



POITTEMILL

Powder engineering



Engineers in powder processing and preparation



ROLLER MILL

Compression grinding using centrifugal force between fixed ring and free rollers fitted on pendulums, fitted with a selector, static or dynamic.

Uses: grinding, grinding-drying.

Minerals: coal, phosphates, limestone, carbonates, bentonites, baryta, clays, petcoke, products down to HGI = 35.

Micron sizes: feed 0-30 mm, output down to 20 μ up to 500 μ .

Throughputs: from 150 kg/h up to 100 T/h.



PULSATED PRESSURE CYLINDER MILL ROLLER PRESS

Compression grinding between two rollers with wear resistant hard faces kept under pressure by a hydraulic system (2 to 10 T/ linear cm). Patented pressure pulsating system avoiding vibrations and saving up to 50 % energy when compared to ball mill.

Uses: Minerals: coal, phosphates, limestone, carbonates,...

Highly abrasive products: slags, blast furnace slags, clinker, cement,...

Micron sizes: feed 0-80 mm, output down to 10 μ up to 1000 μ .

Throughputs: from 5 T/h up to 500 T/h.



BALL MILL

Compression grinding between free balls inside rotating tube. Tube mills, biconical or triconical ball mills.

Uses: Minerals, pigments, cement industry,...

Micron sizes: feed 0-30 mm, output down to 40 μ up to 300 μ .

Throughputs: from 500 kg/h up to 100 T/h.



ATTRIMILL

Attrition grinding (autogrounding of particles by friction, impact and shearing).

Product is ground between several rotor elements and the stator fitted with a lining.

Uses: grinding, grinding-drying.

Foodstuffs: caseine, cereals, soya, ... Plastics / elastomers : PVC, NBR, SBS...

Minerals: limestones, carbonates, clay, ... Coating.

Micron sizes: feed 0-8 mm, output down to 40 μ up to 600 μ .

Throughputs: from 5 kg/h up to 25 T/h.



P.A.S.

Impact and attrition grinding inside a grinding chamber fitted with a rotor with grinding tools and a stator with a lining. Fitted with a static classifier and a dynamic classifier allowing sharp cut size.

Uses: grinding, grinding-drying. Foodstuffs: cereals, flours, soya, petfood,...

Pigments, paints,...

Pharmaceuticals.

Plastics,...

Minerals: limestones, carbonates, talcum,...

Coating.

Micron sizes: feed 0-8 mm output down to 10 μ up to 300 μ .

Throughputs: from 5 kg/h up to 50 T/h.



PHR

Impact and attrition grinding between rotor elements and stator fitted with a lining. Can be fitted with knife rotor.

Uses: grinding, grinding-drying. Foodstuffs: flours, soya, fibers, grinding-drying of leaven,...

Minerals: limestones, carbonates, coal,...

Micron sizes: feed 0-10 mm, output down to 80 μ up to 600 μ .

Throughputs: from 10 kg/h up to 50 T/h.

BLF : JET MILL

Auto grinding of particles moved by compressed air injection inside a grinding chamber. Patented system with two nozzle levels improving grinding and dynamic classifier yield. System avoiding any contamination.

Uses: hard materials up to 9,5 Mohs scale, pharmaceuticals, products that can not be contaminated.

Abrasives: aluminium oxide, silicon carbide, zircon, quartz,...

Minerals: talcum, baryta,...

Micron sizes: feed 0-250 μ , output 0 to 10 μ .

Throughputs: from 500 g/h up to 3 T/h.

MICRODYN CLASSIFIER

Dynamic classifier fitted with classifying rotor with adjustable speed, rinsing air, discharge duct for oversized particles.

Uses: chemicals, minerals, foodstuffs, plastics,...

Micron sizes: feed 0-500 μ , cutting points: from 3 μ up to 150 μ .

Yield: up to 99 %.

Throughputs: from 250kg/h up to 30T/h.

HIGH YIELD CLASSIFIER

Classifier made of classifying rotor with adjustable speed, rinsing air, patented system of additional air to maintain particles in front of rotor and improving the yield.

Uses: powder classifying with sharp micron size cutting points from dispersed feed curves: minerals, slags, clinker, blast furnace slags,...

Particle sizes: feed 0-5 mm, cutting point from 40 μ up to 300 μ .

Yield: up to 90 %.

Throughputs: from 10 T/h up to 600 T/h.

MECHANICAL AIR CLASSIFIER

Autonomous classifying system integrating dispersion plate, internal fan, internal classifying airstream.

Uses: separation of powders into two micron sizes: minerals, sands (extraction of fillers), plaster, gypsum,...

Particle sizes: feed 0-5 mm,

Cutting point: from 40 μ up to 500 μ .

Yield: up to 60 %.

Throughputs: from 1 T/h up to 300 T/h.

FNG MILLS

Impact mill with the possibility of adapting several grinding tools: hammers, blades, pins allowing to process several products at several micron sizes inside one grinding body.

Uses: chemistry, pharmaceuticals, cosmetics, foodstuffs, minerals,...
Cryogenic grinding.

Micron sizes: feed 0-25 mm, output down to 20 μ up to 1000 μ .

Throughputs: from 1 kg/h up to 30 T/h.

SB MILL

Combined action of impact grinding and selection achieved by centrifugation and sucking through special fan allowing extremely fine particle sizes and elimination of impurities.

Uses: soft minerals, pigments, weedkillers, sugar,...

Micron sizes: feed 0-500 μ , output down to 1 μ up to 20 μ .

Throughputs: from 5 kg/h up to 4 T/h.

LUMP BREAKERS

Lump breaking systems with rotor and screen designed to break down crumbly products fed in form of clustered or clogged chunks or blocks.

Uses: pharmaceuticals, cosmetics, foodstuffs, chemicals,...

Particle sizes: feed blocks 10-30 cm, output from 1 mm up to 50 mm.

Throughputs: from 200 kg up to 5 T/h.

ROTATING SIFTERS

Sieving system made of a body, a rotor and interchangeable sieves. Sifters are designed for easy access and easy cleaning.

Uses: Safe sieving of powders: minerals, foodstuffs (flours, sugar), pharmaceuticals,...

Particle sizes: feed 0-20 mm,
cutting point: from 100 μ up to 10 mm.

Yield: up to 95 %.

Throughputs : from 50 kg/h up to 45 T/h.

HAMMER MILL

Impact grinding between rotor fitted with fixed or mobile hammers and a stator fitted with a grid to enable adjustment of output size.

Uses: minerals, foodstuffs, chemistry, metals,...

Micron sizes: feed 0-15 cm, output down to 250 μ up to 5 cm.

Throughputs: from 500 kg/h up to 200 T/h.

ROTARY VALVES

Rotary valves for feeding, extraction or proportioning of powders.

Uses: all industries processing powders, minerals, chemistry, foodstuffs, pharmaceuticals, cosmetics,...

Particle sizes: 0-50 mm.

Throughputs: from 1 kg/h up to 500 T/h.



All our equipment such as grinders, classifiers, micronizers, sifters, lump breakers, cryogenic units exist for laboratory use and have been designed to answer to the highest quality expectations and to comply with FDA and GMP standards.



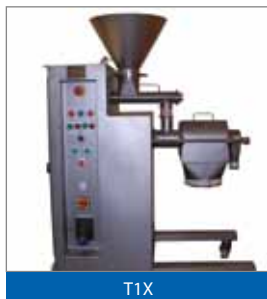
FPX



BLX



ELX 10



T1X



CRYOLAB



Engineering and Services

- Feasibility studies,
- Laboratory and Test Center,
- Design and realization of turnkey projects,
- Starting up and commissioning,
- Training,
- Process Consulting,
- Upgrading and Retrofit,
- Maintenance,
- After sales and spare parts service.

Our group is able to realize projects from feasibility studies up to erection and starting up of complete plants.

Turn key plants in all sectors involving powder processing, for instance:

- Bentonite and baryta plants for petroleum drilling
- Sugar plants
- Coal grinding plants with injection into burners
- Slag recycling plants and fertilizer production
- Pharmaceutical micronization plants
- inerted or explosion proof plants

Our applications ranges



Minerals industry

POITTEMILL and FORPLEX realize turn-key projects involving grinding, micronization, grinding-drying simultaneously and classifying for minerals of all kinds.

Typical applications:

- Limestone, clays, baryta, talcum, coal, plaster, quartz, bentonite,...



Building Materials

- Clay preparation for ceramic industry.
- Cement and special cement, clinker...
- Cement additives: blast furnace slags, slags, gypsum, silica
- Plaster



Foodstuffs industry

Typical applications:

- Grain and flours: wheat, corn, peas, rice,...
- Starch.
- Spices: pepper, coriander, cloves, curcuma,...
- Fruit powders and dried vegetables.
- Milk powder, lactose, caseins, caseinates,...
- Sugar, cocoa, biscuit,...
- Gelling agents, seaweed, guar,...
- ...etc.



Pharmaceutical industry

Equipment and complete grinding lines especially designed for pharmaceutical and/or special applications respecting GMP, FDA, ... standards.

Typical applications:

- Processing of dust explosive products.
- Cryogenic processing of heat sensitive products.
- CIP/SIP operation.



Cosmetics

Our process allows for proportioning, mixing, grinding, classifying, transport and collection of products in one operation.

Typical applications:

- Skin care products.
- Creams and shampoos.
- Toothpaste.
- Make-up.
- ...etc.



Inks and Pigments

Multi-purpose units allowing the processing of multi-products with easy cleaning. Processing of sticky materials or with strong tendency to deposit.

Typical applications:

- carbon black, titanium oxide, iron oxide, cobalt blue,...



Plastics and Polymers

The air-classifying PAS mill (Impact, Attrition and integrated classifying) and our pulverizers by attrition and/or shearing, allow the processing of these heat sensitive products.

Typical applications:

- Resins, plastics (PVC, PET...), rubbers (SBS, NBR...), wax, fats,...



Chemicals / Fine chemicals

POITTEMILL and FORPLEX are present in all chemical sectors before or after chemical reactions.

Typical applications:

- Fertilizers.
- Inorganic salts.
- Fire extinguishing powders.
- Vulcanization accelerators.
- Catalysts,...



Solid fuels

- Biomass, Coal, Pet coke



Engineers in powder processing

Specific processes and technologies

The infinite variety of materials and the diversity of their physical characteristics requires specific size reduction and classifying processes.

A wide range of equipment

Thanks to their wide range of systems for size reduction, drying and classifying, POITTEMILL and FORPLEX are able to meet every dry processing requirement.

Test center in France

With their pilot plant, POITTEMILL and FORPLEX can carry out test trials in order to guarantee an optimized production.



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