

# MICRO POWDER TECH

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## Company Profile

**MICRO POWDER TECH** is a firm established by **S.C.Jain** having 41 years of experience in manufacturing of Coatings.

Our range of machinery is essentially small scale and low cost compared with all other major suppliers & a unique package for the manufactures entering Powder Coating Production.

A range of machinery designed by ourselves **Twin Screw Extruder MPT-30PC, MPT-45, MPT-55 and Air Classifying Mill ( Grinding Mill)** with low power consumption to produce quality Powder Coating Paints & incorporating design features for easy clean down & maintenance with a Technical Knowhow. This together with a technology package tailored to suit the requirements of the small medium size entrants into the Powder Coating Industry.

We have laboratory with most modern equipment for R & D. New formulation and testing facilities are provided to customers. Whether its small scale rapid response production or large scale bulk powder manufacturer. MICRO POWDER TECH has experience to supply an efficient system to match customers requirements. We can offer you the right equipment, which is up to date, reasonable, simple and at extremely competitive price.

We export to **Japan, Bangla Desh, Russia, Ukraine , Europe & Riverside CA USA** which are in production with successful quality compatible.

With guaranteed performance to match the international Standard quality of Powder Coating Production Package :

# A Large Production Powder Coating Plant	( 260 – 340 Kg./Hr.)
# A Medium Production Powder Coating Plant	( 150 – 200 Kg./Hr.)
# A Lab-Small Production Powder Coating Plant	( Min. 0.400 Kg. Max. 30 – 40 Kg./Hr.)
# A Lab Model Powder Coating Machine	( Min. 0.400 Kg. Max. 8-10 Kg./Hr.)

Each Powder Coating Plant comprises : \* Premixer \* Twin Screw Extruder \* Chill Roll Belt  
\* ACM MPT- Grinding Mill \* Sieving Machine with Technical Knowhow.

In India more then 70% Powder Coating Production Plants are in chain of our installations & are running successfully.

Our Powder Coating Plant has been exported to countries like **Japan, Russia & Saudi Arab, Bangladesh ,Ukraine Iran & USA** .

We are very much Sincere, Honest, Hardworking and Innovating to solve problems of our clients. We maintain delivery schedule. We give guarantee for the performance of our products.

We are manufacturing product, what small- scale industry cannot manufacture and big manufacturer cannot provide. We manufacture only tailor made and difficult products with performance guarantee.

## MICRO POWDER TECH

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Powder Coating Production Video : <http://youtu.be/ayap0gGlmkY>

## Powder Coating Production 150 - 200 Kg. / Hr. Plant

1. Premixer SS-50
2. Twin Screw Extruder MPT 45PC with Chill Roll & Flaker
3. ACM Grinding Mill MPT-10 AND Sifter-30 (Sieving Machine)



**PREMIXER SS-50**



**MPT TWIN SCREW EXTRUDER MPT45PC WITH CHILL ROLL & FLAKER**



**MPT ACM-10 GRINDING MILL**



**SIEVING MACHINE**

# MICRO POWDER TECH

Powder Coating Production 150 - 200 Kg. / Hr. Package

## TECHNICAL DATA

<b>Premixer High Speed Batch Mixer</b>		
<b>Model</b>		<b>SS-50</b>
Main Drive		3.75 KW
Cooling Arrangement		N/A
Vessel material		Stainless Steel
Vessel Volume		120 Ltrs. Approx.
Batch Capacity		50 Kg. Cycle
<b>Twin Screw Extruder</b>		
<b>Product/Model</b>		<b>Twin Screw Extruder MPT-45 PC</b>
<b>Capacity</b>	<b>Kg / h</b>	<b>150 - 200</b>
<b>Extruder</b>	Type	<b>Twin Screw</b>
<b>Model</b>		<b>MPT-45PC</b>
<b>L / D</b>		<b>17.5:1</b>
<b>Screw dia</b>	<b>mm</b>	<b>45</b>
<b>Screw speed</b>	<b>rpm</b>	<b>0-450</b>
<b>Screw &amp; Barrel Material</b>	Type	<b>Tool Steel</b>
<b>Main power</b>	Kw	15
Drive type		AC frequency drive
Make		Schneider Electric
<b>Heating power</b>	Kw	<b>4.8</b>
Vol. feeder with hopper		
Hopper volume	Liter	60 Ltrs.
Power with AC frequency drive	Kw	0.37 KW
Capacity	Kg / h	20-300 Kg./h
No. of heating/cooling zones		3 zone
<b>Heating Type</b>		<b>Cartridge Heaters</b>
Screw shaft		Hexagonal section hard chrome
Screw elements		Feed screw, Paddle intermeshing
Barrel		Split type opening, Segmented liner insert
Vol. screw feeder		Speed variable screw feeder
Gear box		High efficiency, forced lubrication with cooling arrangement
Control voltage	V	420 Volt 3 Phase
CHW flow rate	Lph	1400 Ltrs./h
Temperature	°C	10 to 12 °C

Continue P-2 Production 150-200 Kg./Hr. Package

Continue P-2 Production 150-200 Kg./Hr. Package

<b>Controls &amp; Instrumentation</b>		
PID Control		PID Controlled 2 Nos.
Speed		AC Frequency drive
Temperature		PID Digital Temp.
<b>Display provided in panel</b>		
	Motor speed	Digital Screw RPM Meter
	Output voltage	415 Volt
	Current	AMP Digital Meter
	Power	3 Phase Digital indicator, Volt meter
	Drive temp.	Frequency drive internal feature
	Hour counter	Digital / Analogue
<b>Protections (Electrical and Machine Interlocks)</b>		
	Drive temp.	Drive internal protection
	Motor load	Drive internal protection
	Under voltage	SPP
	Earth fault	SPP
	Mains supervision	MCB
	Phase supervision	Digital Volt meter, 3Phase indicator
<b>Chill Roll &amp; Flaker</b>		
<b>Model</b>		
		<b>CR TS-45</b>
MOC		S.S. Chill Roller
Main drive with AC frequency drive	Kw	1.5 KW
Flaker power	Kw	0.37 KW
CHW flow rate	Lph	60 liter / min.
Temperature	°C	10 to 12 °C
Chill Roller melt squeeze	Size mm	165 X 700, 1Nos.
Chill Roll Cool		400 X 700, 1 No.
<b>Space requirement</b>		
	L x W x H, in mm	
Extruder	MM	L-1750 X H-2700 X W-760
Flaking system	MM	L-1500 X W-1270 X H-1150
<b>Assembly weight</b>		
	Kgs or tons	
Extruder	Kgs	App. 1500 Kg.
Flaking system	Kgs	App. 500 Kg.

Continue P-3 Production 150-200 Kg./Hr. Package

Continue P-3 Production 150-200 Kg./Hr. Package

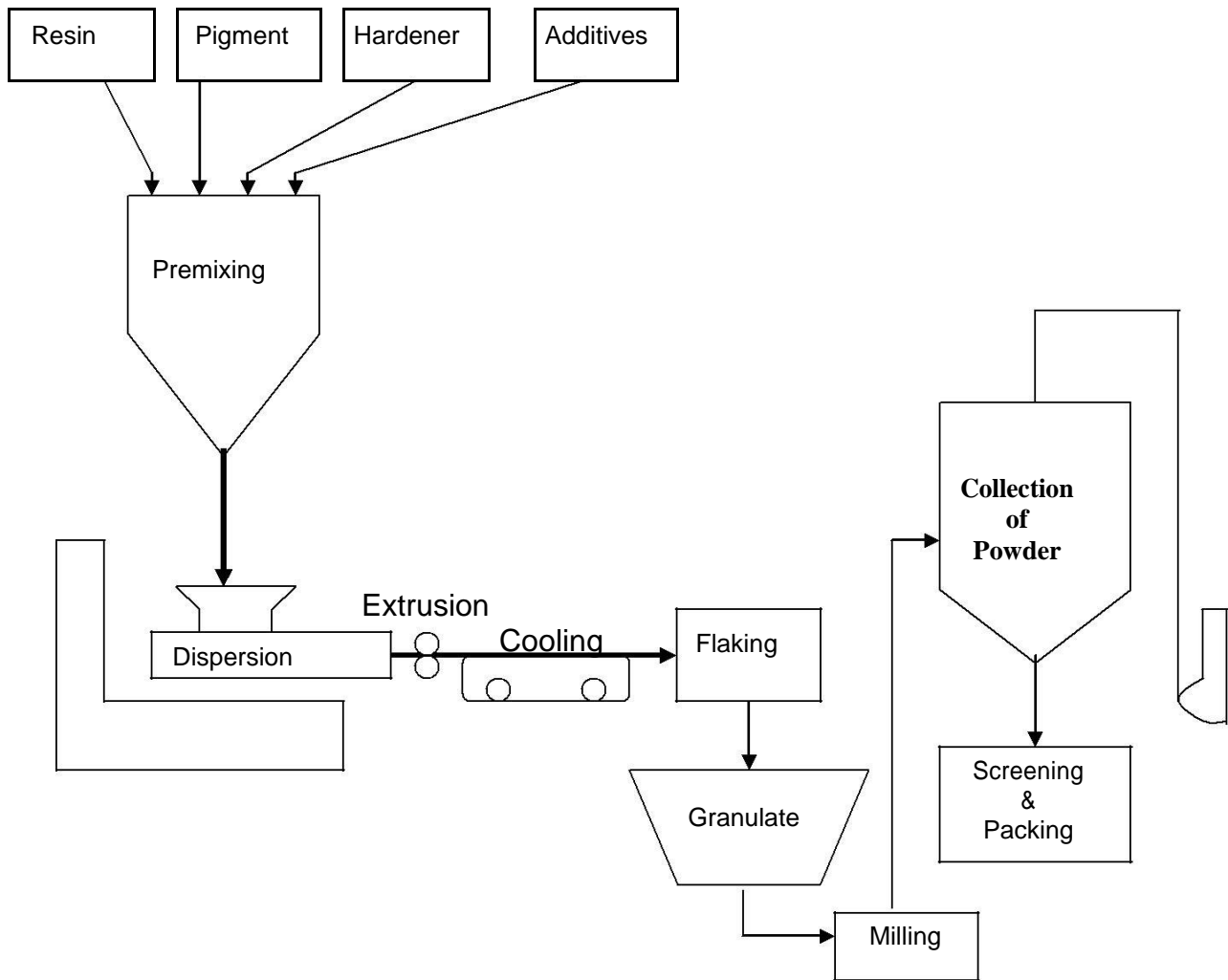
<b>ACM Grinding Mill</b>		
<b>Model</b>		<b>ACM MPT-10</b>
Mill Motor		7.5 KW
Blower Motor		5.5 KW
Classifier Motor with AC frequency drive		0.75 KW
Feeder Motor with AC frequency drive		0.37 KW
Plus Jet Valve		6 Nos. Solenoid Valve
Cyclone		Stainless Steel
Dust Collector		15 Sq. Mtrs Filter Area
Feeder Unit		Screw feeding S.S. Constructed
Classifier RPM		700 - 3000
Air Flow		750 CFM
Overall Dimensions Mtrs.		L-2.1 X W-2.0 X H- 2.75
Rotary Air Lock Valve		0.37 KW
Production Capacity		140 - 180 Kg. / Hr.
<b>Sieving Machine (Sifter)</b>		
<b>Model</b>		<b>Sifter - 30</b>
Main Motor		0.75 KW
Contact Part		Stainless Steel
Structure Body		Mild Steel & Casting
Capacity		150 - 250 Kg. / Hr.

**Free Spare Parts :-**

1. One Pair of Screw Set.
2. Cartrage Heater One set ( 10 Nos.)
3. Hammer set one.

**Product specifications are subject to change without prior notice**

## MANUFACTURE OF POWDER



### **PREMIXING**

At first the ingredients are weighed & premixed in an absolute dry condition.

### **EXTRUSION**

The premixed materials are then continuously charged in the extruder. Here the binder melts and dispersed with all other ingredients.

### **COOLING & FLAKING**

The extruder material is chilled very fast & flattened as sheet by chilled rollers on conveyor belts. The chilled product is crushed into flakes.

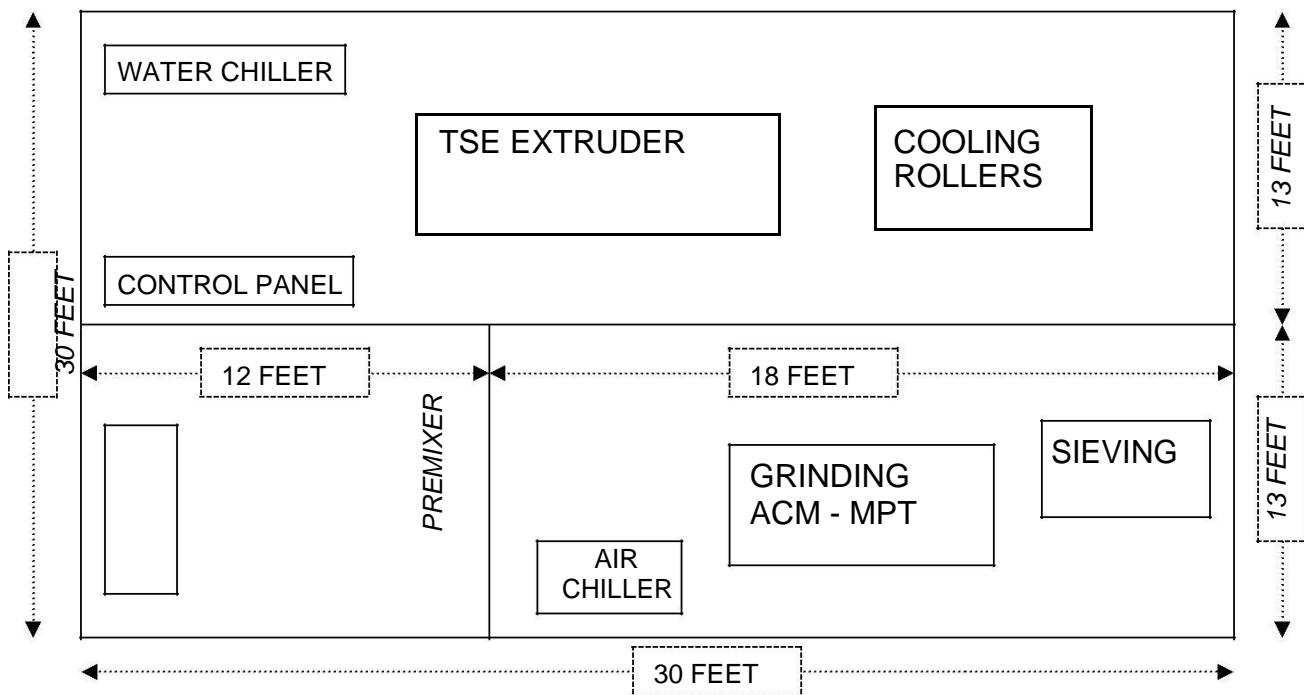
### **MILLING & SIEVING**

The flakes are then milled and sieved up to required particle sizes.

### **PACKING**

The sieved powder is then packed in Poly bag & corrugated box.

## PLAN & LAYOUT FOR MACHINES



## **EXCLUSIONS OUR PACKAGE**

### **THE ITEMS LISTED BELOW ARE REQUIRED**

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1. WATER CHILLER 5 TON
2. AIR CHILLER 2.5 TON
3. ELECTRONIC BALANCE 1 KG.( Lees count 0.1 Grams)
4. WEIGHT BALANCE UP TO 10 KG. WITH WEIGHT UP TO 10 KG.
6. S. S Tank for Chips collection ( 2 Nos.) Size L-900mm X W- 600mm X H-500mm
5. PLASTIC CARRET 25 NOS.  
SIZE- 600X400X300 MM.
6. PLASTIC BARREL 200 LTRS 5 NOS.
7. PVC PIPE  $\frac{3}{4}$ " – 10 MTRS
8. JHABBA 4 NOS.
9. FILTER CLOTH 160 MESH- 20 MTRS  
400 MESH- 5 MTRS.
11. ELECTRICAL WIRING & FITTINGS.
12. HOSE PIPE 4" -- 3 Mtrs. For Air Chiller.

### **LABORATORY TESTING INSTRUMENTS**

1. GLOSS METER 60 HEAD.
2. **TUBLER IMPACT TESTER 250 KG, CM.**
3. **ELECTRICCAL OVEN 250 C**  
AIR CERCULATING. 14"X14"
4. TEST SIEVE 25 MICRON 4".
5. GEL TIME APPRATUS
6. BALANCE 1 MG.
7. MELTING POINT APPARATUS
8. **POWDER COATING SPREY GUN & BOOTH (LAB MODEL)**
9. **KITCHEN MIXY**
10. **COMPRESSER 2 HP.**

**Note : Laboratory Testing Instruments are No. 2, 3, 8, 9 & 10 are must.**