

### **TOOLING SOLUTION**



### MFG. & EXPORTERS OF PHARMACEUTICALS DIES, PUNCHES & MACHINERY.











### **SALIENT FEATURES:**

- Available in "D", "B" and "BB" Tooling.
- Turret with lower punch seal.
- Safety interlocking for Upper & Lower Guard.
- Gravity Feeding system.
- Two Piece Turret.
- Upper Roller with Penetration Adjustment System.
- Control Panel with Bypass Switches.
- Control Panel with separate display for TABLET COUNT and RPM.
- Fixed Hopper with slide to control powder flow.
- Hand wheel provided.
- Re-designed variable speed pulley.
- Turret of SGIRON 400/12 grade casting.
- Auto Lubrication with Timer and Metering cartridges.
- Cam tracks & pressure rollers made out of alloy steel for maximum wear resistance and long life.
- Worm is made up of Phosphor Bronze.
- Machine is totally enclosed i.e. top half of the machine (Compression zone) with S.S hood, acrylic covers in G.M.P model. This reduce the noise level and to & fro flow of dust between: compression zone and machine room.
- Higher turret speed 15 to 35 RPM.
- Phosphor bronze bush provided inside the turret hole.
- SS Turret Guards.
- Lower Punch Cam can be removed without dismantling the Lower Roller Assembly.

#### **OPTIONAL FEATURES:**

- Double layer attachment
- Turret with Electro less Nickel plating including Nickel Die Plate
- Upper Punch Cup seals
- · Lower Punch key way for break-line I Embossing Alignment

#### **TECHNICAL SPECIFICATIONS**

Model	JE-D-D4-29-DR	JE-B-B4-35-DR	JE-B-BB4-45-DR
Stations	29	35	45
Tooling	D	В	BB
Depth of Fill Max.	17.00 mm	17.00 mm	17.00 mm
Output/Hr. (Min./Max)	52,200-1,21,800	63,000-1,47,000	81,000-1,89,400
Turret RPM (Min./Max)	15/35	15/35	15/35
Max. Compression Pressure	100 KN (10 Ton)	65 KN (6.5 Ton)	65 KN (6.5 Ton)
Upper Punch Penetration	1.50/8.00mm	1.50/8.00mm	1.50/8.00mm
Diameter of Die	38.10 mm	30.16 mm	24.00 mm
Length of Die	23.81 mm	22.22 mm	22.22 mm
Diameter of Punch	25.4 mm	19.05 mm	19.5 mm
Length Punch	133.6 mm	133.6 mm	133.6 mm
Electric Motor	3.7 KW (5HP), 1440RPM	2.2 KW (3HP), 1440RPM	2.2 KW (3HP), 1440RPM
Machine Size in mm	1040 x 880 x 1342	1040 x 880 x 1342	1040 x 880 x 1342
Net Weight in Kg.	1500	1500	1500
Gross Weight in Kg.	1750	1750	1750
Case Size in In	46" X 46" x 51"	46" X 46" x 51"	46" X 46" x 51"









## BOLUS & VETERINARY TABLET PRESS GMP MODEL

#### SALIENT FEATURES:

- Safety interlocking for Upper & Lower Guard
- Gravity Feeding system
- Control Panel with separate display for TABLET COUNT and RPM.
- Fixed Hopper with slide to control powder flow.
- Hand wheel provided
- Re-designed variable speed pulley
- Turret of SGIRON 400/12 grade casting
- Central oil lubrication system with hand pump
- Phosphor bronze bush provided inside the turret hole.
- SS Turret Guards.



### **TECHNICAL SPECIFICATIONS**

Model	J E-SP-BM4-10	JE-SP-BM4-12
Stations	10	12
Tooling	SP	SP
Maximum Depth of Fill Max	30.00 mm	30.00 mm
Output I HR (Min. /Max)	7800/15000	9360/18000
Turret RPM (Min. <i>M</i> ax.)	13/25 p,∹-	13/25
Max. Compression Pressure	200 KN (20 Ton)	200 KN (20 Ton)
Upper Punch Penetration	1.50/8.00 mm	1.50/8.00 mm
Diameter of Die	63.5 mm	53.975 mm
Length of Die	36.52 mm	36.51 mm
Diameter of Punch	50.8 mm	41.148 mm
Length Punch	137.6 mm	137.6 mm
Electric Motor	3.7 KW (5HP), 960 RPM	3.7 KW (5HP), 960 RPM
Machine size in mm	950 x 850 x 1300	950 x 850 x 1300
Net weight in Kg.	1000 Kg.	1000 Kg.
Gross weight in Kg. Case size in mm	1200 Kg.	1200 Kg.
Case Size in Inch	40" x38" x 55"	40" x 38" x 55"

# **RAPID MIXER GRANULATOR**

#### SALIENT FEATURES:

- Cylindrical with conical top for optimum mixing quality and wide utilization range.
- Efficient mixing, even with difficult materials.
- Thick-walled, solid stainless-steel construction.
- Pneumatic/counter weight locking lid-locking system for high operating safety.
- High surface area in the zone of greatest velocity.
- Effective for compaction of granules-breaking up of lumps.
- Tangentially attached Chopper Blades enlarged at end to maximize swirl-mix effect.
- Minimum bottom and wall clearance for maximum product yield.
- Orientation to suit customer's sites.
- Discharge of material through a pneumatic cylinder. The Machine Capacity from 10 Lts to 1200 Lts.





# FLUID BED DRYER

#### FLUID BED DRYER UNIT

- The Fluid Bed Dryer unit is made in two pieces, from S.S. 304 grade steel.
- External surfaces of the dryer, all non contact/ sight parts and all contact parts have super glossy Mirror finish built from S.S. 304.
- The Crevice free profiles both inside and outside to prevent material Entrapment at all welds.
- Second unit called Expansion chamber made from S.S. 304 I 316 and it contains Filter Finger Bags.
- Retarding Chamber made of S.S. 304 is locked with expansion chamber by means of Clamps.
- Retarding chamber is specially designed to provide extra large heat to dry each particle of material.
- Base is specially designed to give extra strength and vortex effect.

#### **Bowl I Product Container:**

- Bowl is made in conical shape manufactured from S.S.304.
- Container trolley is built from S.S.304 tubular pipe having polypropylene castor wheel to carry material.
- Container is lifted up by pneumatic cylinder system with uniform lifting throughout periphery of container and also prevents leakage of material during operation.

#### Electro Pneumatic Control Panel:

- Stainless steel control panel having the following controls :
- Inlet air temperature controller.
- Exhaust air temperature indicator.
- Process air Damper regulation.
  - Material bowl lifting & lowering valve.
- Blower motor, start & stop.
- Compressed air pressure gauge.

### **TECHNICAL SPECIFICATIONS**

Model	FBD 30	FBD 60	FBD 120	FBD 200
Capacity of Dryer Kg	30-50	50-70	120-150	200-120
Capacity of Container (liter)	50	100	200	335
Blower Motor (HP)	5	10	15	20
Heater Load	18 (KV)	36(KV)	60 (KV)	
Heating Capacity in (KCI/Hr)	11620	23200	38600	77500

### <u>MULTI MILL</u>

#### SALIENT FEATURES:

- Direction for beaters can be changed by reversible switch.
- All contact parts can be easily and quickly dismantled and cleaned.
- Cylindrical screen for higher out put.
- Castor wheels provided for mobility.
- Beaters and scrapper blades of S.S 316 quality.
- Flame proof electrical components can be provided at extra cost.

TECHNICAL SPECIFICATIONS		
Out Put	50 Kg to 200 Kg /Per Hour. (Depending upon the product and the reduction required in Size)	
Rotor Assembly Dia	250 mm (Approx.).	
Rotor Speed	750 / 1500/2300/13000 RPM.	
Beaters	12 Nos. with knife & impact edges and 2 Nos Scraper blades.	
Screen Dimension	Dai. (ID) 260 mm X (HT) 140 mm.	
Motor	3 HP/ 1440 RPM/440 V/ 50 Hz/ 3 PH /AC.	
Starter	Doi with Reversible switch.	
Material charging Height	1445 mm. (approx.).	
Movable	Caster type Wheel	
Wheel	12 Nos knife impact edges	
Blades	2 Nos scarper type blades	





### MASS MIXER

#### SALIENT FEATURES:

- Well designed to facilitate thorough mixing.
- Ease in cleaning.
- Safety Transparent Poly-Carbonate Dust cover provided with inter locking
- System, Safety device in a way such that on opening of the cover the machine stops functioning.
- Tilting device is provided for ease in unloading by means of Hand wheel.
- Specially designed self-adjusting sealing arrangement to ensure no black particles enter into the mixing drum.

TECHNICAL SPECIFICATIONS			
Capacity 50 Kgs. 100 Kgs. 200 Kgs.			
Over flow capacity	110 Lies.	220Ltes.	440Ltes.
Workinq caoacitv	88 Lies.	156 Lies.	309Lets.
Speed of Stirrer	24 to 28 RPM .	24 to 28 RPM .	24 to 28 RPM .



### **COATING MACHINE**



TECHNICAL SPECIFICATIONS				
Size	30"	36"	42"	48"
Heater Capacity in K. W.	1.5 K.W.	3 K.W.	3 K.W.	3 K.W.
Blower Capacity CFM	0.33	0.33	0.33	0.33
Pan Mounting Angel	90	90	90	90
Motor HP	1.5	1.5	1.5	3
Loading	45	80	100	150

Suitable for Sugar and Film Coating

#### **SALIENT FEATURES :**

- Floor vibration is nil which keeps the machine steady.
- All contact part and screen made of S.S 316 quality.
- Easy dismantling and cleaning facility for contact parts
- Noiseless maintenance.
- Free high speed electric power requirement less than other machines
- of the kind in the industries & lower energy consumption compared to reciprocating vibratory system.
- Double & Triple deck screens with outlet and hopper for bottom deck available on request

TECHNICAL SPECIFICATIONS		
Size	20"	30"
Motor	0.5H.P. / 1400 RPM / 415 V	1 H.P. / 1400 RPM / 415 V
Charging Ht.	750 mm	750 mm
Discharging Ht.	550 mm	550 mm
Foundation	Not Required	Not Required
Screen Dia	500 mm	750 mm

### **VIBRO SHIFTER**



# **DE-Dusting / DE-BURRING**



#### SALIENT FEATURES :

- Noiseless & Maintenance free units.
- Brushing Unit provided for better result in cleaning the tablets.
- Electric power requirement less than other machines of kind.
- All contact parts made of stainless steel and components can be easily washed and / or sterilised.
- Tablet conveying route is so geometrically designed for arrangement of tablets on their burrs which can break easily.
- Efficient de-burring & de-dusting and full suction output is concentrated de-dusting zone for flushing out powder.

TECHNICAL SPECIFICATIONS		
Model HDB - 300		
Output (For 8mm Tablet)	Tab. 5,000 to 2,50,000 Tab./Hr.	
Power	0.25 H.P. / 3 Phase / 1440 RPM	
Max. Tab. Dia.	40 mm	
Min. Tab. Dia.	5 mm	
Overall Dimentions	400mm (L) X 400mm (W) X 800mm (H)	

# **DUST EXTRACTOR**

#### **SALIENT FEATURES :**

- Blower fan is dynamically balanced & the unit is with caster wheels.
- Overcome dust hazard as well as cross contamination at tablet compression.
- Provided with stainless steel SS 304 contact parts.
- Minimises mechanical strain, excessive wear of tableting machine resulting in minimum machine break-downs and punch wears.
- All inlet manifolds and dust collection tray are of S.S.
  PVC flexible hoses are plain, i.e. without grooves, from inside for easy in cleaning.
- Four inlet manifolds facilitate to connect Cip Press Machine and two de-dusting units.

TECHNICAL SPECIFICATIONS		
Model	CDE - 150	CDE - 300
Suction Capacity	150 C.F.M.	300 C.F.M.
Inlet Connection	63mm - 1no, 38.1mm - 4 Nos	63mm - 2no, 38.1mm - 6 Nos
Electrical Motor	1 H.P., 2800 RPM, 440 V, 50 Hz, 3 Phase	1.5 H.P., 2800 RPM, 440 V, 50 Hz, 3 Phase
<b>Overall Dimension</b>	710mm (I) X 480mm (W) X 810 (H)	650mm (I) X 850mm (W) X 1375 (H)

#### **SPARES**



### why Jyoti Engneers

- We are a SOLUTION PROVIDER. We advice on selection or appropriate MOC & coating to extract optimum tooling life for any formulation.
- Tooling and documentation in line with International standards.
- Tools are designed on MASTERCAM and are manufactured on high precision CNC machines for quality and accuracy.
- Timely delivery to cater urgent requirements of our customers

Jyoti Engineers offers Tooling with a wide variety of steels depending on the applications:

The following are the combinations we offer

For Punches : AISI 01 (OHNS) - for general applications

AISI 02 (HCHC)- for highly abrasive Tablets

S7 - for compressing tough products and better cavily finish.

S1 - for compressing tough product.

440C - Stainless steel grade for corrosion, resistance &

good lubrication property

For Dies : AISI 03 (HCHC)

\* The customer should specify the product nature according to which the right combination of tool steel is selected by Jyoti Engineers.



# **UNDERSTANDING YOUR NEEDS**

Our commitment to help you enhance your business begins with understanding your needs. We not only sift through technical data, but also work with you to develop customized offerings that are most suitable to your needs.

Un-common tooling for machines like Stokes, Veterinary Punches etc.

Hard chrome plating to prevent corrosion and rusting due to granule characteristics.

Irregular shaped tooling to give the tablets a unique identity. Tablet design as per weight, shape and embossing requirement.

Plastic prototype of the tablet to help you design the FINAL tablet, during the drawing stage before making the tooling

# **OUR PRODUCTS RANGE**

- Multi Tip Punch & Die
- Irregular Shape
- Round Shape
- Tungsten Carbide Dies
- Caplet Shape Die Punch
- Veterinary Punch
- Polo Type Punch
- Teflon Coating Punch

## **PRODUCT PORTFOLIO:**

Specialised in the manufacturing of B I BB I D I DB type tablet tools as per TSM EURO Standards. All tooling manufactured has an excellent surface finish resulting in enhancement or the tablet produced by it in terms appearance as well as accuracy. The raw material used for manufacturing is of the highest grade resulting better life of tooling. Certificate of Analysis of the raw material is provided along with its traceability. Tooling a manufactured in AISI 01 (OHNS), AISI S7, D2, D3 & SUS440 or/as per customer requirement. ROUND I CAPSULE I OVAL I HEART I HEXAGON I LOGOS I ARTWORK

We also specialise in MULTI TIP TOOLING

Tooling are manufactured for compression machines, like FETIE I MANESTY I KILLIAN I RIMEK I KARNAVATI I CADMACH I SEJONG I KORSCH I COURTO

or as per customer machine specification.

## **UNIQUE FEATURES:**

- Tooling manufactured goes through online inspection and acute quality control tests which enables us to produce zero defect tooling.
- Tip to body undercut is done on VMC for shape tooling keeping chamfer uniform throughout resulting in the tip getting uniform strength & optimum life thus avoiding tip breakages.
- Use of special polishing compound on pouch tips which enhances the tip finish resulting in distinct finish of the compressed tablets.
- Working length & Cup Depth are controlled within tolerance as per TSM/EURO NORMS resulting in uniformity of weight & thickness of tablets.











### **COMPANY PROFILE**

Superior quality tablet tools (punch and die) for excellent performance and long life tooling!!!

Jyoti Engineers is a partnership firm established since 2000. Mr. B. L. Yadav has a young and dynamic personality equipped with good engineering knowledge of pharmaceutical machinery along with 30 years of experience in this field. Mr. R. N. Yadav, partner at this firm has expertise in the production and quality control along with 30 years of experience.

We are specialized in Dies & punches Round, Capsule, Oval with embossing & Special shape e.g. Hexagon, Star, Sixagon, Rectangle and many more shape.

Compression / Punch & Die Tooling for over 30 years. Our formula for success starts from procuring high quality steel from the most trusted and finest supplier. This along with tablet design engineering and skilled workers produce quality products. We follow the latest computerized machine tools, expert craftsmanship and a level of quality control that is unprecedented in the industry.

Our experience through the years has shown us that quality tablet compression tooling can't be produced without the use of quality raw materials, manufactured with strict specifications as per customer requirement. We exclusively use electric furnace-produced steel tolerances for uniformity and cleanliness. All pharmaceutical tooling is formed from high-nickel, high-chrome shock steel that meet our requirement before we use it for manufacturing.

Keeping abreast of today's latest equipment, techniques and processes is no easy task. Not only do we invest continuously in new technology; our employees are constantly undergoing training and honing of their skills. We take genuine pride in the work we do and the equipment we use. Matching the Caliber operator with the finest machinery makes an unbeatable combination. The Production and the R&D Department redesigns and modifies machinery to further improve and speed production.

To complete the loop, our Companies depends upon it's meticulous in-process and final inspections to confirm the quality of our compression tooling. Inspectors utilize the latest tests in QC technology and processes including laser measuring equipment accurate to +/-0.001mm and electronic height, OD and concentricity gauges. Conventional equipment such as micrometers, pin gauges, optical comparators, section microscopes and contour trackers are also to be found in the QC arsenal. Ultimately, all compression tooling shipped will meet or exceed the customers' specifications as well as our own very stringent standards.





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