



Synovatic India

Synergy Innovation Automatic



MANUFACTURER AND
SUPPLIER OF

PHARMA & CHEMICAL MACHINERY



PRODUCT CATALOGUE

ABOUT US

Synovatic India (Synergy, Innovation & Automatic) is a manufacturer & Supplier of vast range of machinery & equipment's which are mainly used in Pharmaceuticals, Chemicals, API's, Cosmetics, Agriculture, Foods and all other related industries.

We also provide service & maintenance of all types of machines that are parts of our product range or supplied by other suppliers.

We are ISO 9001:2015 certified.



TEAM

We have technically qualified team working industrious on the projects and they are the biggest asset and give us the strength to make us stable in this competitive market.

Our team is well supported by in-house software, hardware, CAD design tools & specifically designed production. The flexibility & innovation in production gives as additional coverage for fast response, cost effectiveness, reliability & fast delivery.



INFRASTRUCTURE

We have 2 Workshops in Umbergaon (Maharashtra-Gujarat border), Gujarat (5000 Sq. feet & 25000 Sq. Feet) and We are capable to manufacture the entire range of machinery at our factory premises itself.

Our Facilities are well equipped with machine shop, fabrication shop, assembly section, buffing section, Coating-lining section (Fluoropolymer- HALAR, ETFE, FEP, PTFE, PFA, PVDF and assembly section.



VALUES

Our main focus is to delight our customers & create our brand with good quality Products and delivery on agreed timelines.



VISION

To create a healthy atmosphere at work place and to change conventional method of working.

Provide best solution to the client's requirements by using new and updated techniques as per current market scenario.



MISSION

To set a business network across the World through Synergy, Innovation & Automation.



CERTIFICATION



PRODUCT RANGES

API / CHEMICAL MACHINERY

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SPARKLER FILTER (ZERO HOLD UP)

Synovatic has Various ranges of GMP Model Zero Hold up Sparkler Filters using in Pharmaceuticals, Biotech, API, Bulk-Drugs, Chemicals, Distilleries, Food & other related Industries.

The operation of sparkler filter is to filter the impure liquid. Arriving on top of each horizontal plate with increasing pressure, the filter media holds back the impurities and allows the filter to pass through Centre by interlocking cups, which takes the filtrate to the outlet of the filter

- Capacity (Dia in Inch): 8, 14, 18, 24 & 33 with Suitable Nos. of Plates.
- Accessories- Pressure Gauge, Safety Valve, Air Vent, Ball Valves, Sampling Valve, Earthling Bush, Filter Media (PP/Cellulose) & Suitable Elastomers Silicon/ PTFE/ EPDM/ Viton
- cGMP Model & Design as per ASME guidelines
- MOC- SS304 / SS316 / SS316L / HASTELLOY / PP / PTFE
- Suitable Model to be suggested as per actual requirements of Holding Capacity & Filtration area
- Various type of Coating for Wetted Parts like- HALAR / ETFE / PFA / PVDF / PP (Food Grade) & Hastelloy for Friction Parts etc
- Availability of Lining also of PVDF, PP & Teflon
- Options for Various Ranges of Pumps (KSB, Antico, QVC, Flurolined, Sulzer, Johnson, Alfa Laval or as per requirements)
- Qualification Documents- IQ, DQ, OQ & FAT Protocol



PRESSURE NUTSCHE FILTER

Nutsche Filter is a closed vessel designed to separate solid and liquid by filtration under pressure or vacuum. The closed system ensures odorless contamination free and non-polluting working conditions maintaining product purity and hygiene



- Capacity (Dia in MM): 300, 500, 550, 600, 900, 1000 & 1200 with Accessories like Pressure Gauge, Ball Valves, & Suitable Elastomers Silicon / PTFE / EPDM / Viton
- cGMP Model & Design as per ASME guidelines
- MOC- SS304 / SS316 / SS316L / HASTELLOY
- Various type of Coating for Wetted Parts like- HALAR / ETFE / PFA / PVDF / PP (Food Grade)
- Availability of Lining also of PVDF, PP & Teflon
- Qualification Documents - IQ, DQ, OQ & FAT Protocol

CENTRIFUGE

Centrifugation is an accelerated form of sedimentation. Most traditional filtration methods use a filter media to remove particles. As the liquid/solid material passes through the filter, the solid material is collected and removed.

BASIC MODEL:

- MANUAL TOP DISCHARGE (MTD)
- BAG LIFTING TYPE (LBT)
- BOTTOM DISCHARGE
- HORIZONTAL PHARMA / CHEMICAL PEELER



- Capacity (In Inch): 18, 24, 36, 48 & 60
- Availability Full Body Opening (Hydraulic / Pneumatic)
- Full Lid Opening or Half Lid Opening (Hydraulic / Pneumatic / Spring Loaded)
- Various type of Coating for Wetted Parts like- HALAR / ETFE / PVDF / PFA (Food Grade)
- MOC- SS304 / SS316 / SS316L / HASTELLOY
- Safety measures- Zero Speed Interlock, proximity Sensor, Nitrogen Purging System, Vibration Tripper
- CIP arrangement
- Automation- PLC operated
- Qualification Documents- IQ, DQ, OQ & FAT Protocol

ROTOCONE VACUUM DRYER (RCVD)

Rotocone Vacuum Dryer (RCVD) is suitable for drying of materials which cannot resist high temperature, materials which are easily oxidized, volatile materials which should be retrieved, materials that are strong irritants and poisonous in nature

- Capacity: 5L – 3000L
- MOC- SS304 / SS316 / SS 316L / HASTELLOY
- cGMP Model & Design as per ASME guidelines
- Drying at lower temperature under vacuum
- Complete discharge
- Closed system – Automatic charging & discharging
- Qualification Documents - IQ, DQ, OQ & FAT Protocol

Options:

- Provision for Lump breaker
- Nitrogen purging arrangement
- Various type of Coating for Wetted Parts like- HALAR / ETFE / PVDF / PFA (Food Grade)
- Direct drive to avoid greasing of the gear
- Condenser
- Receiver
- Cyclone Separator



AGITATED NUTSCHE FILTER DRYER (ANFD)

Agitated Nutsche Filter Dryer (ANFD) is a filtration technique used in applications such as Pharmaceuticals, Dyes, Textile, Paint and waste water treatment. Safety requirements and environmental concerns due to solvent evaporation led to the development of this type of filter wherein filtration under vacuum or pressure can be carried out in closed vessels and solids can be discharged straightaway into a dryer.



- Capacity: 5L – 12,000 Ltrs
- Design & Construction: ASME Sec. VIII, Division-I
- Single (Monoblock) or Double (Detachable base) model
- MOC- SS304 / SS316 / SS316L / SS316Ti / HASTELLOY
- Qualification Documents- IQ, DQ, OQ & FAT Protocol

OPTIONS:

- Provision for Lump breaker
- Various type of Coating for Wetted Parts like- HALAR / ETFE / PFA / PVDF / PP (Food Grade) & Hastelloy for Friction Parts etc
- Detachable portable filter unit supplied on caster wheels
- CIP, SIP & WIP
- VFD
- PLC with HMI / SCADA

TRAY DRYER

Air Tray Dryer (ATD) is widely used for material drying in pharmaceutical & Chemical Industries. Its drying process is based on circulation of hot air through the chamber having material. A Tray Dryer is a convectional drying equipment with enclosed insulated chambers and trays placed on top of each other in a trolley.

Vacuum Tray Dryer (VTD) is used mainly for drying of high grade, temperature and oxygen sensitive products. Vacuum Tray Dryer is highly suitable for drying hygroscopic substances, which are dried to very low residual moisture, content level.



- Capacity (No. of Trays): 6, 12, 24, 48, 96 and 192
- cGMP Model & Non-GMP Model
- MOC- MS / SS 304 / SS 316 / SS 316 L / HASTELLOY
- Various type of Coating for Wetted Parts like- HALAR / ETFE / PFA / PVDF / PP (Food Grade)
- Qualification Documents- IQ, DQ, OQ & FAT Protocol

OPTIONS:

- | | |
|----------------------------|--------------------|
| • Flame proof Construction | • Receiver |
| • Double Skin Body | • Vacuum Pump |
| • AHU | • Hot Water System |
| • Condenser | |

OINTMENT / CREAM MANUFACTURING PLANT

Ointment / Cream Manufacturing Plants are ideal tools for the Pharmaceutical, Cosmetics & Consumer Care Industries for the production of Ointment, Cream, Lotions, Tooth Paste (Medicated, Herbals etc.) and other emulsions & homogenizations. It is specially designed to take care of two critical factors which directly affects the quality of the Ointment/Creams.

- Capacity: 5 - 5000 Kg

Application:

- Pharmaceuticals - Sterile & Non-Sterile Ointment, Cream, Gel, Lotion, Medicated Toothpaste, Foot Care etc
- Cosmetics & Consumer Care - Lotions, Cream, Face Wash, Shaving Creams, sun Cream gels, Hair Dyes Creams Shampoos, Conditioners, Tooth Paste, Bath Additives & Many more
- MOC- SS 304 / SS 316 / SS 316 L
- Vessel design as per ASME guidelines
- Pipe fittings are of seamless quality, internally Electro-Polished with tri-clover ended joints
- Total Mfg. Plant Consists of Followings:
- Main Mfg. Vessel, Wax Phase Vessel, Water Phase Vessel, Storage Tank, Working Platform, Interconnecting Pipeline and Control Panel
- Pumps- Metering Pump, Bump Pump & Vacuum Pump
- Accessories (Pressure Gauge, Safety Valve & Air Vent Valve)
- Entire Plant can be operated by centralized operating Panel
- R&D, Pilot, Single / Double type Model also available or as per Client requirements
- Semi contra rotary anchor type agitator with open slot Scraper design
- Pre-Mix vessels with top / bottom Stirrer
- Inbuilt Homogenizer or Inline Homogenizer
- Safety Interlocks
- Qualification Documents- IQ, DQ, OQ & FAT Protocol



OPTIONS:

- Universal Mixer with contra anchor
- Weighing Facility (Load Cell)
- VFD for all Anchor and Homogenizer
- Contra Anchor for High Viscous Products like Toothpaste
- PLC based, with touch screen HMI and SCADA packages
- 21 CFR Part 11- Provision & Compliance
- Top Dish for Pre-Mix Vessels
- Thermowell & Thermosiphon
- Vent Filters
- FLP Panel
- Utility Pipeline
- Fully Automatic Plant with actuated Valve
- Branded/reputed make accessories (VFD, Load Cell, Valves, Pressure Gauge, Steam Trap, Diaphragm Valve, Spray Ball, Sight Glass, wiper, Sensor, Electrical Components etc.)

LIQUID ORAL PROCESSING PLANT

Automatic Liquid Syrup Manufacturing Plant is an ideal tool for the Pharmaceutical, Drugs Industries for the production of Oral Liquids. Synovatic Liquid Oral Processing plants are designed with the highest quality of fabrication standards using the best components & instruments and its fully optimized for delivering the best performance with reduced operating cost.

OPTIONS:

- Weighing Facility (Load Cell)
- PLC based, with touch screen HMI and SCADA packages
- 21 CFR Part 11- Provision & Compliance
- Thermowell & Thermosiphon
- FLP Control Panel
- Utility Pipeline- Manual or Automatic
- Transfer systems for Sugar / Glucose through vacuum system
- Fully Automatic Process Plant with actuated Valve
- Branded / reputed make accessories (VFD, Load Cell, Valves, Pressure Gauge, Diaphragm Valve, Spray Ball, Steam Trap, Sight Glass, wiper, Sensor, Electrical Components etc.)

- Capacity: 500 - 10,000 Ltrs.
- Application: Oral, Liquid, Suspension, Syrup etc
- MOC- SS 304 / SS 316 / SS 316 L
- Vessel design as per ASME guidelines
- Pipe fittings are of seamless quality, internally Electro-Polished with tri-clover ended joints

Liquid Mfg. Plant Consists of Followings:

- Sugar Melting Vessel
- Syrup Mfg. Vessel
- Storage Vessel
- Working Platform
- Interconnecting Pipeline
- Control Panel
- Pre filtration- Basket Filter
- Final filtration- Sparkler Filter
- Inline Homogenizer
- Centralized operating Panel
- Qualification Documents- IQ, DQ, OQ & FAT Protocol



FLUID BED DRYER (FBD)

Fluid Bed Dryer (FBD) is a kind of equipment used extensively in the pharmaceutical industries to reduce the moisture content of pharmaceutical powder and granules. The wet solids are lifted from the bottom and suspended in a stream of air (fluidized state).

FBD work on the principle of fluidization, a process in which hot gas or air is introduced into the spaces between solid particles. Upward forces on the particles increase as the air's velocity increases causing them to equal the gravitational forces below.

- Capacity: 2.5- 500 Kg
- cGMP & Non-GMP Model Available
- MOC- MS / SS304 / SS316 / SS316L / HASTELLOY
- Inflatable silicon tube for bag sealing & product container sealing
- Food Grade Elastomers
- Online Sampling Device
- Telescopic Cylinder for Bag shaking (Top/Side)
- Safety Interlock (Motor Overload, Emergency Shut off, Inlet Temp high- Close steam control valve, Blower failure, low seal gasket pressure- Top & Bottom etc.)
- Steam Valve controlled through Panel with solenoid valve to control the steam temperature
- Qualification Documents- IQ, DQ, OQ & FAT Protocol

OPTIONS:

- Solid Monitor Flow
- PLC with HMI / SCADA
- FLP Motor & FLP Panel
- Double Skin AHU Body
- Air Handling Unit with Hepa Filtration
- Pneumatically operated Inlet & outlet Dampers
- Racking System in the container with Motor, Gear Box, Stirrer, Bearing- Housing & Combined control Panel
- Various type of Coating for Wetted Parts like- HALAR / ETFE / PVDF / PFA (Food Grade)
- VFD for Blower
- 21 CFR Part 11- Provision & Compliance
- Silencer
- Rupture Disc



RAPID MIXER GRANULATOR (RMG)

Rapid Mixer Granulator (RMG) is a multi-purpose processor equally suitable for high speed dispersion of dry powders, aqueous or solvent granulation, and effervescent products and melt palletization. In rapid mixer granulator, the formation of granules occurs by rising, whirling and tumbling motion of the material. Dry mixing is done by adding all ingredients into the RMG by rotation of impeller and chopper at high speed.

- Capacity: 10 to 1200 Ltrs
- cGMP Model & Design as per ASME guidelines
- MOC- SS304 / SS316 / SS316 L
- Hydraulically operated Lid lifting
- Detachable Impeller & Chopper
- Qualification Documents- IQ, DQ, OQ & FAT Protocol



OPTIONS:

- PLC with HMI / SCADA
- 21 CFR Part 11 - Provision & Compliance
- Co-Mill attachment
- VFD
- FLP Motor & Panel

BLENDERS

Blender is a slow tumbling machine especially designed to perform mixing and lubrication of dry powders and granules for tablets and capsules formulations/production. The advantage of this octagonal shape blender is slow tumbling action, which while rotating does not degrade the particle structure.

Octagonal Blender, due to its octagonal shape is designed to process larger volume of material. It occupies less space compared to other similar blenders like 'V' and Double Cone. Power consumption is also less. The blending takes place at low speed during operation



- OCTAGONAL BLENDER
- DOUBLE CONE BLENDER
- CONTA BLENDER
- V-CONE BLENDER
- RIBBBON BLENDER

- Capacity – 10 to 10000 Ltrs.
- cGMP Model & Design as per ASME guidelines
- MOC- SS304 / SS316 / SS316L / HASTELLOY
- Charging through Bin & Vacuum
- Limit switch on entry door to prevent accidental operation of the cage
- Qualification Documents- IQ, DQ, OQ & FAT Protocol

OPTIONS:

- PLC with HMI/ SCADA
- 21 CFR- Provision & Compliance
- VFD
- Direct Drive & Brake Motor
- FLP Motor & Panel
- Actuated Butterfly Valve
- Powder Transfer System



MULTIMILL/ CO-MILL

MULTIMILL:

Multi Mill is a self-contained portable unit useful for high speed granulating, pulverizing, mixing, shredding and chopping of wide range of wet and dry materials without special attachments. The Multi mill operates on the principle of variable force swing beaters having both knife and impact edges rotating within a selected screen to get the required size reduction. The material is fed in the hopper, shredded and milled through beaters consisting of knife and impact edges.

CO-MILL:

Co Mill is suitable for dry granulation & design for wet granulation also. To satisfy the need of size reduction with low heat, low dust and clear noise operation, conical screen mill concept is developed.

The key to the co-mill's performance is the engineered combination of low velocity operation and the highly evolved design & geometry of the conical screen & impeller.



- Capacity (in HP) – 1, 3, 5 and 7.5
- cGMP Model & Design as per ASME guidelines

- MOC- SS 304 / SS 316 / SS 316 L / HASTELLOY
- Qualification Documents- IQ, DQ, OQ & FAT Protocol



OPTIONS:

- Direct Drive with VFD
- Full SS Construction including Bearing Housing & Motor mounting Plate
- Flameproof Motor & FLP Starter with Reversible switch
- FLP Panel
- Magnetic Grill for Outlet
- Mechanical Seal
- Sieves available- 0.2 to 12 mm
- Vacuum loading system for charging the material

STARCH PASTE KETTLE

Starch Paste Kettle Used for Preparation of Starch Paste in Pharmaceutical industries. Special Conical Shape ensures that the Heating of the Starch Paste is uniform and gets more surface area. Paste Kettle with Tilting Arrangement for Unloading the Paste to Container or Vessel.

- Capacity (In Ltrs.) – 50L, 100L, 150L, 200L, 250 and 500L
- cGMP Model
- MOC- SS 304 / SS 316 / SS 316 L
- Qualification Documents - IQ, DQ, OQ & FAT Protocol

OPTIONS:

- Steam or Electric Heated
- Stirrer with FLP Motor
- Digital Temperature Controller for adjusting temperatures



VIBRO SIFTER

The Vibro sifter machine works on the principle of gyratory vibrations. The material is separated on the basis of their particle size. Once the motor gets energized, vibration is caused in the screen/sieve making the material to travel across the sieves according to its particle size.

- Capacity (In Inch)– 12, 20, 24, 30, 36, 48, 60 and 72
- cGMP Model & Design as per ASME guidelines
- MOC- SS304 / SS316 / SS16L / HASTELLLOY
- Qualification Documents- IQ, DQ, OQ & FAT Protocol

OPTIONS:

- Mesh De-Blinding Kit with Silicon / PTFE Sliders
- Ultrasonic Sonoscreen mesh arrangement for better result (Powder sifting acceleration, less powder wastage, decrease of sieve screen blinding & Clogging)
- Flame safe & Flameproof Motor (Imported)
- FLP DOL Starter
- Magnetic Grill
- USFDA Grade Lead Free Silicon molded Screen
- Single / Double / Three / Four deck



AUTOCOTER/ COATING MACHINE

Tablet coating machine is an equipment that coats the external surface of a tablet using a thin film of coating material. Angled baffles are also fitted into the drum and also air flow is provided which acts as a means to mix the tablets

- Capacity (In Inch)- 12, 24, 30, 36 and 48
- cGMP Model
- MOC- SS 304 / SS 316 / SS 316 L
- Temperature controller provided for temp. controlling
- Anti-vibrating unit provided for proper leveling, hence no requirement of foundation
- Hot air blower with inlet air damping arrangement
- Qualification Documents- IQ, DQ, OQ & FAT Protocol

OPTIONS:

- Baffles- welded or detachable
- FLP Motor & FLP Starter
- Steam heated hot air blower system with flameproof blower
- Spray Gun

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- Capacity (In Inch)- 12, 20, 24, 30, 36, 48, 60 and 72
 - cGMP Model & Design as per ASME guidelines
 - MOC- SS304 / SS316 / SS16L / HASTELLLOY
 - Qualification Documents- IQ, DQ, OQ & FAT Protocol

OPTIONS:

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- Flame safe & Flameproof Motor (Imported)
- FLP DOL Starter
- Magnetic Grill
- USFDA Grade Lead Free Silicon molded Screen
- Single / Double / Three / Four deck



CLIENT



OUR TEAM





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