PowderTech

DASWELL

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DASWELL PowderTech


# COMPLETE POWDER PROCESSING SOLUTIONS

FROM MINERAL TO HIGH-VALUE POWDER

# DASWELL

**DASWELL POWDER TECHNOLOGY CO., LTD.,**

FROM MINERAL TO HIGH-VALUE POWDER
WE PROVIDE COMPLETE POWDER PROCESSING SOLUTIONS.

## GRINDING MILL

# CONTENTS

# ABOUT DASWELL POWDER TECHNOLOGY

**IN PROGRESS**

Powder Experiment

Daswell Powder Technology Co., Ltd., is a professional engineering partner dedicated to advanced mineral powder processing solutions.

We specialize in delivering customized, performance-oriented production lines for:

## OUR APPROACH

We don't just ship equipment — we design and deliver complete powder-processing systems. Every project begins with a deep understanding of your raw material mineralogy and market goals. Our "Process-First" workflow includes:

- Raw material laboratory testing & validation
- Customized flowsheet design & optimization
- Equipment selection and manufacturing supervision
- Installation, commissioning, and operator training
- Lifecycle technical support and process optimization

## GLOBAL EXPERIENCE

Powered by DASWELL Group (www.daswell.com), we inherit more than 16 years of international project execution experience. We deeply understand the operational challenges in the Middle East, Africa, Southeast Asia and other developing countries — bridging the gap between advanced technology and local adaptability.

2010

**16+** Years of International Experience

**80+** Countries Served

**100+** Powder Systems Delivered



# OUR STRENGTH

## PARTNERSHIP PHILOSOPHY

Our mission is straight forward: build powder plants that run reliably and generate sustainable profit for our customers.

We measure our success not by the contract signed, but by the stability of your plant years down the road.

WE PROVIDE LIFETIME SERVICE SUPPORT AND
**7*24 HOURS A WEEK.**

## TECHNICAL CAPABILITY

Driven by technology, our engineering team is supported by senior expertise with decades of experience from leading German powder-technology backgrounds and top Chinese mineral processing institutes.

Our technical capability is built on:

- High-precision laser diffraction particle size analyzers
- Whiteness and morphology testing instruments
- Pilot-scale grinding and classification validation

Instead of generic sourcing, we employ a "Centralized Engineering, Specialized Manufacturing" model. We leverage China's specialized industrial bases to manufacture components under strict engineering standards — ensuring every ball mill, air classifier, coating system and other related equipment is properly matched to the required process performance.

# PROCESS LAB & QUALITY CONTROL

Every project starts with raw material validation - ensuring optimal process parameters before equipment ships




# 16+ YEARS OF CONTINUOUS DELIVERY

Our longest customer relationship spans over a decade

GCC + Coating 40K tons/yr

GCC Plant 60K tons/yr

GCC Plant 40K tons/yr

Calcium Carbonate Plant 45K Tons/Yr

2026

2025

2023

2021

2018

2015

2013

2010

Calcium Carbonate Ring Roller Mill Production Line50K tons/yr

Calcium Carbonate Ring Roller Mill Production Line60K tons/yr

GCC + Coating 40K tons/yr

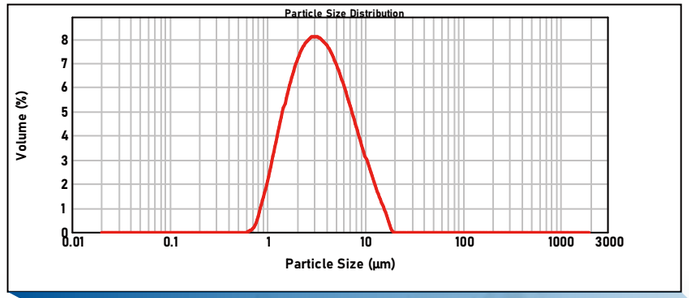
Silica Plant 50K Tons/Yr



Particle Name: 1.6-0.01
Accessory Name: Hydro 2000G (A)
Analysis model: General purpose
Sensitivity: Normal
Particle RI: 1.600
Absorption: 0.01
Size range: 0.020 to 2000.000 um
Obscuration: 14.13 %
Dispersant Name: Water
Dispersant RI: 1.330
Weighted Residual: 0.376 %
Result Emulation: Off

Concentration: 0.0045 %Vol
Span : 2.152
Uniformity: 0.663
Result units: Volume
Specific Surface Area: 2.18 m?g
Surface Weighted Mean D[3,2]: 2.746 um
Vol. Weighted Mean D[4,3]: 4.282 um

d(0.1): 1.411 um  d(0.5): 3.333 um  d(0.9): 8.585 um




# PARTICLE SIZE VERIFICATION

# ULTRAFINE RING ROLLER MILL


The ring roller mill machine is widely used in fine and ultrafine powder production lines for soft to medium-hard non-metallic minerals. This grinding system is especially suitable for industrial powder plants, which process materials with Mohs hardness up to 5. It ensures efficient grinding without excessive wear.

› Calcium carbonate

› Barite

› Talc

› Gypsum

› Calcite

› Limestone

› Dolomite

› Bentonite



## ◆ HOW DOES A RING ROLLER MILL WORK

Raw materials are first crushed to the required size and then fed into the grinding chamber through a bucket elevator and vibrating feeder.

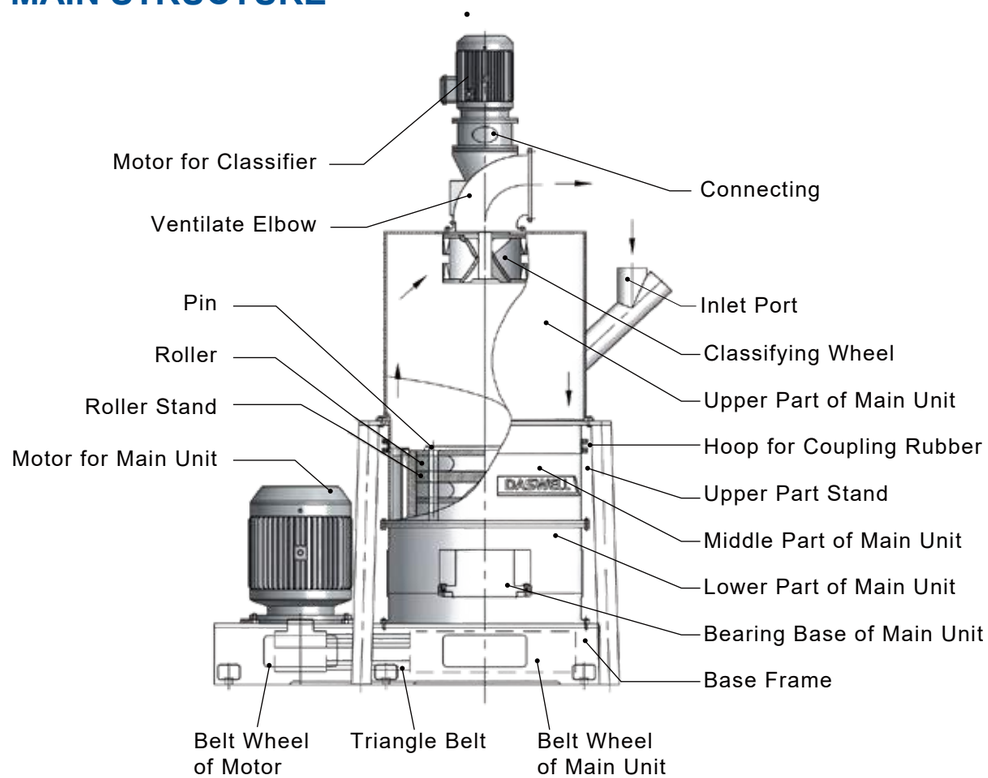
Driven by centrifugal force, the material enters the grinding area, where grinding rollers continuously crush and grind it against the grinding rings through multiple layers of ring grooves, producing fine powder.

The powder is then separated by airflow. Qualified fine powder is collected by the cyclone collector and discharged as the finished product, while coarse particles are returned for further grinding.

A small amount of ultra-fine powder is captured by the bag filter. The collected powder is discharged and conveyed for packaging.



## ◆ MAIN STRUCTURE



# RING ROLLER MILL POWDER PROCESSING

## TYPICAL RING ROLLER MILL PRODUCTION LINE

## ULTRAFINE POWDER PROCESSING SOLUTION FOR NON-METALLIC MINERALS

### Ideal range

Soft to medium-soft non-metallic minerals with Mohs hardness ≤5 and moisture ≤5%. Within this range, the processing system delivers high grinding efficiency, stable operation, and long-term reliability.

### Typical materials

Calcium carbonate (limestone, calcite, marble), talc, barite, gypsum, dolomite, kaolin, and bentonite. These minerals are widely used as industrial fillers in plastics, coatings, rubber, paper, and construction materials.

| Material | Typical Product Fineness | Main Applications |
|---|---|---|
| Calcium Carbonate | D97 5-20 μm | Plastics, Paints, Paper |
| Talc | D97 10-20 μm | Masterbatch, Plastics |
| Barite | D97 10-45 μm | Coatings, Drilling Fluids |
| Kaolin | D97 5-20 μm | Ceramics, Paper |
| Wollastonite | D97 10-20 μm | Friction Materials, Plastics |
| Dolomite | D97 10-20 μm | Fillers, Construction Materials |

## TECHNOLOGICAL ADVANTAGES

**High Grinding Efficiency**

Multi-layer grinding delivers efficient and stable ultrafine powder production.

**Low Wear and Long Service Life**

Wear-resistant rollers and rings reduce maintenance and extend service life.

**Low Energy Consumption**

Optimized structure and airflow lower energy use while maintaining high output.

**Wide Fineness Range**

Adjustable fineness from **5–45 μm (325–2500 mesh)**

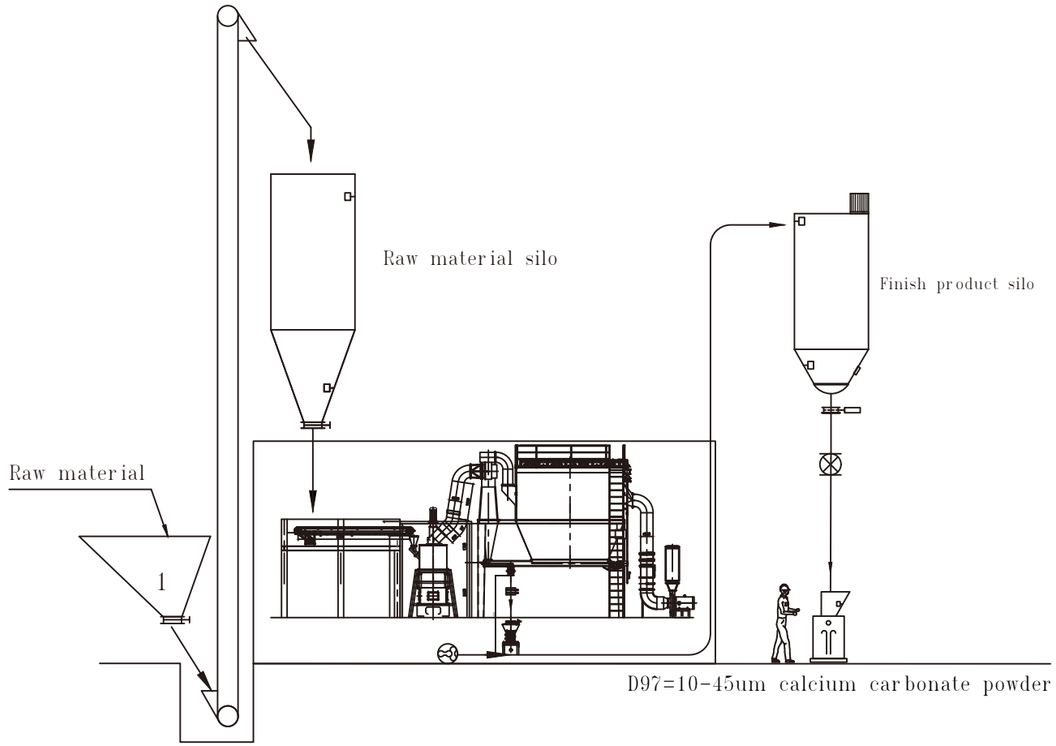
**Intelligent Control System**

PLC automation ensures stable operation and easy adjustment.

## PRODUCTION LINE PROCESS

After crushing to the required feed size, the material is conveyed to the storage hopper by a bucket elevator and fed into the grinding system through a vibrating feeder. Inside the ring roller mill, materials are ground through multiple grinding layers until the required fineness is achieved.

Qualified powder is carried by airflow to the cyclone collector, while coarse particles return to the mill for further grinding. The remaining powder is captured by the dust collector, ensuring clean and stable operation of the entire production line.



## TECHNICAL PARAMETERS

| Model | | DR-21 | DR-28 | DR-34 |
|---|---|---|---|---|
| Roller number (pcs) | | 21 | 28 | 34 |
| Feed size (mm) | | ≤10 | ≤10 | ≤10 |
| Feed material moisture (%) | | ≤3% | ≤3% | ≤3% |
| Fineness (μm) | | 3.5-45μm | 5-50μm | 5-50μm |
| Output (kg) | | 500-4000 | 800-7000 | 1700-12000 |
| Installed power (kw) | Main motor | 75 | 132 | 185-200 |
| | Classifier | 18.5-22 | 30 | 55-75 |
| | Blower | 45-55 | 55-75 | 132 |
| | Feeder | 1.5-3 | 1.5-3 | 3 |
| | Discharge screw | 3 | 3 | 3-6 |
| Air compressor power ($m^3$) | | $1.5^3$-$2^3$ | $2^3$ | $2^3$ |

## ELECTRICITY CONSUMPTION AND CAPACITY TABLE

| Model | DR-21 Roller Mill | | DR-28 Roller Mill | | DR-34 Roller Mill | |
|---|---|---|---|---|---|---|
| Fineness (D97) | Capacity | Electric Power Consumption | Capacity | Electric Power Consumption | Capacity | Electric Power Consumption |
| 43μm | - | - | 5.7-6.2t/h | 30 KW.H/Ton | 11.7-12.7t/h | 25KW.H/Ton |
| 35μm | - | - | 5.3-5.6t/h | 35 KW.H/Ton | 9.7-10.7t/h | 30KW.H/Ton |
| 23μm | 1.7-1.9t/h | 50 KW.H/Ton | 4.2-4.9t/h | 45 KW.H/Ton | 8.2-9.2t/h | 40KW.H/Ton |
| 18μm | 1.3-1.7t/h | 60 KW.H/Ton | 3.5-4.0t/h | 55 KW.H/Ton | 6.2-7.2t/h | 50KW.H/Ton |
| 10μm | 0.9-1.3t/h | 80 KW.H/Ton | 2.2-2.7t/h | 75 KW.H/Ton | 3.7-4.2t/h | 73KW.H/Ton |
| 9μm | 0.5-0.7t/h | 105 KW.H/Ton | 1.5-2.0t/h | 100 KW.H/Ton | 2.5-3.0t/h | 98KW.H/Ton |
| 7-8μm | 0.2-0.4t/h | 150 KW.H/Ton | 0.7-1.0 t/h | 160 KW.H/Ton | 1.4-1.9t/h | 160KW.H/Ton |
| 5-6μm | 0.1-0.3 t/h | 170 KW.H/Ton | 0.5-0.7 t/h | 180 KW.H/Ton | - | - |



## TYPICAL APPLICATIONS

› Plastic Fillers (PVC, PE, PP)

› Coatings and Paints

› Rubber Products

› Paper Fillers

› Building Materials

› Industrial Minerals

## CUSTOMER SITE


# BALL MILL AND CLASSIFICATION

**Ideal range:** Materials with a Mohs hardness ≤ 7. This is its most efficient and economical application range.

**Typical materials:** Limestone, calcite, quartz, feldspar, coal, cement clinker, slag, ceramic raw materials (kaolin, bentonite), chemical raw materials, etc.

**Optional Liner & Grinding Media:** Liner and grinding media materials can be customized according to the application requirements. Available options include steel, ceramic, alumina, and other wear-resistant materials. For high-purity mineral powder production, ceramic liners and zirconium dioxide grinding balls are available to minimize contamination and maintain high whiteness.

› Calcite

› Quartz

› Talc

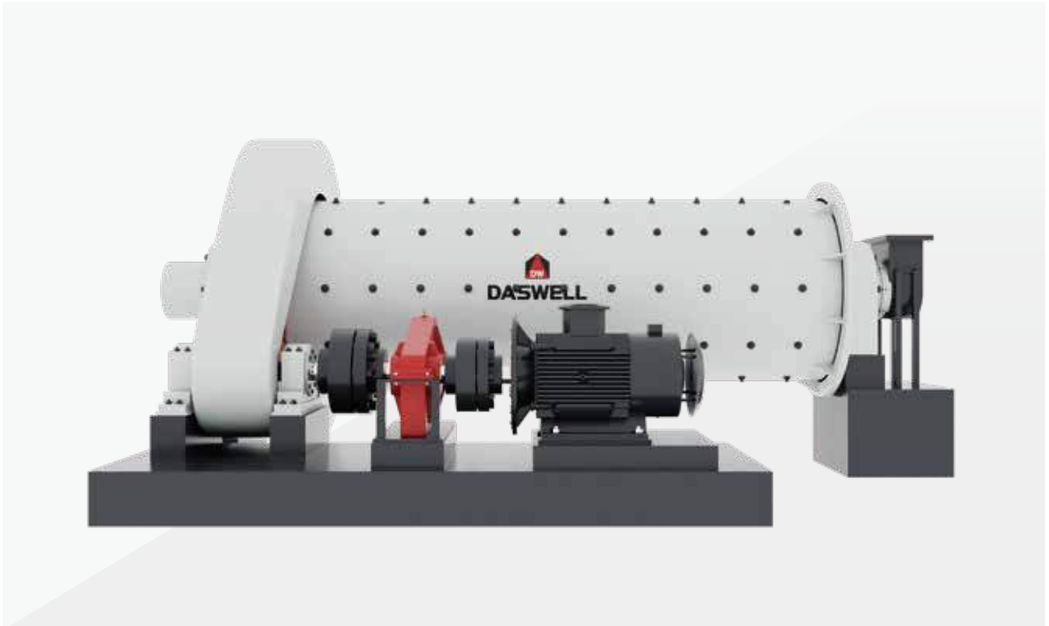
› Limestone

## ◆ BALL MILL CLASSIFICATION PRODUCTION LINE SOLUTION

Our high-efficiency closed-circuit ball mill grinding system produces ultrafine mineral powders from D97 5–45 μm. Combining ball milling with precise turbo classification, the system delivers stable fineness, low energy consumption, high automation, and excellent particle size distribution.




# BALL MILL




The ball mill grinding line can be customized based on material characteristics, required fineness, production capacity, and application requirements. Grinding media, liner materials, classifier settings, and control systems are all optimized to deliver the best performance for your project.

## ◆ TECHNICAL PARAMETERS

| Model | Load capacity (t) | Production capacity (t/h) | Transmission method | Active engine | Auxiliary transmission | | Weight (t) |
|---|---|---|---|---|---|---|---|
| | | | | Power(kW) | Speed reducer | Motor power | |
| Ø1.83x7 | 21 | 8-13 | Edge | 245 | - | - | 36 |
| Ø2.2x7.5 | 45 | 12-19 | Edge | 380 | - | - | 52 |
| Ø2.2x10 | 48 | 17-26 | Edge | 475 | - | - | 59 |
| Ø2.4x10 | 52 | 20-32 | Edge | 630 | ZSY224 | 11 | 96 |
| Ø2.4x13 | 65 | 26-36 | Edge | 800 | ZSY224 | 11 | 112 |
| Ø2.6x10 | 70 | 28-38 | Edge | 800 | ZSY250 | 15 | 146 |
| Ø2.6x13 | 78 | 30-40 | Edge | 1000 | ZSY250 | 15 | 150 |
| Ø3.0x10 | 90 | 32-44 | Edge | 1250 | ZSY250 | 15 | 168 |
| Ø3.0x13 | 100 | 36-50 | Edge | 1400 | ZSY280 | 18.5 | 185 |
| Ø3.2x10 | 102 | 38-55 | Edge | 1400 | ZSY280 | 18.5 | 193 |
| Ø3.2x13 | 120 | 45-60 | Edge | 1600 | ZSY280 | 18.5 | 215 |
| Ø3.5x11 | 140 | 55-80 | Edge | 1800 | ZSY280 | 22 | 226 |
| Ø3.5x13 | 165 | 65-90 | Edge | 2000 | ZSY315 | 30 | 243 |
| Ø3.8x13 | 180 | 70-100 | Edge | 2500 | ZSY315 | 30 | 336 |



# AMS MULTI-WHEEL CLASSIFIER

Turbo classifier is an advanced powder classifying machine. It can achieve precise and consistent particle size control.

It is widely used in calcium carbonate, quartz, talc, and other mineral processing lines. The turbo classifier helps you achieve optimized product fineness and improved overall production efficiency.

## ◆ FEATURE

1.Higher Classification Efficiency

Optimized turbine and airflow design ensure precise and stable particle size control for high-quality fine powder production.

2.High Efficiency & Low Energy Consumption

Advanced airflow design reduces energy consumption by up to 20%, lowering operating costs while maintaining high output.

3.Wide Material Applicability

Suitable for both light and heavy powders, including calcium carbonate, talc, quartz, and barite.

4.Low Maintenance & Long Service Life

Robust structure and wear-resistant components ensure reliable operation, reduced downtime, and extended service life.


## ◆ TECHNICAL PARAMETERS

| Model | Feeding(t/h) | RangeD97 (μm) | Dutput(t/h) D97=10μm | Power(kW) | Wheel Qty(pcs) |
|---|---|---|---|---|---|
| AMS4001Z | 0.3-0.5 | 3-37 | 0.1-0.2 | 5.5*1 | 1 |
| AMS4003Z | 1.0-1.5 | 3-37 | 0.3-0.4 | 5.5*3 | 3 |
| AMS6301Z | 0.5-2.0 | 4-37 | 0.4-0.5 | 15x1 | 1 |
| AMS6303Z | 1.5-7.0 | 4-37 | 1.3-1.5 | 15x3 | 3 |
| AMS6304Z | 3.0-10.0 | 4-37 | 1.7-2.0 | 15x4 | 4 |
| AMS6306Z | 6.0-15.0 | 5-37 | 2.7-3.0 | 15x6 | 6 |
| AMS8001 | 1.0-3.0 | 5-37 | 0.6-0.8 | 18.5x1 | 1 |
| AMS8003 | 3.0-10.0 | 5-37 | 1.8-2.2 | 18.5x3 | 3 |
| AMS8004 | 4.0-15.0 | 5-37 | 2.6-3.0 | 18.5x4 | 4 |
| AMS10001NG | 2.0-5.0 | 5-37 | 1.0-1.2 | 30x1 | 1 |
| AMS10003NG | 6.0-18.0 | 5-37 | 3.1-3.5 | 30x3 | 3 |
| AMS10004NG | 8.0-25.0 | 5-37 | 4.2-4.6 | 30x4 | 4 |
| AMS10006NG | 12.0-35.0 | 5-37 | 6.0-6.8 | 30x6 | 6 |

Note: The capacily above is based on calcium carbonate material, and motor controlled by frequency inverter.

# ASS SINGLE-WHEEL CLAASIFIER

## FEATURE

1. To produce powder between 5.5~25pm, specially for the powder between 8~25pm

2. With strong forced vortex classifying system, 1 wheel installed vertically

3. Big capacity,low power consumption, competitive price comparing with European company

4. Could be used together with different kinds of grinding machine such as ball mill, impact mill, vibrating mill,vertical mill andso on,as a continuous working system.

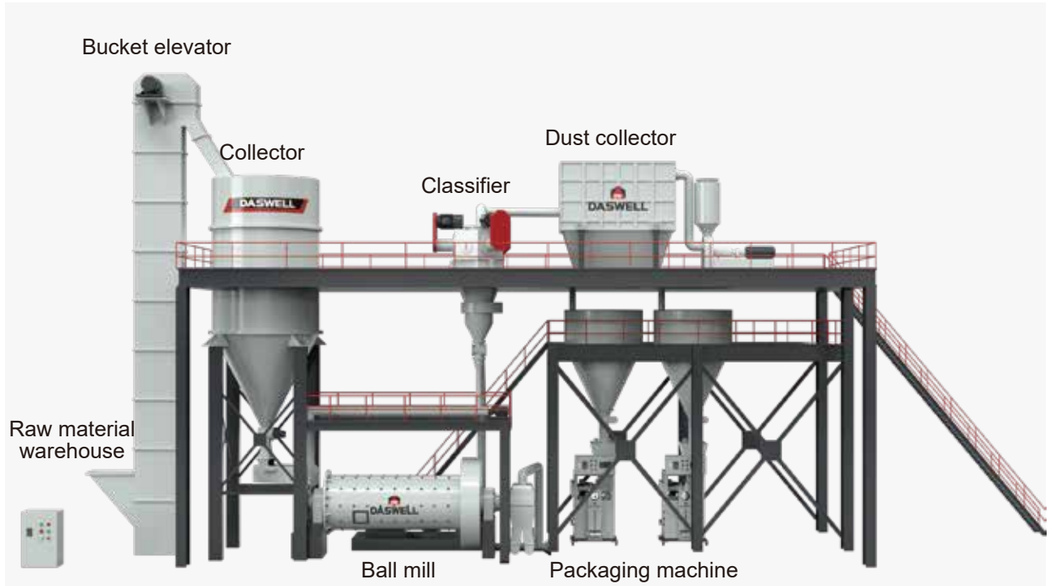
5.To process different kinds of non-metallic mineral powder such as talo,calcite, kaolin, limestone, barite,sllica sand


## TECHNICAL PARAMETERS

| Model | Feeding(t/h) | RangeD97 (μm) | Dutput(t/h) D97=10μm | Power(kW) |
|---|---|---|---|---|
| ASS500 | 2-6 | 5-37 | 1.0-1.3 | 30 |
| ASS6030 | 4-12 | 6-37 | 1.5-1.8 | 45 |
| ASS830 | 6-18 | 8-37 | 2.1-2.4 | 55 |
| ASS900 | 8-22 | 9-37 | 2.6-3.0 | 75 |
| ASS1000 | 10-28 | 9-37 | 3.2-3.5 | 75 |
| ASS1100 | 12-32 | 10-37 | 3.7-4.1 | 90 |
| ASS1200 | 15-38 | 12-37 | 4.3-4.5 | 110 |
| ASS1300 | 18-45 | 13-37 | - | 110 |



## SUPPORTING EQUIPMENT




## CUSTOMER SITE

# ULTRA-FINE VERTICAL MILL

A vertical mill is an ideal choice for producing powders with a particle size of 10 microns and above. Its power consumption is 30%–50% lower than that of a ball mill when processing 10-micron and coarser products, while maintaining a higher production capacity. The mill adopts a direct-drive system with a bevel gear and planetary gear combination. The gear-box and grinding unit are integrated into a single structure, ensuring high efficiency, low noise, smooth operation, and a long service life.

› Limestone

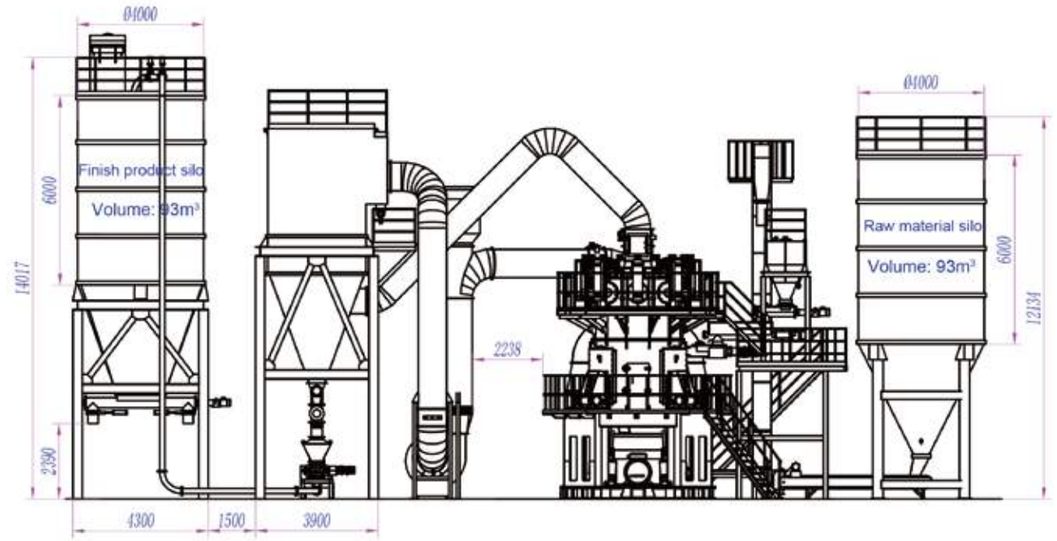
› Slag

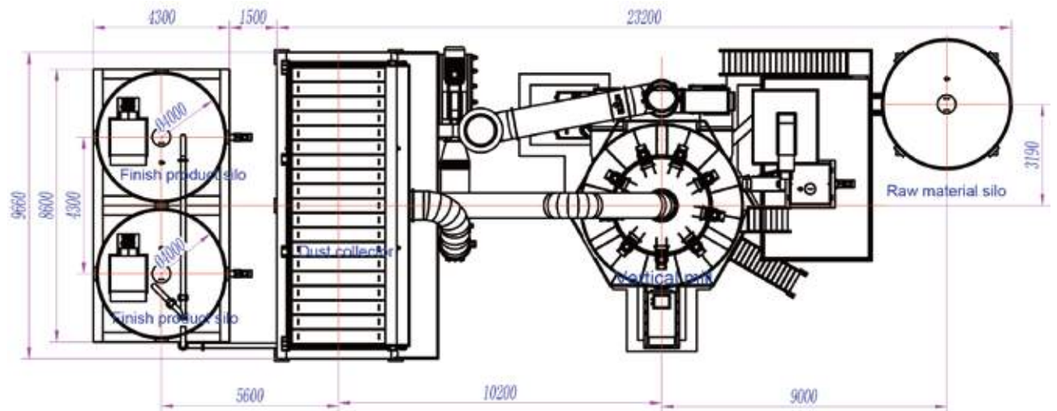
› Coal

› Bauxite



## ◆ ULTRA-FINE VERTICAL MILL PRODUCTION LINE SOLUTION




## ◆ TECHNICAL PARAMETERS

| Model | Capacity (t/h) | Product Fineness (D97, μm) | Main mill power (kW) | Blower power (kW) | Classifier power (kW) |
|---|---|---|---|---|---|
| VRM1100 | 1-9 | 7-25 | 200 | 132 | 15kW*5 |
| VRM1300 | 1-11 | 5-25 | 280 | 200 | 15kW*6 |
| VRM1700 | 2-23 | 3-25 | 450 | 315 | 15kW*9 |

# WET GRINDING MILL

VMG1600


VMG3000

VMG3600


VMG5600

The wet grinding mill is designed to produce materials with a particle size of 2–6.5 μm or even finer. It is widely used for processing GCC, PCC, barite, gypsum, talc, hard and soft kaolin, graphene, and other materials.

The equipment features a simple and user-friendly structure, requires minimal labor, and operates smoothly with low noise. The finished products have a fine and uniform particle size distribution, excellent low-temperature performance, and good flowability.

Key components are highly wear-resistant and durable, ensuring a long service life. The production process is highly efficient and energy-saving, making it environmentally friendly and cost-effective.



## SCOPE OF APPLICATION

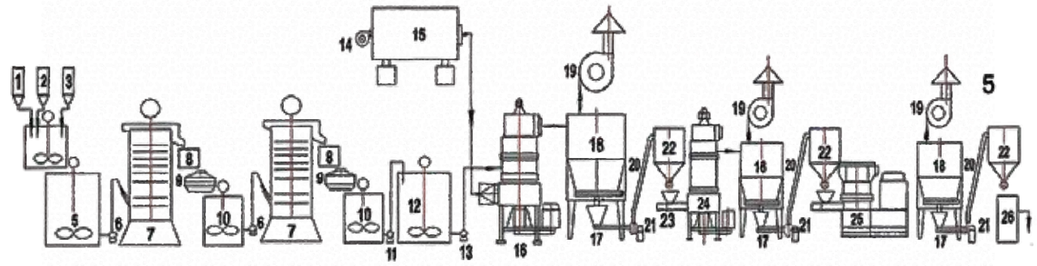
› Calcium Carbonate

› Kaolin

› Talc

› Barite

## WET GRINDING PROCESS FLOW CHART

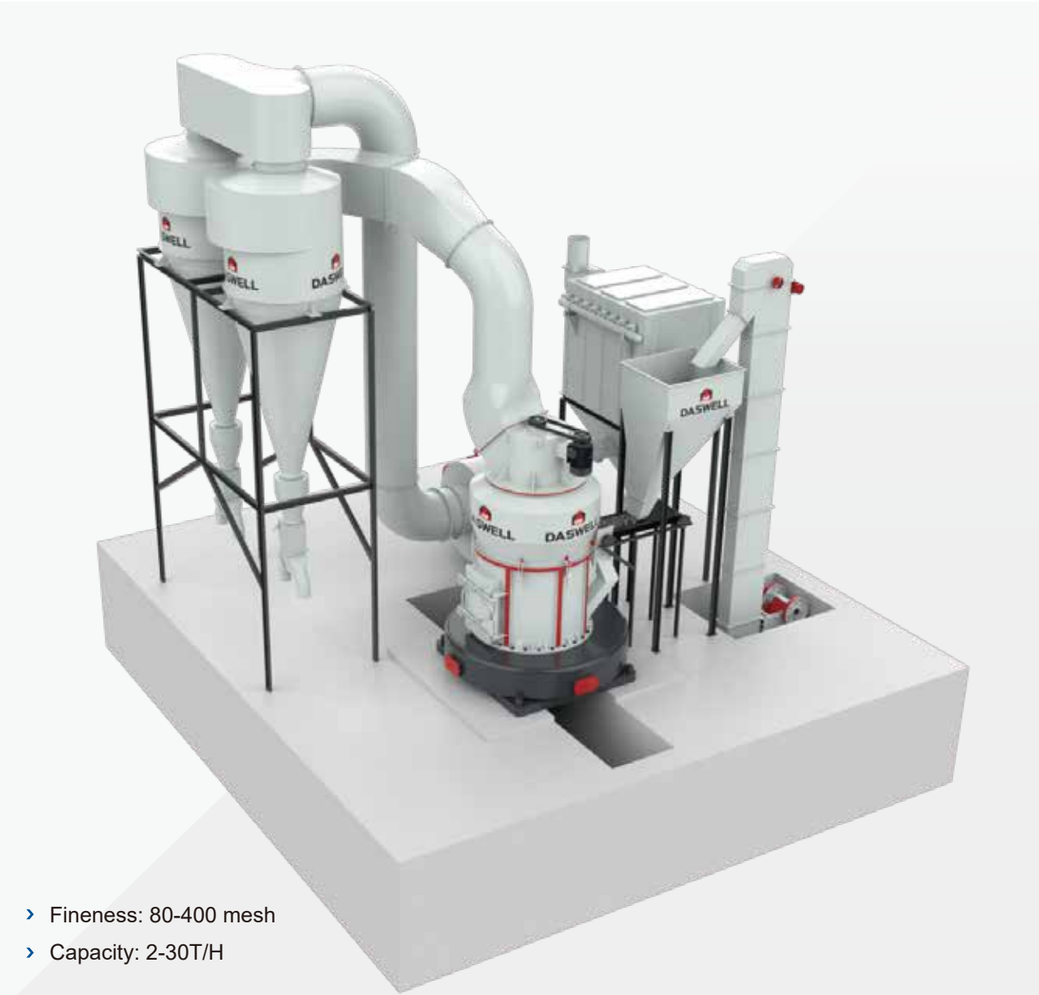



1. Coarse Powder Silo 2. Water Supply 3. Dispersant Dosing System 4. Slurry Mixing Tank 5. Buffer Tank 6. Diaphragm Pump 7. VGM1600 Large Ultrafine Wet Grinding Mill 8. Intermediate Tank 9. Grinding Media Separation Screen 10. Inspection Tank 11. Transfer Pump 12. Slurry Storage Tank 13. Screw Pump 14. Burner 15. Hot Air Generator 16. Coal Pulverizer 17. Feeding Hopper 18. Pulse Jet Bag Dust Collector 19. Induced Draft Fan 20. Ducting / Pipeline 21. Centrifugal Fan 22. Material Silo 23. Discharge Device 24. Continuous Surface Coating Machine 25. Powder Disperser 26. Automatic Packing Scale.

## TECHNICAL PARAMETERS

| Model | VMG1600 | VMG3000 | VMG3600 | VMG5600 |
|---|---|---|---|---|
| Fineness | -2μm D60 | | | |
| Dry product Productivity (t/h) | 2.0-2.5 | 2.5-3 | 3-3.8 | 4.5-5 |
| Dispersing agent consumption (kg/ton dry product) | ＜4 | ＜5 | ＜5 | ＜5 |
| Grinding media consumption (kg/ton dry product) | 0.2-0.4 | 0.3-0.4 | 0.3-0.4 | 0.3-0.4 |
| Power consumption (kw*h/ton dry product) | ＜45 | ＜40 | ＜40 | ＜40 |

# RAYMOND ROLLER MILL



- Fineness: 80-400 mesh
- Capacity: 2-30T/H

Raymond roller mills are widely used for grinding calcite, limestone, talc, quartz, kaolin, and other non-flammable and non-explosive materials with a Mohs hardness below 7 and moisture content below 6%.

The system mainly consists of a grinding mill, analyzer, blower, cyclone collector, pipelines, and motor.

The finished products feature a uniform particle size distribution, and the classification efficiency can reach 99%. This level of fineness control is difficult to achieve with conventional grinding equipment.



## SCOPE OF APPLICATION

Raymond roller mills are designed for grinding non-flammable and non-explosive brittle materials with a Mohs hardness of up to 7 and a moisture content below 6%.

Applicable materials include coal, activated carbon, calcite, limestone, dolomite, talc, barite, quartz, gypsum, graphite, kaolin, bentonite, fluorite, and more than 200 other materials.

› Coal

› Activated carbon

› Calcite

› Manganese ore

› Gypsum

› Carbon

› Kaolin

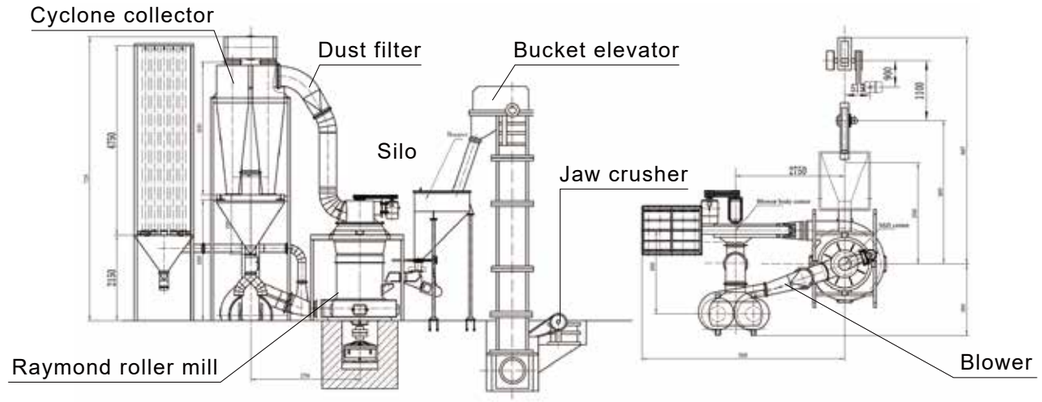
› Pyrophyllite

## RAYMOND ROLLER MILL CLASSIFICATION PRODUCTION LINE SOLUTION

During operation, raw materials are first crushed to the required size and transported to the storage hopper by an elevator. A belt feeder or vibrating feeder then continuously and evenly feeds the material into the grinding chamber.

The fine powder generated during grinding is conveyed by the airflow to the cyclone collector for separation and collection, and is discharged through a rotary valve as the finished product.

The system adopts a closed-loop air circulation design. After classification, qualified fine powder is collected by the cyclone collector, while coarse particles are returned to the grinding chamber for further grinding until the required fineness is achieved.



## PLC FULL FREQUENCY CONVERSION CONTROL SYSTEM

The ring roller mill can be equipped with frequency converters for the main motor, fan motor, classifier motor, and belt feeder, all integrated with a PLC control interface. This system enables automated operation, improves system coordination, and reduces labor requirements. Frequency converters provide precise speed control and energy-saving performance, enhancing equipment protection, operational stability, and overall maintenance efficiency.




## TECHNICAL PARAMETERS

| Model | 3R1000 | 3R1224 | 4R1630 | 4R1730 | 4R1830 |
|---|---|---|---|---|---|
| Roller quantity (piece) | 3 | 3 | 4 | 4 | 4 |
| Max. feeding size (mm) | 20 | 20 | 30 | 30 | 35 |
| Product size (μm) | 25-198 | 25-198 | 38-198 | 38-198 | 45-198 |
| Capacity (based on different rawmaterial fineness) (t/h) | 1-7 | 2-14 | 2.5-24 | 3-25 | 6-30 |
| Roller ring outer diameter (mm) | Φ970 | Φ1280 | Φ1620 | Φ1700 | Φ1850 |
| Total power (kW) | 97 | 145 | 264 | 322 | 417 |

## TECHNOLOGICAL ADVANTAGES

### Higher Crushing Efficiency

The machine features a stepped design for the grinding rollers and grinding ring, reducing the downward speed of material entering between the rollers and ring, extending the crushing time, and improving grinding efficiency.

### Improved Classification Accuracy

Equipped with a high-density classifier impeller that enhances classification precision. At a constant rotational speed, increasing blade density improves the fineness of the finished product, increasing output by over 50% with the same power.

### High Efficiency and Energy Saving

Equipped with a high-efficiency, energy-saving centrifugal induced draft fan. Traditional straight-blade fans used in grinding mills have an efficiency of only 62%, while the energy-saving induced draft fan, with its die-stamped impeller and blades, achieves 85% efficiency.

### Reduced Noise

The overall stress points of the device are raised by approximately 40% compared to other products; the flexible connection device reduces vibration and noise, preventing resonance.

### Convenient and Quick

A convenient and quick impeller adjustment device. The gap between the classifier blade tip and the housing also affects the fineness of the finished product; adjusting this gap is convenient and quick.

## CUSTOMER SITE




# VORTEX MILL COATING MACHINE


## FEATURE

1. The high-speed turbo mixer fully atomizes the modifier and uniformly coats the powder surface, achieving efficient modification with low additive consumption.

2. Equipped with an ultrafine classifier, it removes agglomerates formed during coating, ensuring an activation rate above 98%, typically reaching 99%, with stable product quality.

3. Compared with a three-rotor coating machine, it delivers a higher activation rate while consuming less stearic acid.

## TECHNICAL PARAMETERS

| Model | Max. Capacity (t/h) | Coating powder size (μm) | 10μm GCC (t/h) | Coating rate (%) |
|---|---|---|---|---|
| UCOAT500 | 2 | 5-25 | 1.4-1.5 | ＞98% |
| UCOAT750 | 3 | 5-25 | 2.8-3.0 | ＞98% |
| UCOAT1000 | 6 | 5-25 | 4.5-5.0 | ＞98% |



# THREE ROLLER COATING MACHINE


## FEATURE

1. This coating machine can run in continuous production with large output and is suitable for industrial production of various scales.

2. The three-rpller coating machine has both modifying and dispersing functions, and is suitable for materials of various finenesses.

3. Our three-roller coating machine is equipped with double cyclone separator, which has high separation efficiency.

## TECHNICAL PARAMETERS

| Model | Main Machine Power (kW) | Spindle Speed (rpm) | Capacity (kg/h) | Filter Area (㎡) | Blower Power (kW) |
|---|---|---|---|---|---|
| DC-1 | 3*18.5 | 4500 | 500-2000 | 60 | 5.5 |
| DC-3 | 3*37 | 2700 | 1500-3500 | 150 | 22 |
| DC-5 | 3*75 | 2000 | 3000-7500 | 300 | 45 |

# HAMMER MILL


Hammer Mill is a good equipment to replace Roller Press on the market. It has been used in cement clinker grinding and ultra-fine crushing operation circuit for a long time. It is used before ball mill to complete ultra-fine crushing operation. The fineness of grinding is high, but the cost is greatly reduced. This greatly improves the efficiency and investment cost of ball mills and has been successfully used in many cement and minesenterprise.

## ◆ TECHNICAL PARAMETERS

| Model | HM4008-75 | HM4012-90 | HM4015-132 | HM4012-90L |
|---|---|---|---|---|
| Rotor diameter (mm) | 750 | 900 | 1150 | 930 |
| Rotor length (mm) | 800 | 1200 | 1500 | 1410 |
| Rotor speed (r/min) | 800-1000 | 800-1000 | 550-800 | 800-1000 |
| Feed opening size (mm) | 320×930 | 400×1200 | 500×1500 | 380×1450 |
| Max. feeding size (mm) | ＜30 | ＜40 | ＜50 | 30-50 |
| Output size (mm) | 0-3 | 0-3 | 0-8 | 0-3 |
| Capacity (t/h) | 5-25 | 15-40 | 40-100 | 30-80 |
| Power (kW) | 75 | 90 | 132 | 55/75×2 |
| Dimension (L*W*H) (mm) | 2310*1665*1610 | 2840*2100*2020 | 3720*2650*2540 | 3000*2600*2070 |



# PACKING MACHINE


One-spout


Two-spout

This model is mature and stable. It is a packaging equipment specially used for packaging ultra-fine powder. It is designed according to the characteristics of ultra-fine powder. It has high filling efficiency, reduces the volume of packaging bags, reasonable structure design, flexible operation, valve bag can be widely used in non-metallic mineral powder, chemical industry and other fields. It is very suitable for valve bag packaging of fine powder with small bulk ratio and large gas content.

## ◆ TECHNICAL PARAMETERS

| Model | DP-1 (One-spout) | DP-2 (One-spout) | DP-1-2P (Two-spout) |
|---|---|---|---|
| Packed Powder Size (μm) | 10-74 | 2.6-10 | 10-74 |
| Package Weight (kg/bag) | 5~60 | 5~60 | 5~60 |
| Package Speed (T/h) | 1~10 | 1~10 | 2~20 |
| Valve Opening Size of Packing Bag (mm) | Φ76 | Φ76 | Φ76 |
| Material Apparent Density | Minimum value: ρ=0.1 | Minimum value: ρ=0.1 | Minimum value: ρ=0.1 |
| Measuring Accuracy (%) | 0.1%~0.2% | 0.1%~0.2% | 0.1%~0.2% |
| Power Supply | 380V, 50Hz, 3Phase (Or customize as demand ) | 380V, 50Hz, 3Phase (Or customize as demand ) | 380V, 50Hz, 3Phase (Or customize as demand ) |
| Air Source Requirement (MPa) | Clean air source above 0.8 MPa | Clean air source above 0.6 MPa | Clean air source above 0.8 MPa |
| Consumption Power (kW) | 4.0 | 5.5 | 4.0x2 |
| Dimension (L×W×H) (mm) | 1200*750*2000 | 1200×750×1960 | 1610×953×1660 |
| Weight (kg) | 500 | 700 | 500 |

# PALLETIZER

Engineered for modern industrial packaging lines, the palletizer delivers intelligent and high-efficiency stacking solutions for bags, cartons, and bulk packaged materials. Through precise automatic positioning and optimized palletizing patterns, it ensures stable, uniform, and transport-secure pallet stacks while significantly improving operational efficiency and reducing labor dependency.

Designed for demanding industries such as mining, cement, chemical processing, fertilizers, and building materials, the system combines reliable performance with flexible integration capabilities. Its advanced control system, smooth operation, and high palletizing accuracy enable continuous production with enhanced consistency and reduced downtime.

With customizable configurations and seamless compatibility with conveying and packaging systems, the palletizer provides a dependable end-of-line automation solution for modern manufacturing facilities.

## ◆ TECHNOLOGICAL ADVANTAGES

### Efficient Automation

The palletizer enables continuous and intelligent automatic palletizing, significantly improving production efficiency while reducing labor intensity and operational costs. It is ideal for high-capacity industrial production lines requiring stable and efficient end-of-line packaging solutions.

### Precise & Stable Operation

Equipped with an advanced control system and precise positioning technology, the machine ensures neat, uniform, and transport-secure pallet stacks. Stable operation and high repeatability help minimize product damage and improve overall packaging quality.

### Flexible Palletizing

The system supports multiple palletizing patterns and customized stacking arrangements, allowing flexible adaptation to different bag sizes, carton specifications, pallet dimensions, and production requirements across various industries.

### Seamless Integration

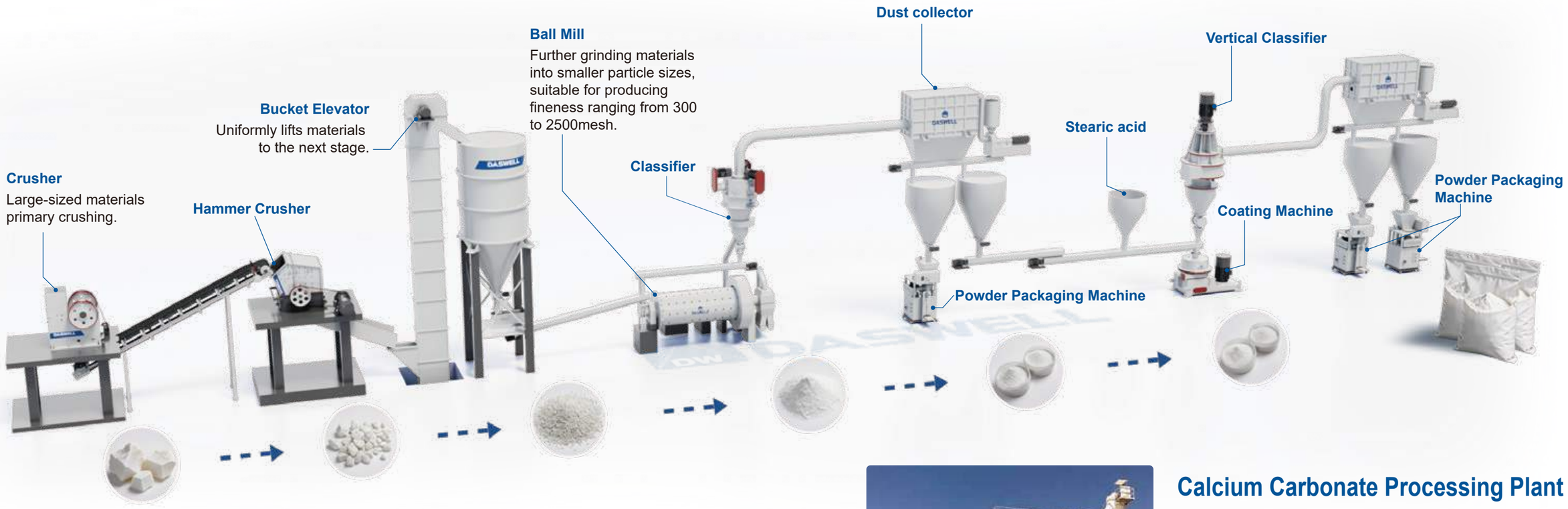
Designed with strong compatibility, the palletizer can be efficiently integrated with conveying systems, packaging machines, weighing equipment, and wrapping systems to achieve fully automated and highly coordinated production processes.

### Reliable Performance

Built with durable industrial-grade components and a compact structural layout, the palletizer delivers long-term operational reliability even under demanding working conditions. Its user-friendly design also simplifies daily operation, inspection, and maintenance.

## ◆ CUSTOMER SITE

# POWDER PROCESSING SOLUTIONS




## Talc Powder Production Line

Discharge fineness: 9-45Micron

Feed size: <10 mm

Output: 0.5-6t/h

Talc Powder Production Line is widely used in building materials, chemicals, coatings, papermaking, and other industries, providing these industries with high-quality talc powder raw materials.

## Calcium Carbonate Processing Plant

Discharge fineness: 5-45μm

Feed size: 0-3 mm

Output: 1-5 t/h

## Quartz Powder Processing Plant

Discharge fineness: 38-150μm

Feed size: 0.6 mm

Output: 3-10 t/h

# PROJECT CASE



3T/H DR-28 Ring Roller Mill Calcium Carbonate Processing Plant In Minya, Egypt, Year 2026


3T/H DR-28 Ring Roller Mill Calcium Carbonate Grinding Plant Expansion Project In Minya, Egypt, Year 2026


1T/H Talc Ball Mill Grinding Production Line In Egypt, Year 2026 (Φ1.5*4.5m Ball Mill)


40,000tons/Year Calcium Carbonate Ball Mill Plant and Coating Plant In Egypt, Year 2015 (Φ2.2*5.5m Ball Mill)


20,000tons/Year Ultrafine quartz ball mill plant in China, year 2020 (Φ3.2*5.7m Ball Mill)



40,000tons/Year Calcium Carbonate Ball Mill Plant and Coating Plant In Egypt, Year 2018 (Φ2.2*5.5m Ball Mill)


60,000tons/Year Calcium Carbonate Ball Mill Plant In Egypt, Year 2021 (Φ2.4*6.0m Ball Mill)


Calcium Carbonate Ball Mill Plant In Egypt, Year 2021 (Φ2.2*5.5m Ball Mill)



40,000tons/Year Calcium Carbonate Ball Mill Plant and Coating Plant In Egypt, Year 2023 (Φ2.2*5.5m Ball Mill)




40,000tons/Year Calcium Carbonate Ball Mill Plant and Coating Plant In Egypt, Year 2025 (Φ2.2*5.5m Ball Mill)



50,000tons/Year Silica and Feldspar Ball Mill Plant In Egypt, Year 2013 (Φ2.2*7.5m Ball Mill)



120,000tons/Year Silica and Feldspar Ball Mill Plant In Egypt, Year 2014 (2sets Of Φ2.4*8.0m Ball Mill)

**40,000tons/Year Calcium Carbonate Ball Mill Plant and Coating Plant In Tanzania, Year 2025 (Φ2.2*5.5m ball mill)**

**30,000tons/Year Dolomite ball mill plant in China, year 2009 (Φ2.4*8.0m Ball Mill)**

**40,000tons/Year Aluminium Oxide ball mill plant in China, year 2020 (Φ2.4*8.0m Ball Mill)**



**35,000tons/Year Brucite ball mill plant in China, year 2021 (Φ2.6*9.0m Ball Mill)**

**10,000tons/Year quartz ball mill plant in China, year 2022 (Φ2.4*8.0m Ball Mill)**

**20,000tons/Year Ultrafine quartz ball mill plant in China, year 2020 (Φ3.2*5.7m Ball Mill)**


100,000tons/Year Kaolin ball mill plant in China, year 2024 (Φ3.8*11.0m Ball Mill)



30,000tons/Year Zirconium Dioxide ball mill plant in China, year 2024 (Φ2.4*8.0m Ball Mill)


Micro Powder Roller Mill DR-28 in Egypt





Micro Powder Roller Mill DR-28 in China


Micro Powder Roller Mill DR-28 in Egypt



Micro Powder Roller Mill DR-34 in China



Raymond Roller Mill (4R) in China


Ultra-fine Vertical Mill VRM1700 in China



Ultra-fine Vertical Mill VRM1700 in China




Wet Grinding Mill VMG3600 for Paper industry in China, year 2016



Wet Grinding Mill VMG5600 for Paper industry in China, year 2016


Wet Grinding Mill VMG3600 for nano-CaCO3 in China, year 2021

**Service & Spare Parts Centers in the Philippines, Indonesia and Egypt**


# GLOBAL OFFICE

- China
- Philippines
- Indonesia
- Egypt

**Guangzhou Office:** No. 1013, Yayun Avenue, Panyu District, Guangzhou, China

**Shanghai Office:** Building 8, No. 1098, Chuansha Road, Pudong New Area, Shanghai, China

**Zhengzhou Office:** No.2 CBD,Zhengdong New District, Zhengzhou,China

**Philippines branch company :** Warehouse #8, Wingi Bldg Warehouse, Brgy. Pasong Camachille 2, Arnaldo Highway,General Trias Cavite

**Indonesia branch company :** PT. Daswell Indonesia Group.Komplek Pergudangan Green Sedayu Biz Park Cakung Blok GS 9 No. 35, Kel. Cakung Timur, Kec. Cakung, Jakarta Timur 13910

**Cairo office add:** Building 7127, Al-Mi'raj Al-Sufli Street, Al-Israa District, Al-Basatin Al-Sharqiya, Cairo, Egypt.

**Minya office add:** Qism Minya, Near grant hayat, New Minya, Minya, Egypt

## EMPOWERING THE WORLD WITH DASWELL TECHNOLOGY !