

# FARM HOPPER TANKS (BFT, GHT & FCHT)



TOTAL VALUE. TOTAL SYSTEMS.™



# BULK FEED TANKS

Bulk Feed Tanks (BFT) are a popular way of storing feed due to their ease of installation, lower expansion cost and convenient hopper unloading. Several of these tanks can be installed to store a variety of grains and the sealed roof and body design helps protect grain/feed from moisture damage. GSI Bulk Feed Tanks are available in 6', 7', 9', 12', and 15' diameters and range in capacities up to 3182 bushels (77 metric tons).

Only GSI feed tanks feature the exclusive, patented Auto-Lok ground control access system for opening, closing and latching the fill cap safely and easily from the ground. The cap swings open a full 180° to lie flat and parallel to the ground, completely eliminating interference with, or damage to, the cap from the auger.

Bulk Feed Tanks also feature an optional hopper valve for for accessing small amounts of material to a location not serviced by the auger system.



# GRAIN HOPPER TANKS

Grain Hopper Tanks (GHT) are able to support slightly heavier loads than typical ground feed bulk tanks. They are available in 9', 12', 15', 18' and 21' diameters and can be used for temporary storage, adapted to several grain drying and conditioning systems, or serve as long term storage for properly dried grain. GSI hopper tanks are designed to hold 45 lbs. per cubic foot, with total bin capacities exceeding 6000 bu. (150 metric tons).

GSI manufactures roofs from prime, high tensile, galvanized steel. The higher tensile steel adds up to 20% more strength, with no extra weight, which is critical in clear span roof structural design. Roof eave clearance can be adjusted at the time of installation. Each roll formed roof rib has four supportive bends in the vertical sides for maximum strength. Tall roof ribs are fully double overlapped for moisture resistance and additional support. The easy to open peak cap provides a large 30" diameter opening for fast filling.



# FCHT SERIES

The FCHT series, with 4.00" corrugation, is available in a 45 degree hopper slope and is designed to cover a more specific "intermediate" range of capacities providing the strength and reliability of a stiffened commercial tank and the cost advantage of a series designed for a specific limited size and capacity range.

FCHT tanks start at the concrete foundation with heavy structural "wide-flanged" columns, factory welded to thick steel base plates.

GSI stiffeners are manufactured from high tensile strength 70,000 PSI (483 MPA) steel and completely galvanized for durability. Stiffeners feature strong splice joints with large cross sectional areas, both critical elements of vertical stiffeners, and are installed two-post (two per sidewall panel) externally to bear directly on the base columns.



## HOPPER BIN COMPARISONS

	BFT	GHT	FCHT	NCHT
Corrugation	2.66	2.66	4.00	2.66
Stiffened	No	No	Yes	Yes
Legs	Rolled	Rolled	Structural Welded	Structural Welded
Material Capabilities	40 lbs./cu. ft.	45 lbs./cu. ft.	52 lbs./cu. ft.	52 lbs./cu. ft.
Roof Style	Sealed	Grain Bin	Grain Bin	Grain Bin
Roof Peak Loads	1,200 lbs.	2,500 lbs.	6,000 lbs.	6,000 lbs.
Opening	16"	16" to 22"		
Hopper Angles	45°, 60°, 67°	45°	45°	40°, 45°, 60°

## HOPPER BOTTOMS

Hopper panels are die-formed with rounded corners for a weather-tight fit. In addition, assembly with rounded corners on inner surfaces. The "eave", the upper edge of the hopper, is specially die-formed to conform to the shape of the hopper.

## DRIP LIP FOR WEATHER PROTECTION

GSI's drip lip water deflection system is a one-piece design that forces water away from the hopper and lowers the risk of loss in capacity.



### THE SOLID CHOICE

GSI precision formed, galvanized coated, high tensile steel sidewall sheets, combined with a 2-2/3" (68mm) wide by 1/2" (13mm) deep corrugation, provide outstanding strength and durability. Optional fully die-formed side ladders with dimpled non-skid rungs provide convenient access to the tank.

### LEGS & ANCHORS

GSI tanks are supported by our fully galvanized, 6-bend roll-formed legs. GSI legs provide significantly greater strength over simple angle iron legs and greater corrosion resistance and longer life compared to painted legs. Galvanized roll-formed cross ties and two-piece leg anchor sections assist in transferring the tank load to the base and provide for greater strength, stability, and support.

### FLEX-FLO™ FLEXIBLE AUGER SYSTEMS

Tubing and augers are available in four sizes and five models with capacities ranging from 15 lbs. to 220 lbs./minute. Whether it's ground feed, crumble feed, mash, high moisture corn, shelled corn or pellets, GSI has the combination to handle it. For corn with up to 27% moisture and other hard to flow materials, GSI also offers a Flex-Flo™ High Roughage system which incorporates a special combination of a 3" (76mm) auger in a 3-1/2" (89mm) tube to reduce plugging.



### RIGID AUGER

For high capacity material handling, GSI offers a complete line of rigid augers and accessories. Available in diameters 4", 6", and 8", and in lengths from 11' to 21', the GSI rigid auger system can be configured to meet the most demanding applications. With capacities up to 2100 BPH, GSI rigid augers can make quick work of your material handling job.

### ROTARY UNLOADER

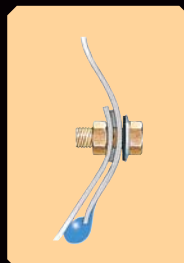
Designed to fit below the 22" Maxi-Flo boot, GSI's rotary unloaders are available for 2.2" (55mm), 3" (75mm), 3.5" (90mm) and 5" (125mm) Flex-Flo™ or 4", 6", and 8" rigid auger systems.



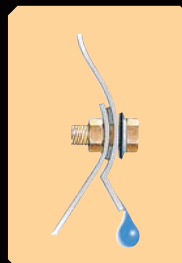
corners and sealed edges down-turned for a rounded, truss-head bolts reduce "bridging" of contents where the hopper is joined to the sidewall, is of the sidewall corrugation.

### DOWN

of-a-kind, roll-formed bottom sheet edge which boot area. Complete weather protection without a



Without Drip Lip



With Drip Lip

### UNLOADER SYSTEMS

GSI offers several unloader systems including single, twin, tandem and twin tandem models. Augers can be direct or belt driven by a 1/3 to 1-1/2 horsepower, totally enclosed fan cooled motor at a standard 358 RPM (other speeds are available for special applications). Additional grain handling accessory equipment is available including extension systems to adjust auger lengths, time clocks, automatic shut-off switches, intermediate drop kits and y-drops.



GSI's 16" (406mm) parabolic boot (available in straight drop or 30° models) is made from the very latest in ultra high impact polypropylene for greater flexibility, dependability and durability. The clear poly carbonate version provides a window to confirm that feed is present.

Straight Drop Boot



Clear Straight Drop Boot

30° Drop Boot



### HEAVY DUTY BOOTS

Multiple outlet requirements can be easily handled by our 22" (559mm) all metal boot. This boot, which can be fitted to any GSI grain hopper tank, will allow installation of up to four feed lines in several directions at once.



# GHT/BFT/FCHT SPECIFICATIONS

Part Number		Number of Rings	Angle of Hopper	Bushel	Maximum Capacity			Overall Height	
Model	Dia.				Cubic Feet	Metric Tons	U.S. Tons	Feet	Meters
GHT	9	2	45°	388	482.73	8.75	9.65	14' 2"	4.32
		3		523	650.59	11.80	13.01	16' 10"	5.13
		4		658	818.45	14.85	16.37	19' 6"	5.94
		5		793	986.32	17.89	19.73	22' 2"	6.75
		6		927	1154.18	20.94	23.08	24' 10"	7.56
		7		1061	1322.00	23.99	26.43	27' 4"	8.37
		8		1195	1489.9	27.04	29.78	30' 0"	9.18
		9		1329	1657.8	30.09	33.13	32' 7"	9.99
		10		1463	1825.6	33.14	36.48	35' 3"	10.80
		GHT		12	2	45°	786	946.87	19.34
3	1039		1245.30		25.44		28.02	19' 5"	5.94
4	1290		1543.72		31.53		34.73	22' 1"	6.76
5	1542		1842.15		37.64		41.45	24' 8"	7.56
6	1794		2140.57		43.73		48.16	27' 5"	8.38
7	2045		2439.00		49.83		54.88	30' 2"	9.20
8	2296		2737.4		55.93		61.60	32' 8"	10.02
9	2547		3035.9		62.03		68.32	35' 5"	10.84
GHT	15		2		45°		1340	1617.32	33.04
		3	1733	2083.61		42.57	46.88	21' 9"	6.65
		4	2127	2549.90		52.09	57.37	24' 5"	7.46
		5	2520	3016.18		61.52	67.86	27' 1"	8.28
		6	2914	3482.47		71.15	78.36	29' 9"	9.09
		7	3307	3948.76		80.68	88.85	32' 5"	9.91
		8	3700	4415.05		90.20	99.34	35' 1"	10.72
		GHT	18	2		45°	2089	2526.99	51.58
3	2656			3198.44	65.29		71.97	24' 2"	7.36
4	3222			3869.90	78.99		87.07	26' 10"	8.17
5	3789			4541.35	92.70		102.18	29' 6"	8.99
6	4355			5212.81	106.38		117.29	32' 2"	9.80
7	4922			5884.26	120.09		132.40	34' 10"	10.61
8	5488			6555.72	133.79		147.50	37' 6"	11.42
9	6054			7227.2	147.50		162.60	40' 1"	12.23
GHT	21			2	45°		3061	3709.18	75.70
		3	3832	4623.55		94.36	104.01	26' 5"	8.05
		4	4603	5536.32		113.00	124.57	29' 1"	8.86
		5	5374	6450.84		131.60	145.13	31' 9"	9.68
		6	6145	7364.65		150.30	165.69	34' 5"	10.49
		7	6916	8278.5		169.00	186.30	37' 1"	11.30

## 9' GRAIN HOPPER TANKS (GHT - 45 DEGREE HOPPER)

- For storage of free flowing material having a maximum density of 45 lbs. per cubic foot.
- Bushel capacities are calculated with no compaction and to full cubic foot capacities.
- Weight capacities are calculated at 40 lbs. per cubic foot.

## 12' - 21' GRAIN HOPPER TANKS (GHT - 45 DEGREE HOPPER)

- For storage of free flowing material having a maximum density of 45 lbs. per cubic foot.
- Bushel capacities are calculated with 5% compaction and at a 27° angle of repose.
- Weight capacities are calculated at 45 lbs. per cubic foot.

## 6' - 9' BULK FEED TANKS (BFT - 60 & 67 DEGREE HOPPERS)

- For storage of free flowing material having a maximum density of 40 lbs. per cubic foot.
- Bushel capacities are calculated with no compaction and to full cubic foot capacities.
- Weight capacities are calculated at 40 lbs. per cubic foot.

## 12' - 15' BULK FEED TANKS (BFT - 60 & 67 DEGREE HOPPERS)

- For storage of free flowing material having a maximum density of 45 lbs. per cubic foot.
- Bushel capacities are calculated with 5% compaction and at a 27° angle of repose.
- Weight capacities are calculated at 45 lbs. per cubic foot.

## 18' - 24' FARM-COMM HOPPER TANK (FCHT - 45 DEGREE HOPPER)

- For storage of free flowing material having a maximum density of 52 lbs. per cubic foot.
- Bushel capacities are calculated with 6% compaction and at a 28° angle of repose.
- TYPICAL GRAIN DENSITIES: Corn approx. 721 kg/m<sup>3</sup> (45 lb/ft<sup>3</sup>); Wheat approx. 800 kg/m<sup>3</sup> (50 lb/ft<sup>3</sup>); Rice approx. 640 kg/m<sup>3</sup> (40 lb/ft<sup>3</sup>)

Part Number		Number of Rings	Angle of Hopper	Bushel	Maximum Capacity			Overall Height	
Model	Dia.				Cubic Feet	Metric Tons	U.S. Tons	Feet	Meters
BFT	6	1	60°	111	137.99	2.50	2.76	10' 7"	3.25
		2		171	212.60	3.86	4.25	13' 3"	4.06
		3		231	287.20	5.21	5.74	15' 10"	4.85
		4		291	361.80	6.56	7.24	18' 7"	5.69
BFT	7	1	67°	185	230.09	4.17	4.60	13' 6"	4.12
		2		266	331.63	6.02	6.63	16' 2"	4.93
		3		348	433.17	7.86	8.66	18' 9"	5.75
		4		430	534.72	9.70	10.69	21' 6"	6.56
		5		511	636.26	11.54	12.73	24' 2"	7.37
		6		593	737.81	13.39	14.76	26' 10"	8.18
BFT	9	1	60°	308	383.88	6.96	7.69	14' 1"	4.30
		2		443	551.75	10.01	11.04	16' 9"	5.11
		3		578	719.62	13.06	14.39	19' 5"	5.92
		4		713	887.48	16.10	17.75	22' 1"	6.74
		5		848	1055.34	19.15	21.11	24' 8"	7.55
		6		983	1223.21	22.19	24.46	27' 5"	8.36
BFT	12	2	60°	923	1109.27	22.64	24.96	20' 6"	6.25
		3		1175	1407.69	28.73	31.67	23' 2"	7.06
		4		1427	1706.12	34.82	38.39	25' 10"	7.87
		5		1679	2004.54	40.91	45.10	28' 6"	8.69
		6		1931	2302.96	47.00	51.82	31' 2"	9.50
		7		2184	2602.24	53.12	58.56	33' 10"	10.31
		BFT		15	2	60°	1608	1934.95	39.49
3	2001		2401.22		49.00		54.03	26' 7"	8.10
4	2395		2867.50		58.52		64.52	29' 3"	8.92
5	2788		3333.77		68.04		75.01	31' 11"	9.73
6	3182		3800.04		77.55		85.50	34' 7"	10.54

Part Number		Number of Rings	Angle of Hopper	Bushel	Maximum Capacity			Overall Height					
Model	Dia.				Cubic Feet	Metric Tons 800 kg/m <sup>3</sup>	Metric Tons 721 kg/m <sup>3</sup>	Metric Tons 640 kg/m <sup>3</sup>	Feet	Meters			
FCHT	18	4	45°	4157	4880	118	106	94	30' 7"	9.33			
		5		4943	5804	140	126	112	34' 3"	10.44			
		6		5730	6727	162	146	129	37' 11"	11.56			
		7		6516	7650	185	166	148	41' 7"	12.68			
		8		7303	8573	207	186	165	45' 3"	13.79			
		9		8089	9496	229	206	183	48' 11"	14.91			
		FCHT		21	4	45°	5881	6904	166	149	133	29' 2"	10.01
					5		6951	8160	196	177	157	36' 6"	11.13
					6		8021	9417	227	204	182	40' 2"	12.24
7	9092		10674		257		231	205	43' 10"	13.36			
8	10162		11930		287		258	230	47' 6"	14.48			
9	11232		13187		317		285	254	51' 2"	15.60			
FCHT	24	4	45°	7971	9358	225	203	180	34' 9"	10.60			
		5		9369	11000	264	238	211	38' 5"	11.71			
		6		10767	12641	304	274	243	42' 1"	12.83			
		7		12165	14282	343	309	275	45' 9"	13.95			
		8		13563	15923	383	345	306	49' 5"	15.06			
		9		14961	17565	422	380	338	53' 1"	16.18			

**WARNING!** Non-free flowing materials including (but not limited to) soybean meal and meat by-products should not be stored in these tanks due to their inherent nature to bridging. Check with your material supplier on the flowability of your product prior to purchasing a tank. If in doubt about a specific product, contact GSI Group engineering department for additional recommendations. Some features are optional and may be available only on certain models. Consult your local GSI dealer for details. All specifications subject to change without notice.

