



CRYSTAL AUTOMATION PVT. LTD.

New Launch

Universal - Combo Mill



**Can be used/ replaced
in place of Airjet mill**

The latest State of the Art Universal Micronizing Mill designed and developed for Ultra fine powder technology by CRYSTAL AUTOMATION PVT.LTD.

USED FOR

Sizing/ Milling/ Micronizing in Pharmaceutical, Bulk Drug, Food, Chemicals, Cosmetics Industries and allied industries

Salient Features

- Universal Combo Mill (Pinmill + Turbine).
- Reverse Jet Filter with PTFE Laminated membrane filter.
- Variable speed operation
- Turbine & screen and pin & disc media.
- Contact parts 316L stainless steel
- Non-contact parts 316/304 stainless steel
- Finish internal: Mirror
- Finish external: Mirror/Matt
- The complete mill will be skid mounted and provided with castor wheels
- The Mill can be dismantled from the drive back plate and CIP is possible
- DQ, IQ, OQ and Manuals will be provided with the equipment at free of cost

TECHNICAL SPECIFICATION UNIVERSAL COMBO MILL (PINMILL + TURBINE)

General Description

The Universal Combo Mill continuously mills the feedstock that enters the mill centrally through an aperture in the access door. The grinding media rotates at high speed, throwing the feed-stock centrifugally between the stationary and rotating components. The feedstock is broken down by mechanical impact and particle interaction. The output and fineness of the ground product depends on many parameters including the feed rate, rotor speed, the choice of grinding medium, and finally, the size and consistency of the feed material.

Application

Micronising of powder in various industries like Pharma, API, Food, Chemical, Fertilizers and other allied industries.

Universal Combo Mill (Pinmill + Turbine)

Universal Combo Mill (Pinmill + Turbine) with bottom discharge, removable door and air/N₂ purged seal, complete with interchangeable bearing housing. The mill motor will be suitable for variable speed operation. The mill door is mechanically interlocked with the control panel.

The mill bearing and seal assembly is designed to be N₂ or air purged, dependent upon the requirements of the Client's process. Air to the bearing seals protects the bearings, whilst N₂ supplied to the process can provide an inert atmosphere within the mill if so desired,

Mill capacity	upto 25kg/hr depending on the characteristics of the input powder
Speed	> 9,000 rpm
Drive	
Screw Feeder	0.5HP
Universal Combo Mill (Pinmill + Turbine)	10HP
Discharge Rotary Valve	0.5HP
Area classification	Flameproof
Grinding media	Turbine & screen and pin & disc

Collection Filter

Filter Media	Anti-static PTFE laminated membrane fabric filter having multiple finger type bags
Sections Included	Filter Body with discharge adaptor with tri-clamp, cleaning section with tri-clamp connection to Non cleanable HEPA filter section.
Material	All contact parts in SS 316L Non-contact parts in SS 304
Compressed Air/N2	5-6 bar

Materials of Construction, Finish & Welds

Contact parts	316L Stainless Steel
Non contact parts	316/304 Stainless Steel
Seals	PTFE / Silicone / Viton or FDA Approved seal material.
Proprietary Items	As supplied

Finish and welds : Internal surfaces and product contact parts to have welds ground smooth, crack and crevice free mirror finish polished External surfaces and non-product contact parts, including filter section to be matt finish, welds ground smooth, crack and crevice free.

Required Utilities

Electrical Supply	400V 3Ph 50Hz
Control Voltage	operator control panel 240VAC / 24VDC as applicable
IP Rating	IP 65/IP 67 / Flameproof
Compressed Air/ N2 required	Clean, dry unlubricated air at approximately 3 bar is required
Hazard area	Flameproof
Method of Safety	Inerting with Nitrogen for potentially explosive powders

Electrical Controls

The control system has two parts:

- Operator Station with SS Enclosure (Flameproof type)
- Powder coated Safe Area Panel (non-Flameproof type)

Safety Circuit

An Emergency Stop push-button (lock off type) will be located on the control panel door. Interlock switch is provided on the door for operator's safety

Sequential Control

All sequential control will be from timer relay logic/PLC and will be supplied inline with the supply description of operation.

Our Mainstream Product Range

- Powder Transfer Systems
- Conical Mills
- Pin Mills
- Intermediate Batch Containers (IBC)
- FBD Bowl Lifting & Tilting Device
- Pneumatic Sugar Transfer System
- Magnetic Crown Elevators
- Cap Transfer System
- Octagonal Blenders
- Wet Mass Shredders
- Customized Pneumatic Conveying Systems and Mechanical Conveyers

Our Other Products

- Fully Automatic Mixers, RMG, Ribbon Blenders, V-Blenders, Bin Blenders
- Fluid Bed Driers/ Processors/ Granulators with Loading/ Unloading Systems
- Dust Control System, Dust Collectors, Bagfilters, Centralize Dust Collection Systems
- Rotary Valves, Screw Feeders
- Vibro-sifters, Air-swept Sifters, Self-Loading Sieves
- Silos, Bins, Weigh Hoppers
- Magnetic Crown Elevators
- De-dusting, De-stoning and Pneumatic Conveying Systems for grains and pulses
- Special Purpose Machines and Custom-built Equipment



CRYSTAL AUTOMATION PVT. LTD.

Manufacturer, Exporter & Consultants of

Industrial Automation Eqpts. & Special Purpose Machines

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