

# MICRO POWDER TECH

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## Company Profile

**MICRO POWDER TECH** is a firm established by **S.C.Jain** having 34 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-30, MPT-40PC, 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** 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 Package     | ( 300 – 400 Kg./Hr.)                   |
| # A Medium Production Package    | ( 160 – 200 Kg./Hr.)                   |
| # A Small Production Package     | ( 80 – 120 Kg./Hr.)                    |
| # A Lab-Small Production Package | ( Min. 0.400 Kg. Max. 30 – 50 Kg./Hr.) |
| # A Lab Model                    | ( Min. 0.400 Kg. Max. 8-10 Kg./Hr.)    |

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

In India more then 80% of the Powder Coating Production Plants are in chain of our installations & are running successfully.

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 30 - 50 Kg. / Hr. Plant

1. Premixer SS-30
2. Twin Screw Extruder MPT 30PC with Chill Roll
3. ACM Grinding Mill MPT-7
4. Sifter-20 (Sieving Machine)



PREMIXER SS-30



TWIN SCREW EXTRUDER MPT30PC WITH CHILL ROLL



ACM GRINDING MILL MPT-7



SIFTER-20 (SIEVING MACHINE)

# MICRO POWDER TECH

Powder Coating Production 30 - 50 Kg. / Hr. Package

## TECHNICAL DATA

|  |               |  |
|--|---------------|--|
| <b>Premixer High Speed Batch Mixer</b> |               |  |
| <b>Model</b>                           |               | <b>SS-30</b>   |
| Main Drive                             |               | 3.75 KW  |
| Cooling Arrangement                    |               | Cooling Jacket   |
| Vessel material                        |               | Stainless Steel  |
| Vessel Volume                          |               | 80 Ltrs. Approx.   |
| Batch Capacity                         |               | 30 Kg. Cycle   |
| <b>Twin Screw Extruder</b>             |               |  |
| <b>Product/Model</b>                   |               | <b>Twin Screw Extruder<br/>MPT-30 PC</b>                     |
| <b>Capacity</b>                        | <b>Kg / h</b> | <b>30 - 50</b>   |
| <b>Extruder</b>                        | Type          | <b>Twin Screw</b>  |
| <b>Model</b>                           |               | <b>MPT-40PC</b>  |
| <b>L / D</b>                           |               | <b>15:1</b>  |
| <b>Screw dia</b>                       | <b>mm</b>     | <b>30</b>  |
| <b>Screw speed</b>                     | <b>rpm</b>    | <b>0-450</b>   |
| <b>Main power</b>                      | <b>Kw</b>     | <b>5.5</b>   |
| Drive type                             |               | AC frequency drive   |
| Make                                   |               | Schneider  |
| <b>Heating power</b>                   | <b>Kw</b>     | <b>2.5</b>   |
| Vol. feeder with hopper                |               |  |
| Hopper volume                          | Liter         | 30 Ltrs.   |
| Feeder Power                           | Kw            | 0.37 KW  |
| Capacity                               | Kg / h        | 20-100 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             | 220 Volt   |
| CHW flow rate                          | Lph           | 1400 Ltrs./h   |
| Temperature                            | °C            | 10 to 12 °C  |

Continue P-2 Production 30-50 Kg./Hr. Package

Continue P-2 Production 30-50 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                              |
|  | Frequency         | 50 Hz                                 |
|  | 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</b>                                      |                   |                                       |
| <b>Model</b>   |                   |                                       |
|  |                   | <b>CR TS-30</b>                       |
| MOC  |                   | S.S. Chill Roller                     |
| Main drive AC Frequency drive                          | Kw                | 0.37 KW                               |
| Flaker power   | Kw                | N / A                                 |
| CHW flow rate  | Lph               | 20 liter / min.                       |
| Temperature  | °C                | 10 to 12 °C                           |
| Chill Roller melt squeeze                              | Size mm           | 100 X 400, 1Nos.                      |
| Chill Roll Cool  |                   | 250 X 400, 1 No.                      |
| <b>Space requirement</b>                               |                   |                                       |
|  | L x W x H, in mm  |                                       |
| Extruder   | MM                | L-1000 X H-1700 X W-850               |
| Flaking system   | MM                | L-500 X W-500 X H-450                 |
| <b>Assembly weight</b>                                 |                   |                                       |
|  | Kgs or tons       |                                       |
| Extruder   | Kgs               | App. 700 Kg.                          |
| Flaking system   | Kgs               | App. 250 Kg.                          |

Continue P-3 Production 30-50 Kg./Hr. Package

| <b>ACM Grinding Mill</b>            |  |                                |
|-------------------------------------|--|--------------------------------|
|                                     |  |                                |
| <b>Model</b>                        |  | <b>ACM MPT-7</b>               |
| Mill Motor                          |  | 3.75 KW                        |
| Blower Motor                        |  | 3.75 KW                        |
| Classifier Motor AC Frequency drive |  | 0.75 KW                        |
| Feeder Motor AC Frequency drive     |  | 0.37 KW                        |
| Plus Jet Valve                      |  | 4 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                            |  | 450 CFM                        |
| Overall Dimensions Mtrs.            |  | L-2.1 X W-2.0 X H- 2.5         |
| Production Capacity                 |  | 80 - 100 Kg. / Hr.             |
|                                     |  |                                |
| <b>Sieving Machine (Sifter)</b>     |  |                                |
|                                     |  |                                |
| <b>Model</b>                        |  | <b>Sifter - 20</b>             |
| Main Motor                          |  | 0.37 KW                        |
| Contact Part                        |  | Stainless Steel                |
| Structure Body                      |  | Mild Steel & Casting           |
| Capacity                            |  | 100 - 150 Kg. / Hr.            |

**Free Spare Parts :-**

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

## **EXCLUSIONS OUR PACKAGE**

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

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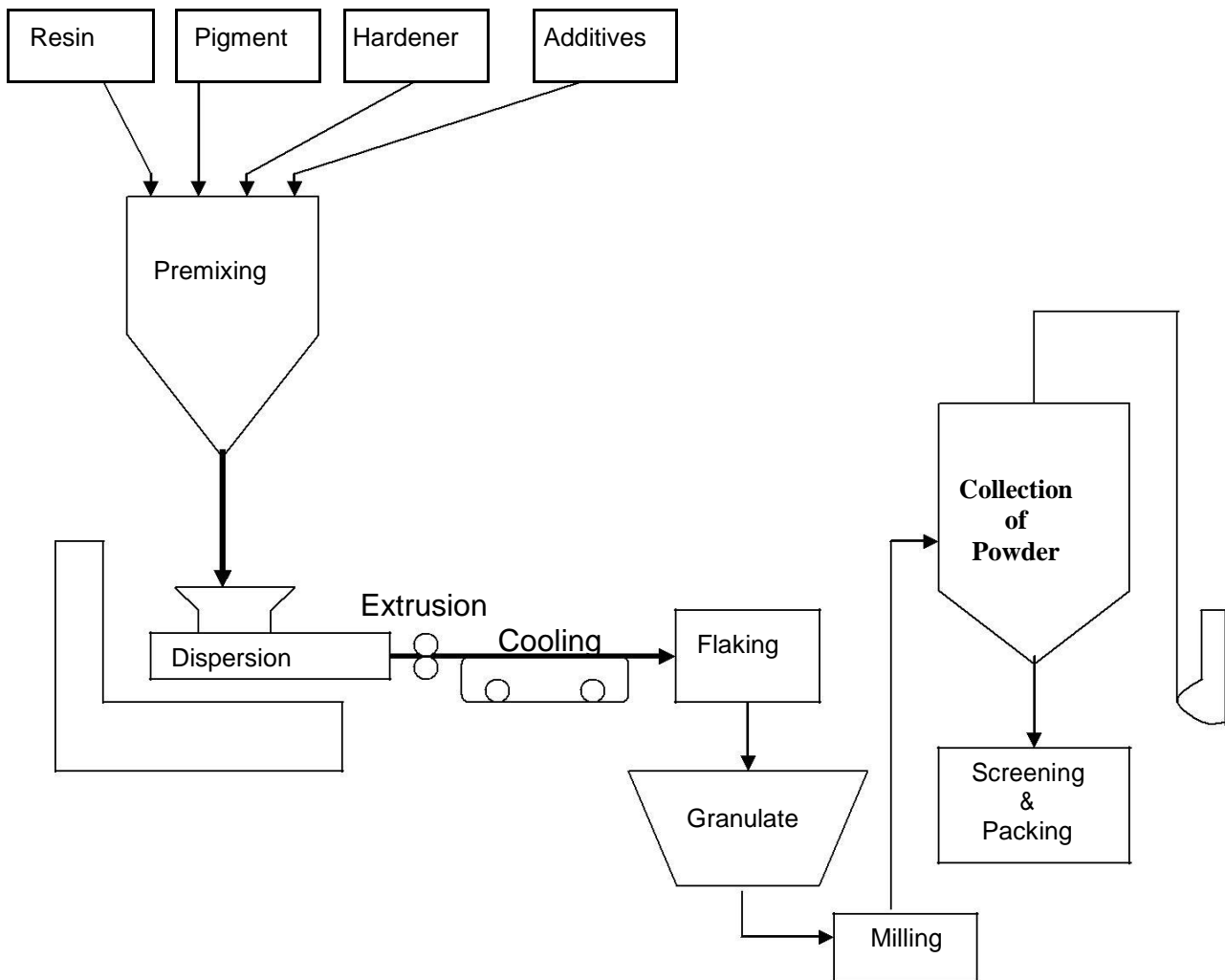
1. WATER CHILLER 2 TON
2. AIR CHILLER 2 TON
3. POLYTHEN SEALING MACHINE 20"
4. ELECTRONIC BALANCE 1 KG.( Lees count 0.1 Grams)
5. WEIGHT BALANCE UP TO 10 KG. WITH WEIGHT UP TO 10 KG.
6. PLASTIC CARRET 25 NOS.  
SIZE- 600X400X300 MM.
7. PLASTIC BARREL 200 LTRS 5 NOS.
8. PVC PIPE ¾" – 20 MTRS
9. JHABBA 4 NOS.
10. FILTER CLOTH 140 MESH- 20 MTRS  
160 MESH- 20 MTRS  
400 MESH- 5 MTRS.
11. ELECTRICAL WIRING & FITTINGS.

### **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.**

## 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 MACHNES**

