

DIRECT GEAR DRIVE / CARRY-IN / U-TROUGH / LEAVE-IN / PADDLE SWEEP

BIN UNLOADING SYSTEMS



PROVEN & DEPENDABLE™

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PROVEN & DEPENDABLE

From planting to harvest, we recognize the hard work and determination you put in every day of the year. With a similar dedication, GSI strives to continuously manufacture Proven & Dependable grain storage, conditioning, material handling equipment and structures.

This commitment and focus have resulted in GSI becoming the world's number one manufacturer of grain bins and a global leader in drying and material handling equipment.

Today's production requirements demand systems that excel in performance and are reliable year after year. In addition, easy installation, simple operation, durability, flexibility, and operation efficiency are all carefully considered in the design and construction of every GSI product manufactured.

THAT'S WHY GSI.

GSI PRODUCT LINEUP

BIN UNLOADS

Whether you are emptying a single bin or on the fifth turn of that bin this year, you need to move your grain gently and efficiently. GSI's unloads are hard at work on farms, grain elevators, and processing plants across the world.

	MODEL / AUGER SIZE	APPROXIMATE CAPACITY	BIN DIAMETER
DIRECT GEAR DRIVE SWEEP	8"	1,500 - 2,500 BPH	15' to 48'
	10"	2,000 - 5,000 BPH	24' to 72'
STANDARD CARRY-IN SWEEP	6"-8"	up to 2,250 BPH	15' to 42'
	10"	2,250 BPH	24' to 48'
COMMERCIAL CARRY-IN SWEEP	6"-8"	800 - 1,050 BPH	24' to 48'
	8"-10"	1,500 - 2,050 BPH	24' to 48'
	10"-12"	3,200 - 3,700 BPH	24' to 72'
U-TROUGH	7.25"	5,000 - 7,500 BPH	15' to 60'
	8.25"	5,000 - 7,500 BPH	30' to 60'
LEAVE-IN	10"	up to 3,000	30' to 105'
	12"	up to 6,500	30' to 105'
X-SERIES SWEEP	12"	3,000 - 7,000 BPH	30' to 156'
	16"	8,000 - 10,000 BPH	30' to 156'
PADDLE SWEEPS	Powered Farm Sweep	up to 5,500 BPH	15' to 60'
	Commercial Paddle Sweep	up to 6,000 BPH	15' to 105'
	Dual Arm Commercial Paddle Sweep	up to 11,000 BPH	60' to 105'



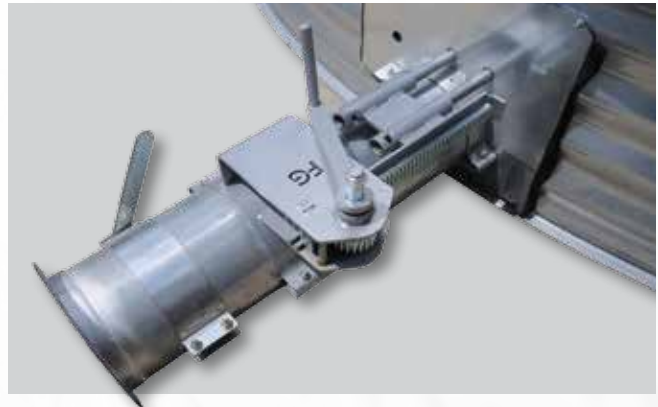
COMPLETELY REDESIGNED

Re-engineered Direct Gear Drive power sweeps feature new center and intermediate well designs, heavy-duty gearboxes, single piece backshield assembly and redesigned end-wheel. With fewer moving parts, GSI Direct Gear Drive power sweeps are now more durable, reliable and easier to maintain than ever. Direct gear drive power sweeps are available in 8" (up to 48' dia. bins) and 10" (24' to 72') models, and are permanently installed and ready to start up with the flip of a switch.



CENTER WELL

- Redesigned center well uses fewer components, and unload tube bolts directly onto the center well for easier installation.
- Extended bolts on center well gate break up clusters.
- Steel roller bearings allow for smooth gate operation and durability.

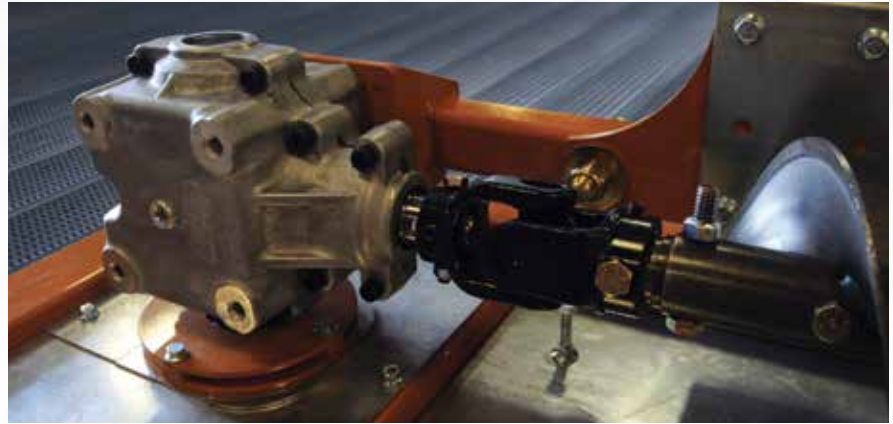


CONTROLS

- Rack-and-pinion controls are standard on all direct gear drive sweeps.
- Simplified sweep engagement with a band on control handle, with pin for locking position.
- Separate control pipes for center and intermediate wells along with a crank handle make opening and closing gates very easy.

GEARBOX

- Direct gear drive power sweeps utilize a heavy-duty commercial grade gearbox.
- Proven internal clutch mechanism and aluminum housing ensures reliability and durability.
- Separate upper and lower gearboxes are joined with a coupler for easy maintenance and service.



INTERMEDIATE WELLS

Intermediate wells are wider than previous designs and use rods instead of wire mesh for better flow. Steel roller bearings allow for smooth gate operation and durability. An optional control can be added for independent operation of the intermediate well closest to the center, for use in situations where center well is plugged.



WHEEL

New end wheel design features a fluted tread to help draw in grain from the edge of the bin to the auger. A wider tread profile helps to reduce load on flashing.



BACKSHIELD

A single-piece backshield combined with a torque tube that runs the entire length for superior rigidity.



ADJUSTABLE RUBBER WIPER

Rubber wiper can be adjusted closer to the floor for improved cleanout.



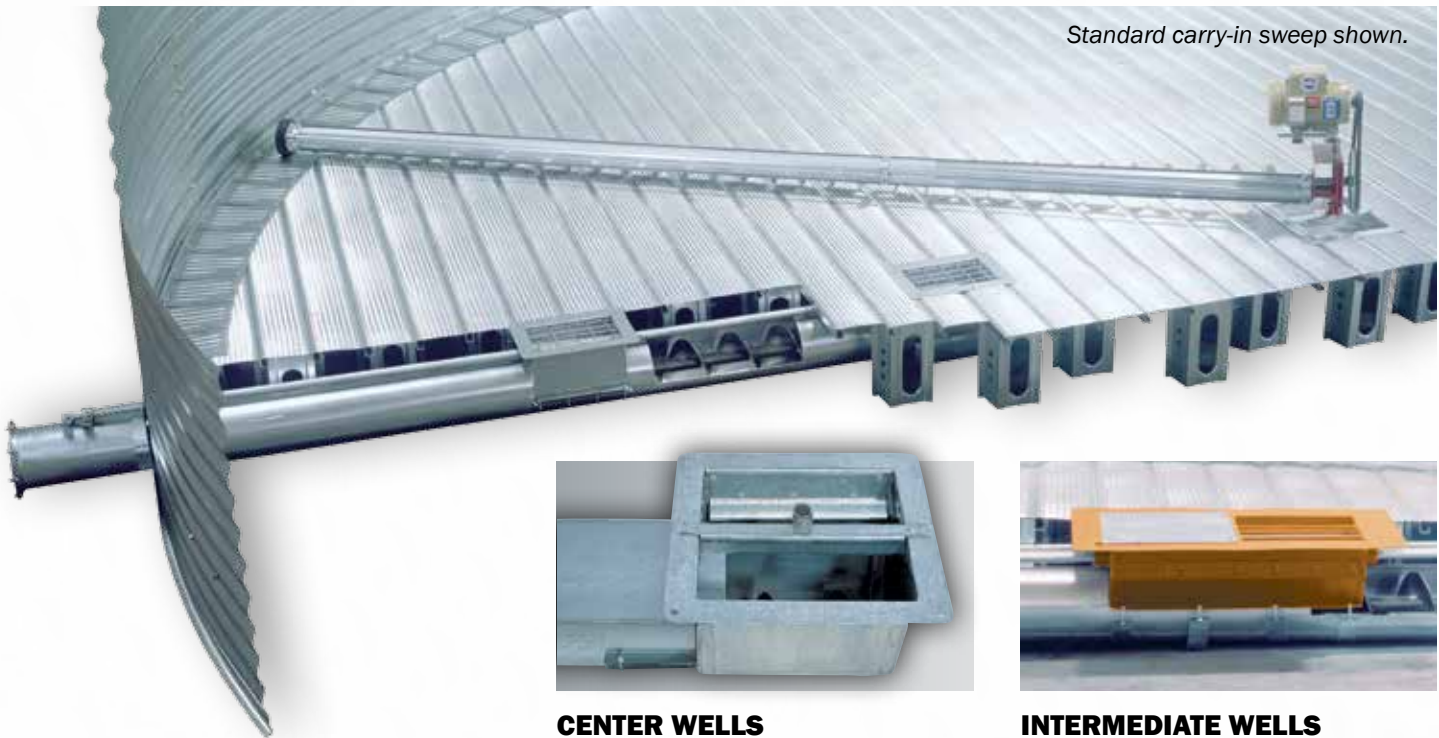
DURA-EDGE® FLIGHTING

All direct gear drive sweeps are equipped with heavy-duty 7-gauge Dura-Edge® fighting that lasts 30% longer than regular fighting.

THE POWER OF VERSATILITY

Our removable bin sweep gives you the versatility to easily move the entire unit from one bin to another. Standard carry-in bin sweeps are available in 6", 8" and 10" sizes, and can be used in bins ranging in diameter from 15' to 48'. Torque tube and back shield adjust for close-floor clearance for maximum clean-out. Bins 30' or larger include an intermediate bearing to help stabilize the sweep flight.

Commercial unloads are available in 8", 10", 12" and 14" sizes for bins ranging from 24' to 120' diameter. This heavy-duty equipment is recommended in smaller bins with high use applications.



Standard carry-in sweep shown.



CENTER WELLS

All wells and tubes are galvanized or powder coat finished for extended life. (Standard center well shown above.)



INTERMEDIATE WELLS

Carry-in intermediate wells use nylon rollers. Options include a band-on well and shallow intermediate wells for use in 12" floors. (Commercial style shown above.)



RACK-AND-PINION CONTROLS

Rack-and-pinion controls are standard on 10" and larger sweeps, and optional for 8".



TRACTOR DRIVE

Standard on 12" commercial sweeps and optional on 10" sweeps. Retrofits to existing sweeps with minimal fabrication. (See pg. 9 for more info)



DURA-EDGE® FLIGHTING

All carry-in sweeps, sizes 8" and larger, are equipped with heavy-duty 7-gauge Dura-Edge® flighting that lasts 30% longer than regular flighting.

U-TROUGH

Available for bins up to 66' diameter, the U-Trough fits under a standard 12" floor as well as most other aeration floors. It features an adjustable flight for easy expansion to the outer wall, dual action sweep wheels that move the unloader through the grain while sweeping out outer sidewall grain, and enhanced design to help sustain grain quality.



U-Trough's open design allows pressure relief as grain moves through the trough. This design reduces the chance of grain cracking or damage.



RACK-AND-PINION CONTROLS
Rack-and-pinion gate controls are standard on U-Trough unloads. Optional air or electric gate openers available. Gearbox shifter engages the sweep from outside the bin.



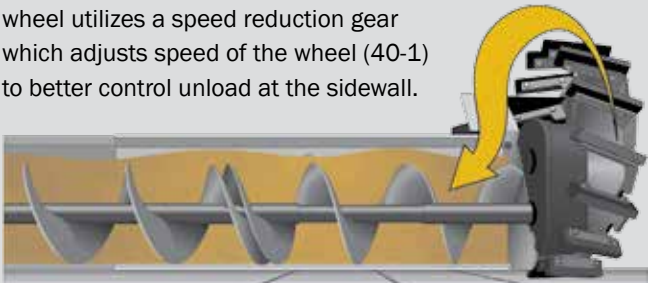
SWEEP DRIVE OPTIONS
Gearbox sweep drive features an enclosed shifting mechanism with no chains in the gearbox. One motor drives the unload and sweep from outside the bin. An extra long center gate is designed for maximum grain flow.



POWER HEADS
Electric power head with quick detach motor mount and over center belt tensioner. A rubber gasket on the belt guard maintains tube pressurization for a positive airflow seal. Incline elbows are available.

POWER AND PERFORMANCE

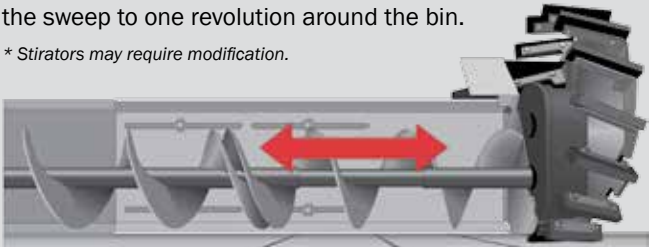
The drive wheel (patent pending) sweeps grain from the bin wall as it propels the unloader. The sweep wheel utilizes a speed reduction gear which adjusts speed of the wheel (40-1) to better control unload at the sidewall.



FLEXIBILITY AND CONVENIENCE

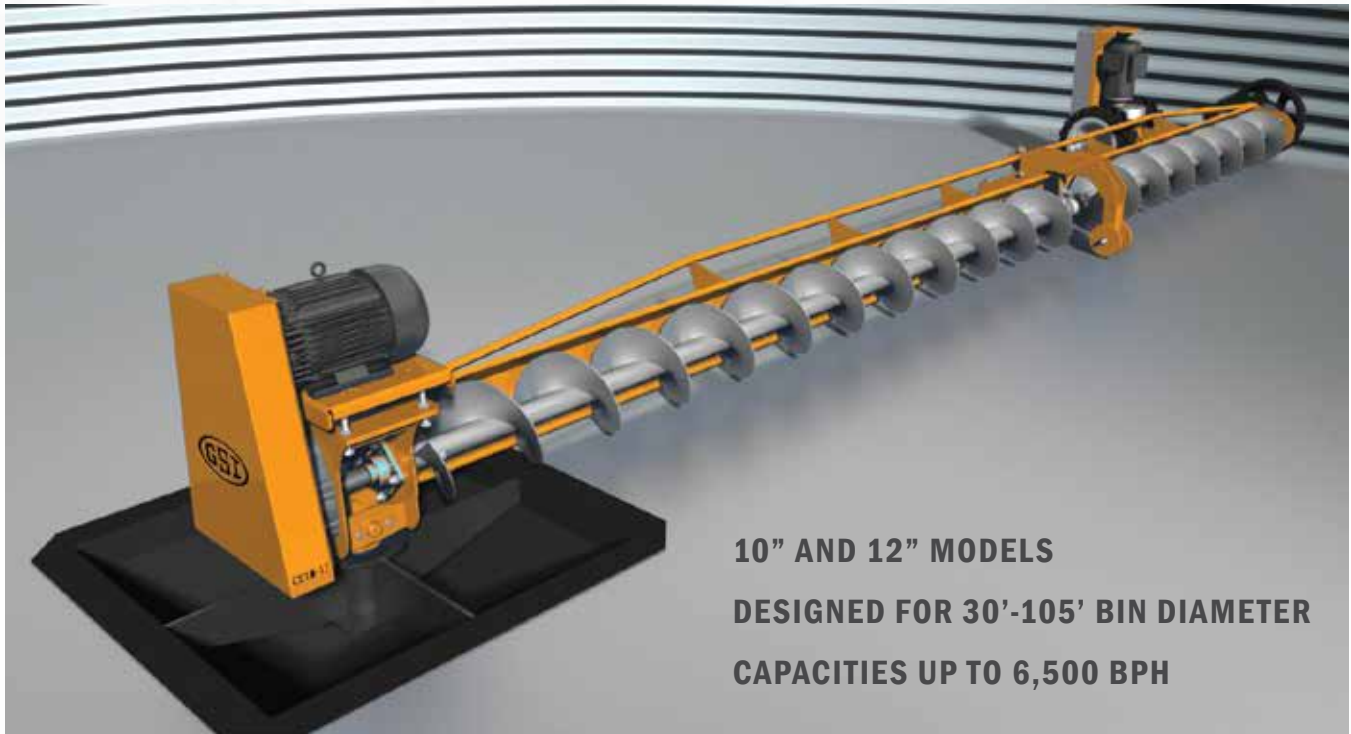
The sweep length is adjustable to accommodate various bin sizes. Standard size U-Trough sweep is 7.25". A sweep stop* can be controlled from outside the bin to limit the sweep to one revolution around the bin.

* Stirators may require modification.



LEAVE-IN SWEEPS

FULL FLOOR COMMERCIAL SWEEP



10" AND 12" MODELS

DESIGNED FOR 30'-105' BIN DIAMETER

CAPACITIES UP TO 6,500 BPH

FEATURES

- Premium Thick-Edge Flighting
- Motorized Tractor Drive and SureGrip™ Wheel Ensure Reliable Power and Traction
- Skeletonized Frame
- Single-adjustment Carrier Wheels
- Retrofit Compatible
- Premium Powder-coat Finish

STANDARD CONTROL PANEL

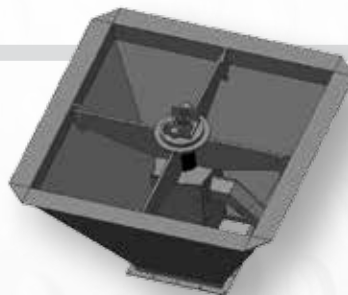
- Main Disconnect
- Auger ON/OFF Switch
- Drive FWD/OFF/REV Switch
- Emergency Stop
- Overloads for All Motors
- Can Operate Two Drives (72' and longer require two drives)

AUTO-DRIVE CONTROL PANEL

- All Standard Panel Features
- Digital Ammeter (Auger Motor)
- Auto-Drive Forward Based on Auger Motor Amps
- Auto-Reverse

OPTIONS

- Exclusive UL Listed Collector Ring Sump
- Above Floor UL Collector Ring for Zero-Entry Sweep Operation
- Corded Sump
- Receiver/Pivot Options
- Park Plates/Track Strips



Exclusive UL Listed Collector Ring

Effectively allows power through to the sweep motor and prevents the cables from twisting as the sweep rotates.



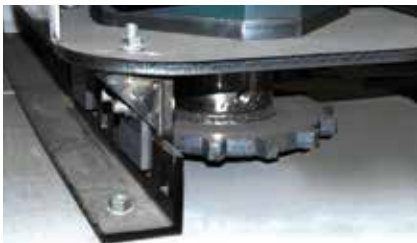
Above-Floor UL Listed Collector Ring

Mounted above the bin floor enabling true zero-entry sweep operation. All cables are run under the bin floor.

BIN UNLOADING

A TRUE ZERO-ENTRY SWEEP

No in-bin preparation is required prior to starting the X-Series Sweep, a true zero-entry sweep. Simply start and monitor operation from the externally-mounted control panel and watch your system work for you. X-Series Sweeps are available in a 12" model (3,000-7,000 BPH) and a 16" model (8,000-10,000 BPH).



POSITIVE DRIVE

Motor/gearbox combination drives a sprocket which engages track anchored to the concrete floor, eliminating slippage of the drive tractor. Gearbox is factory filled with food-grade lubricant.



DIRECT DRIVE DESIGN

Heavy-duty leave-in-place motor covers eliminate the need to uncover or prep motors prior to sweep start-up, making the X-Series a true zero-entry sweep at all stages of operation.



BOTTOM SHIELD BRUSH

Brush stays engaged with bin floor to help sweep the grain away for maximum clean out.



INTEGRATED PLOW

Our integrated plow provides a cleaner sweep near the bin wall with an adjustable design to accommodate door frames. Shear bolt design prevents major damage to sweep or obstacle in event of contact.



X-SERIES CONTROL PANEL

Monitors and displays several key pieces of information, allowing for manual or automatic operation. To further promote safety the panel allows for the easy integration of safety switches such as light curtains, and interlocks for downstream equipment monitoring. In the event of an avalanche the X-Series senses an amperage spike and immediately reverses the sweep while keeping the flight engaged to allow for seamless operation with no entry. The control panel is mounted directly on the bin. The sweep can be monitored from a control room through remote access.

PADDLE SWEEPS



COMMERCIAL PADDLE SWEEPS

Designed for high capacity systems, GSI's Commercial Paddle Sweep uses flexible rubber paddles to gently and safely unload up to 6,000 bushels per hour in 15' to 105' diameter bins.

- Support stands allow for minimal entry once the sweep has been started.
- One 3-phase explosion-proof motor operates sweep.
- Simplified drive tractors push sweep around the bin.
- Available with either a pivot pin or collector ring with a start/stop control panel.

DUAL ARM COMMERCIAL PADDLE SWEEPS

The Dual Arm Commercial Sweep features position sensing logic allowing the two sweeps to more effectively clean the bin. Designed for 60'-105' diameter bins with unload capacities up to 11,000 BPH.

- Provides the most efficient unloading with at least one of the sweeps always running at full capacity.
- Sensor logic ensures that the sweeps can each be adjusted to the grain conditions on either side of bin.
- Independently rotating sweeps will automatically shut down and restart if either sweep falls behind or gets ahead of the other.



POWERED FARM SWEEPS

Drive is driven by paddle chain with no additional power source needed. Designed for 15'-60' diameter bins with no existing power or screw conveyor unload. Gently and evenly unloads up to 5,500 BPH.

- Heavy duty paddle chain and explosion proof motor.
- Rubber drag helps clean the floor for minimal sweeping.
- Designed to be fully submersed in grain and can unbury itself from an avalanche.
- Does not plug or stall when overrunning the sweep.

UNLOAD OPTIONS

POWER HEADS

Choose a vertical, horizontal, or 25 degree discharge to make it easier to discharge directly into a truck, trailer or other equipment with a power head discharge at the angle that is right for your operation.

FEATURES

- Remove flighting without removing the power head for easy maintenance
- Single-threaded adjustment rod to easily tighten belts
- Removable hinged motor plate
- Removable bearing plate
- Steel belt guard with vertical removal
- Standard unload and direct gear drive sweeps utilize the same drive
- 12" commercial horizontal without reducer



Easily remove flighting without removing the power head for hassle free maintenance.



HORIZONTAL

- Available in 6", 8", 10" and 12" sizes
- Standard units are offered in 1, 2 or 3 belt drives
- Commercial units are offered in 2, 3 or 4 belt drives

VERTICAL

- On bins 48' dia. and smaller, our 16'6" standard vertical makes it easier to discharge directly into a truck, trailer or mill
- Double flighting on the intake auger
- 16'6" tall commercial double drive vertical can be used on 24' thru 120' diameter bins

25 DEGREE INCLINE

- Available in 6" (horiz.) to 8" (incline), 8" to 10", or 10" to 12"
- Inclines have a 2, 3 or 4 belt drive and include an adjustable support stand
- Optional wheel kit can be attached to make unit portable



COMMERCIAL SWEEP TRACTOR

Optional on 10" and 12" heavy duty models, the sweep tractor is a knockdown design to fit into a 18" square door and can improve the performance and safety of your sweep. Sweep tractor easily retrofits to existing sweep with minimal fabrication. Idler wheel required in place of end wheel drive. These kits include a .5 hp, 3-phase, explosion-proof motor.

Commercial Sweep Control Panel

- Automatic or manual control. Tractor advance is controlled by auger motor amperage.
- Portable design allows for easy movement between same size sweeps. All power is connected with plugs in bottom of panel.
- 3-phase, 230 or 460 volts. Multiple models cover auger horsepower range of 3-10 (230V) and 3-20 (460V).



BIN UNLOAD SPECIFICATIONS

DIRECT GEAR DRIVE SWEEP

UNLOAD AUGER DIA.	BIN DIA.	SWEEP FLIGHT DIAMETER	SWEEP FLIGHT SPEED	UNLOAD CAPACITY
8"	15'	5" or 7"	260 RPM	1,500 - 2,500 BPH ¹
	18'			
	21'			
	24'			
	27'			
	30'			
	33'			
	36'			
	42'			
	48'			
10"	24'	7" or 9"	285/230 RPM ²	2,000 - 5,000 BPH ¹
	27'			
	30'			
	33'			
	36'			
	42'			
	48'			
	54'			
	60'			
	72'			

1 - Capacities are approximate and may vary depending on unload powerhead. All capacities are based on dry free flowing grain.

2 - Dependent on sweep flight diameter.

BIN UNLOAD SPECIFICATIONS

STANDARD CARRY-IN SWEEP

UNLOAD AUGER DIA.	BIN DIA.	SWEEP FLIGHT DIAMETER	SWEEP FLIGHT SPEED	UNLOAD CAPACITY
6" - 8"	15'	5"	369, 438, 525 RPM ²	up to 2,250 BPH ¹
	18'			
	21'			
	24'			
	27'			
	30'			
	33'			
	36'			
	42'			
10"	24'	7"	438 RPM ²	2,250 BPH ¹
	27'			
	30'			
	33'			
	36'			
	42'			
48'				

1 - Capacities are approximate and are dependent upon the motor sheave selection. All capacities are based on dry free flowing grain.

2 - Flight Speed dependent upon motor sheave selection.

POWER HEADS - UNLOAD CAPACITIES (BPH)

	6"	8"	10"	12"
Vertical	1250	2500	3750	5000
Horizontal	1500	2500	4000	6000

	6"-8"	8"-10"	10"-12"	NA
25° Incline*	1500	2000	4000	NA

COMMERCIAL CARRY-IN SWEEP

UNLOAD AUGER DIA.	BIN DIA.	SWEEP FLIGHT DIAMETER	SWEEP FLIGHT SPEED	UNLOAD CAPACITY
6" - 8"	24'	5"	328/438 RPM ²	800-1,050 BPH ¹
	27'			
	30'			
	33'			
	36'			
	42'			
	48'			
8" - 10"	24'	7"	306/394 RPM ²	1,500 - 2,050 BPH ¹
	27'			
	30'			
	33'			
	36'			
	42'			
48'				
10" - 12"	24'	9"	250/290 RPM ²	3,200 - 3,700 BPH ¹
	27'			
	30'			
	33'			
	36'			
	42'			
	48'			
	54'			
	60'			
	66'			
	72'			

1 - Capacities are approximate and are dependent upon the motor sheave selection. All capacities are based on dry free flowing grain.

2 - Flight Speed dependent upon motor sheave selection.

BIN UNLOAD SPECIFICATIONS

BIN UNLOADING

U-TROUGH

SWEEP FLIGHT DIA.	BIN DIA.	HP FOR DRIVE UNIT STYLE	
		HORIZONTAL	INCLINE
7.25"	15'	5	7.5
	18'	5	7.5
	21'	5	7.5
	24'	7.5	7.5
	27'	7.5	10
	30'	7.5	10
	33'	7.5	10
	36'	10	10
	42'	10	10
	48'	15	15
	54'	15	20
	60'	20	20
8.25"	30'	7.5	10
	33'	7.5	10
	36'	10	10
	42'	10	10
	48'	15	15
	54'	15	20
	60'	20	20

All U-Trough unload systems 9' unload flight in a 11' trough. Capacities may vary depending on grain type and condition.

X-SERIES SWEEP

AUGER SIZE	BIN DIA.	TRACK DRIVE HORSEPOWER	AUGER DRIVE HP 3,000 - 7,000 BPH
12" AUGER	27'	1/2	15
	30'	1/2	15
	33'	1/2	15
	36'	1/2	15
	42'	1/2	15
	48'	1/2	15
	54'	1/2	15
	60'	1/2	15
	72'	1/2	15
	75'	1/2	15
	78'	1/2	15
	90'	1/2	20
	105'	1/2	25
	135'	1/2	25
16" AUGER	27'	1/2	15
	30'	1/2	15
	33'	1/2	15
	36'	1/2	15
	42'	1/2	15
	48'	1/2	15
	54'	1/2	15
	60'	1/2	20
	72'	1/2	20
	75'	1/2	20
	78'	1/2	20
	90'	1/2	25
	105'	1/2	30
	135'	1/2	30

Capacities and stated motor horsepowers based on dry, free-flowing grain. X-Series Sweep is not intended for tanks with full floors.

LEAVE-IN SWEEP

AUGER SIZE	BIN DIA.	TRACTOR HP	CAPACITY	AUGER DRIVE HP
10"	30'	1	1500-2000	3
			3000-3500	5
	33'	1	1500-2000	3
			3000-3500	5
	36'	1	1500-2000	3
			3000-3500	5
	42'	1	1500	3
			2000-3500	5
	48'	1	1500	3
			2000	5
			3000-3500	7.5
	54'	1	1500-2000	5
			3500	7.5
	60'	1	1500-2000	5
			3000-3500	7.5
	66'	1	1500	5
			2000	7.5
			3000-3500	10
	72'	1	1500	5
			2000	7.5
3000-3500			10	
75'	1	1500	5	
		2000	7.5	
		3000-3500	10	
78'	1	1500	5	
		2000	7.5	
		3000-3500	10	
90'	1	1500	7.5	
		2000	10	
		3000-3500	15	
105'	1	1500	7.5	
		2000	10	
		3000-3500	15	
12"	30'	1	4000	5
			5000-6500	7.5
	33'	1	4000	5
			5000-6500	7.5
	36'	1	4000	5
			5000	7.5
	42'	1	6000-6500	10
			4000-5500	7.5
	48'	1	6000-6500	10
			4000	7.5
			5000	10
	54'	1	6000-6500	15
			4000	7.5
			5000	10
	60'	1	6000-6500	15
			4000	10
			5000-6500	15
	66'	1	4000	10
			5000	15
			6000-6500	20
72'	1	4000	10	
		5000	15	
		6000-6500	20	
75'	1	4000-5500	15	
		6000-6500	20	
		4000-5500	15	
78'	1	4000-5500	15	
		6000-6500	20	
		4000	15	
90'	1	5000	20	
		6000-6500	25	
		4000-5500	20	
105'	1	6000-6500	25	
		4000-5500	20	



BIN UNLOAD SPECIFICATIONS

PADDLE SWEEPS

POWERED FARM PADDLE SWEEP

BIN DIA.	MOTOR HORSEPOWER					
	1000 BPH	1500 BPH	2000 BPH	2750 BPH	4000 BPH	5500 BPH
15'	2	2	2	5	5	5
18'	2	2	2	5	5	5
21'	2	2	2	5	5	5
24'	2	2	2	5	5	5
27'	2	2	2	5	5	5
30'	2	2	2	5	5	5
33'	2	2	2	5	5	5
36'	2	2	2	5	5	5
42'	2	2	2	5	5	5
48'	2	2	2	5	5	5
54'	2	2	2	5	5	5
60'	2	2	2	5	5	5

COMMERCIAL PADDLE SWEEPS

BIN DIA.	MOTOR HORSEPOWER					
	1000 BPH	1500 BPH	2000 BPH	2750 BPH	4000 BPH	5500 BPH
15'	2	2	2	5	5	5
18'	2	2	2	5	5	5
21'	2	2	2	5	5	5
24'	2	2	2	5	5	5
27'	2	2	2	5	5	5
30'	2	2	2	5	5	5
33'	2	2	2	5	5	5
36'	2	2	2	5	5	5
42'	2	2	2	5	5	5
48'	2	2	2	5	5	5
54'	2	2	2	5	5	5
60'	2	2	2	5	5	5
66'	n/a	n/a	n/a	7.5	10	7.5
72'	n/a	n/a	n/a	7.5	10	7.5
75'	n/a	n/a	n/a	7.5	10	10
78'	n/a	n/a	n/a	7.5	10	10
90'	n/a	n/a	n/a	7.5	10	10
105'	n/a	n/a	n/a	10	15	15

DUAL ARM COMMERCIAL PADDLE SWEEPS

BIN DIA.	MOTOR HORSEPOWER		
	5500 BPH	8000 BPH	11000 BPH
60'	5	5	5
66'	7.5	7.5	7.5
72'	7.5	7.5	7.5
75'	7.5	10	10
78'	7.5	10	10
90'	7.5	10	10
105'	10	15	15

Capacities and stated motor horsepowers based on dry, free flowing, grain.

COMPLETE YOUR GSI SYSTEM

WWW.GRAINSYSTEMS.COM



40-SERIES™ GRAIN BINS

When determining the best system for your operation, we know that what is protected inside the bin is what counts the most. Every product we design, engineer and build is based on this foundation.



TOWERS AND CATWALKS

GSI offers a full line of structures to support material handling equipment. Built to perform for the long haul, GSI's 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.



MATERIAL HANDLING

With lines of GSI and InterSystems Material Handling, we offer the broadest product portfolio of proven and dependable equipment in the industry. We design and manufacture products that withstand the conditions of any commercial grain facility, while handling the grain with care and efficiency.



GLOBAL SOLUTIONS. LOCAL SUPPORT.

GSI and GSI Dealers alike share the same passion and commitment to our customers. GSI Dealers and contractors understand down time is not an option, construction schedules must be met. From site planning to installation and service, GSI Dealers and contractors are the proven partners for your operation. When you buy GSI, you get the quality product of a worldwide leader and the dependable service of your local Dealership.

**TO FIND YOUR LOCAL GSI DEALER,
VISIT THE GSI DEALER LOCATOR
AT WWW.GRAINSYSTEMS.COM**



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