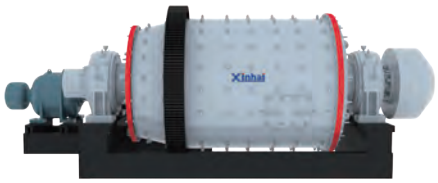
Cone Grid Ball Mill

Principle

The main component is a cylinder with diameter and length at a reasonable proportion. Driven by the transmission device, the cylinder rotates with the materials fed from the cylinder inlet and crushed by the falling impacts and autogenous grinding of the steel balls and ores in the cylinder. Due to the continuously feeding materials, the pressure pushes materials to the outlet and the grinded materials are discharged from the cylinder outlet. Qualified materials flow from the cylinder outlet. In wet grinding, the materials are taken out by the water flow. It is generally used in fine grinding operation.



Features

Large double-row self-aligning roller bearing with low friction force, easiness of start and significant energy conservation is used to replace sliding bearing.

Cone design is adopted for the discharge outlet, which can not only increase the volume, but also realize the classification of the materials and balls at the cone end.

The closer to the discharge outlet, the smaller is the ball diameter, which increases repeated grinding.

Grooved ring plate liner is used to increase the contact surface of ball and ore, strengthen the grinding, lift the ores, and reduce the energy consumption.

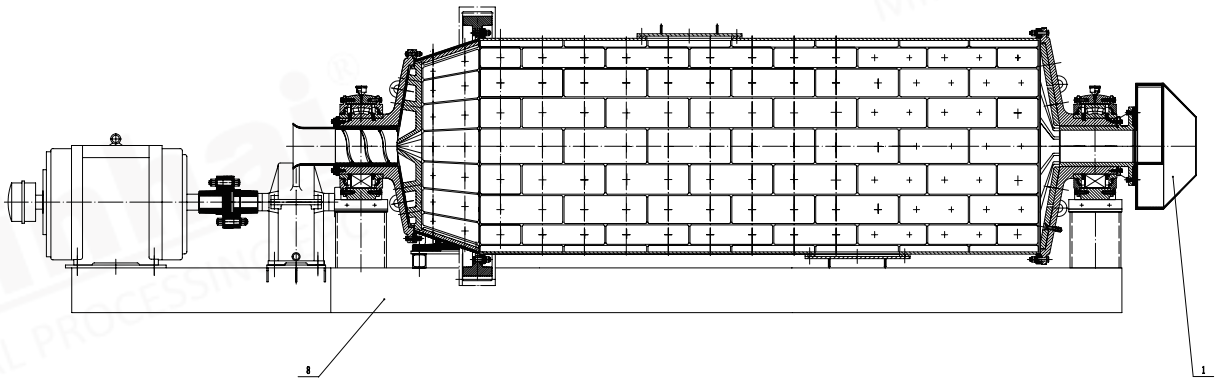
Overall frame is adopted for small size ball mill (Dia < 2.1m) which is much more convenient for civil work and installation.

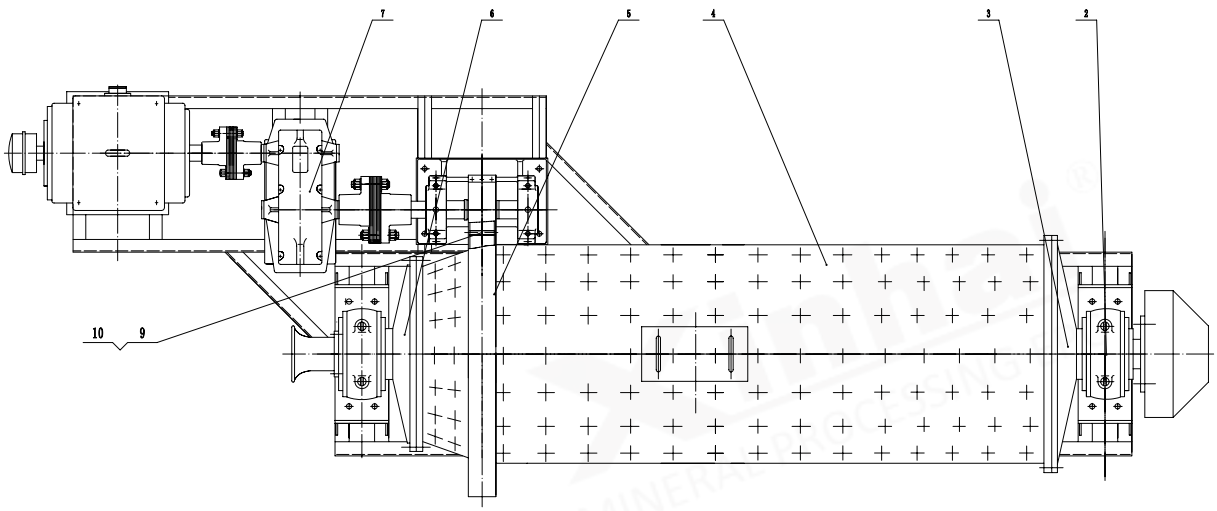
Application

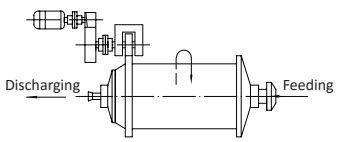
Generally used in grinding ores with larger particle size.

Technical Parameters

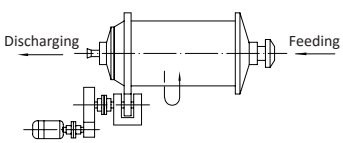
Model	Cylinder Diameter (mm)	Cylinder Length (mm)	Cylinder Rotating Speed (r/min)	Motor Model	Motor Power (kW)	Motor Rotating Speed (r/min)	Length (mm)	Width (mm)	Height (mm)	Effective Volume (m^3)	Max.Ball Load (t)	Weight (kg)
GZMg 0912	ϕ900/ϕ675	900/300	41	Y160L-6	11	970	3271	1815	1400	0.65	1	4363
GZMg 0916	ϕ900/ϕ675	1350/300	41	Y180L-6	15	970	3786	1815	1400	0.83	1.35	4944
GZMg 0918	ϕ900/ϕ675	1500/300	41	Y180L-6	15	970	3936	1815	1400	0.91	1.5	5200
GZMg 0921	ϕ900/ϕ675	1800/300	41	Y200L1-6	18.5	970	4301	1815	1400	0.97	1.67	5448
GZMg 1216	ϕ1200/ϕ900	1200/400	36.4	Y200L26	22	970	3912	2076	1620	1.67	2.87	6610
GZMg 1220	ϕ1200/ϕ900	1600/400	36.75	Y225M-6	30	980	4443	2076	1620	2.14	3.68	7400
GZMg 1224	ϕ1200/ϕ900	2000/400	36.75	Y250M-6	37	980	5088	2138	1670	2.61	4.49	9410
GZMg 1226	ϕ1200/ϕ900	2200/400	36.75	Y250M-6	37	980	5288	2138	1670	2.84	4.88	9757
GZMg 1228	ϕ1200/ϕ900	2400/400	36.75	Y280S-6	45	980	5558	2168	1670	3.07	5.28	10385
GZMg 1520	ϕ1500/ϕ1200	1500/500	30.9	Y280M-8	45	740	4825	2785	2120	2.84	4.88	13011
GZMg 1523	ϕ1500/ϕ1200	1800/500	30.9	YR280S-8	55	723	5335	2785	2120	3.29	5.66	14033
GZMg 1526	ϕ1500/ϕ1200	2100/500	30.9	YR280S-8	55	725	5640	2750	2110	3.74	6.43	14814
GZMg 1529	ϕ1500/ϕ1200	2400/500	30.9	JR117-8	80	725	6173	2785	2120	4.19	7.2	17209
GZMg 1535	ϕ1500/ϕ1200	3000/500	30.9	JR117-8	80	725	6773	2785	2120	5.08	8.74	18710
GZMg 1545	ϕ1500/ϕ1200	4000/500	30.9	JR126-8	110	725	8708	2875	2190	6.6	11	22578
GZMg 1831	ϕ1800/ϕ1390	2510/600	25.4	JR137-8	210	735	7756.87	3683	2785	6.5	11.5	30947
GZMg 1835	ϕ1800/ϕ1390	2910/600	25.4	JR137-8	210	735	8156.87	3683	2785	7.35	13	31349
GZMg 2131	ϕ2100/ϕ1670	2500/600	24.05	JR128-8	155	725	7579	3908	2825	9	16.5	34920
GZMg 2136	ϕ2100/ϕ1670	3000/600	24.05	JR136-8	180	735	8180	4214	3183	10.46	19.2	41640
GZMg 2130	ϕ2100/ϕ1670	2400/600	24.05	JR136-8	180	735	7580	4214	3183	8.75	16	38732
GZMg 2141	ϕ2100/ϕ1670	3500/600	24.05	JR137-8	210	735	8913	4350	3183	11.92	21.5	44626
GZMg 2145	ϕ2100/ϕ1670	3750/750	23.3	JR138-8	245	735	9556	4274	3230	12.5	22.6	48871
GZMg 2430	ϕ2400/ϕ1670	2300/700	22	JR137-6	280	960	9023	4836	3383	11.5	4122	59516
GZMg 2727	ϕ2700/ϕ2100	2285/550	21.62	JR138-8	245	735	8041	5051.4	3650	12.9	25.8	60844
GZMg 2733	ϕ2700/ϕ2287	2750/550	21.6	JR138-8	245	735	8433	4897	4385	15.9	28	69302
GZMg 2736	ϕ2700/ϕ2287	3050/550	21.6	JR157-8	320	750	8735	4897	4385	17.5	33.2	72365
GZMg 2740	ϕ2700/ϕ2287	3450/550	20.76	JR158-8	380	750	9565	5150	3620	19.7	38.2	76852
GZMg 2742	ϕ2700/ϕ2287	3650/550	20.76	JR158-8	380	750	9765	5150	3640	20	41	78979







Right-Handed Transmission Layout Drawing



Left-Handed Transmission Layout Drawing

Structure Drawing of Cone Grid Ball Mill

◎ Notes: 1. Feeder
2. Roller bearing assembly
3. Feeding part
4. Cylinder
5. Gear guard
6. Discharging part
7. Transmission part
8. Frame
9. Large gear
10. Pinion