

PLATE SILOS



Agora Services Limited



PLATE SILOS

Agora Services Plate Silos are suitable for most powder and granular materials. Their high quality design can accommodate the increased stresses where high capacity filling and emptying takes place at frequent intervals. For materials with difficult flow characteristics such as soya meal, or for heavy products such as coal, ash, etc. the Plate Silo can be arranged with a flat floor to receive the Agora Services unloader where consideration in the design of the silo is taken for mass flow emptying loads.

Plate Silos with Hopper Discharge

Silos from 30-3000 tonne capacity. Standard features include:

- Curved steel flat panels in Galvanised or Epoxy finish.
- Bolted joints using plastic covered dome headed galvanised bolts.
- 45° or 60° Hopper - Standard.
- 1000mm clearance under hopper flange - Standard.
- Support steelwork or support skirt to suit hopper & outloading requirements.
- 30° pitch roof or flat roof top.
- Galvanised roof cylinder and hopper.

Design Note

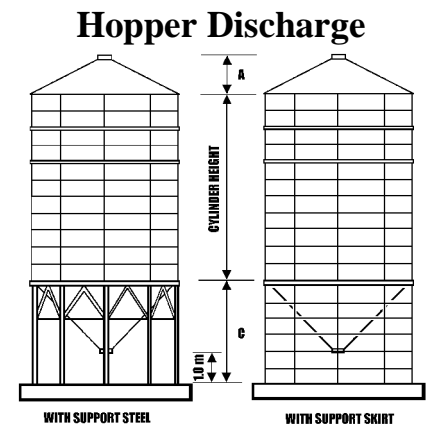
Calculation of internal pressures is carried out in accordance with DIN 1055 and BS 5061 as appropriate. Steelwork is designed in accordance with BS 449, plastic theory being avoided for all primary structures.

At a high anticipated number of loading cycles, fatigue is taken into account, in particular the performance of joints under cyclic loading is given special attention. External loading is calculated to CP3 Chapter V, Part 2, reference being made to other codes as necessary for wind drag coefficients.

Other products in the Agora Services range:

Corrugated Silos - hopper bottom and flat bottom
Powder Silos
Square Silos
Planetary Screw Dischargers
Conveyors
Screw Conveyors
Liquid Storage Tanks

Diameter	A	C 45°	C 60°
3.05	0.88	1.53	2.64
3.82	1.10	1.91	3.31
4.58	1.32	2.29	3.97
5.35	1.54	2.68	4.63
6.11	1.76	3.06	5.29
6.87	1.98	3.44	5.95
7.64	2.21	3.82	6.62
8.40	2.42	4.20	7.27
9.16	2.64	4.58	7.93
9.93	2.87	4.97	8.60
10.70	3.09	5.35	9.27
11.46	3.31	5.73	9.92



Capacity Table in Cubic Metres, using a 45° Hopper

Height	Diameter											
	3.05	3.82	4.58	5.35	6.11	6.87	7.64	8.40	9.16	9.93	10.70	11.46
6.00	49	79	117	164	220	285	361	446	543	653	775	908
7.20	58	93	137	191	255	329	416	513	622	746	883	1032
8.40	67	107	157	218	290	374	471	579	701	838	990	1155
9.60	76	121	177	245	325	418	526	646	780	931	1098	1279
10.80	84	134	196	272	360	463	581	712	859	1024	1206	1403
12.00	93	148	216	299	396	507	636	779	938	1117	1314	1527
13.20	102	162	236	326	431	552	691	845	1017	1210	1422	1650
14.40	111	176	256	353	466	596	746	912	1096	1303	1530	1774
15.60	119	189	275	380	501	641	801	978	1176	1396	1638	1898
16.80	128	203	295	407	536	685	856	1045	1255	1489	1746	2022
18.00	137	217	315	434	572	729	911	1111	1334	1582	1854	2146
19.20	146	231	335	461	607	774	966	1178	1413	1675	1962	2269
20.40	154	245	355	488	642	818	1021	1244	1492	1768	2070	2393
21.60	163	258	374	515	677	863	1076	1311	1571	1861	2177	2517

Capacity Table in Cubic Metres, using a 60° Hopper

Height	Diameter											
	3.05	3.82	4.58	5.35	6.11	6.87	7.64	8.40	9.16	9.93	10.70	11.46
6.00	52	85	126	179	242	316	403	503	617	746	892	1052
7.20	61	99	146	206	277	360	458	570	696	839	1000	1176
8.40	70	112	166	233	312	405	513	636	775	932	1108	1300
9.60	78	126	186	260	347	449	568	703	854	1025	1216	1423
10.80	87	140	206	287	382	494	623	769	933	1118	1324	1547
12.00	96	154	225	314	417	538	678	836	1012	1211	1432	1671
13.20	105	167	245	341	453	583	733	902	1091	1304	1539	1795
14.40	113	181	265	368	488	627	788	969	1170	1397	1647	1918
15.60	122	195	285	395	523	672	843	1035	1249	1490	1755	2042
16.80	131	209	304	422	558	716	898	1102	1328	1583	1863	2166
18.00	140	222	324	449	593	761	954	1168	1407	1676	1971	2290
19.20	148	236	344	476	629	805	1009	1235	1486	1769	2079	2414
20.40	157	250	364	503	664	850	1064	1301	1566	1862	2187	2537
21.60	166	264	384	530	699	894	1119	1368	1645	1955	2295	2661

Capacities have been determined with the inclusion of cylinder, hopper and a surcharge cone sloped at 25° to the horizontal.

Agora Services Plate Silos for use with planetary discharger include all of the features outlined except that the hopper is replaced with a flat floor to receive the discharger. This floor is either in steel, supported by a steel entablature, or support skirt in steel or concrete. Alternatively a concrete floor supported by a concrete skirt.

Extractor Discharge

