

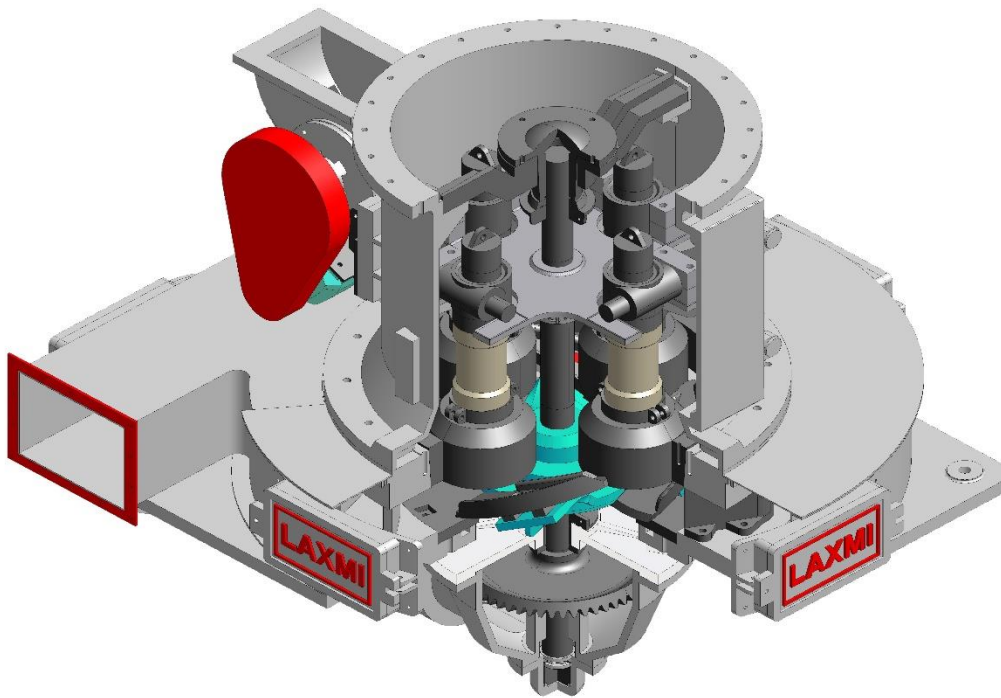


(SINCE – 1967)

LAXMI

Customer satisfaction is our Asset

ROLLER MILL



**MINERAL CRUSHING
MINERAL GRINDING
MINERAL CLASSIFYING TECHNOLOGIES**

LAXMI ROLLER MILL:-

Staying tuned up with time and technology for over 50 years, we at LEW aspire to give our customers best solution, better products and services. We strive hard to contribute substantially to the global priority areas of energy conservation and environment protection. For saving energy and achieving good quality products, we have developed Roller Mill and classifier for which it ensures consistent output up to 700 mesh.

PRINCIPLE

Material is ground by pressure friction between stationary bull ring and the rotating rollers, which swing outwards due to the centrifugal force.

OPERATION

Material to be ground is fed to the grinding chamber through vibro feeder. The positioning of the ploughs ensures that the material continuously passes between the rotating Rollers and the stationary bull Ring and as such this brings about grinding process.

The ground material is swept by the ascending stream of air and carried to the classifier. Oversized particles are returned by the classifier to the grinding chamber for regrinding. The desired product is carried to the cyclone. The final product is collected at the bottom of the cyclone while the Air having fine dust is discharged from the Top of the cyclone and the Dust laden air goes to the Dust collection unit where the dust is separated and clean Air is discharged into the atmosphere.

DESIGN

A-MILL

The mill foundation houses the drive gear-box as well as pulley drive which incorporates a thrust bearing to support the central shaft and endures the roller loads. The grinding rollers are hinged on the spider. The roller assembly is uniquely designed to prevent the possible entry of fine powder. Roller bearing with rubber seal is incorporated to prevent the entry of dust to the roller arm assembly. The contact area between roller arms and bull ring is maintained in such a way to achieve uniform and gradual wear & tear of the roller.

B-CLASSIFIER

The Classifier helps to obtain any mesh size up to 700 mesh by increasing or decreasing the RPM of the Classifier through a variable speed drive motor. A knob is provided to adjust the required mesh. This helps in saving a lot of time, money & Energy. A Gear Box is mounted in the classifier driven by Square Cage Electric motor which is designed in such a way to prevent entry of the dust in the gear box.

C-BLOWER

The fan casing is made from 5 mm M.S. plate and suitable base is mounted with casing for the Electric Motor and bearing housing. The base is made from 8 mm thick plate. The M.S. fabricated impeller is fitted on the shaft and shaft is mounted with mono plumber block and bearings. The double wall impeller provided is dynamically balanced. The blower is driven through a V-belt transmission with the help of Electric motor.

CONSTRUCTION

The Ploughs are cast out of manganese steel while the Rollers and the Bull Ring are of carbon steel casting. Classifier, Cyclone, Dust Collector, Blower, dusting & supporting structure are made of mild steel sheet and structural. Heavy duty Base Plate, and Gear Box are made from cast iron and mill shell body is single piece casting as well as of sheet fabrication.

DRIVE

The induction motor through V-belt drives the Gear Box as well as pulley drive which finally drives the mill. Separate motor are required to drive the Blower and Classifier.

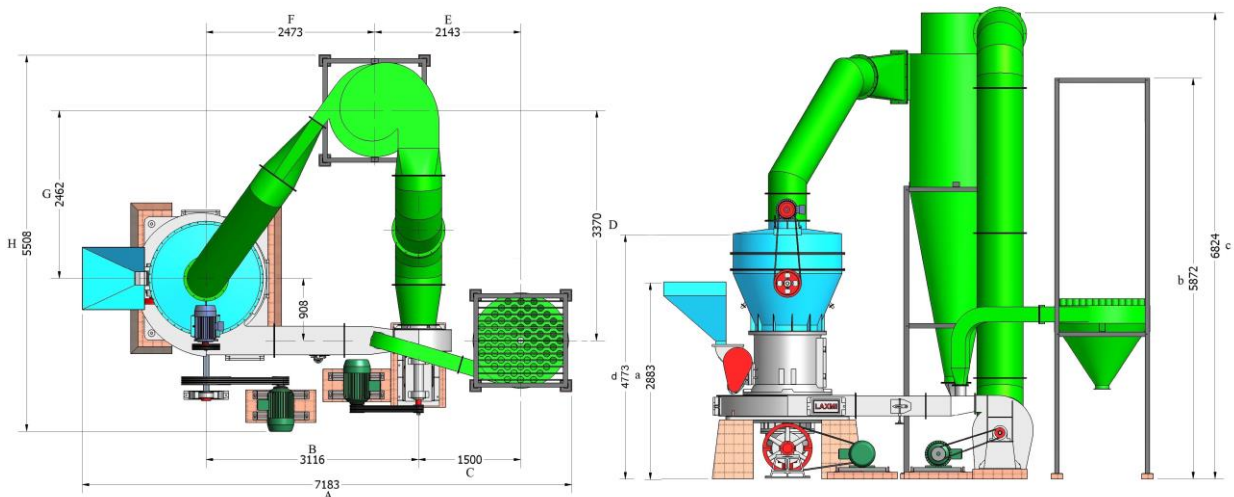
APPLICATION

Grinding of following minerals:

Barytes, Bentonite, Bauxite, Calcite, Coke, Dolomite, Lime Stone, Red Oxide, Manganese Oxide. Etc.

SALIENT FEATURES

- Laxmi ROLLER MILL is Designed in such a special way ensuring easy repair and maintenance. Easy access helps quick replacement of worn out parts.
 - The Wear & Tear cost per ton is Low.
 - A (*) Distance plate is provided between gear box and base plate to prevent Dust entry into the gear box. A fan is fitted on the center shaft which throws away the particles coming out of the center plate of the base plate. Thus a 100% Dust free system which ensures long life of the Bevel Gear, Pinion & V-belt.
 - Roller Arm Assembly incorporates a perfect Rubber seal to prevent the possible entry of the fine powder, which reduces easy wear and tear.
 - The Worn-out parts can conveniently be replaced through an easily accessible service door.
 - Even a semi-skilled person can operate the mill.
- (Note-(*) represent-may differ for different models.)



ALL DIMENSIONS ARE IN MM.

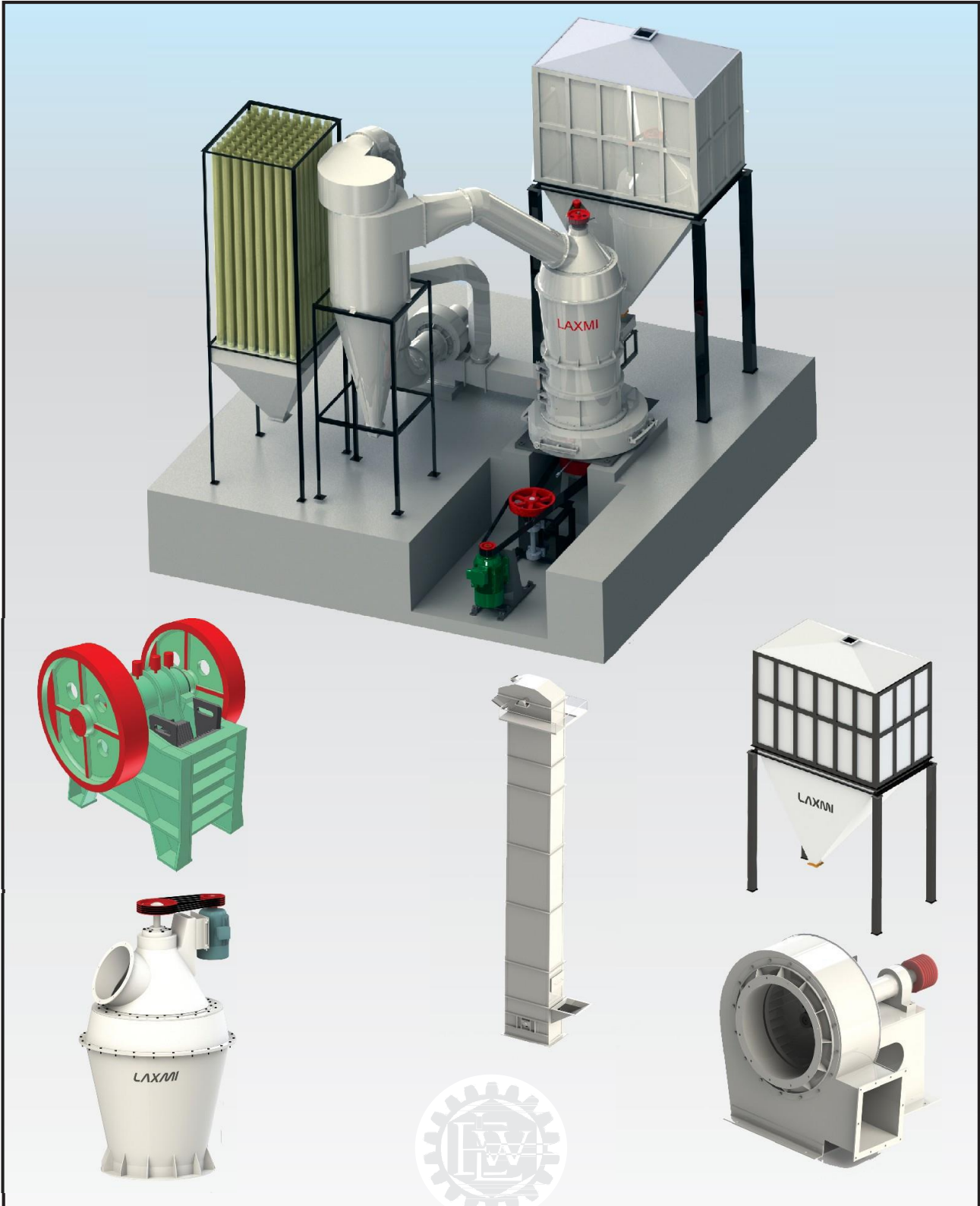
LAXMI ROLLER MILL	A	B	C	D	E	F	G	H	Sr. No.	3 ROLLER MILL (LRM-770)	4 ROLLER MILL (LRM-900)	4 ROLLER MILL (LRM-1250)	5 ROLLER MILL (LRM-1500)
3 ROLLER MILL (LRM-770)	7067 MM	3041 MM	1500 MM	3267 MM	1500 MM	3041 MM	2520 MM	5643 MM	a	2859 MM	2883 MM	1445 MM	1760 MM
4 ROLLER MILL (LRM-900)	7183 MM	3116 MM	1500 MM	3370 MM	2143 MM	2473 MM	2462 MM	5508 MM	b	5872 MM	5872 MM	7263 MM	6380 MM
4 ROLLER MILL (LRM-1250)	6481 MM	3676 MM	1494 MM	205 MM	2148 MM	3022 MM	3419 MM	8109 MM	c	5836 MM	6824 MM	7026 MM	7050 MM
5 ROLLER MILL (LRM-1500)	7200 MM	3662 MM	1500 MM	4365 MM	2030 MM	3125 MM	3207 MM	8500 MM	d	4773 MM	4773 MM	4287 MM	4287 MM

THREE ROLLER MILL(LRM-770)	FOUR ROLLER MILL(LRM-900)	FOUR ROLLER MILL(LRM-1250)	FIVE ROLLER MILL(LRM-1500)
For Mill-30 HP/960 RPM/TEFC/Sq. Cage Motor for Blower-25 HP/1440 RPM/TEFC/Sq. Cage for Classifier-7.5HP/1440 RPM/TEFC/Sq. Cage, No. of Rollers-Three (3 Nos.)	For Mill-40 HP/960 RPM/TEFC/Sq. Cage Motor for Blower-30 HP/1440 RPM/TEFC/Sq. Cage for Classifier-15HP/1440 RPM/TEFC/Sq. Cage, No. of Rollers-Four (4 Nos.)	For Mill-100 HP/960 RPM/TEFC/Sq. Cage Motor for Blower-75 HP/1440 RPM/TEFC/Sq. Cage for Classifier-20HP/1440 RPM/TEFC/Sq. Cage, No. of Rollers-Four (4 Nos.)	For Mill-150 HP/960 RPM/TEFC/Sq. Cage Motor for Blower-100 HP/1440 RPM/TEFC/Sq. Cage for Classifier-30HP/1440 RPM/TEFC/Sq. Cage, No. of Rollers-Five (5 Nos.)

Sr. No.	MESH SIZE	THREE ROLLER MILL(LRM-770)	FOUR ROLLER MILL(LRM-900)	FOUR ROLLER MILL(LRM-1250)	FIVE ROLLER MILL(LRM-1500)
		PRODUCTION IN KG PER HOUR	PRODUCTION IN KG PER HOUR	PRODUCTION IN KG PER HOUR	PRODUCTION IN KG PER HOUR
1	200-1% RETENTION	1400 KGS/HR	2200 KGS/HR	4400 KGS/HR	6250 KGS/HR
2	250-1% RETENTION	1200 KGS/HR	1800 KGS/HR	3500 KGS/HR	4400 KGS/HR
3	300-1% RETENTION	900 KGS/HR	1300 KGS/HR	3000 KGS/HR	3900 KGS/HR
4	400-1% RETENTION	600 KGS/HR	1100 KGS/HR	2200 KGS/HR	2900 KGS/HR
5	500-1% RETENTION	500 KGS/HR	850 KGS/HR	1600 KGS/HR	2100 KGS/HR

- The Power consumption of Three Roller mill(LRM-770) is 38 to 40 units per hour.
- The Power consumption of Four Roller mill(LRM-900) is 52 to 56 units per hour.
- The Power consumption of Four Roller mill(LRM-1250) is 105 to 110 units per hour.
- The Power consumption of Five Roller mill(LRM-1500) is 140 to 145 units per hour.

[The above production figures are on tentative basis as it depends upon the hardness & grinding ability of the mineral which may vary +/-]



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