英用机械
YINGYONG MACHINERY

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球磨机
BALL MILL

矿物粉磨整体解决方案
Complete Solution For Mineral Grinding

专业执着、精益求精
PROFESSIONALISM, PERSISTENCE, PERFECTION

上海英用机械有限公司
SHANGHAI YINGYONG MACHINERY CO.,LTD

Ball Mill
球磨机



磨机是粉磨流程中的重要设备，主要作用是对物料进行粉磨，以获得工艺要求的粒度产品。广泛应用于电力、黑色（有色）金属和非金属选矿、化工、建材等行业。

1. 按装入磨矿介质的不同，可分为球磨机（Ball Mill）、棒磨机（Rod Mill）和不装介质的自磨机（AG Mill）。
2. 按排料方式分为：湿式格子型、干式格子型和溢流型。
3. 按传动形式分为：边缘传动和中心传动，前者使用较多。
4. 按驱动形式分为：
   a.异步电机驱动：异步电机+减速机+小齿轮+大齿轮。
   b.同步电机驱动：同步电机+空气离合器+小齿轮+大齿轮。
   c.异步电机+减速机+膜片联轴器。
5. 磨机主轴承根据需要可采用滑动轴承、滚动轴承及滑履轴承等。
6. 磨机衬板可采用耐磨金属衬板、橡胶衬板、磁性衬板以及氧化铝衬板（即高铝衬砖）。
7. 根据需要可配慢速驱动装置、高低压润滑站、传动齿轮自动喷射润滑装置、顶起装置和PLC控制系统等。

Mill is the key equipment for grinding materials to get the product as per the requirment of process, used widely in electric, ferrous(non-ferrous) metal, nonmetal mining, chemical & building material industries.

Mill could be sorted as following:

1. As per the grinding media: ball mill, rod mill and AG Mill(without grinding media).
2. As per material discharging mode: wet grid mill, dry grid mill & overflow mill.
3. As per driving mode: side & central driving. The former is more popular now.
4. As per driving configuration:
   a.Asynchronous motor driving:Asynchronous motor + Reducer + Pinion+Girthgear
   b.Synchronous motor driving: Synchronous motor+Air cluth+ Pinion+Girthgear
   C.Asynchronous motor+reducer + diaphgram coupling
5. Main bearing, adopting silde bearing, rolling bearing or sliding-shoe bearing as per requirement.
6. Liner, adopting wear-resistant metal liner,rubber liner,megnetic liner and alumina liner(high aluminum lining brick).
7. Following items as per options: Inching driving device, high & low pressure lubrication station, spraying lubrication device of gear, jacking device & PLC control system.

节能球磨机 Energy-Saving Ball Mill

用滚动轴承替代传统的滑动轴承。

使用滚动轴承的球磨机能改善启动条件，降低磨机启动转矩，磨机正常运转时的工作电流也比装配滑动轴承低，降低了磨机的功耗。

滚动轴承采用润滑脂润滑，维护方便，节省润滑油。另外消除了滑动轴承可能研瓦的弊病，保证了磨机长期安全运转，提高了磨机的作业率和生产能力。

Adopting rolling bearing to replace the traditional sliding bearing, thus, starting condition improved, starting torque reduced, working current reduced, power consumption reduced.

Rolling bearing uses grease lubrication, easy to maintain and saving lubrication.And, avoid the problem of bearing bush grinding, ensure the long-term & safe running of mill, promote the working rate & production capacity.

磁性衬板 Magnetic Liner

磁性衬板靠磁力在衬板的工作表面吸附一层由介质、介质碎块和铁磁性矿物组成的稳定保护层，避免物料与衬板的直接冲击和磨损，从而延长衬板的寿命。同时，磁性衬板吸附于磨机筒壁上，不用螺栓固定，拆装方便。磁性衬板比锰钢衬板薄、重量轻，可提高磨机产量。磁性衬板一般适用于二段球磨机。

Magnetic liner is coated on the surface with steady protective layer of media, media frament and ferromagnetic minerals, to avoid the direct impact & wearing and prolong the service life. Also, magnetcic liner attracted with mill shell, and no need to fix by bolts, easy to dismounting & installing. Comparing with manganese steel liner, magnetic liner is thiner, lighter and could promote the production of mill. Generally, magnetic liner is used in secondary stage ball mill.

自磨机 Autogenous Mill

自磨机，又称无介质磨机。其特点是被处理的矿石（物料）本身作为研磨介质。矿石连续从卧式筒体的一端进入，以一定的转速借助于筒体衬板将矿石带起，使矿石自身相互冲击和磨削；磨细的矿粒靠风（干式）或排料端的衬板（湿式）实现强迫排料。

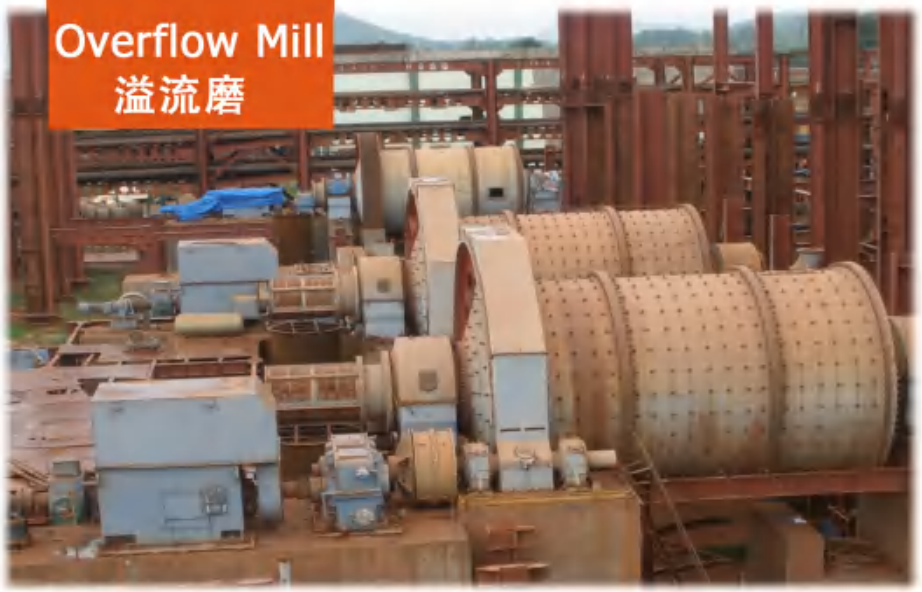
Autogenous mill, asid known as no-media mill, is characterised for the grinded mineral (material) itself working as the grinding media. Mineral is fed into the horizontal shell from one end, with a certain rotary speed motivated & lifted by liner, mineral chunks impact & grind with each other, and the fine product is discharged by air force (dry type mill) or liner of dishcarging end (wet type mill).







Overflow Mill
溢流磨



溢流型球磨机主要由筒体、端盖、主轴承、中空轴颈、传动齿轮和给矿器等部分组成。球磨机按照排矿方式不同而分为格子型球磨机和溢流型球磨机，具有破碎比高，可靠性好、适应性强、处理能力大等优点，广泛地应用于选矿、冶金、建筑及化工等工业，是磨矿作业的主要设备。

The overflow ball mill is mainly composed of a cylinder body, an end cover, a main bearing, a hollow journal, a transmission gear and a feeder. According to the different way of discharging, there are grid type ball mill and overflow ball mill, it has the advantages of high crushing ratio, good reliability, strong adaptability and large processing capacity. Used in mineral processing, metallurgy, construction and chemical industries, it is the main equipment for grinding operations.

1 材料选用 Material selection

1.1 筒体钢板一般选用Q235A、Q235B或Q345B-Shell plate (normally used): Q235A,Q235B or Q345B

1.2 法兰一般选用16Mn、ZG20Mn或Q345B-Flange plate (normally used): 16Mn, ZG20Mn, or Q345B

2 质量要求 Quality requirements

2.1 采用超声波探伤，符合GB/T11345-1989标准规定B级,检验1级-Ultrasonic inspection used, according to GB/T11345-1989 B class, grade 1

2.2 焊接后进行消除应力处理（退火/振动）-Stress relief treatment: heat treatment or vibration

2.3 外观 Appearance:涂漆前进行喷丸处理 -Sand blasting before painting

溢流型球磨机技术参数表 Technical Parameter Table of Overflow Ball Mill

型号 Model	筒体 Cylinder 直径 Diameter (mm)	筒体 Cylinder 长度 Length (mm)	有效容积 Effective Volume (m³)	装球量 Max.Ball Loading (t)	转速 Speed (r/min)	产量 Capacity (t/h)	出料粒度 Discharging size(mm)	主电动机 Main Motor (KW)	总重量 Weight (t)
MQY-1530	1500	3000	4.5	8	30	6.3 ~ 2.8	0.3 ~ 0.074	90	18
MQY-1545	1500	4500	6.7	12	30	9 ~ 3.8	0.3 ~ 0.074	132	21
MQY-1830	1830	3000	6.7	12	26.6	12.5 ~ 4.5	0.3 ~ 0.074	130	33
MQY-1845	1830	4500	10.5	19	26.8	15.5 ~ 6	0.3 ~ 0.074	180	35.5
MQY-2130	2100	3000	9.2	16	23.8	18 ~ 5.8	0.3 ~ 0.074	210	43
MQY-2136	2100	3600	11	20	23.8	22 ~ 6.8	0.3 ~ 0.074	210	47
MQY-2145	2100	4500	13.8	25	23.8	25 ~ 8	0.3 ~ 0.074	280	54
MQY-2230	2200	3000	10	18.5	21.3	23 ~ 6.9	0.3 ~ 0.074	210	48
MQY-2245	2200	4500	15.2	28	21.3	26.8 ~ 8.5	0.3 ~ 0.074	280	52
MQY-2430	2400	3000	12	22	21.3	26 ~ 7	0.3 ~ 0.074	245	51
MQY-2436	2400	3600	14	26	21.3	33.5 ~ 8.8	0.3 ~ 0.074	280	58
MQY-2445	2400	4500	17.8	30	21.6	42 ~ 11	0.3 ~ 0.074	320	69
MQY-2460	2400	6000	24	44	21.7	56 ~ 14.5	0.3 ~ 0.074	480	78
MQY-2736	2700	3600	18	33	20.7	54 ~ 11.7	0.3 ~ 0.074	400	86
MQY-2740	2700	4000	20.6	38	20.7	60 ~ 13	0.3 ~ 0.074	400	92
MQY-2745	2700	4500	23.2	43	20.7	67.5 ~ 14.5	0.3 ~ 0.074	480	98
MQY-2750	2700	5000	25.8	48	20.6	75 ~ 16	0.3 ~ 0.074	500	106
MQY-2760	2700	6000	31	57	20.6	90 ~ 19.5	0.3 ~ 0.074	630	116
MQY-3040	3000	4000	25.7	47	19	78 ~ 16.5	0.3 ~ 0.074	500	108
MQY-3064	3000	6400	40.2	74	19	125 ~ 26	0.3 ~ 0.074	800	138
MQY-3245	3200	4500	32	59	18.2	95 ~ 21.6	0.3 ~ 0.074	630	126
MQY-3254	3200	5400	38	73	18.2	114 ~ 25.9	0.3 ~ 0.074	800	138
MQY-3270	3200	7000	50.6	93	18.2	148 ~ 30.2	0.3 ~ 0.074	1250	150
MQY-3645	3600	4500	40.8	75	18	136 ~ 24.3	0.3 ~ 0.074	1000	144
MQY-3650	3600	5000	46	86	18	151 ~ 28.1	0.3 ~ 0.074	1250	152
MQY-3660	3600	6000	54	102	18	181 ~ 32.4	0.3 ~ 0.074	1250	163
MQY-3685	3600	8500	79	131	18	256 ~ 45.8	0.3 ~ 0.074	1800	252
MQY-4060	4000	6000	70	126	16.9	226 ~ 40.5	0.3 ~ 0.074	1500	203
MQY-4067	4000	6700	78	136	16.9	252 ~ 45	0.3 ~ 0.074	1600	206
MQY-4361	4270	6100	80	144	15.7	258 ~ 46	0.3 ~ 0.074	1850	215
MQY-4564	4500	6400	95	172	15.6	306 ~ 54	0.3 ~ 0.074	2000	280
MQY-5064	5030	6400	120	216	14.4	386 ~ 68	0.3 ~ 0.074	2600	320
MQY-5083	5030	8300	152	266	14.4	500 ~ 88	0.3 ~ 0.074	3300	403
MQY-5585	5500	8500	187	338	13.8	615 ~ 108	0.3 ~ 0.074	4500	525

技术参数变动恕不另行通知
Technical parameters are subject to change without notice.

Grid Ball Mill
格子型球磨机





大齿圈
Big gear



小齿轮
Pinion



小型磨机管式给料
Tube feeder for small Mill



大中型磨机电力驱动给料车
Electric drive feeder wagon for big or middle size Mill

格子型球磨机技术参数表 Technical Parameter Table of Grid Ball Mill

型号 Model	筒体 Cylinder 直径 Diameter (mm)	筒体 Cylinder 长度 Length (mm)	有效容积 Effective Volume (m^3)	装球量 Max.Ball Loading (t)	转速 Speed (r/min)	产量 Capacity (t/h)	出料粒度 Discharging size(mm)	主电动机 Main Motor (KW)	总重量 Weight (t)
MQS-1530	1500	3000	4.5	9	30	7 ~ 3.1	0.3 ~ 0.074	110	19.5
MQS-1545	1500	4500	6.7	14	29.6	10 ~ 4.2	0.3 ~ 0.074	155	22
MQS-1830	1830	3000	6.7	14	26.6	14 ~ 4.95	0.3 ~ 0.074	155	34.5
MQS-1845	1830	4500	10.5	20	26.8	17 – 6.6	0.3 ~ 0.074	210	38
MQS-2130	2100	3000	8.8	18	23.8	20 – 6.4	0.3 ~ 0.074	210	45
MQS-2136	2100	3600	11	22.5	23.8	24.5 ~ 7.5	0.3 ~ 0.074	245	48.5
MQS-2145	2100	4500	13.8	28	23.8	27.5 ~ 8.8	0.3 ~ 0.074	280	56
MQS-2230	2200	3000	10	20	21.3	25.5 ~ 7.6	0.3 ~ 0.074	210	50
MQS-2245	2200	4500	15.2	30.5	21.4	29.5 ~ 9.4	0.3 ~ 0.074	320	54.5
MQS-2430	2400	3000	12	25	21.3	28.6 ~ 7.7	0.3 ~ 0.074	280	53.5
MQS-2436	2400	3600	14	29	21.4	37 – 9.7	0.3 ~ 0.074	320	61
MQS-2445	2400	4500	17.8	37	21.4	46.5 ~ 12	0.3 ~ 0.074	380	72
MQS-2470	2400	7000	28	58	21.5	72 ~ 18.6	0.3 ~ 0.074	480	80
MQS-2736	2700	3600	18	38	20.7	60 – 12.8	0.3 ~ 0.074	400	89
MQS-2740	2700	4000	20.6	43	20.7	66 ~ 14.5	0.3 ~ 0.074	450	95
MQS-2745	2700	4500	23.2	48	20.7	75 ~ 16	0.3 ~ 0.074	480	102
MQS-2750	2700	5000	25.8	54	20.6	83 ~ 17.6	0.3 ~ 0.074	560 ~ 630	109
MQS-2760	2700	6000	31	65	20.6	99 ~ 21.5	0.3 ~ 0.074	630 ~ 710	119
MQS-3040	3000	4000	25.7	54	19	86 ~ 18	0.3 ~ 0.074	560 ~ 630	114
MQS-3064	3000	6400	40.2	84	19	138 ~ 28.5	0.3 ~ 0.074	1000	145
MQS-3230	3200	3000	21.8	46	18.2	78 ~ 15.5	0.3 ~ 0.074	500	116
MQS-3236	3200	3600	26.2	56	18.2	94 ~ 18.6	0.3 ~ 0.074	630	121
MQS-3245	3200	4500	32	65	18.2	105 ~ 23.8	0.3 ~ 0.074	800	132
MQS-3254	3200	5400	38	80	18.2	125 ~ 28.5	0.3 ~ 0.074	1000	146
MQS-3640	3600	4000	36	75	18	135 ~ 25	0.3 ~ 0.074	1000	153
MQS-3645	3600	4500	40.8	88	18	150 ~ 29	0.3 ~ 0.074	1250	168
MQS-3650	3600	5000	46	96	18	166 ~ 35	0.3 ~ 0.074	1400	176
MQS-3660	3600	6000	54	117	18	199 ~ 38	0.3 ~ 0.074	1400 ~ 1600	198
MQS-4050	4000	5000	58	121	16.9	208 ~ 45	0.3 ~ 0.074	1500	230
MQS-4060	4000	6000	70	146	16.9	248 ~ 65	0.3 ~ 0.074	1800	242
MQS-4560	4500	6000	87	182	15.6	308 ~ 80	0.3 ~ 0.074	2300	290

型号 Model	筒体 Cylinder 直径 Diameter (mm)	筒体 Cylinder 长度 Length (mm)	有效容积 Effective Volume (m^3)	装球量 Max.Ball Loading (t)	转速 Speed (r/min)	产量 Capacity (t/h)	出料粒度 Discharging size(mm)	主电动机 Main Motor (KW)	总重量 Weight (t)
MQG-1557	1500	5700	8.5	12	28	11 – 3.5	0.6 ~ 0.074	130	24.7
MQG-1564	1500	6400	9.6	13	28	12.5 ~ 3.9	0.6 ~ 0.074	155	27
MQG-1864	1830	6400	15	20	23.8	19.5 ~ 6	0.6 ~ 0.074	210	42
MQG-1870	1830	7000	16	22	23.8	21 – 6.5	0.6 ~ 0.074	245	43.5
MQG-1880	1830	8000	18.8	26	23.8	24 ~ 7.5	0.6 ~ 0.074	280	46
MQG-2170	2100	7000	22	30	24.1	28 ~ 8	0.6 ~ 0.074	320	58
MQG-2175	2100	7500	23.5	33	24.1	30 ~ 8.5	0.6 ~ 0.074	355	59.5
MQG-2265	2200	6500	22	35	21.7	32 – 9.2	0.6 ~ 0.074	380	61
MQG-2270	2200	7000	23.8	35	21.7	34.5 ~ 9.9	0.6 ~ 0.074	380	62.5
MQG-2275	2200	7500	25.5	35	21.7	37.5 – 10.8	0.6 ~ 0.074	380	64
MQG-2470	2400	7000	28	39	21.7	41 – 18.8	0.6 ~ 0.074	630	81
MQG-2480	2400	8000	32	45	21.5	47 – 21.5	0.6 ~ 0.074	570	86
MQG-2750	2700	5000	25.8	36	20.7	42 ~ 18.5	0.6 ~ 0.074	400	112
MQG-2760	2700	6000	31	43	20.6	49 ~ 21.5	0.6 ~ 0.074	570	121

技术参数变动恕不另行通知
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Rod Mill
棒磨机



棒磨机是由筒体内所装载研磨体为钢棒而得名的，棒磨机一般是采用湿式溢流型，可作为一段开路磨矿使用，广泛应用于有色金属、黑色金属、非金属选矿场及化工、建材、人工石砂等行业研磨物料使用

1、采用先进的可控进出料棒磨机技术，结合实际用户的研磨物料配用合适的研磨体，出料粒度更为均匀、产量更高。

2、棒磨产物的粒度特性与棒磨碎矿石的情况有关，当棒打击矿石时，首先是打着粗粒，而后才磨碎较小的矿粒，从而减少了因过粉碎而产生的细粉。

3 、结合实际用户的研磨物料配用合适的研磨棒，一改传统球磨机的面接触为线接触，使出料粒度更为均匀，产量 提高近50%。

The rod mill is named because the grinding media is steel rod. The rod mill is generally a wet overflow type. It can be used for primary open-circuit grinding. And it is widely used for materials grinding of non-ferrous metal, ferrous metal or in fields like non-metal concentrator, chemical industry, construction, artificial stone sand etc.

1. Adopt advanced controllable in-and-out rod mill technology, combined with the actual user's grinding material with appropriate grinding media, the discharge granularity is more uniform and the output is higher.

2. The particle size characteristics of the rod mill product are related to the condition of the rod grinding ore. When the rod hits the ore, the coarse grain is firstly crushed, and then the smaller ore particles are ground, therefore reducing the ultra-fine powdery product caused by the over-grinding.

3. Choose suitable grinding rod according to user's material, the surface contact of the traditional ball mill is changed to line contact, so that the discharge particle size is more uniform, the output is increased by nearly 50%

棒磨机技术参数表 Technical Parameter Table of Rod Mill

型号 Model	筒体 Cylinder 直径 Diameter (mm)	筒体 Cylinder 长度 Length (mm)	有效容积 Effective Volume (m^3)	装棒量 Max.Rod Loading (t)	转速 Speed (r/min)	产量 Capacity (t/h)	出料粒度 Discharging size(mm)	主电动机 Main Motor (KW)	总重量 Weight (t)
MBS(Y)-1530	1500	3000	4.5	8	27	15～6	2.0～0.15	90	18
MBS(Y)-1532	1500	3200	4.8	8.5	27	16～6.5	2.0～0.15	90	19
MBS(Y)-1830	1830	3000	6.7	14	23.7	20～9	2.0～0.15	155	34.5
MBS(Y)-1832	1830	3200	7.2	15	23.7	22～10	2.0～0.15	155～180	36
MBS(Y)-2130	2100	3000	8.8	18	21.4	30～12	2.0～0.15	210	45
MBS(Y)-2132	2100	3200	9.6	20	21.4	32～12.8	2.0～0.15	210	47
MBS(Y)-2136	2100	3600	11	23	21.4	35～14	2.0～0.15	245	48.5
MBS(Y)-2230	2200	3000	10	21	19	34～13	2.0～0.15	245	50
MBS(Y)-2236	2200	3600	12	25	19	40～16	2.0～0.15	245	52
MBS(Y)-2430	2400	3000	12	25	19	40～17	2.0～0.15	280	53.5
MBS(Y)-2436	2400	3600	14	29	19	47～19	2.0～0.15	320	61
MBS(Y)-2730	2700	3000	15.5	32.5	18.4	55～21	2.0～0.15	355	72
MBS(Y)-2736	2700	3600	18	38	18.4	65～24	2.0～0.15	400	89
MBS(Y)-2740	2700	4000	20.6	43	18.4	80～28	2.0～0.15	480	95
MBS(Y)-3040	3000	4000	25.7	54	17	90～34	2.0～0.15	630	114
MBS(Y)-3230	3200	3000	21	44	16.4	73～28	2.0～0.15	500	116
MBS(Y)-3245	3200	4500	32	67	16.4	110～44	2.0～0.15	800	132
MBS(Y)-3642	3600	4200	38	79.5	15.8	120～50	2.0～0.15	1000	153
MBS(Y)-3645	3600	4500	40.8	85	15.8	140～56	2.0～0.15	1000～1250	168
MBS(Y)-3650	3600	5000	46	96	15.8	155～65	2.0～0.15	1250	176
MBS(Y)-3660	3600	6000	54	113	15.8	190～80	2.0～0.15	1400	198

技术参数变动恕不另行通知
Technical parameters are subject to change without notice.

自磨机技术参数表 Technical Parameter Table of Autogenous Mill

型号 Model	筒体 Cylinder 直径 Diameter (mm)	筒体 Cylinder 长度 Length (mm)	有效容积 Effective Volume (m^3)	转速 Speed (r/min)	主电动机 Main Motor (KW)	总重量 Weight (t)
MZ-2410	2400	1000	4.5	22	55	18.5
MZ-3212	3200	1200	9.2	18.2	160	32.8
MZ-4014	4000	1400	16.6	17.6	245	64
MZ-5518	5500	1800	34.6	15	800	178
MZ-6433	6400	3300	107	12.8	2000	306
MZ-7525	7500	2500	107	11.4	2000	355

技术参数变动恕不另行通知
Technical parameters are subject to change without notice.

注：
1、设备重量不含研磨体；
2、磨机的生产能力为估算产量，实际应根据物料特性、工艺设定条件等情况进行确定；
3、订货时请注明电机电压、传动布置形式（左旋或右旋；若无明示，生产厂家均按右旋统一供货）。

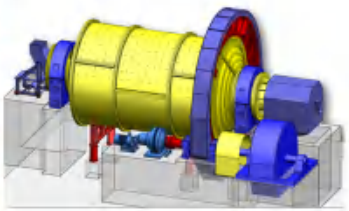
Note:
1、Weight of grinding media ball is not included.
2、The mill production capacity is the estimated output,and the actual ones shall be determined by material characteristic,technological setting condition and etc.
3、When placing order, please indicate the motor voltage & driving mode (clockwise rotation or counterclockwise rotation type; without indication, manufacturer will produce for clockwise rotation).

AG / SAG Mill 自/半自磨机









自磨机、半自磨机广泛用于黑色和有色金属矿以及非金属矿的矿石和岩石的粉磨作业，自磨机、半自磨机特别适合处理中硬以下硬度的有用矿物，呈粗粒均匀嵌布的岩石。具有工艺流程简单（省去了两段破碎机及筛分设备），投资省，建设周期短，操作简单等优点，自磨机是一种兼有破碎和粉磨两种功能的新
型磨矿设备。
★技术特点：
▲ 筒式磨机采用的传动形式有边缘传单、中心传动、多点啮合边缘传动等传动型式；驱动形式有异步电机＋减速器＋小齿轮＋大齿轮和同步电机＋空气离合器＋小齿轮＋大齿轮；
▲ 一般采用两端静动压轴承的支撑方式，采用完全封闭式的自调心1200级接触‘摇杆型’轴承，亦可采用单滑瓦、双滑瓦静动压的支撑方式或全静压支撑；
▲ 大型开式齿轮采用美国AGMA标准设计，装备有密封可靠的齿轮罩，设有甘油自动喷雾润滑装置；
▲ 筒体为磨机的关键件，利用计算机对其进行有限元分析，保证其使用的可靠性；
▲ 大、中型磨机装备有慢速驱动装置；
▲ 大、中型磨机装备有高低压润滑站；
▲ 控制与保护系统采用PLC控制；

Autogenous grinding machine and semi-autogenous grinding machine are widely used in the grinding of ore and ferrous metal ore and non-ferrous metal ore and non-metallic ore. Autogenous grinding machine and semi-autogenous grinding machine are especially suitable for processing useful minerals with hardness below medium hardness. Uniformly embedded rock. The utility model has the advantages of simple process flow (saving two-stage crusher and screening equipment), investment saving, short construction period and simple operation, and the Autogenous grinding machine is a new type of grinding equipment with both functions of crushing and grinding. .
★Technical features:
▲ The transmission type of the barrel mill has the following types: side drive center drive, multi-point meshing edge drive, etc. The drive type includes asynchronous motor + reducer + pinion + large gear and synchronous motor + air clutch + pinion + large gear;
▲ Generally adopt the support method of static pressure bearing at both ends, adopt fully enclosed self-aligning 1200 line contact 'rocker type' bearing, or use single sliding, double sliding static pressure support or full static Pressure support
▲ The large open gear is designed by American AGMA standard, equipped with a sealed and reliable gear cover, and equipped with glycerin automatic spray lubrication device;
▲ The cylinder is the key part of the mill, and it is finite element analysis by computer to ensure the reliability of its use;
▲ Large and medium-sized mills are equipped with slow drive devices;
▲ Large and medium-sized mills are equipped with high and low pressure lubrication stations;
▲ Control and protection system adopts PLC control;

湿式自磨机基本参数　　Basic parameters of wet autogenous grinding machine

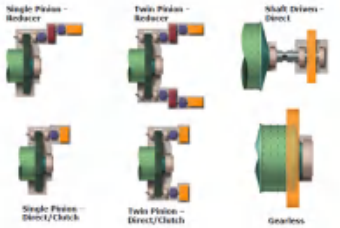
型号 Model	筒体直径 Cylinder diameter/mm	筒体长度 Cylinder length/mm	有效容积 Effective volume/m³	装球量 Maximum ball loading /t	转速 Rotation speed(r/min)	主电动机 Main motor power/kW
MA-40×□（AG-40×□）	4000	1400～3600	17～42	2～6	16.2	220～540
MA-45×□（AG-45×□）	4500	1600～4100	24～61	3～9	15.3	320～830
MA-50×□（AG-50×□）	5000	1800～4500	34～83	5～12	14.5	500～1200
MA-55×□（AG-55×□）	5500	1800～5000	42～112	6～16	13.8	630～1700
MA-61×□（AG-61×□）	6100	2400—5500	69～152	10～21	13.1	1050～2400
MA-67×□（AG-67×□）	6700	2600～6000	93～201	13～28	12.5	1500～3300
MA-73×□（AG-73×□）	7300	2800～6600	120～264	17～37	12.0	2000～4500
MA-80×□（AG-80×□）	8000	3200～7200	160～347	22～48	11.4	2800～6200
MA-86×□（AG-86×□）	8600	3400～7700	197～429	27～60	11.0	3500～7900
MA-92×□（AG-92×□）	9200	3700～8300	246～530	34～74	10.7	4500～10000
MA-98×□（AG-98×□）	9800	3900～8800	296～640	41～89	10.3	5600～12500
MA-104×□（AG-104×□）	10400	4200～9400	359～770	50～107	10.0	7000～15400
MA-110×□（AG-110×□）	11000	4400～9900	422～909	59～127	9.8	8400～19000
MA-116×□（AG-116×□）	11600	4600～10400	492～1064	69～148	9.5	10000～22000
MA-122×□（AG-122×□）	12200	4900～11000	580～1246	81～174	9.2	12000～27000

注1：筒体直径指筒体内径，筒体长度是指筒体两端法兰与法兰之间的长度；有效长度需根据端衬板、格子板的尺寸确定；有效容积指筒体、端盖去除衬板后的容积，包括锥体容积。
注2：给矿粒度为<350mm 。
注3：最大装球量按有效容积的3%计算。
注4：工作转速为临界转速的75%，变频调速时按照额定转速—10%～5%上下浮动。
注5：括号内的型号为习惯用型号。

Note 1: The diameter of the cylinder refers to the inner diameter of the cylinder. The length of the cylinder refers to the length between the flange and the flange at both ends of the cylinder; the effective length is determined according to the size of the end liner and the grid; the effective volume refers to the volume after removal of the liner of the end cap and the cylinder , including the cone volume.
Note 2: The feeding ore particle size is <350 mm.
Note 3: The maximum ball loading is calculated as 3% of the effective volume.
Note 4: The working speed is 75% of the critical speed. When the frequency conversion is adjusted, it will float up and down according to the rated speed of 10%~5%.
Note 5: The models in parentheses are custom models.

AG / SAG Mill 自/半自磨机





型号表示方法 Indication of model name





标记示例 Example:

筒体直径为8000mm，筒体长度为3200mm的湿式自磨机，其标记为MA-80×32自磨机。

筒体直径为8000mm，筒体长度为3200mm的湿式半自磨机，其标记为:MAB-80×32半自磨机。

Model MA-80x32: wet type autogenous mill, cylinder diameter 8000mm, length 3200mm

Model MAB-80x32: wet type semi-autogenous mill, cylinder diameter 8000mm, length 3200mm

湿式半自磨机基本参数 Basic parameters of wet semi-autogenous grinding machine

型号 Model	筒体直径 Cylinder diameter/mm	筒体长度 Cylinder length/mm	有效容积 Cylinder effective volume/m³	装球量 Maximum ball loading /t	转速 Rotation speed/(r/min)	主电动机 Main motor power/kW
MAB-40×□ (SAG-40×□)	4000	1600～3600	19～42	13～29	16.2	310～710
MAB-45×□ (SAG-45×□)	4500	1800～4100	27～61	19～43	15.3	470～1100
MAB-50×□ (SAG-50×□)	5000	2000～4500	38～83	27～58	14.5	700～1500
MAB-55×□ (SAG-55×□)	5500	2200～5000	51～112	36～78	13.8	960～2200
MAB-61×□ (SAG-61×□)	6100	2400～5500	69～152	48～106	13.1	1400～3100
MAB-67×□ (SAG-67×□)	6700	2700～6000	93～201	65～140	12.5	2000～4300
MAB-73×□ (SAG-73×□)	7300	2900～6600	120～264	84～184	12.0	2600～5900
MAB-80×□ (SAG-80×□)	8000	3200～7200	160～347	112～242	11.4	3600～8100
MAB-86×□ (SAG-86×□)	8600	3400～7700	197～429	137～299	11.0	4600～10000
MAB-92×□ (SAG-92×□)	9200	3700～8300	246～530	172～370	10.7	5900～13000
MAB-98×□ (SAG-98×□)	9800	3900～8800	296～640	206～446	10.3	7300～16000
MAB-104×□ (SAG-104×□)	10400	4200～9400	359～770	250～537	10.0	9100～20000
MAB-110×□ (SAG-110×□)	11000	4400～9900	422～909	294～634	9.8	11000～25000
MAB-116×□ (SAG-116×□)	11600	4600～10400	492～1064	343～742	9.5	13000～30000
MAB-122×□ (SAG-122×□)	12200	4900～11000	580～1246	405～869	9.2	16000～36000

注1：筒体直径指筒体内径，筒体长度是指筒体两端法兰与法兰之间的长度；有效长度需根据端衬板、格子板的尺寸确定；有效容积指筒体、端盖去除衬板后的容积，包括锥体容积。
注2：给矿粒度为<350 mm 。
注3：最大装球量按有效容积的3%计算。
注4：工作转速为临界转速的75%，变频调速时按照额定转速一10%～5%上下浮动。
注5：括号内的型号为习惯用型号。

Note 1: The diameter of the cylinder refers to the inner diameter of the cylinder. The length of the cylinder refers to the length between the flange and the flange at both ends of the cylinder; the effective length is determined according to the size of the end liner and the grid; the effective volume refers to the volume after removal of the liner of the end cap and the cylinder , including the cone volume.
Note 2: The feeding ore particle size is <350 mm.
Note 3: The maximum ball loading is calculated as 3% of the effective volume.
Note 4: The working speed is 75% of the critical speed. When the frequency conversion is adjusted, it will float up and down according to the rated speed of 10%~5%.
Note 5: The models in parentheses are custom models.

Raw Mill
原料磨



1.用途：

原料磨广泛用于建材、冶金、电力及化工行业粉磨（烘干兼粉磨）水泥原料及其它物料。

2.分类及特点：

a. **普通原料磨** 适用于中小型规模的原料粉磨系统，一般用于磨外选分的圈流粉磨系统。

b. **风扫磨** 风扫磨的特点是短而粗，进出料中空轴轴径大，烘干仓和粉磨仓之间的隔仓板篦缝面积很大，磨尾无出料篦板，故通风阻力很小，粉磨仓的风速可达5m/s以上，能够进入大量的热风，因而烘干能力强。

c. **尾卸提升循环磨** 尾卸提升循环磨与风扫磨的基本区别在于入磨物料通过烘干仓至粉磨仓的尾端用机械方法卸出，然后用提升机送入选粉机，粗物料再返回磨机循环粉磨。

d. **中卸提升循环磨** 中卸提升循环磨从烘干作用来说，是风扫磨和尾卸提升循环磨的结合；从粉磨作用来说，实际上相当于二级圈流粉磨系统。这种磨机前端设有烘干仓，具有良好的烘干效果；原料从磨头喂入，选粉机的回料分别从磨头、磨尾回入粗磨仓和细磨仓；磨中出料，经提升机提至选粉机分选；大部分回料回入细磨仓，其余回入粗磨仓。

1.Usage:

Raw material mill is used widely for grinding (both drying and grinding) cement raw material and other materials in buinding material, metallurgical,electric and chemical industries.

2.Sorts and Features:

a. **Common Raw Mill** It is used for small & medium-sized raw materials grinding system which generally is cycle flow system with material separating system outside the mill.

b. **Air-swept Mill** The feature of Air-swept mill is short and thick in shell , wide in diameter of inlet & outlet trunion, large in grate gap area of diaphragms between drying chamber & grinding chamber, no grate plate in mill outlet.Therefore, air speed inside of mill could reach 5m/s due to small resistance and drying capacity is strong since large amout of hot air could get in.

c. **Outlet Discharging & Lifting Cycle Mill** Comparing with Air-swept Mill, materials, passing through the drying chamber, are discharged at the outlet of grinding chamber by mechanical way, and then fed into seperator by elevator which would return the coarse materials to mill again for cycle grinding.

d. **Middle Discharging & Lifting Cycle Mill** From the view of drying, it is the combination of Air-swept Mill & Outlet Discharging & Lifting Cycle Mill; from the view of grinding, it workssimilar to secondary stage cycle grinding system. At the front end, it has drying chamber with high drying efficiency. Materials are fed from mill inlet, returned materials from seperator are fed through mill inlet & mill outlet into rough grinding chamber & fine grinding chamber respectively.

技术参数表 Technical Parameter Table

规 格Spec./m（直径×长度）(Dia.×Length)	磨机工作转速 Speed(r/min)	入料粒度 Feeding Size(mm)	生产能力 Capacity(t/h)	研磨体装载量 Griding Media Loading (t)	主电动机 Main Motor (KW)	主减速机 Main Reducer	总重量 Weight (t)
Φ2.2×7.0	21.7	<25	20~25	35	380	ZD70	62.5
Φ2.2×7.5	21.7	<25	22~26	35	380	ZD70	64
Φ2.2×8.0	21.5	<25	23~27	36	475	ZD70	66
Φ2.2×9.0	21.5	<25	24~28	40	475	ZD70	69
Φ2.4×7.0	21.5	<25	24~28	36.5	475	ZD70	81
Φ2.4×8.0	21.5	<25	26~30	42	570	ZD80	86
Φ2.4×9.0	21.5	<25	28~32	47	570	ZD80	92
Φ2.4×10	20.3	<25	30~35	52	630	ZD80	108
Φ2.6×8.0	19.7	<25	30~35	51	630	MBY630 JDX630	112
Φ2.6×9.0	19.7	<20	40~45	58	710	MBY630 JDX630	120
Φ2.6×10	19.7	<20	45~50	64	800	MBY710 JDX710	130
Φ3.0×9.0	18.2	<20	50~55	78	1000	MBY800 JDX800	158
Φ3.0×11	18.2	<20	55~60	95	1250	MBY800 JDX800	178
Φ3.2×10	17.8	<25	60~65	100	1400	MBY900 JDX900	200
Φ3.2×11	17.8	<25	70~80	110	1400	MBY900 JDX900	215
Φ3.4×7.5	16.9	<20	50~55	80	1000	MBY800	178
Φ3.4×7.5+1.8	16.9	<20	55~60	70	1250	MBY800	190
Φ3.5×10	16.8	<20	70~75	80	1250	JS110-A MFY125	200
Φ3.8×7.5	16.5	<15	85~90	95	1400	MFY140	185
Φ3.8×8.5	16.5	<15	90~95	108	1400	MFY140	195
Φ4.6×8.5+3.5	15	<15	140~150	150	2800	MFY280 JS140-A	325
Φ4.6×9.5+3.5	15.1	<15	180~190	180	3550	JS150-B	345
Φ4.6×10+3.5	15.1	<15	200~210	190	3550	JS150-B	370

注：

技术参数变动恕不另行通知
Technical parameters are subject to change without notice.

1.设备重量不含研磨体；

2.按用户要求可以提供Φ2.2-Φ3.2系列滚动轴承磨机；

3.订货时请注明电机电压、传动布置形式（左旋或右旋；若无明示，生产厂家均按右旋统一供货）。

Note:

1.Weight of grinding media ball is not included.

2.Φ2.2-Φ3.2 serials rolling bearing mill could be supplied as per the requirement of customer.

3.When placing order, please indicate the motor voltage & driving mode (clockwise rotation or counterclockwise rotation type; without indication, manufacturer will produce for clockwise rotation).

Cement Mill
水泥磨



1.用途：

水泥磨主要用于建材、冶金、电力及化工行业粉磨各种水泥熟料及其它物料。

2.分类及特点：

a. **普通水泥磨** 普通水泥磨大部分用于圈流磨系统中，其特点是粉磨效率高、磨机产量大、电耗省，特别是粉磨矿渣水泥时，表现更突出一些。一般磨机产量可提高15~20%，电耗降低约10%，此外，成品温度可降低20~40℃，产品细度也易于调整。

b. **高细高产水泥磨** 高细高产水泥磨主要用于开流粉磨系统中。其特点是系统设备及工艺流程简单、投资省、厂房占地面积小；在磨机结构上采用先进的内选粉特殊隔仓装置，细磨仓增加了活化装置，磨尾有专用出料篦板，最大限度的减少研磨仓研磨介质的尺寸，大大提高研磨效率，达到高产量、低能耗的目的。

1. Usage:

Cemeng Mill is mainly used for grinding various cement clinker or other materials in building material, metallurgical, electric and chemical industries.

2. Sorts & Features:

a. **Common Cement Mill** It is mainly used in cycle grinding system, with features of high grinding efficiency, high production, low power consumption. Especially, when grinding slag cement, its performance is more outstanding. Generally speaking, production could be 10~20% higher, and power consumption 10% lower. Besides, product temperature could reduce 20~40℃ and product fineness is easy to adjust.

b. **High Fineness & Production Cement Mill** It is mainly used in open flow grinding system, with features of simple equipment system & process flow, saving investment, less building area. Regarding structure, it has advanced & specical material seperating diaphram device inside, adds activation device to fine grinding chamber, and has discharging grate plate at mill outlet, thus to reduce the size of grinding media at the most and promote the grinding efficiency highly,realise the purpose of high prodcution & low power consumption.

技术参数表 Technical Parameter Table

规格Spec./m（直径×长度）(Dia.×Length)	磨机工作转速 Speed(r/min)	入料粒度 Feeding Siza(mm)	生产能力 Capacity(t/h)	研磨体装载量 Griding Media Loading (t)	主电动机 Main Motor (KW)	主减速机 Main Reducer	总重量 Weight (t)
Φ2.2×9.0	21.5	<25	14~15	39	475	ZD70	69
Φ2.2×9.5	21.5	<25	14~16	41	475	ZD70	74
Φ2.2×11	21.5	<25	16~18	50	570	ZD80	109
Φ2.2×13	21.5	<25	20~22	58	630	ZD80	114
Φ2.4×10	20.3	<25	18~20	52	630	ZD80	108
Φ2.4×11	20.3	<25	19~22(开流Open Flow) 22~25(圈流Cycle Flow)	57	630	ZD80	116
Φ2.4×12	20.3	<25	21~23(开流Open Flow) 24~26(圈流Cycle Flow)	63	800	MBY710 JDX710	128
Φ2.4×13	20.3	<25	22~24(开流Open Flow) 25~28(圈流Cycle Flow)	68	800	MBY710 JDX710	138
Φ2.6×11	19.7	<25	24~26	69	800	MBY710 JDX710	138
Φ2.6×13	19.7	<25	28~32	82	1000	MBY800 JDX800	158
Φ3.0×9.0	18.2	<25	28~32	78	1000	MBY800 JDX800	158
Φ3.0×11	18.2	<25	31~35	95	1250	MBY800 JDX800	178
Φ3.0×12	18.2	<25	32~36	100	1250	MBY800 JDX800	182
Φ3.0×13	18.2	<25	33~37	108	1400	MBY900 JDX900	190
Φ3.2×11	17.8	<25	40~45	110	1400	MBY900 JDX900	215
Φ3.2×13	17.8	<25	45~50	128	1600	MBY1000 JDX1000	230
Φ3.2×13	17.7	<25	50~55(圈流Cycle Flow)	128	1600	JS120-A MFY160	230
Φ3.2×14	17.8	<25	48~53	138	1800	MBY1000 JDX1000	249
Φ3.5×11	17.1	<25	55~60(圈流Cycle Flow)	135	1800	JS120-B MFY180	220
Φ3.5×13	17.3	<25	60~65(圈流Cycle Flow)	156	2000	JS130-A	275
Φ3.8×12	17	<25	63~68(圈流Cycle Flow)	175	2500	JS130-C	197
Φ3.8×13	17	<25	65~70(圈流Cycle Flow)	190	2500	JS130-C	245
Φ4.0×13	16.3	<25	75~80(圈流Cycle Flow)	200	2800	JS140-A	250
Φ4.2×11	15.8	<25	100~110(圈流Cycle Flow)	195	2800	JS140-A	248
Φ4.2×13	15.8	<25	110~120(圈流Cycle Flow)	230	3150	JS140-C	255
Φ4.2×14	15.6	<25	120~135(圈流Cycle Flow)	252	3550	JS150-B	270
Φ4.2×15	15.6	<25	140~150(圈流Cycle Flow)	270	4000	JS160-B	288
Φ4.6×14	15.1	<25	140~150(圈流Cycle Flow)	285	4200	JS160-C	320
Φ4.6×15	15.1	<25	150~160(圈流Cycle Flow)	305	4500	JS160-D	335

技术参数变动恕不另行通知
Technical parameters are subject to change without notice.

注：
1.设备重量不含研磨体；
2.按用户要求可以提供Φ2.2~Φ3.2系列滚动轴承磨机；
3.可以按高细磨供货；
4.订货时请注明电机电压、传动布置形式（左旋或右旋；若无明示，生产厂家均按右旋统一供货）。

Note:
1.Weight of grinding media ball is not included.
2.Φ2.2~Φ3.2 serials rolling bearing mill could be supplied as per the requirement of customer.
3.Equipment could be supplied as High Fineness & Production Mill.
4.When placing order, please indicate the motor voltage & driving mode (clockwise rotation or counterclockwise rotation type; without indication, manufacturer will produce for clockwise rotation).

Slag Mill
矿渣磨



矿渣磨采用高细筛粉磨技术，特殊的双层隔仓装置、活化衬板和磨尾出料装置，使用微型研磨体，可以对矿渣进行高线的粉磨和研磨，从而达到较高的生产能力，并且能够大幅度降低综合粉磨电耗，其使用性能达到国内领先水平；设备维护、检修方便，磨损件容易更换。

Slag Mill adopts high fine sieve technology, special double layer diaphragm device, activation liner, kiln outlet discharging device, minitype grinding media, grinds slag with high efficiency and realises high production & low power consumption. The performance has reached the advanced international level. And, the slag mill is easy to maintain and wear parts are easy to change.

技术参数表 Technical Parameter Table

规 格Spec./m（直径×长度）(Dia.×Length)	磨机工作转速 Speed(r/min)	入料粒度 Feeding Size(mm)	生产能力 Capacity(t/h)	研磨体装载量 Griding Media Loading (t)	主电动机 Main Motor (KW)	主减速机 Main Reducer	总重量 Weight (t)
Φ1.83×7.0	23.8	<20	3~5	22	245	ZD60	43.5
Φ1.83×9.5	24.1	<20	5~7	31	355	ZD70	56
Φ2.2×9.5	21.5	<20	8~10	41	475	ZD70	74
Φ2.2×11	21.5	<20	10~12	50	570	ZD80	109
Φ2.4×11	20.3	<20	12~14	57	630	ZD80 MBY560	116
Φ2.4×13	20.3	<20	14~16	68	800	MBY710 JDX710	138
Φ2.6×11	19.7	<20	15~16	69	800	MBY710 JDX710	138
Φ2.6×13	19.7	<20	16~18	82	1000	MBY800 JDX800	158
Φ3.0×12	18.2	<20	18~20	100	1250	MBY800 JDX800	182
Φ3.0×13	18.2	<20	21~23	108	1400	MBY900 JDX900	190
Φ3.2×13	17.8	<20	25~27	128	1600	MBY1000 JDX1000	230
Φ3.2×14	17.8	<20	28~30	138	1800	MBY1000 JDX1000	249
Φ3.5×13	17.3	<20	32~35	156	2000	JS130-A	275

技术参数变动恕不另行通知
Technical parameters are subject to change without notice.

注：
1.设备重量不含研磨体；
2.可根据用户的需要设计各种非标矿渣磨；
3.订货时请注明电机电压、传动布置形式(左旋或右旋；若无明示，生产厂家均按右旋统一供货)。

Note:
1.Weight of grinding media ball is not included.
2.Non-standard slag mill could be supplied as per requirements of customers.
3. When placing order, please indicate the motor voltage & driving mode (clockwise rotation or counterclockwise rotation type; without indication, manufacturer will produce for clockwise rotation).

Fly Ash Mill
粉煤灰磨



1. 粉煤灰磨的应用：

随着我国粉煤灰综合利用技术的日益成熟和推广，粉煤灰综合利用已经不仅限于环保的要求，粉煤灰综合利用的巨大经济效益已经得以体现。在我国一些发达地区，粉煤灰成品细灰甚至出现供不应求的局面。现国内大量燃煤电厂所排放的原状灰，其细度一般在20~50%之间变化（45μm方孔筛筛余量），达不到国家标准规定的Ⅰ级灰（45μm方孔筛筛余量不大于12%）、Ⅱ级灰(45μm方孔筛筛余量不大于20%)的要求。

利用粉煤灰专用超细磨机将原状灰或分选后的粗灰进行超细研磨，达到粉煤灰完全利用的目的，创造更大的经济效益。

2. 我公司生产的粉煤灰磨具有以下特点：

a. 磨细灰的细度保证能达到Ⅰ、Ⅱ级灰的标准；
b. 磨细灰内的玻璃微珠，经超细磨研磨后仍保持原来的状态。
c. 磨细灰产量和质量稳定可靠。
d. 特殊设计的中间隔仓装置，便于控制物料前仓料面与流速，使磨内筛分曲线趋于合理。
e. 后仓中挡料圈设计带有活化功能，避免微型钢锻产生滞留区，能提高磨细效率。

1. Usage

Along with maturity & application of the comprehensive utilization technology of fly ash, it has been beyond environmental protection requirement and brought great economic benefit. In the developed areas of China, fine fly ash is demanded more than that being supplied. However, raw fly ash, mainly produced by electric power plant, with fineness 20~50% sieve residue at 45μm sieve, could not meet the requirements of Ash Grade I (12% sieve residue at 45μm sieve) & Ash Grade II (20% sieve residue at 45μm sieve),as specified by the National Standard for industrial application.

Fly Ash Mill is designed and manufactured to grind raw fly ash or rejected raw fly ash after being seperated, realize full utilization of fly ash and create bigger economic benefit.

2. Features

a.Fineness of products is guaranteed to reach ash grade Ⅰ, Ⅱ.
b.Glass microsphere contained in fly ash keep its own status after fly ash is grinded.
c.Output & quality of products is steady & reliable.
d.Middle chamber designed specially make it very convenient to control material level & flow and make sieve curve reasonable.
e.Material dam ring inside back chamber has activation funtion to avoid residual region and improve the efficiency of mill.

技术参数表 Technical Parameter Table

规 格Spec./m（直径×长度）(Dia.×Length)	磨机工作转速 Speed(r/min)	生产能力 Capacity(t/h)		研磨体装载量 Griding Media Loading (t)	主电动机 Main Motor (KW)	主减速机 Main Reducer	总重量 Weight (t)
		易磨 Easy Grinding	难磨 Hard Grinding				
Φ1.83×7.0	23.8	12~13	5~6	22	245	ZD60	43.5
Φ1.83×8.0	23.8	15~16	7~8	26	280	ZD60	46
Φ1.83×9.5	24.1	16~17	11~12	31	355	ZD70	56
Φ2.1×8.5	23.9	18~19	14~15	36	475	ZD70	66
Φ2.1×10	23.9	19~20	15~16	42	475	ZD70	70
Φ2.2×9.0	21.5	19~20	15~16	40	475	ZD70	69
Φ2.2×9.5	21.5	21~22	17~18	41	475	ZD70	74
Φ2.2×11	21.5	23~24	18~19	50	570	ZD80	109
Φ2.2×13	21.5	25~26	20~21	58	630	ZD80	114
Φ2.4×12	20.3	29~30	22~23	63	800	MBY630	128
						MBY710	
Φ2.4×13	20.3	32~33	25~26	68	800	MBY630	138
						MBY710	
Φ2.6×13	19.7	37~38	30~31	82	1000	MBY800	158
Φ3.2×13	17.8	55~60	43~48	128	1600	MBY900	230
						MBY1000	

技术参数变动恕不另行通知
Technical parameters are subject to change without notice.

注：
1.设备重量不含研磨体；
2.可根据用户的需要设计各种非标粉煤灰磨；
3.生产能力以来样试验为准；
4.订货时请注明电机电压、传动布置形式（左旋或右旋；若无明示，生产厂家均按右旋统一供货）。

Note:
1.Weight of grinding media is not included.
2.Non-standard fly ash mill could be supplied as per the requirement of customer.
3.Mill capacity depends on the test result of sample.
4. When placing order, please indicate the motor voltage & driving mode (clockwise rotation or counterclockwise rotation type; without indication, manufacturer will produce for clockwise rotation).

Desulphurization Limestone Ball Mill
脱硫石灰石球磨机



1. 用途：

石灰石球磨机是我公司自主研发的一种新型环保设备，是火力发电厂烟气脱硫剂-石灰石浆液制备系统的主体设备。同时，也适用于冶金、化工、铝业等行业烟气脱硫剂的制备系统。

2. 特点：

该产品具有结构紧凑，安装维修方便，运转平稳等优点，广泛用于粉碎各种硬度的石灰石、磷矿石及其它可磨性物料。使用性能达到国内领先水平；设备维护、检修方便，磨损件容易更换。

我公司可根据用户的不同要求，设计制造各种规格的石灰石磨机以及各种非标石灰石磨。

1. Usage:

Desulphurization Limestone Ball Mill is developed and manufactured independently by Yingyong . It is a new type of environmental protection equipment and key equipment for making & preparing system of limestone slurry which is gas desulphurization agent in thermal power plant, also in metallurgical, chemical & aluminium industries.

2. Features:

The mill, with compact structure, is easy to install & maintain, steady in running, and widely used for grind limestone, phosphate ore and other grindable materials of different hardness. The performance is advanced in domestic market. Wear parts are easy to change.

We could manufacture all sizes of limestone mill and non-stanard mill as per requirements of client.

技术参数表（湿式） Technical Parameter (for wet type Limestone Mill)

规格 Spec.（m） / 项目 Item	Φ1.83×6.4	Φ2.2×5.4	Φ2.4×5.8	Φ2.7×6.0	Φ2.7×6.5	Φ2.9×6.5	Φ2.9×7.0	Φ3.2×6.4	Φ3.2×7.0
工作转速 Speed（r/min）	23.8	21.3	21.7	20.5	20.5	19	19	18.2	18.2
生产能力 Capacity（t/h）	3～5	6～8	9～10	13～14	15～16	16～18	18～20	22～24	24～26
研磨体装载量 Grinding Media Loading（t）	20	25	32	43	47	50	54	62	70
主减速机 Main Reducer	ZD60	ZD60	ZD70	ZD70	ZD70	MBY560	MBY560	MBY630	MBY630
主电动机 Main Motor（KW）	210	280	380	570	570	630	630	800	900
总重量 Weight（t）	42	58	76	121	125	138	141	152	159

技术参数表（干式） Technical Parameter (for dry type Limestone Mill)

规格 Spec.（m） / 项目 Item	Φ1.83×7.0	Φ2.2×7.0	Φ2.4×7.0	Φ2.4×9.0	Φ2.6×8.0	Φ2.6×10	Φ2.8×9.0	Φ3.0×9.0	Φ3.0×11
工作转速 Speed（r/min）	23.8	21.7	21.7	21.5	19.7	19.7	18.3	18.2	18.2
生产能力 Capacity（t/h）	3-5	6-8	8-10	12-14	14-16	16-18	18-20	22-24	24-26
研磨体装载量 Grinding Media Loading（t）	22	35	39	48	52	65	72	78	95
主减速机 Main Reducer	ZD60	ZD70	ZD70	ZD80	MBY630	MBY710	MBY630	MBY800	MBY800
主电动机 Main Motor（KW）	245	380	480	570	630	800	900	1000	1250
总重量 Weight（t）	43.5	62.5	81	92	112	130	145	158	178

技术参数变动恕不另行通知
Technical parameters are subject to change without notice.

注：

1.设备重量不含研磨体；

2.订货时请注明电机电压、传动布置形式（左旋或右旋；若无明示，生产厂家均按右旋统一供货）。

Note:

1.Weight of grinding media ball is not included.

2.When placing order, please indicate the motor voltage & driving mode (clockwise rotation or counterclockwise rotation type; without indication, manufacturer will produce for clockwise rotation).

Air-swept Coal Mill
风扫煤磨



1、用途：风扫煤磨是回转窑水泥熟料生产的主要设备，同时也适用于火力发电、冶金工业、化学工业、制糖工业等制粉设备系统。

2、特点：我公司生产的粉扫煤磨具有如下特点：

a、能够连续生产，生产能力大。

b、细度容易调整。

c、结构紧凑，运转平稳，安装维修方便，使用寿命长。

d、对物料适应性强，可以粉磨各种硬度的煤炭。

1. Use: Air-swept coal mill is the main equipment for rotary kiln cement clinker production. It is also suitable for powder production equipment systems such as thermal power generation, metallurgical industry, chemical industry and sugar industry.

2. Features: The powder sweeping coal mill produced by our company has the following characteristics:

a. It can produce continuously and has a large production capacity.

b, fineness is easy to adjust.

c. Compact structure, stable operation, convenient installation and maintenance, and long service life.

d. It has strong adaptability to materials and can grind coal of various hardnesses.

技术参数表 Technical Parameter Table:

规格 Spec.（m） / 项目 Item		Φ1.7×2.5	Φ2.2×3.0	Φ2.2×3.5	Φ2.2×4.4	Φ2.2×4.4+1.3	Φ2.4×4.75	Φ2.4×4.5+2	Φ2.5×3.9
工作转速 Speed（r/min）		25.4	21.3	21.3	22.4	22.4	20.4	20.4	20
生产能力 Capacity（t/h）		3-5	5-6	6-7	8-9	8-9	12-14	11-12	10
产品细度 Fineness R80(%)		10-12	10-12	10-12	10-12	10-12	8-10	8-10	8-10
进料粒度 Feeding Size（mm）		<25	<25	<25	<25	<25	<25	<25	<25
研磨体装载量 Grinding Media Loading（t）		7.5	13	15	20	20	22	22.5	22
水分 Mositure（%）	进磨 Inlet	<10	<10	<10	<10	<10	<10	<10	<10
	出磨 Outlet	<2	<2	<2	<2	<2	<2	<2	<2
温度 Temp.（℃）	进磨 Inlet	<350	<350	<350	<350	<350	<350	<350	<350
	出磨 Outlet	60～80	60～80	60～80	60～80	60～80	60～80	60～80	70～90
主减速机 Main Reducer		ZD45	ZD60	ZD60	ZD60	ZD60	ZD60	ZD60	ZD60 MBY450
主电动机 Main Motor（KW）		95	180	210	250	250	280	315	315
总重量 Weight（t）		23	38	41	46	48.5	54	76	62

规格 Spec.（m） / 项目 Item		Φ2.6×5.25+2.25	Φ2.8×5+3	Φ2.9×4.1	Φ3.0×6+3	Φ3.2×6.75+2	Φ3.4×6+3	Φ3.8×7+2.5	Φ3.8×7.25+3.5
工作转速 Speed（r/min）		19.7	18.3	18.8	17.3	16.9	17.5	16.4	16.4
生产能力 Capacity（t/h）		13～14	16～17	14～16	19～20	27～29	28～30	38～40	41～43
产品细度 Fineness R80(%)		8-10	8-10	8-10	8-10	8-10	12	12	12
进料粒度 Feeding Size（mm）		<25	<25	<25	<25	<25	<25	<25	<25
研磨体装载量 Grinding Media Loading（t）		28	32	35	43	50	55	80	85
水分 Mositure（%）	进磨 Inlet	<10	<12	<10	<10	<10	<12	<12	<12
	出磨 Outlet	<2	<2	<2	<2	<2	<2	<2	<2
温度 Temp.（℃）	进磨 Inlet	<350	<350	<350	<350	<350	<350	<350	<350
	出磨 Outlet	70～90	60～80	60～80	70～90	80～90	60～80	60～80	60～80
主减速机 Main Reducer		ZD70 MBY450	ZD70 MBY500	ZD80 MBY560	ZD80 MBY560	JDX630	JDX710	MBY710	MBY800
主电动机 Main Motor（KW）		400	500	500	630	710	800	1250	1400
总重量 Weight（t）		98	107	78	124	148	162	178	220

技术参数变动恕不另行通知
Technical parameters are subject to change without notice.

注：

1.设备重量不含研磨体；

2.订货时请注明电机电压、传动布置形式（左旋或右旋；若无明示，生产厂家均按右旋统一供货）。

Note:

1.Weight of grinding media is not included.

2.When placing order, please indicate the motor voltage & driving mode (clockwise rotation or counterclockwise rotation type; without indication, manufacturer will produce for clockwise rotation).

Ball-crush Mill 球破机



1.用途：

新型球破机是突破传统的破碎理念，专门为水泥厂破碎生料、熟料所设计的一种新型的预粉磨设备。也适用于选矿、化工、煤炭、陶瓷、冶金等行业部门。

2.特点：

a.筒体内安装特殊的环沟阶梯衬板，破碎采用大钢球，提升高度高，冲击破碎能力强。

B.筒体尾部采用篦板出料。合格的物料被筛选出球破机，不合格的在磨内继续破碎研磨。出料粒度的大小可通过篦 缝的大小调 节。

c.筒体上开设人孔，便于倒球、换球、更换衬板等。

d.筒体出料端周向开设腰型孔，物料利用离心力从腰型孔抛向出料罩。

该设备具有高可靠性、低消耗性、大破碎比、适应性强等优点，使用性能达到国内领先水平。

1. Usage:

The new type of Ball-crush Mill is an innovation to traditional crushing concept, a new pre-grinding equipment specially designed for raw materials & clinker crushing in cement plant. It is also used in mining,chemical, coal, ceramics & metallurgy industries.

2. Features:

a. Circular groove stage liner is bolted on the shell inner side and big steel ball is used. Therefore, lifting height is big and crushing capacity is strong.

b. Materials are discharged through the grate plate at the end of shell. Fine materials is seperated from the mill and rejected material are kept being grinded in the mill. Product size could be adjusted through adjusting the grate gap.

c. Man hole is made on the shell, which make it convenient to input,change balls or change liners.

d. Waist hole is made on the shell in circumferential direction and materials are tossed to discharging guard through the hole.

The mill has high reliability, low power consumption, big reduction ratio, strong adaptability, and its performance has reached advanced level in domestic market.

技术参数表 Technical Parameter Table

规格 Spec.（m） / 项目 Item	Φ2.4×2.0	Φ2.6×3.0	Φ3.0×3.0	Φ3.2×3.0	Φ3.4×3.5	Φ3.6×4.0
研磨体装载量 Grinding Media Loading（t）	12	21	25	30	40	50
入料粒度 Feeding Size（mm）	≤80	≤80	≤80	≤80	≤80	≤80
产品粒度 Product Size（mm）	≤5	≤5	≤5	≤5	≤5	≤5
生产能力 Capacity（t/h）	30～40	45～50	50～60	60～80	90～110	120～130
电机功率 Main Motor（KW）	155	245	280～320	320～380	475～570	630～710
总重量Weight（t）	36.5	52	61.5	68	95	126

注：

1.设备重量不含研磨体；

2.研磨体装载量可根据使用厂家的具体情况进行调整，表中装球量仅供参考；

3.表中的产量为熟料产量；

4.可根据用户的要求设计各种非标球破机；

5.订货时请注明电机电压、传动布置形式（左旋或右旋；若无明示，生产厂家均按右旋统一供货）。

Note:

1. Weight of grinding media ball is not included

2. "Grinding media loading" is for reference only, and adjustable as per the conditons of the plant .

3. "Capacity" refers to clinker output.

4.Non-standard mill could be made as per client' s requirement.

5. When placing order, please indicate the motor voltage & driving mode (clockwise rotation or counterclockwise rotation type; without indication, manufacturer will produce for clockwise rotation).