

**MATERIAL HANDLING**

# GRAVITY SCREENERS



**IS** InterSystems®  
GSI

**PROVEN & DEPENDABLE™**

[WWW.INTERSYSTEMS.NET](http://WWW.INTERSYSTEMS.NET)

# MATERIAL HANDLING SOLUTIONS



## 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.



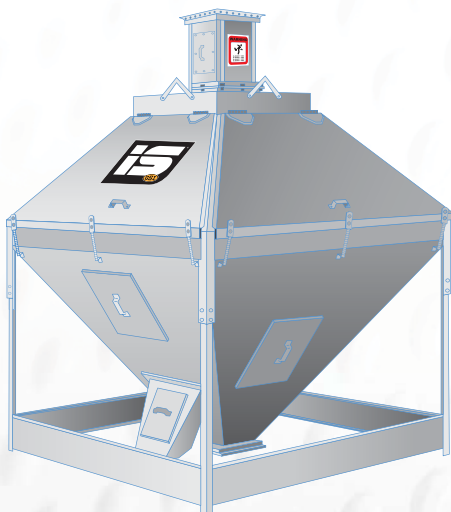
# BUILT TO LAST EASY TO MAINTAIN

Clean commodities are more valuable.

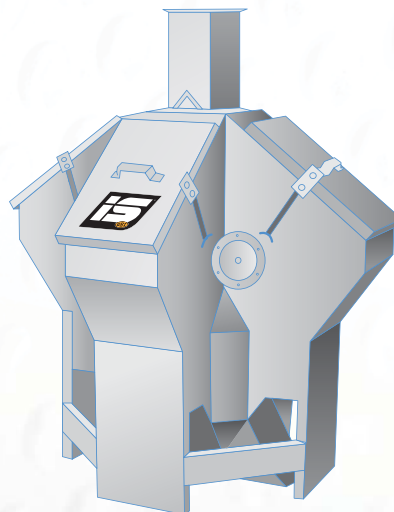
InterSystems' line of gravity screeners removes broken kernels, dirt, and other foreign material with nominal operating expense, and may lead to operational cost savings. Rather than relying on an external power source, InterSystems' screeners are designed to work solely off gravity after the discharge. FM (Foreign Material or "fines") is removed by allowing the smaller particles to pass through product-specific screens.

InterSystems' patented internal proportional bypass (patent #US4231861) gives the ability to further fine tune the amount removed. Its single rack and pinion internal gate provides unlimited adjustment from 100% straight through by-pass mode to full cleaning mode and every ratio in between. With the bypass employed, the PC-40000 model can process up to 60,000 BPH.

Since adding gravity screeners to our portfolio in 1981, InterSystems has grown the line to eight models with capacities ranging from 1,500 to 40,000 BPH.

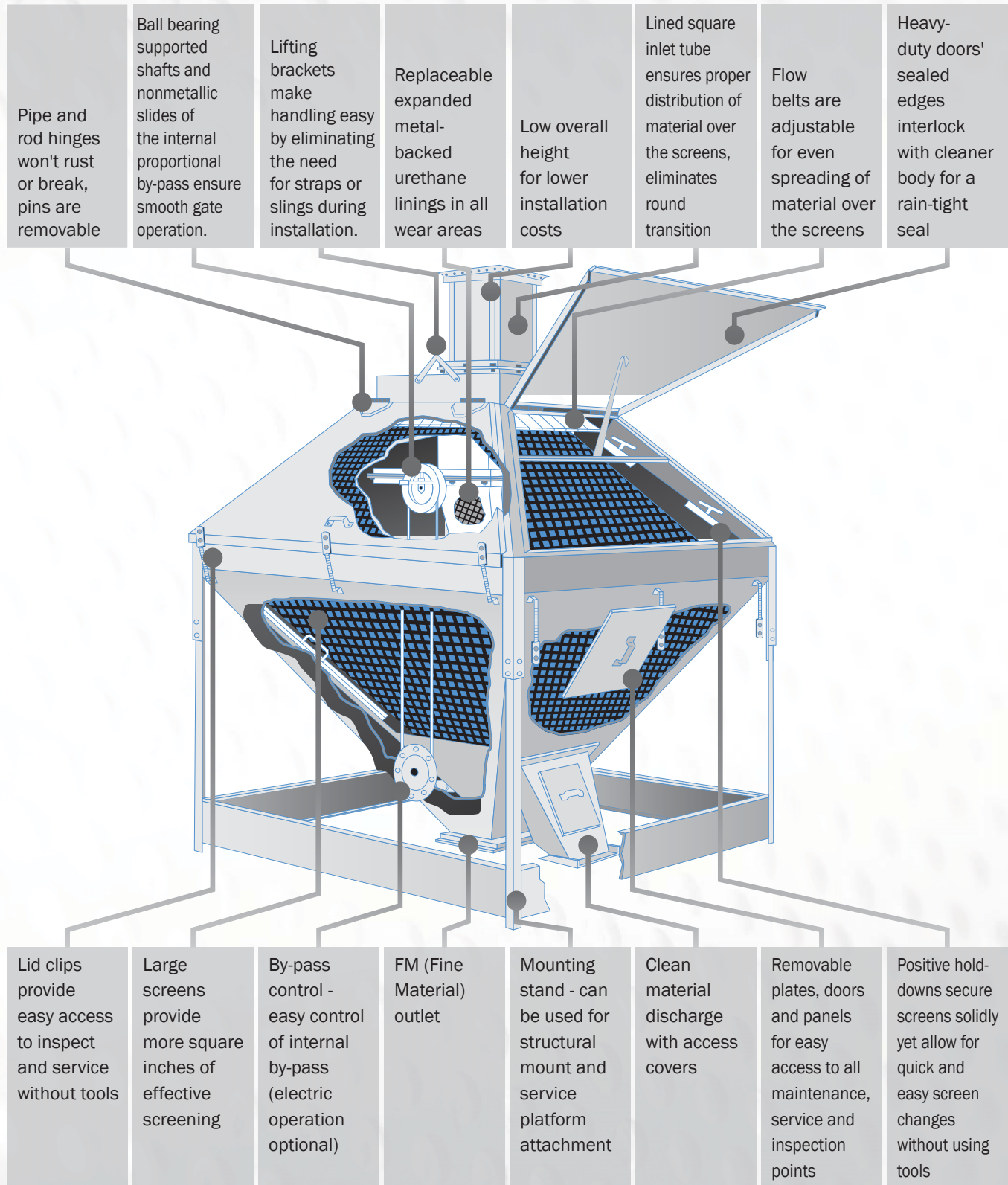


PC-16000 through PC-40000



PC-1500 through PC-11500

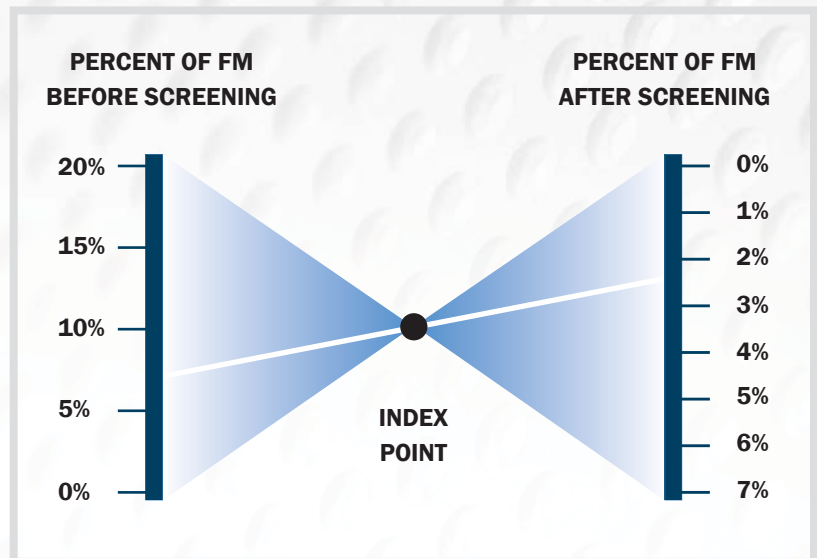
# INTERSYSTEMS GRAVITY SCREENERS



## SCREENING PERFORMANCE

This nomograph indicates the approximate removal rates of all InterSystems' Gravity Screeners. The solid line illustrates this example: material containing 7.5% FM before screening would contain approximately 2.75% FM after screening. For other removal rates, choose a percent of FM before screening and draw a straight line through the index point to the "after screening" scale.

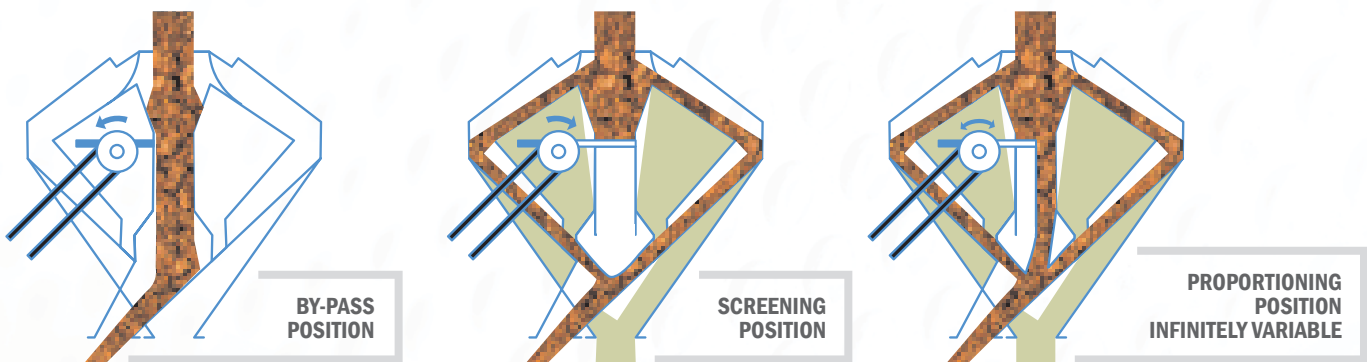
Rates as graphed are a composite performance of several units being used on the job. These rates are not guaranteed removal rates. Performance represented is the minimum level for all models.



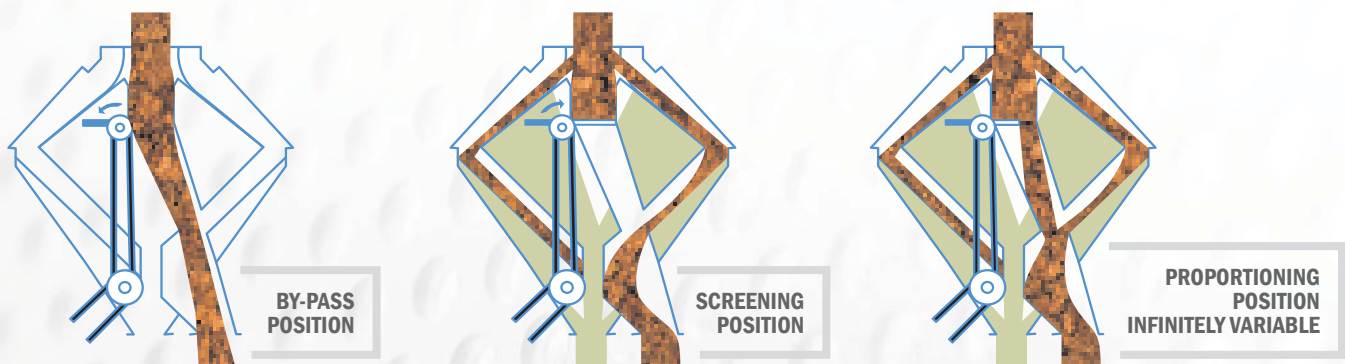
## MATERIAL FLOW DIAGRAMS

**MODELS: PC-1500, PC-3500, PC-5500, PC-8500, PC-11500**

Material FM (Foreign Material/Fines)



**MODELS: PC-16000, PC-25000, PC-40000**

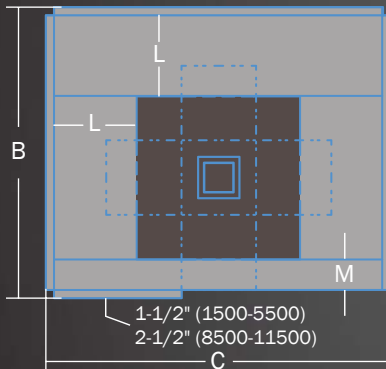


# SPECIFICATIONS

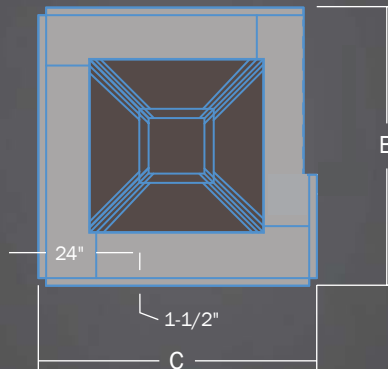
## SERVICE PLATFORM DIMENSIONS

	MODEL	PC-1500	PC-3500	PC-5500	PC-8500	PC-11500	PC-16000	PC-25000	PC-40000
A	Cleaner Width	2'-10 1/2"	3'-5 3/4"	3'-11 3/4"	5'-6"	7'-0"	9'-8 1/4"	10'-5 1/4"	11'-2 1/4"
B	Platform Width	6'-5"	7'-3/4"	7'-6 3/4"	9'-4"	10'-6 1/4"	14'-1/2"	14'-9 1/2"	15'-6 1/2"
C	Platform Length	7'-3"	7'-10 1/2"	8'-4 1/2"	9'-10 3/4"	11'-4 1/2"	14'-1/2"	14'-9 1/2"	15'-6 1/2"
D	Outlet To Floor	3"	3"	11"	27 1/4"	36"	50 1/2"	56"	60 1/4"
E	Rail Height	22"	22"	22"	22"	22"	23"	23"	23"
F	Post Height	42"	42"	42"	42"	42"	42 5/8"	42 5/8"	42 5/8"
G	Floor Channel	4"	4"	4"	4"	4"	2"	2"	2"
H	Toe-Board Height	4"	4"	4"	4"	4"	5"	5"	5"
I	Floor To Access Door	35 1/2"	47 1/4"	47"	43 3/4"	47 1/2"	37"	37"	37"
L	Floor Width	24"	24"	24"	24"	24"	-	-	-
M	Floor Width (short side)	14"	14"	14"	14"	14"	-	-	-

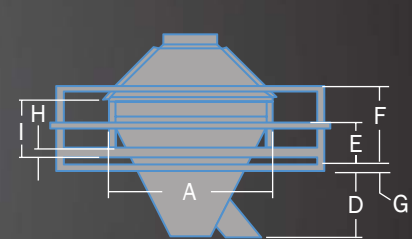
MODELS: PC-1500, PC-3500, PC-5500, PC-8500, PC-11500 - TOP VIEW



MODELS: PC-16000, PC-25000, PC-40000 - TOP VIEW



ALL MODELS - SIDE VIEW



## SCREENER CAPACITIES AND WEIGHTS

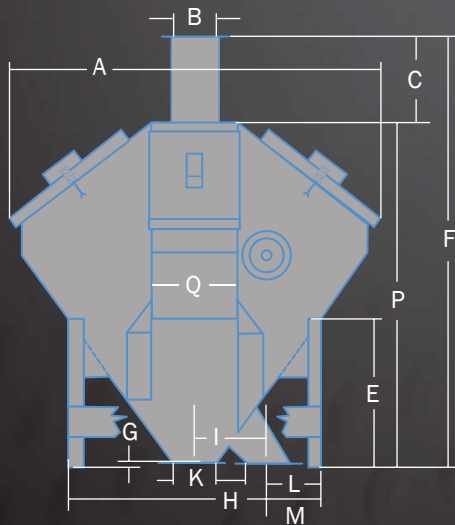
	MODEL	PC-1500	PC-3500	PC-5500	PC-8500	PC-11500	PC-16000	PC-25000	PC-40000
SCREENING CAPACITY Based on 48 lbs./cu. ft.	TPH	44.8	104.5	164.2	253.7	343.3	477.6	746.3	1194.0
	CFH	1867	4356	6845	10578	14312	19912	31113	49780
	BPH	1500	3500	5500	8500	11500	16000	25000	40000
	MTPH	40.6	94.8	148.9	230.1	311.4	433.2	676.9	1083.0
BY-PASS CAPACITY Based on 48 lbs./cu. ft.	TPH	44.8	104.5	164.2	253.7	343.3	597.0	895.5	1791.0
	CFH	1867	4356	6845	10578	14312	24890	37335	74670
	BPH	1500	3500	5500	8500	11500	20000	30000	60000
	MTPH	40.6	94.8	148.9	230.1	311.4	541.5	812.2	1324.5
Cleaner Empty Weight (lbs.)		510	884	1275	2075	2812	3950	4500	5300
Cleaner Live Loads (est. lbs.)		880	1782	2893	4744	7103	13022	16082	20660
Platform Weight (est. lbs.)		750	822	922	1117	1398	1783	1897	1990
Screening Area (sq. in.)		1607	2717	4406	6615	9933	25101	29629	34466



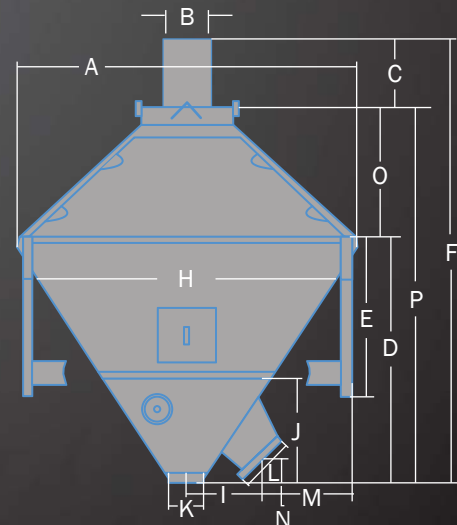
### GRAVITY SCREENER DIMENSIONS

	MODEL	PC-1500	PC-3500	PC-5500	PC-8500	PC-11500	PC-16000	PC-25000	PC-40000
A	Overall Width	4'-3 3/16"	5'-3 7/16"	6'-0"	7'-9 1/2"	9'-3 3/4"	10'-0"	10'-9 3/8"	11'-6"
B	Grain Inlet	6" sq.	8" sq.	10" sq.	12" sq.	14" sq.	16" sq.	19" sq.	28" sq.
C	Inlet Tube Height	12"	16"	18"	18"	18"	24"	30"	35 1/2"
D	Bottom Section Height	-	-	-	-	-	7'-3 1/4"	7'-8 3/4"	8'-1"
E	Support Frame Height	2'-11 5/8"	2'-5"	2'-8"	3'-9 1/2"	4'-10"	4'-8 1/2"	4'-8 5/8"	4'-8 1/2"
F	Overall Height	5'-4 3/4"	7'-6"	8'-8"	10'-1 3/16"	11'-7 9/16"	13'-1 1/2"	14'-3 1/8"	15'-6"
G	Floor Clearance	1"	1"	1"	1"	1"	-	-	-
H	Support Frame Width	2'-10 1/2"	3'-11 11/16"	3'-11 3/4"	5'-6"	7'-0"	9'-8"	10'-5 3/8"	11'-2 1/8"
I	Outlet Offset	10"	1'-1"	1'-2 1/2"	1'-6"	1'-8"	2'-2 1/2"	2'-2 1/2"	2'-5 3/4"
J	Lower Section Height	-	-	-	-	-	3'-0 3/8"	3'-5 7/8"	3'-11 3/4"
K	FM Outlet	6" sq	8" sq	10" sq	12" sq	14" sq	12" sq	14" sq	14" sq
L	Clean Grain Outlet	6" sq	8" sq	10" sq	12" sq	14" sq	16" sq	19" sq	28" sq
M	Outlet To Support Frame	7 1/4"	7 7/8"	9 3/8"	1'-3"	1'-10"	2'-7 1/2"	2'-11 7/8"	3'-0 3/4"
N	Outlet Vertical Offset	-	-	-	-	-	9"	10 3/4"	15 1/8"
O	Upper Section Height	-	-	-	-	-	3'-10 1/4"	4'-0 3/8"	4'-5 1/2"
P	Cleaner Height	4'-4 3/4"	6'-0"	7'-2"	8'-7 3/16"	10'-1 9/16"	11'-1 1/2"	11'-9 1/8"	12'-6 1/2"
Q	Section Width	1'-0"	1'-6"	2'-0"	2'-6"	3'-0"	-	-	-

MODELS:  
PC-1500  
PC-3500  
PC-5500  
PC-8500  
PC-11500



MODELS:  
PC-16000  
PC-25000  
PC-40000



# COMPLETE YOUR GSI SYSTEM

WWW.GRAINSYSTEMS.COM



## 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.



WWW.GRAINSYSTEMS.COM

WWW.INTERSYSTEMS.NET



Copyright ©2014 All rights reserved.  
GSI reserves the right to change  
designs and specifications without notice.

IS-106 JULY/15