



Bulk Material Handling Products

Grain Silo Manual

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Manufacturing and processing equipment



Corrugated board production line can manufacture various specifications of corrugated boards fully automatically. The production line consists of loose roll, flat plate, pressing, punching, bending, shearing, etc. The corrugated boards produced are not only beautiful, but also have high precision, good assembly performance, high strength, leaving no gaps after assembling, and tight connection.



The column production line can be able to achieve the bending and punching of the steel plate in one cold bending moulding according to the requirements of the customer's silo, with high production precision and high strength to ensure the stability of the silo to the maximum extent.



The company adopts fully automatic CNC punching machine, input drawing automatic punching, its precision can be controlled within microns, stamping body: the main body adopts one-piece body, widening-type design, one-time welding, tempering, one-time processing and shaping, and its feeding is more stable, more suitable for high-speed stamping and the need for high-speed feeding, which greatly improves the production efficiency!



The welding robot can complete the welding work of various angles and different specifications for the important parts of the silo roof, silo bottom, ring beam and so on. Especially in the ring beam welding, the seams are beautiful and high strength, fully guaranteeing the durability of the silo body without deformation.

The manufacturing plant has a set of advanced production equipment, in which 85% of the production equipment has achieved CNC machining. The opening of several large-scale production and processing lines has laid the foundation for the stable improvement of product quality.

The company is also constantly improving the production and processing technology, so that the production of products to achieve mould, automation, standardisation, in order to further improve product quality.

Selection of raw materials



The silo body plate is made of SGH440 high strength plate with hot-dip galvanised content of 275g/m², which can guarantee the service life of the silo body for more than 30 years.



High-strength bolts are hot-dip galvanised 8.8 grade and 10.9 grade bolts, and high-quality brands are used.



H-beams, angles and plates are all selected from China's high-quality large factories to ensure product quality.

Introduction to bolted assembled steel silos



Technical characteristics

1. Light weight, 1/4 of the same capacity concrete silo;
2. Moulded production, high degree of standardisation;
3. Quick installation, all prefabricated in factory;
4. wide range of capacity, can be customised range from 5T-16000T single silo capacity assembly silo.



Flat-bottomed silo



Flat-bottomed steel silo is widely used, generally for large diameter, large-capacity silo used. This form is easy to build, low cost. Discharge can be fluidised out of the warehouse, porous out of the warehouse, flat-bottomed sweeping machine out of the warehouse, manually clearing the warehouse, can also be achieved by using a cement cone bottom way to flow out of the warehouse. This form of steel plate warehouse is mostly used for oil, feed, flour, starch, brewing, ports, grain storage and other food processing, storage industry.

Characteristics: simple structure, large capacity, more ways to get out of the warehouse, easy maintenance.

Flat-bottomed steel silo discharge method



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Hopper-bottom



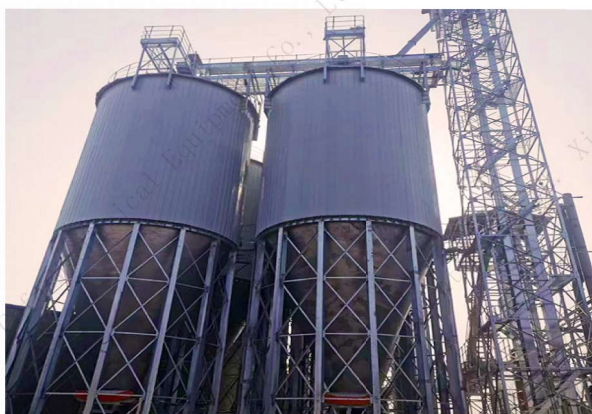
Cone bottom steel plate warehouse storage materials from the outflow of the warehouse, self-cleaning effect, no residue. The silo is suitable for the storage capacity of moderate, often clearing the seed, flour, rice pot material, breeding, cement, chemical and other industries. Cone bottom steel plate warehouse steel support structure is strong, cone bottom strength is high. The slope of cone bottom is 40°, 45°, 60°, among which 60° cone bottom steel plate warehouse is suitable for storing granular and powdery materials with large viscosity.

Characteristics: Self-flowing silo, no labour, energy saving, low cost of foundation.

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Insulated silos



Notable features

(1) Short construction period:

It is about 1/3 of the construction time of the same capacity concrete silo.

(2) Good heat preservation performance:

Can achieve the same thermal insulation effect of the Chi concrete silo.

(3) Beautiful image:

The outer surface of the heat preservation warehouse can adopt various colours of colour steel plate, beautiful and generous

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Usage Scenarios



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Corollary equipment

TDTG series bucket elevator



The bucket belt adopts high strength nylon belt with low elongation.
The head pulley adopts refined rubber-coated pulley, abrasion-resistant, effectively preventing the belt from slipping.
The bucket adopts lightweight and high strength plastic bucket, with low material breakage rate and long service life.
According to customer's need, it can be equipped with speed detection system and belt deflection detection system; The barrel is welded by cold rolled steel plate after pressing and forming, with good strength and sealing performance.
Conveying capacity from 15-200T/H, can be customised according to customer requirements;
The lifting height can reach 45M.

TGSS series scraper conveyor



1. Fully assembled structure, easy to install and adjust, easy to maintain.
2. Herringbone cover plate does not accumulate water, good sealing.
3. Equipped with plugging and stalling alarm device to avoid unnecessary losses.
4. Molecular batching or nylon scraper minimises the running noise of the scraper.
5. Large pitch chain greatly enhances the chain life and improves the stability of the scraper.

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Corollary equipment

TCQY Series Cylinder Primary Cleaning Sieve



Compact features.
Long sieve body, good effect of clearing foreign matter;
Fully sealed frame, good sealing and dustproof performance;
Small energy consumption, high output, stable and reliable operation, easy maintenance;
It can be matched with dust removal device to clean dust.

TBLM SERIES BAG PULSE DUST COLLECTOR

Designed for neat appearance, efficient operation and long working life:

Tangential dust inlet, high efficiency of dust removing and effectiveness cleaning;
Small floor space requirement with large air volume capacities;
Simple structure, low maintenance requirement and stable operation;
Available in either flat bottom or hopper bottom designs.



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Corollary equipment

TDSG SERIES BELT CONVEYOR



Special style features.

1. fully assembled structure, easy to install and adjust, easy to maintain.
2. smooth material transport, less material broken.
3. fully closed structure, rainproof, no leakage of materials;
4. Equipped with deviation correction and anti-stall device to reduce belt deflection and have belt breakage protection device.

TXFL Series Induced Splitter

Compact design:

Simple but rugged design, with low power consumption;

Large capacity air intakes ensure thorough removal of husks and dust;

Umbrella-type dust collection well;

Rugged design and construction ensures low maintenance requirement and minimal downtime.



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45 degree cone bottom silo technical parameters list

45度锥底钢板仓技术参数																	
直径D (米)	项目	型号	层数	容积 (立方米)	容量 (吨)	环梁高 H2 (米)	仓全高 H1 (米)	仓全高 H3 (米)	直径D (米)	项目	型号	层数	容积 (立方米)	容量 (吨)	环梁高 H2 (米)	仓全高 H1 (米)	仓全高 H3 (米)
3.667		TGZK06301	1	22	16		1.19	5.08	10.084		TGZK10008	8	931	698	9.03	18.01	18.01
		TGZK06302	2	34	25		2.31	6.20			TGZK10009	9	1021	766	10.15	19.13	19.13
		TGZK06303	3	46	34		3.43	7.32			TGZK10010	10	1110	833	11.27	20.25	20.25
		TGZK06304	4	58	43	2.77	4.55	8.44			TGZK10011	11	1200	900	12.39	21.37	21.37
		TGZK06305	5	69	52		5.67	9.56			TGZK10012	12	1289	967	13.51	22.49	22.49
		TGZK06306	6	81	61		6.79	10.68			TGZK10013	13	1379	1034	14.63	23.61	23.61
		TGZK06307	7	93	70		7.91	11.80			TGZK10014	14	1468	1101	15.75	24.73	24.73
4.584		TGZK04503	3	76	57		3.43	8.05	10.084		TGZK11009	9	1239	929	10.15	19.83	19.83
		TGZK04504	4	94	71		4.55	9.17			TGZK11010	10	1346	1009	11.27	20.95	20.95
		TGZK04505	5	113	84		5.67	10.29			TGZK11011	11	1452	1089	12.39	22.07	22.07
		TGZK04506	6	131	98	3.24	6.79	11.41			TGZK11012	12	1558	1169	13.51	23.19	23.19
		TGZK04507	7	150	112		7.91	12.53			TGZK11013	13	1665	1249	14.63	24.31	24.31
		TGZK04508	8	168	126		9.03	13.65			TGZK11014	14	1771	1328	15.75	25.43	25.43
		TGZK04509	9	187	146		10.15	14.77			TGZK11015	15	1878	1408	16.87	26.55	26.55
5.500		TGZK05504	4	142	106		4.55	9.89	11.917		TGZK11909	9	1481	1111	10.15	20.55	20.55
		TGZK05505	5	168	126		5.67	11.01			TGZK11910	10	1606	1204	11.27	21.67	21.67
		TGZK05506	6	195	146		6.79	12.13			TGZK11911	11	1731	1298	12.39	22.79	22.79
		TGZK05507	7	222	166	3.73	7.91	13.25			TGZK11912	12	1856	1392	13.51	23.91	23.91
		TGZK05508	8	248	186		9.03	14.37			TGZK11913	13	1981	1486	14.63	25.03	25.03
		TGZK05509	9	275	206		10.15	15.49			TGZK11914	14	2106	1579	15.75	26.15	26.15
		TGZK05510	10	301	226		11.27	16.61			TGZK11915	15	2231	1673	16.87	27.27	27.27
6.417		TGZK0406	6	273	205		6.79	12.85	12.834		TGZK12809	9	1749	1312	10.15	21.27	21.27
		TGZK0407	7	309	232		7.91	13.97			TGZK12810	10	1894	1420	11.27	22.39	22.39
		TGZK0408	8	345	259		9.03	15.09			TGZK12811	11	2039	1529	12.39	23.51	23.51
		TGZK0409	9	382	286	4.15	10.15	16.21			TGZK12812	12	2184	1638	13.51	24.63	24.63
		TGZK0410	10	418	313		11.27	17.33			TGZK12813	13	2329	1746	14.63	25.75	25.75
		TGZK0411	11	454	340		12.39	18.45			TGZK12814	14	2474	1855	15.75	26.87	26.87
		TGZK0412	12	490	368		13.51	19.45			TGZK12815	15	2618	1964	16.87	27.99	27.99
7.334		TGZK07307	7	415	311		7.91	14.70	45度锥底钢板仓	45度锥底钢板仓	●仓顶角度 30度; ●仓底角度 45度 ●仓底出口法兰高度 1米; ●仓容积为仓顶、仓筒、仓底容积总和; ●仓容积按物理密度 0.75吨/立方米计算。	45°Hopper Bottom steel silo					
		TGZK07307	8	462	346		9.03	15.82									
		TGZK07307	9	509	382		10.15	16.94									
		TGZK07307	10	557	417		11.27	18.06									
		TGZK07307	11	604	453	4.61	12.39	19.18									
		TGZK07307	12	651	488		13.51	20.30									
		TGZK07307	13	699	524		14.63	21.42									
8.250		TGZK08207	7	538	404		7.91	15.51	45度锥底钢板仓	45度锥底钢板仓	●仓顶角度 30度; ●仓底角度 45度 ●仓底出口法兰高度 1米; ●仓容积为仓顶、仓筒、仓底容积总和; ●仓容积按物理密度 0.75吨/立方米计算。	45°Hopper Bottom steel silo					
		TGZK08208	8	598	449		9.03	16.63									
		TGZK08209	9	658	493		10.15	17.75									
		TGZK08210	10	718	538	5.15	11.27	18.87									
		TGZK08211	11	778	583		12.39	20.00									
		TGZK08212	12	838	628		13.51	21.11									
		TGZK08213	13	898	673		14.63	22.23									
9.1687		TGZK09018	8	752	564		9.03	17.24	45度锥底钢板仓	45度锥底钢板仓	●仓顶角度 30度; ●仓底角度 45度 ●仓底出口法兰高度 1米; ●仓容积为仓顶、仓筒、仓底容积总和; ●仓容积按物理密度 0.75吨/立方米计算。	45°Hopper Bottom steel silo					
		TGZK09019	9	826	619		10.15	18.36									
		TGZK09020	10	900	675		11.27	19.48									
		TGZK09021	11	974	730	5.50	12.39	20.60									
		TGZK09022	12	1048	786		13.51	21.72									
		TGZK09023	13	1122	841		14.63	22.84									
		TGZK09024	14	1196	897		15.75	23.96									

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Flat-bottomed steel silo technical parameters list

平底板钢板仓技术参数									
项目 直径D (米)	型号	层数	容积 (立方米)	容量 (吨)	仓全高 H(米)	仓底高 H1(米)	项目 直径D (米)	型号	层数
4.584	TK04503	3	63	47	3.43	4.78	11.000	TK11009	9
	TK04504	4	82	61	4.55	5.90		TK11010	10
	TK04505	5	100	75	5.67	7.02		TK11011	11
	TK04506	6	119	89	6.79	8.14		TK11012	12
	TK04507	7	137	103	7.91	9.26		TK11013	13
	TK04508	8	156	117	9.03	10.38		TK11014	14
5.500	TK05509	9	174	131	10.15	11.50	11.981	TK11915	15
	TK05510	10	193	144	11.27	12.62		TK11916	16
	TK05511	11	210	157	12.39	13.74		TK11917	17
	TK05512	12	228	170	13.51	14.86		TK11918	18
	TK05513	13	246	183	14.63	15.98		TK11919	19
	TK05514	14	264	196	15.75	17.10		TK11920	20
6.417	TK06405	5	203	152	5.67	7.55	12.834	TK12810	10
	TK06406	6	239	179	6.79	8.67		TK12811	11
	TK06407	7	275	206	7.91	9.79		TK12812	12
	TK06408	8	312	234	9.03	10.91		TK12813	13
	TK06409	9	348	261	10.15	12.03		TK12814	14
	TK06410	10	384	288	11.27	13.15		TK12815	15
7.334	TK07312	12	456	342	13.51	15.39	13.750	TK13716	16
	TK07313	13	492	369	14.63	16.51		TK13717	17
	TK07314	14	528	396	15.75	17.63		TK13718	18
	TK07315	15	564	423	16.87	18.75		TK13719	19
	TK07316	16	600	450	17.99	19.87		TK13720	20
	TK07317	17	636	477	19.11	20.99		TK13721	21
8.250	TK08207	7	465	349	7.91	10.32	14.668	TK14612	12
	TK08208	8	525	393	9.03	11.44		TK14613	13
	TK08209	9	585	438	10.15	12.56		TK14614	14
	TK08210	10	644	483	11.27	13.68		TK14615	15
	TK08211	11	704	528	12.39	14.80		TK14616	16
	TK08212	12	764	573	13.51	15.92		TK14617	17
9.167	TK09107	7	580	435	7.91	10.59	15.584	TK15513	13
	TK09108	8	654	490	9.03	11.71		TK15514	14
	TK09109	9	728	546	10.15	12.83		TK15515	15
	TK09110	10	802	601	11.27	13.95		TK15516	16
	TK09111	11	876	657	12.39	15.07		TK15517	17
	TK09112	12	949	712	13.51	16.19		TK15518	18
10.084	TK10013	13	1023	767	14.63	17.31	16.500	TK16519	19
	TK10014	14	1097	823	15.75	18.43		TK16520	20
	TK10015	15	1171	879	16.87	19.55		TK16521	21
	TK10016	16	1245	935	17.99	20.67		TK16522	22
	TK10017	17	1319	991	19.11	21.79		TK16523	23
	TK10018	18	1393	1047	20.23	22.91		TK16524	24

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Flat-bottomed steel silo technical parameters list

平板钢板仓技术参数									
项目 直径D (米)	型号	层数	容积 (立方米)	容量 (吨)	仓全高 H(米)	仓底高 H1(米)	项目 直径D (米)	型号	层数
17.418	TK17414	14	4151	3113	15.75	20.51	23.835	TK23815	15
	TK17415	15	4418	3314	16.87	21.63		TK23816	16
	TK17416	16	4685	3514	17.99	22.75		TK23817	17
	TK17417	17	4952	3714	19.11	23.87		TK23818	18
	TK17418	18	5219	3914	20.23	24.99		TK23819	19
	TK17419	19	5486	4114	21.35	26.11		TK23820	20
18.334	TK18314	14	4623	3467	15.75	20.76	24.751	TK24715	15
	TK18315	15	4919	3689	16.87	21.88		TK24716	16
	TK18316	16	5215	3911	17.99	23.00		TK24717	17
	TK18317	17	5510	4133	19.11	24.12		TK24718	18
	TK18318	18	5806	4354	20.23	25.24		TK24719	19
	TK18319	19	6102	4576	21.35	26.36		TK24720	20
19.251	TK19214	14	5123	3842	15.75	21.01	25.668	TK25615	15
	TK19215	15	5449	4086	16.87	22.13		TK25616	16
	TK19216	16	5775	4331	17.99	23.25		TK25617	17
	TK19217	17	6101	4575	19.11	24.37		TK25618	18
	TK19218	18	6427	4819	20.23	25.49		TK25619	19
	TK19219	19	6753	5063	21.35	26.61		TK25620	20
20.168	TK20114	14	5608	4286	15.75	22.38	26.585	TK26515	15
	TK20115	15	5934	4530	16.87	23.50		TK26516	16
	TK20116	16	6260	4774	17.99	24.62		TK26517	17
	TK20117	17	6586	5018	19.11	25.74		TK26518	18
	TK20118	18	6912	5262	20.23	26.86		TK26519	19
	TK20119	19	7238	5506	21.35	27.98		TK26520	20
21.084	TK21014	14	6008	4506	15.75	22.88	27.501	TK27515	15
	TK21015	15	6334	4750	16.87	24.00		TK27516	16
	TK21016	16	6660	4994	17.99	25.12		TK27517	17
	TK21017	17	6986	5238	19.11	26.24		TK27518	18
	TK21018	18	7312	5482	20.23	27.36		TK27519	19
	TK21019	19	7638	5726	21.35	28.48		TK27520	20
22.000	TK22014	14	6508	4948	15.75	23.38	28.418	TK28415	15
	TK22015	15	6834	5192	16.87	24.50		TK28416	16
	TK22016	16	7160	5436	17.99	25.62		TK28417	17
	TK22017	17	7486	5680	19.11	26.74		TK28418	18
	TK22018	18	7812	5924	20.23	27.86		TK28419	19
	TK22019	19	8138	6168	21.35	28.98		TK28420	20
22.918	TK22914	14	6808	5128	15.75	24.38	29.335	TK29315	15
	TK22915	15	7134	5372	16.87	25.50		TK29316	16
	TK22916	16	7460	5616	17.99	26.62		TK29317	17
	TK22917	17	7786	5860	19.11	27.74		TK29318	18
	TK22918	18	8112	6104	20.23	28.86		TK29319	19
	TK22919	19	8438	6348	21.35	29.98		TK29320	20

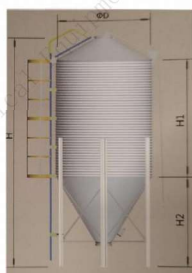
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Flat-bottomed steel silo
technical parameters list60 degree inclined tower
technical parameter list

平板钢板仓技术参数					
项目 直径D (米)	型号	层数	容积 (立方米)	容量 (吨)	仓全高 H(米)
30.252	TK30216	16	15021	11266	17.99
	TK30217	17	15826	11870	19.11
	TK30218	18	16631	12473	20.23
	TK30219	19	17436	13077	21.35
	TK30220	20	18241	13681	22.47
	TK30221	21	19046	14285	23.59
31.168	TK31116	16	16913	12029	17.99
	TK31117	17	17718	12633	19.11
	TK31118	18	18523	13237	20.23
	TK31119	19	19328	13841	21.35
	TK31120	20	20133	14445	22.47
	TK31121	21	20938	15049	23.59
32.085	TK32016	16	17040	12780	17.99
	TK32017	17	17845	13384	19.11
	TK32018	18	18650	13988	20.23
	TK32019	19	19455	14592	21.35
	TK32020	20	20260	15196	22.47
	TK32021	21	21065	15800	23.59

60度料塔技术参数					
项目 直径D (米)	型号	层数	容积 (立方米)	容量 (吨)	仓全高 H(米)
1.800	TK201801	1	4.9	3.7	1.19
	TK201802	2	7.9	5.9	2.31
	TK201803	3	10.8	8.1	3.43
	TK201804	4	13.8	10.3	4.55
	TK201805	5	16.8	12.6	5.67
	TK201806	6	19.8	14.9	6.79
2.750	TK202701	1	13.2	10	1.19
	TK202702	2	19.9	15	2.31
	TK202703	3	26.5	20	3.43
	TK202704	4	33.2	25	4.55
	TK202705	5	39.8	30	5.67
	TK202706	6	46.5	35	6.79



60度料塔

- 仓顶角度 30 度；
- 仓底角度 60 度；
- 仓底出口法兰高度 0.63 米；
- 仓容积为仓顶、仓筒、仓底容积总和；
- 容量按物理密度 0.5 吨 / 立方米计算。

60°Hopper Bottom steel silo

- 30°Silo Roof;
- 60°Hopper Bottom;
- Height of silo bottom outlet flange is 0.63m;
- Silo volume is the sum of silo roof, silo body and silo hopper;
- Capacity is calculated at 0.5t/m³ bulk density.



平底板钢板仓

- 仓顶角度 30 度；
- 仓容积为仓顶、仓筒容积总和；
- 容量按物理密度 0.75 吨 / 立方米计算。

Flat Bottom steel silo

- 30°Silo Roof;
- Silo volume is the sum of silo roof plus silo body;
- Capacity is calculated at 0.75t/m³ bulk density.

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