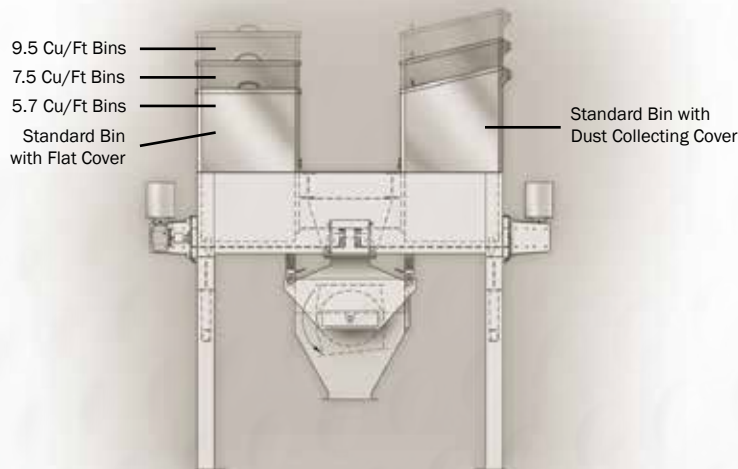
TYPICAL IN FLOOR UNIT



*Millimeter dimensions in parentheses.

CAPACITIES

Many different bin capacities are available.



REMOVING THE MICRO SCREW IS FAST AND CONVENIENT.



Pull the plug.



Unscrew the two mounting bolts.



Remove the motor drive from the micro bin.

HINGED COVER WITH DUST COLLECTION HOOD

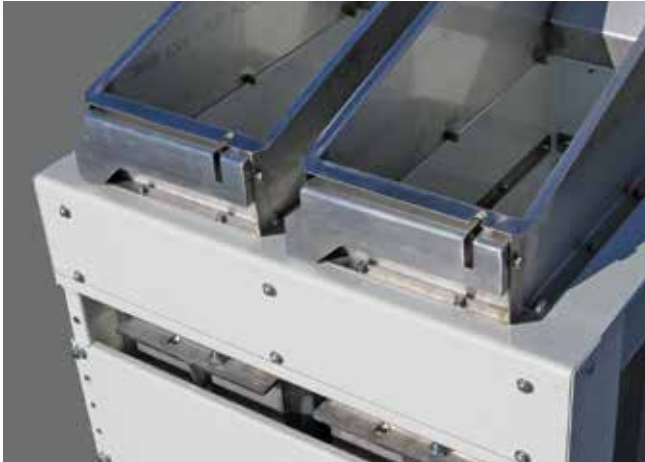


Optional dust collection units can be added to the tops of the bins to effectively control dust as bins are being filled.

MICROSYSTEMS: WEIGHT LOSS

INVENTORY CONTROL

The micro ingredient weight loss system mounts each bin on load cells, providing immediate inventory control and accountability.



Microsystem bin intake hopper with hinged cover and safety lock ensure the correct ingredient goes in the correct bin every time.

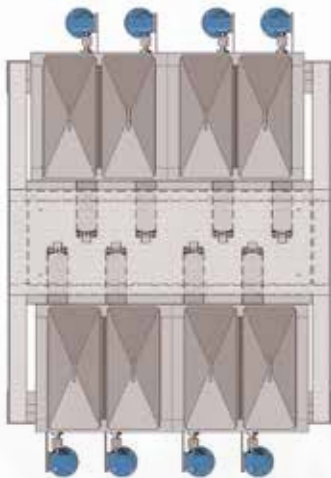


Proximity switches ensure exact current weight is being measured.

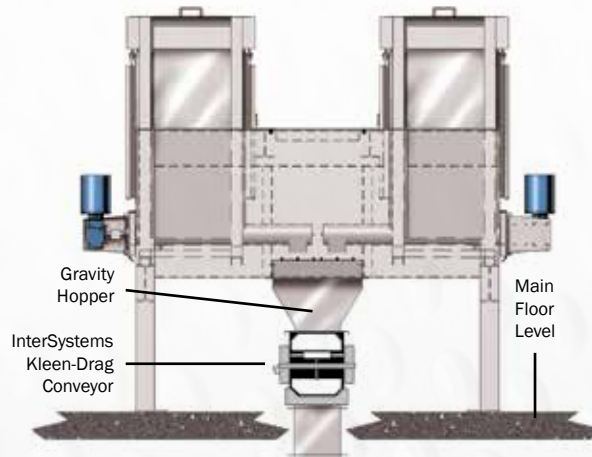
WEIGHT LOSS WITH GRAVITY HOPPER

Gravity hoppers collect all ingredients into an InterSystems Kleen-Drag conveyor.

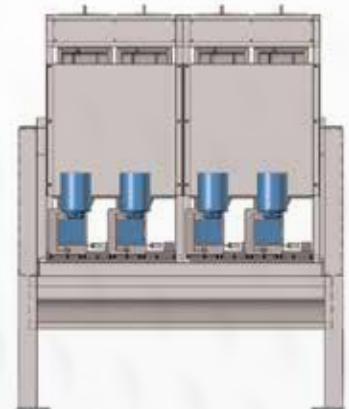
PLAN VIEW



END VIEW

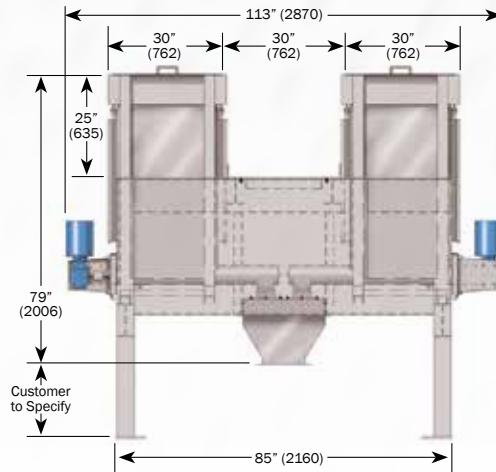
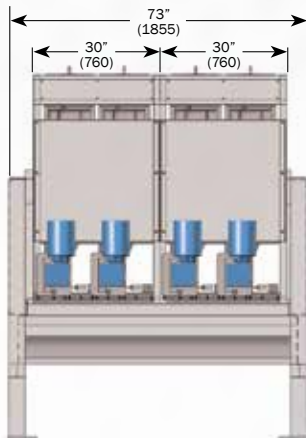


SIDE VIEW

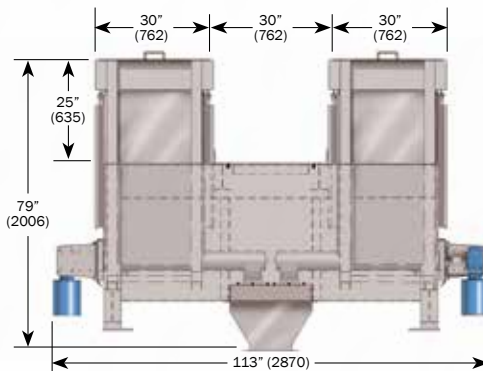
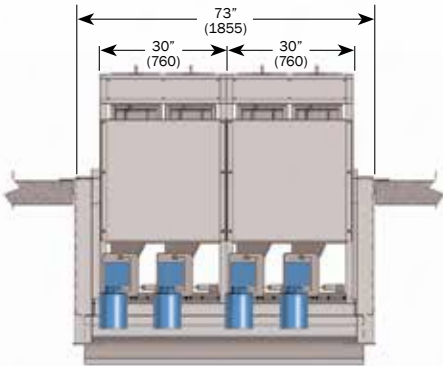


DIMENSIONS

TYPICAL ABOVE FLOOR UNIT



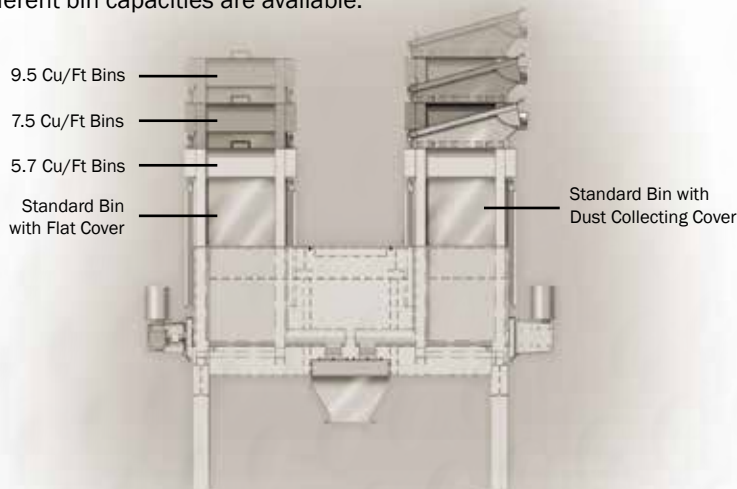
TYPICAL IN FLOOR UNIT



*Millimeter dimensions in parentheses.

CAPACITIES

Many different bin capacities are available.



The cover (1) above the bin set is easily removed to reveal the factory-wired loadcells and sensors encapsulated in a wiring trough (2).

A quick disconnect (3) of sensors, motor leads and loadcells allows for easy removal of the motor assembly for maintenance.

COMPLETE YOUR GSI SYSTEM

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40-SERIES™ GRAIN BIN

When determining the best system for your operation, we know that what's protected inside the bin is what counts most. Each GSI bin is efficiently designed to handle maximum loads for unmatched strength. All GSI bins are constructed using the highest-strength steel available.



TOWERS AND CATWALKS

GSI offers a full line of structures to support material handling equipment. Built to perform for the long haul, GSI's all new QuickBolt™ Towers and Catwalks are engineered to your facility's layout, taking wind, seismic and snow loading into consideration. GSI structures feature bolt-up assembly and hot-dipped galvanized finish.



ZIMMERMAN TOWER DRYERS

Not all tower dryers are created equal. What sets Zimmerman dryers apart is over 50 years of innovative design expertise and industry proven drying principles. The result is an easy-to-operate, easy-to-maintain, durable, fuel-efficient grain dryer, supported by an expert dealer network.



PREMIUM TRAINING, SERVICE AND SUPPORT

InterSystems reaches a worldwide market and numerous industries with expertise in the manufacturing of material handling products and industrial sampling systems. Purchased by GSI in 2014, InterSystems is based in Omaha, Nebraska and operates out of a 200,000 square foot state-of-the-art manufacturing facility. InterSystems is ISO 9001 and 14001 certified.



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