

### Product Range

- High Speed Heater Cooler Mixer
- Pulverizer
- Hammer Pulverizer
- Grinder Machine

All Plastic Machinery Parts Available

# PROFILE

Our heritage in the plastic industry dates back over many years, giving us a wealth of experience to draw on as we look to the future.

Raj Industries has won its customers continued trust by always providing with a perfect solution to their specific requirements.

Armed with such an impressive and diverse track record, we are focused on expansion and future growth. Our team of highly qualified and experienced staff take control and deliver practical solutions. We provide technical expertise and efficient execution for every project undertaken.

Above all, the most important reason for our continued success is our genuine desire and commitment to deliver in the best possible manner to our clients.

## HIGH SPEED HEATER COOLER MIXER

### HIGH SPEED HEATER MIXER

- Robust design with all inner parts made of SS & Mirror polished surface.
- Compact design with highest specific throughput.
- Higher efficiency with high calcium loading.
- Pneuma seal design housing.
- Energy efficient.



### COOLER MIXER

- Double jacketed vessel to avoid heating loss.
- Balanced rotating parts & robust design to keep it vibration free.
- Perfect design of discharge valve.
- Easy maintenance & operator friendly.
- Perfect vessel diameter with respect to height.



## HIGH SPEED HEATER COOLER MIXER

### BETTER IN MIXING TECHNOLOGY

Heater Cooler Mixer is used in many applications of thermoplastic materials or elastomers. High speed heater cooler mixer is comprised of heating and cooling chambers with high speed mixing tools to heat the materials at specific temperature and cool step by step.



### PRINCIPLE

In High Speed Heater Cooler Mixer heat is generated by friction. Mixing Tools are rotating at high speed and due to friction heat is generated hence it is known as Heater Mixer. The Material either solid, liquid or any pasty components inside heater chamber is properly heated within a specific time. The hot materials should be cooled subsequently in Cooling Chamber which is known as Cooler mixer. The material from heating chamber is fed into cooling chamber to cool down at desired temperature. After cooling the compounds are ready in free flow condition for further process.

### SALIENT FEATURES OF HEATER COOLER MIXER :

- Stainless Steel Vessels with mirror polished surface inside the vessel.
- Robust Design of machine to keep it vibration free.
- Double jacketed Heater and cooler vessels to avoid heating loss.
- Special design of mixing tools with TC coating edge.
- Fast discharging of compound by pneumatically operated valve.
- Pneuma Seal design prevents infiltration of powder in bearings.
- Lid made of high quality aluminium or SS and pneumatically operated.
- Cooling ring inside cooler to enhance cooling capacity of cooler mixer.
- Optimum design of cooling surface area in Cooler Mixer.
- Minimum down time for repair and maintenance.
- Self Cleaning, quick and easy fitting of parts.

Sr. No.	Model No.	Batch Capacity in Kg/Batch	Drive in RHM (kW)	Drive in RCM(kW)
01	RHM 50 - RCM 150	15	7.5	1.5
02	RHM 130 - RCM 400	40	15	3.7
03	RHM 200 - RCM 400	70	30	3.7
04	RHM 250 - RCM 600	90	37	5
05	RHM 350 - RCM 1000	120	55	7.5
06	RHM 500 - RCM 1500	200	110	11
07	RHM 500 - RCM 2000	200	110	15
08	RHM 750 - RCM 2000	300	132	15
09	RHM 1000 - RCM 2500	400	200	30

- RHM- Heater Mixer, RCM - Cooler Mixer
- Output depends upon type of recipe, materials, temperature and processing parameter.
- Above specification of drives are for general purpose applications.



### VACUUM CONVEYING SYSTEM

- Vacuum conveying system available to convey material upto 2000 kg/hr.
- Automatic filter bag cleaning system.
- Easy fittment on mixer as well as on extruder.
- Compact design & Easy Maintenance.



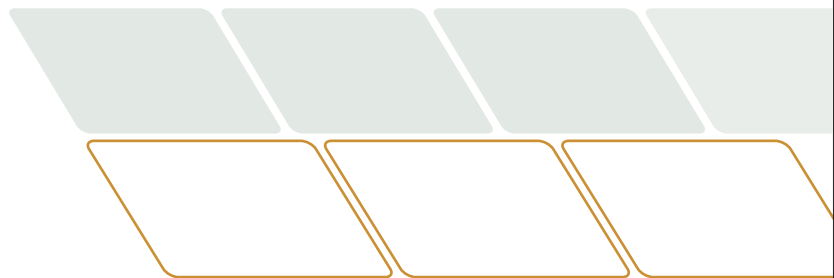
### ASPIRATION SYSTEMS

- The Aspiration System is used in heater cooler mixer to remove moisture content from PVC Resin & chemicals.
- During mixing process, Chlorine gas is liberated which is removed.
- Reduce odour generated during process.
- Reduce build up of powder on mixer lid.
- Extract harmful gases.



### SINGLE BAG / JUMBO BAG FEEDING SYSTEM

- Provision of feeding 25kg bag or Jumbo bag.
- Easy openable doors for feeding materials.
- Easy handling of jumbo bag with help of crane.
- Easy to connect with vacuum conveying system.



### OPTIONAL

1. High speed heater cooler mixer with Spiral spring conveying systems.
2. High speed heater cooler mixer with Screw conveying systems.
3. High speed heater cooler mixer with Vacuum conveying systems.
4. Fully automatic with PLC & HMI.

## BETTER IN PULVERIZING TECHNOLOGY

### BETTER IN PULVERIZING TECHNOLOGY

Now a days demand for powder of plastics increasing and pulverizer is the better solution for that. Raj offers better technology in size reduction of plastics via pulverizer machine.



### APPLICATION

Raj make pulverizer is designed for pulverizing of semi rigid, brittle and impact resistance materials where a powdered product is required.

Granulated plastic materials are fed via vibratory feeder into the mill.

High speed mill grinds the materials and suction system draw the materials from mill.

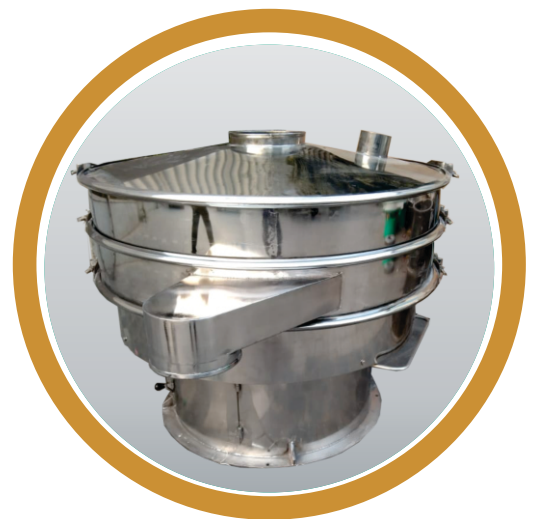
With the help of proper metering and various screening system desired powder quality to be achieved.

Coarse materials from the screen are re-entering into the mill via closed-loop system.

Typical applications are the pulverizing of LDPE, LLDPE, RPVC, HDPE, UPVC, PC and various other plastics.

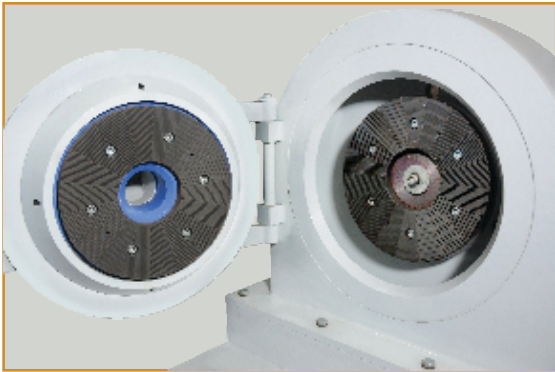
### SALIENT FEATURES

- Heavy duty sturdier design.
- High output with low power consumption.
- Microprocessor based control system.
- Grinding disc of special materials for longer life.
- Easy to operate.
- Less manpower requirements.
- Better fine materials according to application of plasticizing.
- Easy to change vibro screen for various powder quality.
- Compact design and minimum space utilization.



### OUTPUT RANG

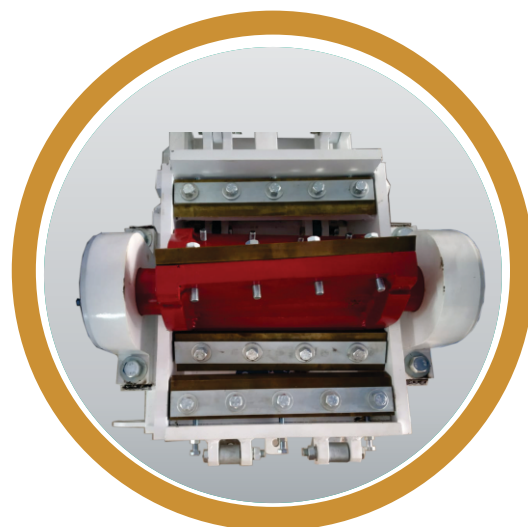
Product Range	RP 300	RP 400	RP 600
Motor Capacity	15 kW	30 kW	55 kW
Output Capacity	100-120	200-300	400-500



**OPTIONAL**

1. Pulverizer with heat exchanger system for extra cooling in mill.
2. AC variable frequency drive.
3. Dust collection systems for clean room condition.
4. Mechanical / Vacuum conveying systems for material loading.

## BETTER IN GRINDER TECHNOLOGY



PRODUCT RANG							
DESCRIPTION	UNIT	1	2	3	4	5	6
MODEL		RG 12	RG 15	RG 18	RG 21	RG 24	RG 30
GRINDER SIZE	INCH	12	15	18	21	24	30
GRINDER MOTOR	HP	5	10	15	20	30	40
NO. OF FIX BLADE	NOS	2	2	2	2	4	4
NO. OF ROTATE BLADE	NOS	3	3	3	3	6	6
PVC/HD/PP	KG./HR.	80/100	120/150	150/200	200/250	300/350	400/500
LD/RAFFIA/PET	KG./HR.	40/50	60/80	100/150	150/200	200/250	250/300



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