

# COMMERCIAL HOPPER TANKS (CHT)



TOTAL VALUE. TOTAL SYSTEMS.™





# NCHT & FCHT SERIES



## THE RIGHT TANK FOR THE RIGHT JOB.

Commercial hopper tanks are typically used in applications where routine clean out is required, or just to reduce the energy and labor cost of material handling. GSI offers two varieties of commercial hopper tanks to better support the needs of this type of grain storage, the NCHT series with a strong 2.66" sidewall corrugation, and the shorter FCHT series with a wider 4.00" sidewall corrugation.

The NCHT series encompasses a full range of diameters from 12' to 36', capacities up to 58,234 bushels (1479 MT), and 40, 45, and 60 degree hopper slopes to meet virtually any hopper storage requirements.

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



Designed for today's modern grain producers and distributors, GSI's commercial hopper tanks provide years of reliable service with convenient features and benefits you won't find with other grain storage systems. Whether you're looking for wet or dry grain holding, overhead unloading systems, blending bins, or long term grain storage, GSI can supply just the right tank to handle the job.



### **SOLID SUPPORT FROM THE GROUND UP.**

GSI commercial hopper tanks start at the concrete foundation with heavy structural "wide-flanged" columns, factory welded to thick steel base plates. Columns are cleaned, specially primed and painted for durability. Bolted to the top of each column are heavy compression angle segments, key components that join the columns, the hopper assembly and the tank body together as one complete unit. Tank columns are fully reinforced with specifically designed "X" bracing, standard high-tensile strength rods or heavy-duty, structural shape steel bracing, depending on the tank size, stored products and special wind or seismic load conditions.

### **HOPPER STRENGTH ... JOB ONE!**

Strength of the tank hopper is extremely critical to the life of the complete tank. For this reason, each hopper panel is precision fabricated from high strength commercial galvanized steel and designed for maximum support when assembled. Hoppers are available in a variety of slopes to match the correct tank size and required application. Both 45 and 40 degree hoppers are generally used with most dry whole grain products. The 45 degree hoppers are also often used for "wet holding." A 60 degree hoppers are used for "wet holding" or other applications where a 60 degree is better suited.



### **SPECIALLY DESIGNED ROLLER VALVE (OPTIONAL).**

An optional, roller valve assembly is available designed to attach directly to the hopper discharge collar. Roller valve gates are equipped with machined rack and pinion gear sets controlled by either a hand or chain wheel. All galvanized construction, the GSI roller valve is simple to operate and provides years of trouble free service.



**45 DEGREE HOPPER SLOPE**



**40 DEGREE HOPPER SLOPE**



**60 DEGREE HOPPER SLOPE**



## 2.66" OR 4.00" CORRUGATED SIDEWALL

The 2.66" corrugated sidewall design is used on GSI's NCHT tanks. The smaller corrugation, together with the 65,000 PSI (450 MPa) tensile steel, provides an all around stronger bin per each pound of steel. FCHT sidewall is also manufactured using high strength steel, but in a wider 4.00" corrugation. Using the wider corrugation provides optimum support for tank sizes available in the FCHT range reducing the overall cost of the silo. Our 2.66" sidewall panels have up to four rows of bolts in the vertical seams for a connection unparalleled in strength. All sidewall is roll-formed at the GSI plant for consistency from commercial coated galvanized steel for increased durability. Panels are assembled using graded, zinc plated, dichromate coated bolts with sealing washers for a tight, weather resistant seal.



## LADDERS, PLATFORMS & LADDER CAGES

Sturdy sidewall ladders, ladder cages and platforms provide easy access when entering, exiting or inspecting the tank. Ladder sections are die formed from galvanized steel and come in 22" or 44" lengths. All ladder cages are completely galvanized, bolt directly to the prepunched sidewall ladder and feature a bell opening at the bottom of the cage allowing ample space when entering and exiting the ladder. Both ladders and platforms incorporate special slip resistant features for a better grip. GSI also manufactures optional, full circle roof rings for additional convenience when working on or inspecting the tank roof.



## X-SERIES LADDERS, PLATFORMS & LADDER CAGES

Also available are GSI's *X-Series* Ladders, Platforms and Ladder Cages. Ladders feature step through platforms and are mounted 90 degrees to the sidewall to eliminate toe hazards such as stiffeners, windrings, and other bracketry. X-Series ladder & stair packages are designed to meet OSHA specifications.



## STRONG SIDEWALL STIFFENERS

GSI commercial stiffeners are manufactured from high tensile strength, up to 70,000 PSI (483 MPa), steel and completely galvanized for durability. GSI 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.



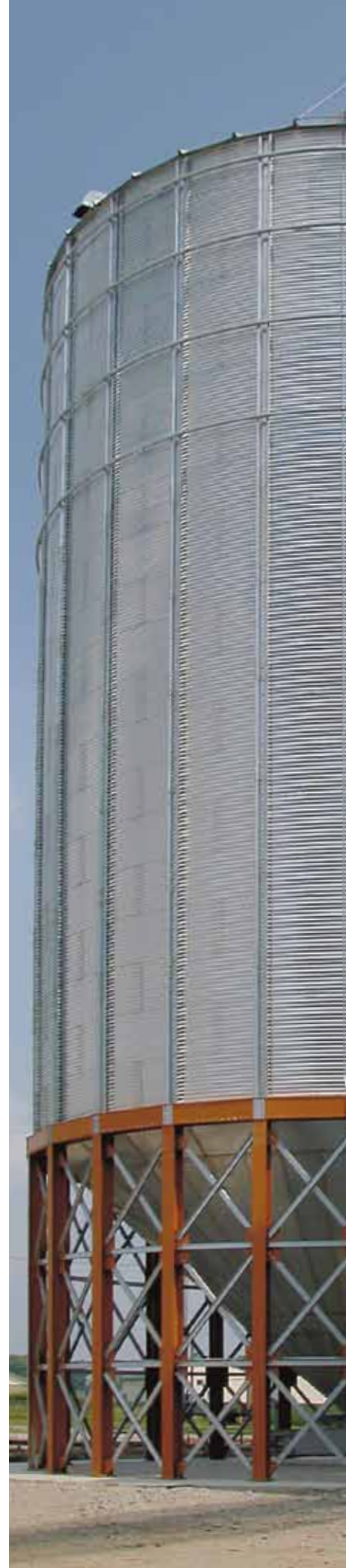
## HEAVY WIND RINGS

For additional support with taller tanks or higher wind areas, GSI manufactures galvanized steel rings that attach directly to the tank stiffeners. The rings strengthen the tank shell providing reinforcement against damaging wind.



## EASY ACCESS DOOR

A standard 24" diameter round access door is located in the second ring of all GSI commercial hopper tanks. A heavy steel ring is fully welded to the sidewall and cold galvanize treated making it one of the most durable and strongest doors available. The tight sealing, inner door panel swings easily out of the way when open, and latches securely with dual wedge-lock handles when closed.







### OPTIMUM VENTILATION.

GSI offers a unique vent to meet your ventilation requirements. The hinged grill vent features a vertically mounted, large mesh, wire formed screen to keep out pests and swings freely open to allow easy release of trash buildup. GSI also provides roof panels with an exclusive factory pre-punched, extruded lip for each vent (shown in cutaway at right).



### OVERLAPPING ROOF PANELS.

GSI offers one of the strongest structural roof support systems in the industry featuring galvanized rafter systems spanning from eave to peak. Roof ribs are taller, fully double lapped and have four extra reinforcing ledges providing increased strength and unbeatable weather protection. Roof panels are manufactured using 55,000 PSI (340 MPa) high tensile steel, and roll formed using a fully automated line to insure precise and consistent panels for easy installation.



### HIGH PERFORMANCE AERATION SYSTEMS.

GSI provides aeration systems to meet your grain conditioning needs. For commercial hopper tank conditioning, sturdy 14 gauge, corrugated and perforated aeration tubes may be added for longer term storage. The system is designed to provide solid attachment to the hopper and allow flow of grain around the tube. Combined with a GSI inline centrifugal or vane-axial fan, GSI's aeration systems offer unbeatable grain conditioning efficiency and performance.

### CUSTOMIZED SYSTEMS TO FIT YOUR NEEDS.

Upon request, GSI can provide system design services to maximize operation efficiency and long term performance. GSI can recommend a combination of specially designed tanks, most efficient hopper slope, a possible flow enhancement device for some non-free flowing materials, grain drying and handling equipment and complete aeration systems including...



#### INLINE CENTRIFUGAL FANS.

Suited for higher static pressures beyond the performance range of vane-axial fans, GSI's inline centrifugal fans are tested to deliver up to 24,000 CFM. (Available in 5 to 25 HP, 1 or 3 phase.)



#### VANE-AXIAL FANS

For applications requiring high airflow at low static pressures, GSI's vane-axial fans are available in 1 to 15 HP, 1 or 3 phase. These fans feature custom designed aerofoil blades made to function with a specific motor for maximum efficiency.

# NCHT & FCHT SPECIFICATIONS

## NCHT 45°

Series	Dia.	Ring	Max Bu. Capacity	Eave (Height Ft.)	Peak (Height Ft.)	Capacity (Cubic Ft.)	Hopper Clearance	Metric Tons 800 kg/m <sup>3</sup>	Metric Tons 721 kg/m <sup>3</sup>	Metric Tons 640 kg/m <sup>3</sup>	Eave Height (Meters)	Peak Height (Meters)	Maximum Capacity (Cubic Meters)
NCHT	12	6 45	1831	24'-2"	27'-5"	2150	32"	51	46	41	7.37	8.36	61
		7 45	2085	26'-10"	30'-1"	2448	32"	59	53	47	8.18	9.17	70
		8 45	2340	29'-6"	32'-9"	2747	32"	66	59	53	8.99	9.98	78
		9 45	2594	32'-2"	35'-5"	3045	32"	73	65	58	9.8	10.8	87
		10 45	2849	34'-10"	38'-1"	3344	32"	80	72	64	10.62	11.61	95
		11 45	3103	37'-6"	40'-9"	3642	32"	87	78	70	11.43	12.42	104
		12 45	3558	40'-2"	43'-5"	3941	32"	94	85	75	12.24	13.23	112
		13 45	3611	42'-10"	46'-1"	4239	32"	101	91	81	13.06	14.05	121
		14 45	3866	45'-6"	48'-9"	4538	32"	108	97	87	13.87	14.86	129
		15 45	4120	48'-2"	51'-5"	4836	32"	115	104	92	14.69	15.67	137
	16 45	4375	50'-10"	54'-1"	5135	32"	122	110	98	16.48	16.48	146	
NCHT	15	6 45	2950	25'-6"	29'-6"	3462	32"	82	74	66	7.77	8.99	98
		7 45	3347	28'-2"	32'-2"	3928	32"	94	85	75	8.59	9.80	111
		8 45	3744	30'-10"	34'-10"	4394	32"	105	95	84	9.40	10.62	124
		9 45	4141	33'-6"	37'-6"	4860	32"	117	105	93	10.21	11.43	138
		10 45	4538	36'-2"	40'-2"	5326	32"	128	115	102	11.02	12.24	151
		11 45	4935	38'-10"	42'-10"	5792	32"	139	125	111	11.84	13.06	164
		12 45	5332	41'-6"	45'-6"	6258	32"	150	135	120	12.65	13.87	177
		13 45	5729	44'-2"	48'-2"	6723	32"	161	145	129	13.46	14.68	190
		14 45	6126	46'-10"	50'-10"	7189	32"	172	155	138	14.27	15.49	204
		15 45	6523	49'-6"	53'-6"	7655	32"	183	165	146	15.09	16.31	217
	16 45	6920	52'-2"	56'-2"	8121	32"	194	175	155	15.90	17.12	230	
	17 45	7317	54'-10"	58'-10"	8587	32"	205	185	164	16.71	17.93	243	
NCHT	18	6 45	4411	27'-4"	32'-3"	5177	32"	124	112	99	8.33	9.83	147
		7 45	4983	30'-0"	34'-11"	5848	32"	140	126	112	9.14	10.64	166
		8 45	5555	32'-8"	37'-7"	6519	32"	156	141	125	9.96	11.46	185
		9 45	6127	35'-4"	40'-3"	7191	32"	172	155	138	10.77	12.27	204
		10 45	6699	38'-0"	42'-11"	7862	32"	189	170	151	11.58	13.08	223
		11 45	7271	40'-8"	45'-7"	8533	32"	204	184	163	12.40	13.89	242
		12 45	7843	43'-4"	48'-3"	9204	32"	221	199	177	13.21	14.71	261
		13 45	8414	46'-0"	50'-11"	9875	32"	236	213	189	14.02	15.52	280
		14 45	8986	48'-8"	53'-7"	10546	32"	253	228	202	14.83	16.33	299
		15 45	9558	51'-4"	56'-3"	11217	32"	269	242	215	15.65	17.15	318
	16 45	10130	54'-0"	58'-11"	11888	32"	285	257	228	16.46	17.96	337	
	17 45	10702	56'-8"	61'-7"	12560	32"	301	271	241	17.27	18.77	356	
	18 45	11274	59'-4"	64'-3"	13231	32"	317	286	254	18.08	19.58	375	
	19 45	11846	62'-0"	66'-11"	13902	32"	333	300	266	18.90	20.40	394	
NCHT	21	6 45	6227	28'-7"	34'-4"	7308	32"	175	158	140	8.71	10.46	207
		7 45	7005	31'-3"	37'-0"	8221	32"	196	177	157	9.53	11.28	233
		8 45	7783	33'-11"	39'-8"	9134	32"	219	197	175	10.34	12.09	259
		9 45	8561	36'-7"	42'-4"	10047	32"	241	217	193	11.15	12.90	285
		10 45	9339	39'-3"	45'-0"	10960	32"	263	237	210	11.96	13.72	310
		11 45	10117	41'-11"	47'-8"	11873	32"	284	256	227	12.78	14.53	336
		12 45	10895	44'-7"	50'-4"	12786	32"	306	276	245	13.59	15.34	362
		13 45	11673	47'-3"	53'-0"	13699	32"	328	296	263	14.40	16.15	388
		14 45	12451	49'-11"	55'-8"	14612	32"	351	316	280	15.21	16.97	414
		15 45	13229	52'-7"	58'-4"	15525	32"	373	336	298	16.03	17.78	440
	16 45	14007	55'-3"	61'-0"	16438	32"	394	355	315	16.84	18.59	465	
	17 45	14785	57'-11"	63'-8"	17351	32"	416	375	333	17.65	19.41	491	
	18 45	15563	60'-7"	66'-4"	18265	32"	438	395	351	18.47	20.22	517	
	19 45	16341	63'-3"	69'-0"	19178	32"	460	415	368	19.28	21.03	543	
NCHT	24	6 45	8423	30'-1"	36'-8"	9885	32"	236	213	189	9.17	11.18	280
		7 45	9439	32'-9"	39'-4"	11077	32"	265	239	212	9.98	11.99	314
		8 45	10455	35'-5"	42'-0"	12270	32"	294	265	235	10.80	12.80	347
		9 45	11471	38'-1"	44'-8"	13462	32"	323	291	258	11.61	13.61	381
		10 45	12487	40'-9"	47'-4"	14655	32"	352	317	281	12.42	14.43	415
		11 45	13503	43'-5"	50'-0"	15847	32"	381	343	304	13.23	15.24	449
		12 45	14519	46'-1"	52'-8"	17039	32"	408	368	327	14.05	16.05	482
		13 45	15535	48'-9"	55'-4"	18232	32"	437	394	350	14.86	16.87	516
		14 45	16551	51'-5"	58'-0"	19424	32"	466	420	373	15.67	17.68	550
		15 45	17567	54'-1"	60'-8"	20616	32"	495	446	396	16.48	18.49	584
	16 45	18583	56'-9"	63'-4"	21809	32"	524	472	419	17.30	19.30	618	
	17 45	19599	59'-5"	66'-0"	23001	32"	551	497	441	18.11	20.12	651	
	18 45	20615	62'-1"	68'-8"	24193	32"	580	523	464	18.92	20.93	685	
	19 45	21631	64'-9"	71'-4"	25386	32"	609	549	487	19.74	21.74	719	

Cubic Meters based on 28 degree angle of repose. Specifications and design are subject to change without notice. All commercial bins are designed for the storage of grain and other free-flowing materials weighing up to 52 lbs. per cubic foot. Maximum bushel capacity based on 6% compaction. Maximum storage capacities reflect grain peaked on center, using an angle of repose of 28 degrees. Other ring heights available in some diameters. Peak heights shown for 30 degree slope roofs. **TYPICAL GRAIN DENSITIES:** Corn approximately 721 kg/m<sup>3</sup> (45 lb/ft<sup>3</sup>); Wheat approximately 800 kg/m<sup>3</sup> (50 lb/ft<sup>3</sup>); Rice approximately 640 kg/m<sup>3</sup> (40 lb/ft<sup>3</sup>)

Series	Dia.	Ring	Max Bu. Capacity	Eave (Height Ft.)	Peak (Height Ft.)	Capacity (Cubic Ft.)	Hopper Clearance	Metric Tons 800 kg/m <sup>3</sup>	Metric Tons 721 kg/m <sup>3</sup>	Metric Tons 640 kg/m <sup>3</sup>	Eave Height (Meters)	Peak Height (Meters)	Maximum Capacity (Cubic Meters)
NCHT	27	6 45	11028	31'-7"	39'-1"	12942	32"	312	283	253	9.63	11.91	366
		7 45	12315	34'-3"	41'-9"	14453	32"	348	315	281	10.44	12.73	409
		8 45	13602	36'-11"	44'-5"	15963	32"	384	348	311	11.25	13.54	452
		9 45	14889	39'-7"	47'-1"	17473	32"	421	381	340	12.07	14.35	495
		10 45	16176	42'-3"	49'-9"	18984	32"	457	413	368	12.88	15.16	538
		11 45	17463	44'-11"	52'-5"	20494	32"	493	446	398	13.69	15.98	580
		12 45	18750	47'-7"	55'-1"	22005	32"	530	479	427	14.50	16.79	623
		13 45	20037	50'-3"	57'-9"	23515	32"	565	511	455	15.32	17.60	666
		14 45	21324	52'-11"	60'-5"	25025	32"	602	544	485	16.13	18.42	709
		15 45	22611	55'-7"	63'-1"	26536	32"	639	577	514	16.94	19.23	751
		16 45	23898	58'-3"	65'-9"	28046	32"	675	610	543	17.75	20.04	794
		17 45	25185	60'-11"	68'-5"	29557	32"	711	642	572	18.57	20.85	837
18 45	26472	63'-7"	71'-1"	31067	32"	747	675	601	19.38	21.67	880		
19 45	27759	66'-3"	73'-9"	32577	32"	784	708	630	20.19	22.48	922		
NCHT	30	6 45	14,167	33'-0"	41'-2"	16,838	32"	404	360	323	10.06	12.52	477
		7 45	15,756	35'-8"	43'-10"	18,703	32"	449	400	359	10.87	13.33	530
		8 45	17,345	38'-4"	46'-6"	20,569	32"	494	441	395	11.68	14.15	582
		9 45	18,934	41'-0"	49'-2"	22,434	32"	539	481	431	12.50	14.96	635
		10 45	20,524	43'-8"	51'-10"	24,299	32"	583	521	467	13.31	15.77	688
		11 45	22,113	46'-4"	54'-6"	26,164	32"	628	562	503	14.12	16.59	741
		12 45	23,702	49'-0"	57'-2"	28,029	32"	673	602	538	14.94	17.40	794
		13 45	25,291	51'-8"	59'-10"	29,894	32"	718	642	574	15.75	18.21	847
		14 45	26,881	54'-4"	62'-6"	31,759	32"	763	683	610	16.56	19.02	899
		15 45	28,470	57'-0"	65'-2"	33,624	32"	807	723	646	17.37	19.84	952
		16 45	30,059	59'-8"	67'-10"	35,489	32"	852	763	682	18.19	20.65	1,005
		17 45	31,648	70'-5"	62'-6"	37,354	32"	897	804	718	19.00	21.46	1,058
		18 45	33,237	65'-0"	73'-2"	39,219	32"	942	844	753	19.81	22.28	1,111
		19 45	34,827	67'-8"	75'-10"	41,085	32"	987	885	789	20.62	23.09	1,163
NCHT	36	10 45	30781	47'-0"	57'-4"	36138	32"	868	782	694	14.30	17.45	1023
		11 45	33069	49'-8"	60'-0"	38824	32"	932	840	746	15.12	18.27	1099
		12 45	35357	52'-4"	62'-8"	41509	32"	997	898	797	15.93	19.08	1175
		13 45	37645	55'-0"	65'-4"	44195	32"	1061	956	849	16.74	19.89	1251
		14 45	39932	57'-8"	68'-0"	46881	32"	1126	1015	901	17.56	20.71	1328
		15 45	42220	60'-4"	70'-8"	49567	32"	1190	1073	952	18.37	21.52	1404
		16 45	44508	63'-0"	73'-4"	52253	32"	1255	1131	1004	19.18	22.33	1480
		17 45	46796	65'-8"	76'-0"	54939	32"	1319	1189	1055	19.99	23.14	1556
		18 45	49083	68'-4"	78'-8"	57625	32"	1384	1247	1107	20.81	23.96	1632
		19 45	51371	71'-0"	81'-4"	60310	32"	1448	1305	1159	21.62	24.77	1708
20 45	53659	73'-8"	84'-0"	62996	32"	1513	1363	1210	22.43	25.58	1784		
NCHT	27	6 40	10555	28'-5"	35'-11"	12387	28"	297	268	238	8.66	10.95	351
		7 40	11842	31'-1"	38'-7"	13898	28"	333	300	266	9.47	11.76	394
		8 40	13129	33'-9"	41'-3"	15408	28"	369	333	296	10.29	12.57	436
		9 40	14416	36'-5"	43'-11"	16918	28"	406	366	325	11.10	13.39	479
		10 40	15703	39'-1"	46'-7"	18429	28"	442	398	353	11.91	14.20	522
		11 40	16990	41'-9"	49'-3"	19939	28"	478	431	383	12.73	15.01	565
		12 40	18277	44'-5"	51'-11"	21450	28"	515	464	412	13.54	15.82	607
		13 40	19564	47'-1"	54'-7"	22960	28"	550	496	440	14.35	16.64	650
		14 40	20851	49'-9"	57'-3"	24470	28"	587	529	470	15.16	17.45	693
		15 40	22138	52'-5"	59'-11"	25981	28"	624	562	499	15.98	18.26	736
		16 40	23425	55'-1"	62'-7"	27491	28"	660	595	528	16.79	19.08	778
		17 40	24712	57'-9"	65'-3"	29002	28"	696	627	557	17.60	19.89	821
		18 40	25999	60'-5"	67'-11"	30512	28"	732	660	586	18.42	20.70	864
		19 40	27286	63'-1"	70'-7"	32022	28"	769	693	615	19.23	21.51	907
NCHT	30	6 40	13421	29'-7"	37'-10"	15751	28"	377	340	302	9.02	11.53	446
		7 40	15010	32'-3"	40'-6"	17616	28"	423	381	338	9.83	12.34	499
		8 40	16599	34'-11"	43'-2"	19480	28"	467	421	374	10.64	13.16	552
		9 40	18188	37'-7"	45'-10"	21345	28"	513	462	410	11.46	13.97	604
		10 40	19777	40'-3"	48'-6"	23210	28"	557	502	446	12.27	14.78	657
		11 40	21366	42'-11"	51'-2"	25075	28"	601	542	481	13.08	15.60	710
		12 40	22955	45'-7"	53'-10"	26940	28"	647	583	518	13.89	16.41	763
		13 40	24544	48'-3"	56'-6"	28804	28"	691	623	553	14.71	17.22	816
		14 40	26133	50'-11"	59'-2"	30669	28"	736	663	589	15.52	18.03	868
		15 40	27722	53'-7"	61'-10"	32534	28"	781	704	625	16.33	18.85	921
		16 40	29311	56'-3"	64'-6"	34399	28"	826	744	660	17.15	19.66	974
		17 40	30900	58'-11"	67'-2"	36264	28"	870	784	696	17.96	20.47	1027
		18 40	32489	61'-7"	69'-10"	38129	28"	915	825	732	18.77	21.29	1080
		19 40	34078	64'-3"	72'-6"	39993	28"	960	865	768	19.58	22.10	1132
NCHT	36	6 40	20574	32'-1"	42'-5"	24154	32"	580	524	464	9.78	12.93	684
		7 40	22862	34'-9"	45'-1"	26840	32"	645	582	516	10.59	13.74	760
		8 40	25150	37'-5"	47'-9"	29526	32"	709	640	567	11.40	14.55	837
		9 40	27437	40'-1"	50'-5"	32211	32"	774	698	619	12.22	15.37	913
		10 40	29725	42'-9"	53'-1"	34897	32"	838	756	670	13.03	16.18	989
		11 40	32012	45'-5"	55'-9"	37583	32"	903	814	722	13.84	16.99	1065
		12 40	34300	48'-1"	58'-5"	40269	32"	967	872	773	14.66	17.81	1141
		13 40	36588	50'-9"	61'-1"	42954	32"	1032	930	825	15.47	18.62	1217
		14 40	38875	53'-5"	63'-9"	45640	32"	1096	989	877	16.28	19.43	1293
		15 40	41163	56'-1"	66'-5"	48326	32"	1161	1047	928	17.09	20.24	1369
		16 40	43451	58'-9"	69'-1"	51012	32"	1225	1105	980	17.91	21.06	1445
		17 40	45738	61'-5"	71'-9"	53697	32"	1290	1163	1031	18.72	21.87	1521
		18 40	48026	64'-1"	74'-5"	56383	32"	1354	1221	1083	19.53	22.68	1597

Cubic Meters based on 28 degree angle of repose. Specifications and design are subject to change without notice. All commercial bins are designed for the storage of grain and other free-flowing materials weighing up to 52 lbs. per cubic foot. Maximum bushel capacity based on 6% compaction. Maximum storage capacities reflect grain peaked on center, using an angle of repose of 28 degrees. Other ring heights available in some diameters. Peak heights shown for 30 degree slope roofs. **TYPICAL GRAIN DENSITIES:** Corn approximately 721 kg/m<sup>3</sup> (45 lb/ft<sup>3</sup>); Wheat approximately 800 kg/m<sup>3</sup> (50 lb/ft<sup>3</sup>); Rice approximately 640 kg/m<sup>3</sup> (40 lb/ft<sup>3</sup>)

# NCHT 60°

Series	Dia.	Ring	Max Bu. Capacity	Eave (Height Ft.)	Peak (Height Ft.)	Capacity (Cubic Ft.)	Hopper Clearance	Metric Tons 800 kg/m <sup>3</sup>	Metric Tons 721 kg/m <sup>3</sup>	Metric Tons 640 kg/m <sup>3</sup>	Eave Height (Meters)	Peak Height (Meters)	Maximum Capacity (Cubic Meters)
NCHT	15	6 60	3220	30'-5"	34'-5"	3779	32"	90	81	72	9.27	10.49	107
		7 60	3617	33'-1"	37'-1"	4245	32"	101	91	81	10.08	11.30	120
		8 60	4014	35'-9"	39'-9"	4711	32"	112	101	90	10.90	12.12	133
		9 60	4411	38'-5"	42'-5"	5177	32"	124	112	99	11.71	12.93	147
		10 60	4808	41'-1"	45'-1"	5643	32"	135	122	108	12.52	13.74	160
		11 60	5205	43'-9"	47'-9"	6109	32"	146	132	117	13.34	14.55	173
		12 60	5602	46'-5"	50'-5"	6574	32"	158	142	126	14.15	15.37	186
		13 60	5999	49'-1"	53'-1"	7040	32"	169	152	135	14.96	16.18	199
		14 60	6396	51'-9"	55'-9"	7506	32"	180	162	144	15.77	16.99	213
		15 60	6793	54'-5"	58'-5"	7972	32"	191	172	153	16.59	17.81	226
16 60	7190	57'-1"	61'-1"	8438	32"	202	182	162	17.40	18.62	239		
17 60	7587	59'-9"	63'-9"	8904	32"	213	192	170	18.21	19.43	252		

NCHT	18	6 60	4879	33'-0"	37'-11"	5726	32"	136	123	109	10.06	11.56	162
		7 60	5451	35'-8"	40'-7"	6397	32"	153	138	122	10.87	12.37	181
		8 60	6023	38'-4"	43'-3"	7069	32"	169	152	135	11.68	13.18	200
		9 60	6595	41'-0"	45'-11"	7740	32"	185	167	148	12.50	14.00	219
		10 60	7167	43'-8"	48'-7"	8411	32"	202	182	162	13.31	14.81	238
		11 60	7739	46'-4"	51'-3"	9082	32"	217	196	174	14.12	15.62	257
		12 60	8311	49'-0"	53'-11"	9754	32"	234	211	187	14.94	16.43	276
		13 60	8882	51'-8"	56'-7"	10424	32"	250	225	200	15.75	17.25	295
		14 60	9454	54'-4"	59'-3"	11095	32"	266	240	213	16.56	18.06	314
		15 60	10026	57'-0"	61'-11"	11766	32"	282	254	225	17.37	18.87	333
16 60	10598	59'-8"	64'-7"	12438	32"	298	269	239	18.19	19.69	352		
17 60	11170	62'-4"	67'-3"	13109	32"	314	283	251	19.00	20.50	371		
18 60	11742	65'-0"	69'-11"	13780	32"	331	298	265	19.81	21.31	390		
19 60	12314	67'-8"	72'-7"	14452	32"	346	312	277	20.62	22.12	409		

NCHT	21	6 60	6971	35'-7"	41'-4"	8181	32"	196	177	157	10.85	12.60	232
		7 60	7749	38'-3"	44'-0"	9094	32"	217	196	174	11.66	13.41	258
		8 60	8527	40'-11"	46'-8"	10007	32"	240	216	192	12.47	14.22	283
		9 60	9305	43'-7"	49'-4"	10920	32"	262	236	209	13.28	15.04	309
		10 60	10083	46'-3"	52'-0"	11833	32"	284	256	227	14.10	15.85	335
		11 60	10861	48'-11"	54'-8"	12746	32"	305	275	244	14.91	16.66	361
		12 60	11639	51'-7"	57'-4"	13659	32"	327	295	262	15.72	17.48	387
		13 60	12417	54'-3"	60'-0"	14572	32"	350	315	280	16.54	18.29	413
		14 60	13195	56'-11"	62'-8"	15485	32"	372	335	297	17.35	19.10	438
		15 60	13973	59'-7"	65'-4"	16399	32"	393	354	314	18.16	19.91	464
16 60	14751	62'-3"	68'-0"	17312	32"	415	374	332	18.97	20.73	490		
17 60	15529	64'-11"	70'-8"	18225	32"	437	394	350	19.79	21.54	516		
18 60	16307	67'-7"	73'-4"	19138	32"	459	414	367	20.60	22.35	542		
19 60	17085	70'-3"	76'-0"	20051	32"	482	434	385	21.41	23.16	568		

# FCHT 45°

FCHT	18	4 45	4157	25'-11"	30'-7"	4880	34"	118	106	94	7.90	9.33	138
		5 45	4943	29'-7"	34'-3"	5804	34"	140	126	112	9.02	10.44	164
		6 45	5730	33'-3"	37'-11"	6727	34"	162	146	129	10.13	11.56	190
		7 45	6516	36'-11"	41'-7"	7650	34"	185	166	148	11.25	12.68	217
		8 45	7303	40'-7"	45'-3"	8573	34"	207	186	165	12.37	13.79	243
		9 45	8089	44'-3"	48'-11"	9496	34"	229	206	183	13.49	14.91	269

FCHT	21	4 45	5881	27'-3"	29'-2"	6904	32"	166	149	133	8.31	10.01	195
		5 45	6951	30'-11"	36'-6"	8160	32"	196	177	157	9.42	11.13	231
		6 45	8021	34'-7"	40'-2"	9417	32"	227	204	182	10.54	12.24	267
		7 45	9092	38'-3"	43'-10"	10674	32"	257	231	205	11.66	13.36	302
		8 45	10162	41'-11"	47'-6"	11930	32"	287	258	230	12.78	14.48	338
		9 45	11232	45'-7"	51'-2"	13187	32"	317	285	254	13.89	15.60	373

FCHT	24	4 45	7971	28'-3"	34'-9"	9358	31"	225	203	180	8.61	10.60	265
		5 45	9369	31'-11"	38'-5"	11000	31"	264	238	211	9.73	11.71	311
		6 45	10767	35'-7"	42'-1"	12641	31"	304	274	243	10.85	12.83	358
		7 45	12165	39'-3"	45'-9"	14282	31"	343	309	275	11.96	13.95	404
		8 45	13563	42'-11"	49'-5"	15923	31"	383	345	306	13.08	15.06	451
		9 45	14961	46'-7"	53'-1"	17565	31"	422	380	338	14.20	16.18	497

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