



Fineness is not just a chance with the "PREMIUM" pulverisers - it is an intrinsic design of the equipment.

PREMIUM Miracle Mill (STAR HAMMER MILL)

MOST VERSATILE, 3-IN-1 UNIT.



APPROVED APPLICATIONS

ALFALFA HAY	BUCKWHEAT	EPSOM SALTS	INSECTICIDE	PLASTICS	SUGER
ALUM	CAKE, COTTON	FEED (ALL)	LIME(BURNT)	POLYSTYRENE	SUMACH LEAF
ALUMINIUM FOIL	CASEIN	FERTILLIZERS	LINSEED CAKE	PROVENDER	SYNTHETIC MATL.
ANISE SEEDS	CEREALS	FISH SCRAP	LOCUST BEANS	ROOTS	TEA
APPLE POMACE	CHAFF	FLAX STRAW	MAIZE	ROSIN	TOBACCO
ASBESTOS	CHARCOAL	GELATINE	MEAT & BONE	SALT	UREA
ASHES	CHEMICALS	GINGER	NUTMEGS	SAWDUST	VERMICULATE
ASPHALTE	CLAY	GLUE	OATS	SCREENINGS	WASTE PRODUCT
BAKELITE	COFFEE	GRAIN (ALL)	OAT STRAW	SHAVINGS	WHALE MEAT
BARK	COTTON SEEDS	GROUNDNUT CAKE	OAT HULLS	SLELLAC	WHEAT
BARLEY	COTTON BURRS	GUANO	OYSTER SHELLS	SLATE	WHEAT STRAW
BARLEY HUSKS	CREPE RUBBER	GUM	PAPER	SOAP POWDERS	WOOD CHIPS
BEANS	DRIED BLOOD	HAY (ALL)	PEPPERS	SOYA BEANS	GRINDABLE MATL.
BITUMEN	DRIED PELLINGS	HERBS	PHENOLIC RESIN	SPICES	(ALL KIND)

PREMIUM Miracle Mill is an integrated compact 3-in-one unit, which executes three operations (i.e. Pulverising, Sieving & Collecting) with high degree of precision. It cool grinds anything grindable to a specified degree of fineness in one operation, using less power than a friction type grinder. Designed for high output, reliable performance and minimum of wear & tear, PREMIUM Miracle Mill is a proven profitable proposition for your industry! and there are 15 alternatives for you to choose from.

Workings of a Miracle Mill

The material is fed in to the grinding chamber of the Miracle Mill where it is reduced in size by an army of mechanical hammers, which shatter the material to be ground in mid-air. The material is immediately reduced in size and is drawn out by a suction fan to a sieve located at the base of grinding chamber. The ground material is conveyed pneumatically to a cyclone collector where it is disengaged and collected.

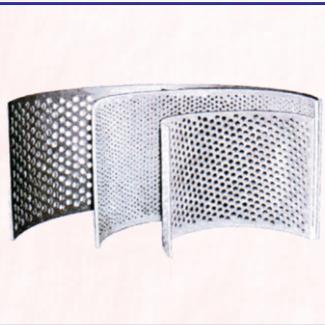
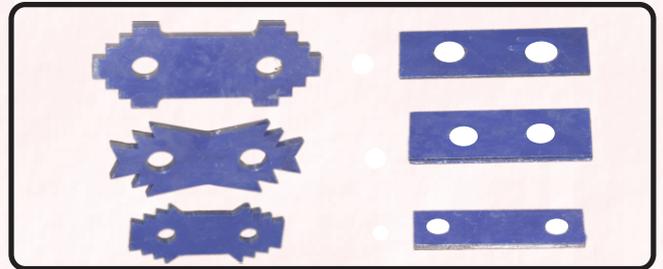
Normally for Junior & Medium models a dust collector is not necessary. However the requirement of dust collector depends upon the material to be pulverized. The Standard and Super models are generally used with dust collectors where fine dust particles are separated from air. Yet in some application, dust collectors may not be required, if the material to be ground does not generate very fine dust.

SALIENT FEATURES

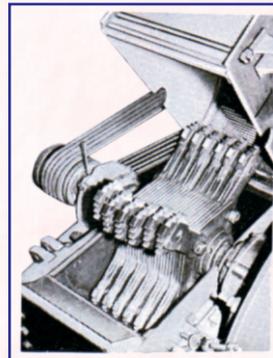
1. These mills are designed to give higher out-put.
2. Mills are designed as direct coupled or V-belt/Pulley arrangement to get designed speed to suit the application.
3. Extra large/thick double ended star type grinding elements can be given in different alternative designs for special application.
4. The hood is provided with special arrangement to facilitate easy opening for changing Screen/Hammers arrangement.
5. All models are available either with bottom discharge arrangement or with co-axial fan/independent fan.
6. For Pneumatic conveyance cyclone, Dust collector, Feeding arrangement, Rotary air lock valve & Magnates are provided in the mills.
7. Mills are manufactured in M.S./S.S. construction.



HAMMERS: Conventional hammers come with only one cutting edge. Premium Miracle mill has a unique design consisting of press-hardened steel maces which have several working edges. Hence the hammers have a working life several times more than the conventional hammers. Manganese steel hammers can be provided for tough materials.

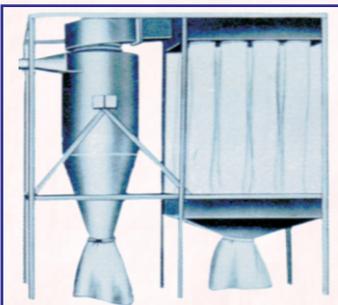


SCREENS: In Miracle Mill the Product is removed by the suction fan immediately after it is reduced to specified fineness. The degree of fineness is determined solely by the size of screens used. By changing the screen, material can be ground to the desired fineness. The screen can be changed in less than a minute.



CLOSE UP OF HAMMERS AND MILL: The material is reduced to size on contact with a battery of hammers. The mill is self-protective. The hammers are hinged and fly backwards when foreign material accidentally enters the mill. There are four rows of hammers mounted on a shaft. The number of hammers in each row varies from model to model.

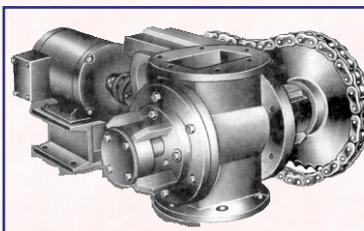
ANCILLARY EQUIPMENT:



CYCLONE: The cyclone is fabricated from steel sheets. The ground material is separated from air and collected from the bottom of the cyclone collector.

DUST COLLECTOR:

The dust collector works on the principle of passing the air through a fabric at a low velocity to clean the air while removal appears to take place by a straining action of the media, actually the collection is obtained by building up a mat of the material on the side of the fabric bags provided, depends upon the model of the mill.



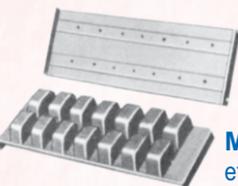
ROTARY AIR LOCK VALVE:

The Rotary airlock valves are generally fitted below the cyclone separator. The close clearance between the vanes and housing prevent air-leakage. Rotary airlock valves are used as rotary feeders for uniform feeding.



'Y' PIECE: 'Y' piece is fabricated out of mild steel sheets and is convenient for bagging continuously. 'Y' Pieces are fitted below the cyclone separator.

WALL MOUNTING PANEL: For Centralized control, PREMIUM Miracle Mill is furnished with modern wall mounting panel. It facilitates easy starting, indicated by indicator lamps as well as shows load conditions on the mill, whether it is being fed regularly and at uniform rate. The panel consists of a Star-Delta starter, fuses, rotary switch, volt-meter. Ammeter and indicator lamps.

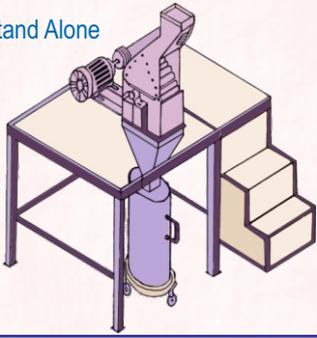


MAGNETS: The magnets are provided on feed tray to prevent accidental iron a particle, washers bolts etc., entering into grinding chamber. The size of the magnets depends upon the model of Miracle Mill.



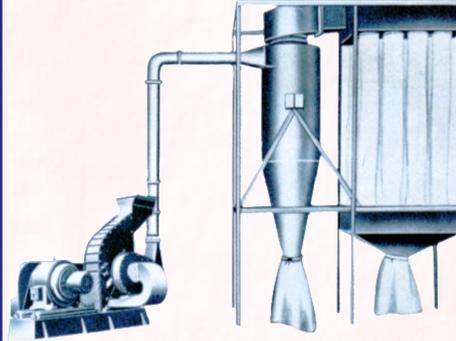
Junior Series of Miracle Mills

Stand Alone



Junior mills come in three sizes. This range delivers a most remarkable capacity. Considering the small power requirements on the lighter jobs such as pulverizing of drugs, chemicals, spices, Grains, Tea, Sugar, etc., the junior mill stands in a class by itself.

Medium Series of Miracle Mills



Medium mills come in two sizes. This range is suitable for pulverizing tea dust, cattle feed, chicken feed, fish meal, spices, lentils, agricultural products, pharmaceutical products, fertilizers, chemicals, minerals and also for variety of similar substances.

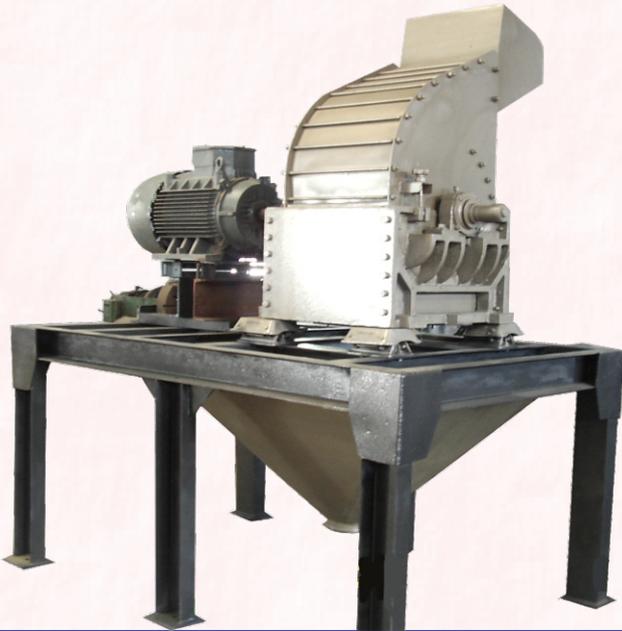
Standard Series of Miracle Mills

Standard series Miracle Mills are most popular among all series. The capacity of Mills is very much as required in the industry. The power consumption, output and space required of mills of this series is found very adequate and acceptable in industry.

Standard series Mills come in THREE MODELS that is STD-II, STD-III and STD-IV. These Mills have Co-axial Blower, Cyclone Collector and Fabric Bag Type Dust Collector as shown in the picture. Mills have Magnet fitted at the inlet to prevent iron particle to enter into Mill. The outlet of Cyclone Collector can be provided with "Y" Piece to facilitate the collection of powdered material. For uniform and dust free collection ROTARY Airlock Valve is fitted at the outlet of Cyclone Collector. Mill is mounted on common Base Frame which either is put on R.C.C. Foundation or Anti Vibration Pads.

MILLS are supplied with BOTTOM OPEN TYPE (B.O.T.) arrangement to be put in systems and have Mechanical Screw Conveyors at BOTTOM to convey discharged material into System.

STANDARD MIRACLE MILL - (B.O.T) BOTTOM OPEN TYPE



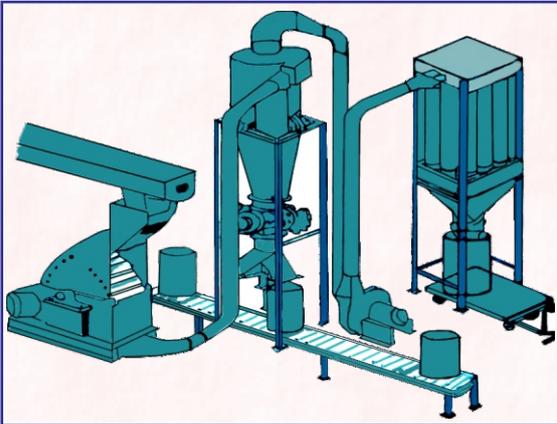
STANDARD MIRACLE MILL - (C.A.B.) CO-AXIAL BLOWER, CYCLONE, DUST COLLECTOR



Technical Specifications

Type	UNIT	JR - I	JR - II	JR - III	MED - II	MED - III	MED - IV	STD - II	STD - III	STD - IV	STD-V
* MILL DIA.	M.M.	300	300	300	400	400	400	600	600	600	600
* CAPACITY	KG/HR	50-350	70-500	90-700	100-1000	110-1200	120-1600	140-1820	160-2500	190-3200	600/6000
* SPEED	R.P.M.	4500-5600	4500-5600	4500-5000	4000-5000	4000-5000	4000-5000	2800-3300	2800-3300	2800-3300	2900/3400
* HORSE POWER											
* B.O.T.	H.P.	3	5	7.5	10	15	25	30	40	50	60
* C.A.B.	H.P.	5	7.5	10	15	20	30	40	50	60	75
* FEED OPENING	M.M.	100	175	250	270	385	480	280	394	504	600
* NO. OF HAMMERS	NOS.	12	24	36	24	36	48	24	36	48	60
* DIM. OF MILL											
FLOOR SPACE	M.M.	660x460	660x540	660x610	1020x920	1020x1020	1120x1120	1120X1380	1120X1730	1120X1730	1170x2030
OVERALL HEIGHT	M.M.	710	710	710	1140	1140	1200	1270	1270	1270	1450
* DIM. OF CYCLONE											
DIA. OF CYCLONE	M.M.	500	500	500	600	600	600	700	800	800	1200
OVERALL HEIGHT	MTS.	2.7	2.7	2.7	3	3	3.4	3.4	3.75	3.75	5
* DIM. OF DUST COLLECTOR											
FLOOR SPACE	M.M.	1100x1100	1100x1100	1100x1100	1300x1250	1500x1500	1500x1500	1500X1500	1700X1700	1700X1700	1700x1700
OVERALL HEIGHT	MTS.	3.8	3.8	3.8	5	5	5	5.35	6.9	6.9	7.8
* SPACE FOR PLANT	LxBxH										
MAXIMUM	MTS.	6x3x4	6x3x4	6x3x4	7.5x3x5.5	7.5x3x5.5	8x3x5.5	10X3X6	10.X3.5X7.5	10.5X3.5X7.5	11x3.5x8.5
MINIMUM	MTS.	5x3x4	5x3x4	5x3x4	5x4.5x5.5	5x4.5x5.5	6x4.5x5	6X4X6	6.5X4.5X7.5	6.5X4.5X7.5	7.5x4.5x8.5
* WEIGHT											
MILL WITH FAN	KGS.	80	95	115	400	450	600	600	820	820	1400
CYCLONE WITH STAND	KGS.	115	115	115	180	180	235	235	305	305	550
DUST COLLECTOR WITH STAND	KGS.	60	60	60	80	80	100	100	135	135	250

Specification and Design are subject to change without notice for any additional improvement.



COMPLETE MIRACLE MILL INSTALLATION WITH CYCLONE COLLECTOR, DUST COLLECTOR A & AIRLOCK VALVE (Negative Pressure System)

This is typical complete installation. The Miracle Mill is FED by Screw Conveyor. The pulverized product is collected from Cyclone Collector through Airlock Valve. The DUAL Discharge "Y" Piece is fitted on flange of Airlock Valve. After One collection Drum is filled in, the handle of "Y" Piece is set on other outlet of "Y" Piece for convenient of collection in Second Drum. Blower installed between Cyclone and Dust Collector, creates Negative pressure in the System and makes it dust free operation. All FINE particles are collected in Fabric Type Dust Collector which is emptied periodically into DRUM below Dust Collector.

The Roller Conveyor below Cyclone Collector helps the movement of DRUMS easy. This completes the grinding system with MIRACLE MILL. The MILL is supplied with WALL MOUNTING PANEL with Volt Meter and Ammeter to measure the current.

Super Series of Miracle Mills

(50% Screen Area and 35% Grinding Area)

Premium Super Miracle mill is developed keeping high performance in terms of production in mind. This is heavy duty star hammer mill with double ended star type grinding elements which will give many fold life with compared to standard flat type normally available in other conventional hammer mills we also can provide alternative designs of grinding elements, depending upon the application.

The mill is robust in design and is fabricated from heavy plates. The rotor assembly is housed in grinding chamber and is supported by split type bearing housings. ROTOR assembly is DYNAMICALLY balanced. Hinged typed hood with lifting color arrangement helps easy opening of mill, removal of rotor assembly for changing of hammers, screen and bearings is considered while designing.

Premium Super Miracle mills are available in four different sizes. These mills are available in M.S. as well as S. S. Construction. These mills are available with Bottom Discharge (gravity discharge) These Mills should have PLENIUM CHAMBER and Aspiration System consisting of Cyclone Collector with AIR-Lock Valve, Dust Collector and Blower. Feeding and collection arrangement also can be provided.

These Mills are usually supplied with Pulley, V-Belt Drive arrangement and STURDY BASE FRAME.

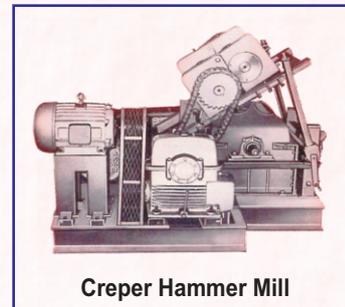
Newly developed NFS (NEAR FULL SCREEN) SERIES with EASY CHANGING of SCREEN and HAMMER having 75% SCREENING AREA also available. These mills are known as SUPERMAX.



TECHNICAL SPECIFICATIONS

MODEL	ROTOR DIA IN MM	FEED OPENING M.M.	NO OF HAMMERS	SPEED R.P.M.	CAPACITY KG/HR.	H.P.	SPACE REQUIRED (FOR MILL) L x W x H
SUPER - I	800	700	72	1250/2400	1000/10000	75	2000 x 1200 x 1800
SUPER - II	800	800	80	1250/2400	1500/12500	100	2200 x 1500 x 1800
SUPER - III	800	900	92	1000/2400	2000/15000	125	2400 x 1800 x 1800
SUPER - IV	800	1000	100	1000/2400	2500/17500	150	2500 x 2000 x 1800

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Manufactured By:

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