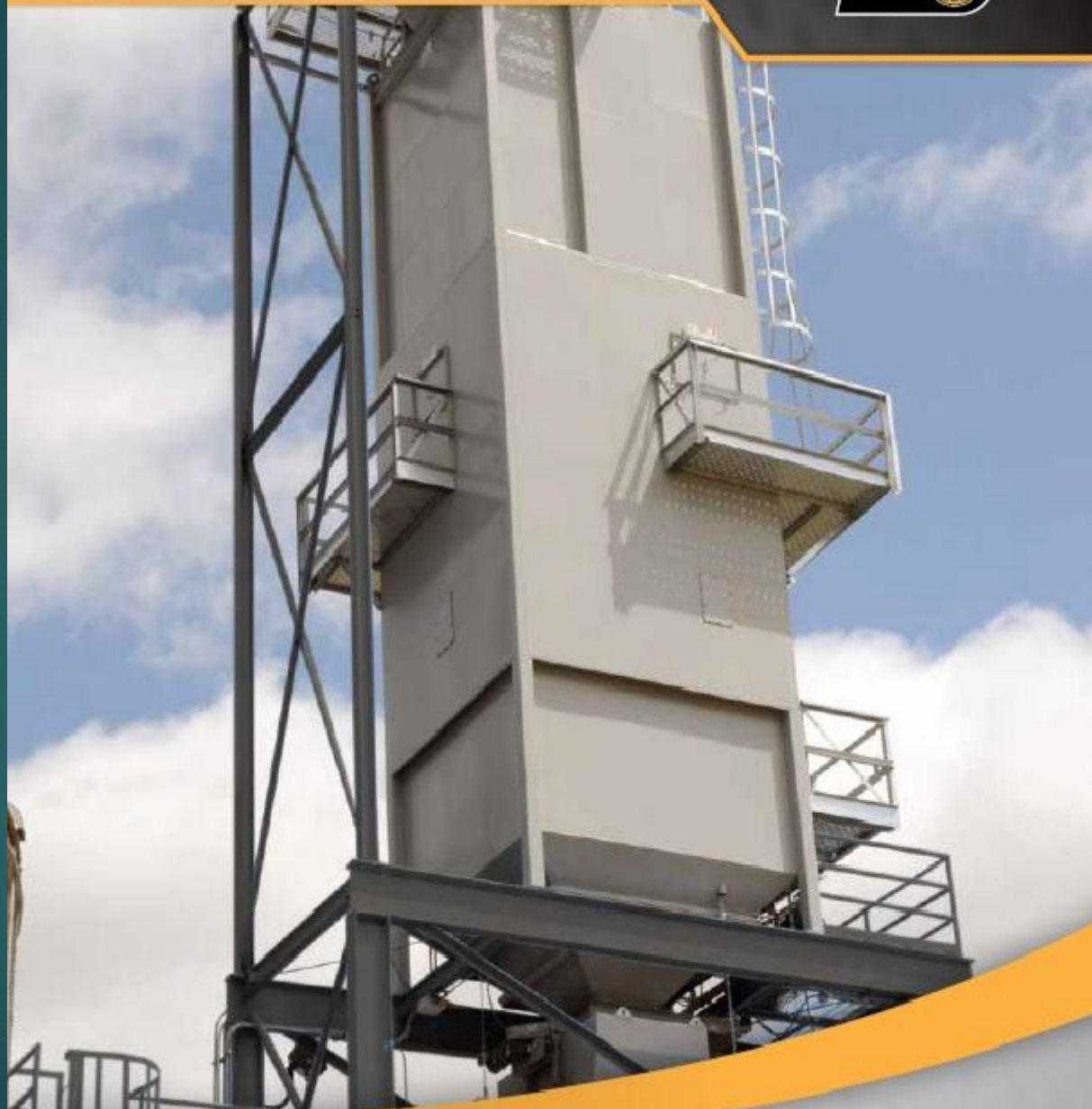


# BULK WEIGHERS



## BULK WEIGHERS

InterSystems provides accurate weighing of free-flowing bulk materials through our line of Bulk Weighers, first introduced in 1978. Over 500 systems currently in service were designed and manufactured to have the dependability and durability for an extended life. For each unique application, we consider capacity requirements, location specifications, materials to be handled, environmental needs, service requirements, and clean out solutions. Each InterSystems bulk weighing system design undergoes a detailed application analysis to ensure that the system will perform at the highest level for both inbound and outbound weighing. Our continuous flow-through weighing system can be used to weigh most any free-flowing materials with an accuracy of .1% or better. Units are available in standard sizes from 20 TPH to 2,000 TPH or can be custom designed to suit the application or space requirements. They can be assembled at the factory or in the field. To monitor and control the weighing operation, our technically-advanced computer controls (MasterWeigh Infinity and MasterWeigh Infinity +) offer flexibility as standalone units or with PC interface.

System features include: 3-load cell design, ladder-style gates, and access platforms and doors at key locations. Operations are available as hydraulic, pneumatic, or electric. Optional equipment includes service platforms, test weights, auto life systems, control gates, power units, and inline voltage regulators.

All systems are NTEP certified having been tested and evaluated to ensure they meet all government standards and requirements as set by the NIST.





## BASIC BULK WEIGHER OPERATION

### FILLING

Feed gate opens and fills weigh hopper to preset draft size.

INPUT  
FEEDER

UPPER  
GARNER

WEIGH  
HOPPER

LOWER  
SURGE

### GROSS WEIGHING

Feed gate closes and a gross draft weight is recorded as a plus (+) weight.

### DISCHARGING

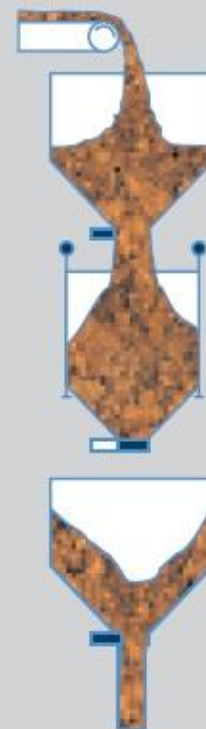
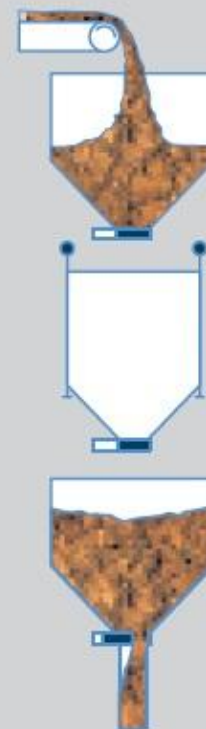
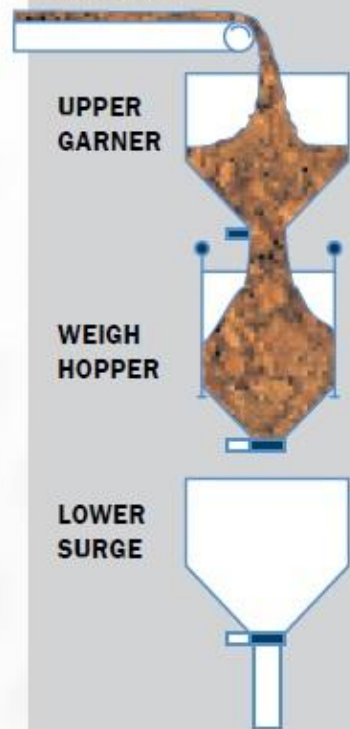
Discharge gate opens and product is discharged into lower surge.

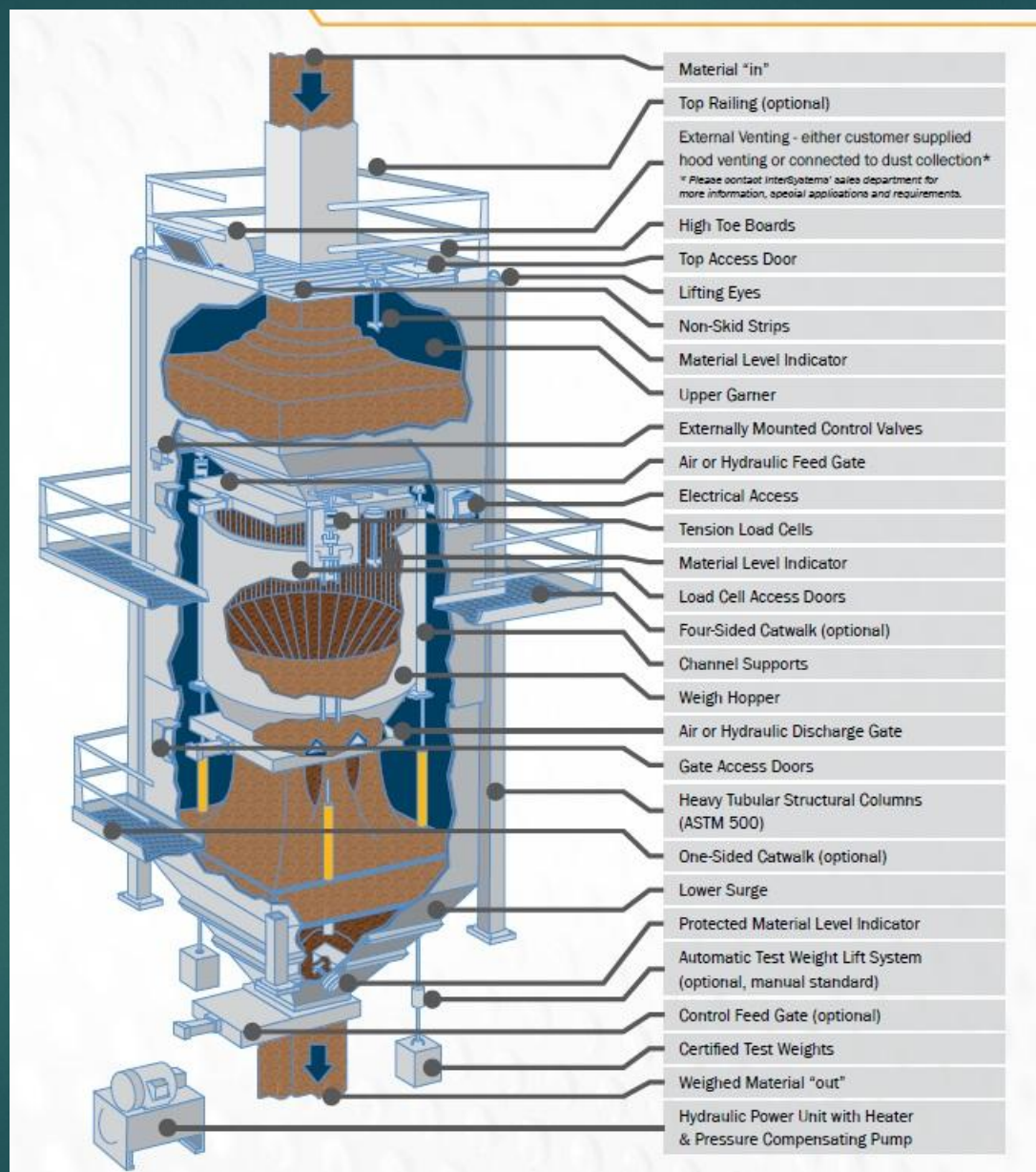
### TARE WEIGHTING & RECORDING

Discharge gate is closed and a tare weight is recorded as a minus (-) weight. A net subtotal is then recorded.

### FILLING CYCLE REPEATS

Cycle is repeated until the target weight is obtained. At that point, the operator will decide to go to the "next" car or "finish."







**MASTERWEIGH INFINITY +**

The MasterWeigh Infinity + is the PC interface which includes a complete desktop computer, 40 column strip printer that records weight from the controller and an 80 column printer for certificates and reports.

**MASTERWEIGH INFINITY CONTROLLER FUNCTIONS:**

### Log Table Setup

Controller learns the speed of the feed gate on the weigh hopper and makes automatic adjustments for precise and accurate loading of vessels.

### Commodity Information

Specific density of materials to be weighed are entered which allows controller to calculate the amount of material through the scale per hour.

### Identification Headers

Operator can enter desired identifications for weighing process. Weighing data for each vessel can be entered during the weighing process or anytime.

### Weight Certificate

Weight certificate template can be modified to add site information to coincide with local or state requirements.

### Weighing Summary

Once the train is loaded, a summary sheet can be printed out showing "start time," "end time," "order weight," "net weight," "difference" and "total of whole train."

**Loadout Download**

List of loaded rail cars can be downloaded to facility's main computer system.

### Smart Pass

Radio Frequency Identification (RFID) tag reader obtains car information from rail car which eliminates manual entry of car information.

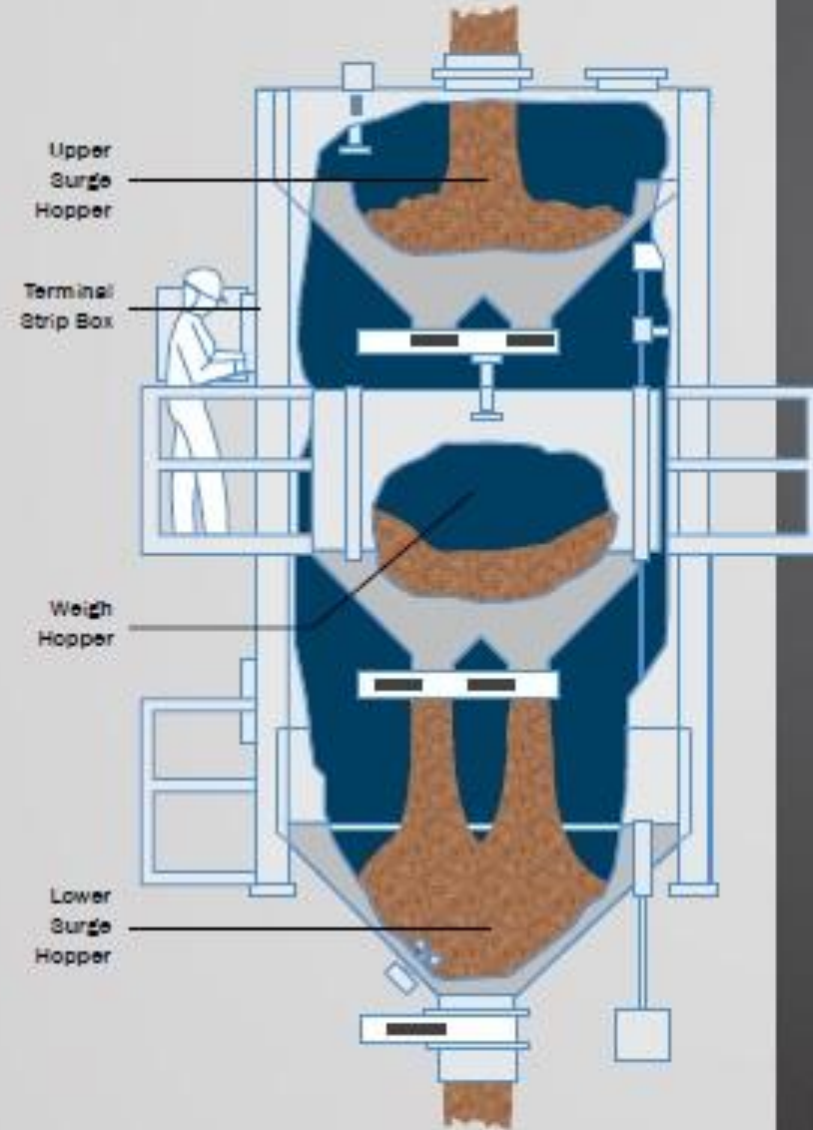


TYPICAL MASTERWEIGH INFINITY + SCREEN



RFID TAG READER

The InterSystems factory assembled bulk weigher can be shipped directly on a conventional truck trailer. It is completely ready for erection on a support frame/tower. Electrical wiring from bin level indicators, limit switches and gate valves are prewired at the factory. Once the load cells are installed, the individual cables are terminated in a terminal strip box. A single load cell cable is then pulled to the bulk weigher controller. Hoppers, support structure around the scale and gates are factory assembled and mounted. Gates are preplumbed to valves on the side of the scale system. The scale is enclosed to provide protection.





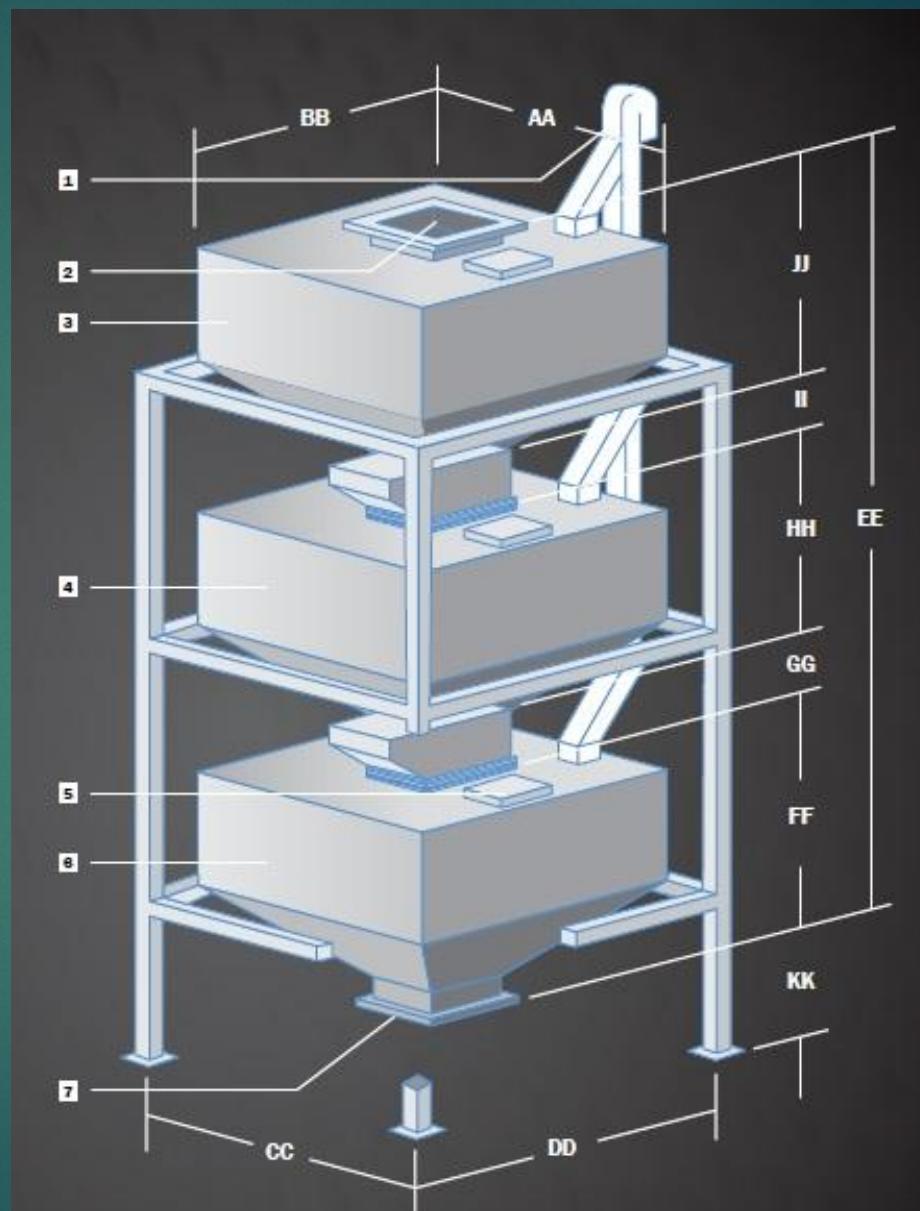
## PROVEN & DEPENDABLE

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.







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### KEY FEATURES

<b>WEIGH HOPPER SIZE (CU. FT.)</b>	5, 13, 25, 40, 75, 105, 167, 336, 420, 550, 625, 780, 890
<b>CAPACITY</b>	723 BPH – 80,000 BPH (FACTORY ASSEMBLED UNITS)
<b>INLET/DISCHARGE DIMENSIONS</b>	10"X10", 12"X12", 14"X14", 16"X16", 18"X18", 24"X24", 26"X26, 30'X30',

## OPTIONS

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### SERVICE PLATFORMS

Catwalks and railings may be ordered, including: top railing, one-sided catwalk, and four-sided catwalk.



### CONTROL GATES

InterSystems lower garner control gate allows the operator to meter the flow of material into waiting vessels or downstream equipment. An optional position indicator can be added to the control gate to show gate position from completely closed to 100% open.



### TEST WEIGHTS

Test weights are supplied with the Bulkweigher to allow the operator to check the calibration of the scale before operation. Test weights can be raised by using a manual chain binder, or by using an optional automatic test weight lift system, that can be added to lift the test weights pneumatically or hydraulically.