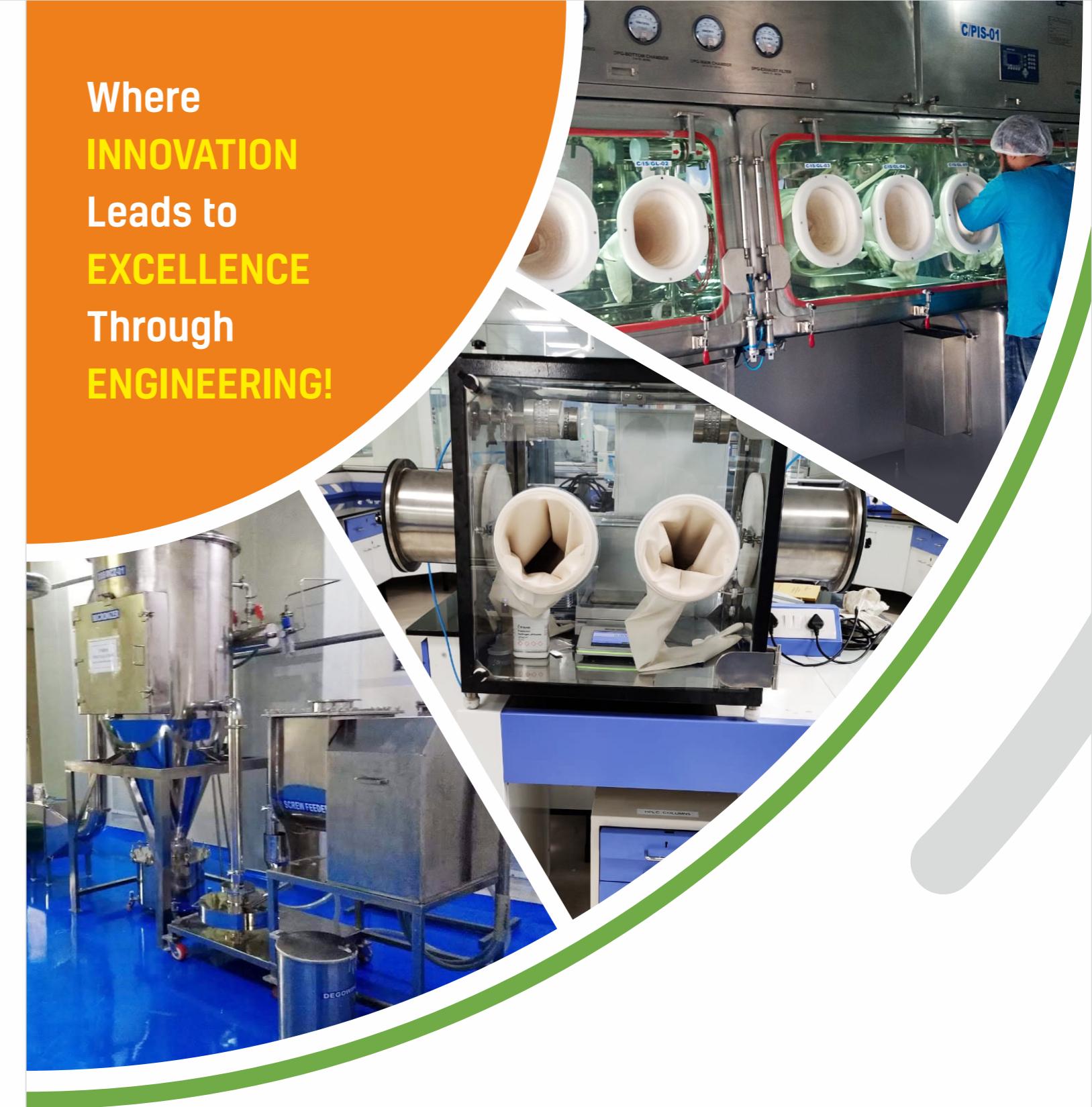


Where
INNOVATION
Leads to
EXCELLENCE
Through
ENGINEERING!



Call : R. Kumar 8976407476

Email : sales@uphillengg.com/ uphillengg@yahoo.com

Website : www. uphillengg.com

Address : Unit No. T1.S. No. 30, J.K. Industrial Estate-2 Vill Khairpada,
WE Highway, Near Virar Phata (E) - 401305



Proficient Manufacturer, Exporter and Solution Provider of
Pharmaceutical and Oncological Process Needs

About Us

When we commenced Uphill, it was a simple dream of moving forward to innovate and create impact in Industry. As we have come a long way....

From conceptualization to execution, from drawing to production, there is just one single largest force that We remain customer focused and our innovations create impact in Industry. Our innovations are based on our customer's needs. We provide value added solutions that enhance our client's productivity, safety, comfort and convenience and that's the reason he still looks up to us with the same trust he began with. Today, Uphill is one of the largest manufacturer and exporter of a wide range of products and other industrial accessories.

Mission

Uphill's Mission is to become essentials to it's customers by providing differentiated products & services to help them achieve their aspirations and continually develop the products at a competitive price while fostering a climate where environmental technologies can thrive. We will always strive to service our clients with the utmost integrity, and to their complete satisfaction. It is our goal to ensure our mission by continuous self-improvement, growth in our operations and employees, while maintaining profitability to the benefit of our customers and employees. All employees will work together in combining their effort and skills to ensure our mission and goals are fulfilled.

Vision

To be recognized as a prominent & premier Indian Manufacturer and global engineered of top-quality Machinery, tools and service provider that passionately embraces new ideas, seeks out transforming technologies and operates with unbending ethical standards. This vision will be accomplished by sharing the responsibilities of planning and decision making with all our employees. Uphill will strive to maintain the image it has developed over the decade with its suppliers, employees and community as a company of excellence.

UPHILL Manifesto :

Committed to Quality, Committed to You...

We insist that services will not stop until customers are satisfied. Unconditionally, we will be ready to serve for quality and satisfaction. We insist on improving technology and quality and listening to customers with open mind. Great things in business are never done by one person, they are done by a team of people.

- CEO Rajesh Kumar and all staff

Containment Technology is a technology that uses physical barriers to isolate a controlled space to prevent product or sample from containment by the external environment.

Isolation means the process of separating raw material, products, equipment or experimental instruments from the environmental space in which they are located. Today, there are two methods of Isolation.

- Flexible isolator for temporary process or the existing equipment.
- The Rigid Isolators which is made up of stainless steel and for long time performance.

Our Engineered Solutions for Potent Product

Our System offers the following attributes to enhance the productivity and safety of the product & users :

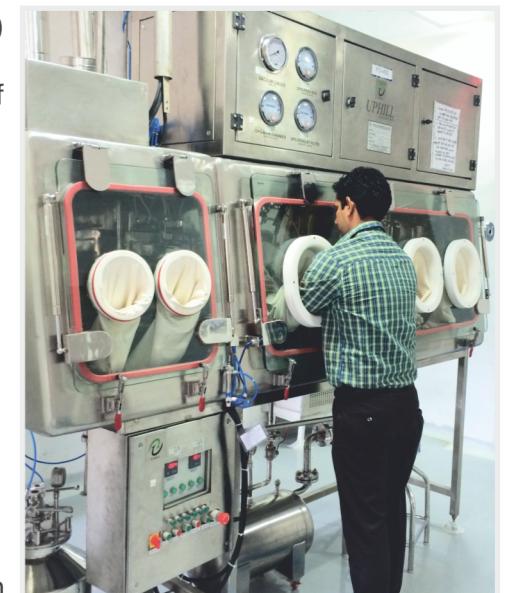
1. Personal Protection
2. Product Protection (Sterile system)

Isolators are designed to meet the requirements for low OEL level for containment system in Pharmaceutical, Biotechnology, Medical Field, Radiopharmaceutical and Nuclear Industries. This technology provides and ensures a safe working environment for operators in research who are manufacturing, testing and handling hazardous material while protecting the environment.



Typical Containment Isolators

- Low OEL processing of cytotoxic, potent and toxic (acute or chronic) hazards
- Isolators supplied for every operation from research to final production of a product
- Design and build capabilities
- Interface and integrate with existing or new equipment
- Mockups supplied for ergonomics
- FLP & Non-FLP Application
- CIP and WIP design into an isolator with validated cycles
- PLC controlled isolator
- Safety interlocking for adjacent chambers
- Automatic pressure testing facility available before every batch startup.
- UPS Battery backup systems for isolator.
- Safe change push-push filter technology.
- Bag in bag out ports for waste and disposal in a contained manner
- Bins, washers and other equipment supplied as a turn key application from sample to tablets
- **Supply split valves, Rapid Transfer Ports and other transfer equipment**



Laboratories, both analytical and chemical analysis, Drum weighing, dispensing and sampling, Sample weighing & testing, Milling & Micronizing, Blending, Vacuum Ovens, Reactor Charging, Tablet Press & Testing, Blister Packaging, Capper Containment, VTD Isolator



Reactor Charge Isolator

Reactor Charging Isolator is designed for the charging or transfer of potent powdered or liquid compounds into reactors, vessels or mixer.

Our expert and technical team with such applications have achieved that operator protection significantly below $0.1\mu\text{g} / \text{m}^3/8\text{hr}$, TWA can be achieved when defined SOP's are followed.

- Reactor charging is possible for small /lab scale to production scale charging.
- Charging from the raw material like drum/bags/carboy drums etc.
- Charging isolator mobile & fixed type.
- Drum loading /Bag loading/carboy drum loading is possible of any amount.

Filtration Isolator with Equipment like PNF, Centrifuge

Filtration isolator equipped with filtration equipment like centrifuge / pressure Nutsche filter / ANFD discharge isolator are increasingly being used for pharmaceutical filtration tasks in contained environments.

- Pressure Nutsche filter with automatic Top lid lifting solutions for easy cake unloading.
- Wet cake capacity Up to 150 liter PNF under containment is possible with flexibility of our designs.
- Capability to increase the existing mouth dia. of ANFD to ensure zero hold up during unloading.
- Flexibility and ergonomic designs for Centrifuge unloading with or without half suits.
- 36 inch centrifuge with the simplest form of unloading devices.



Nutche Filter



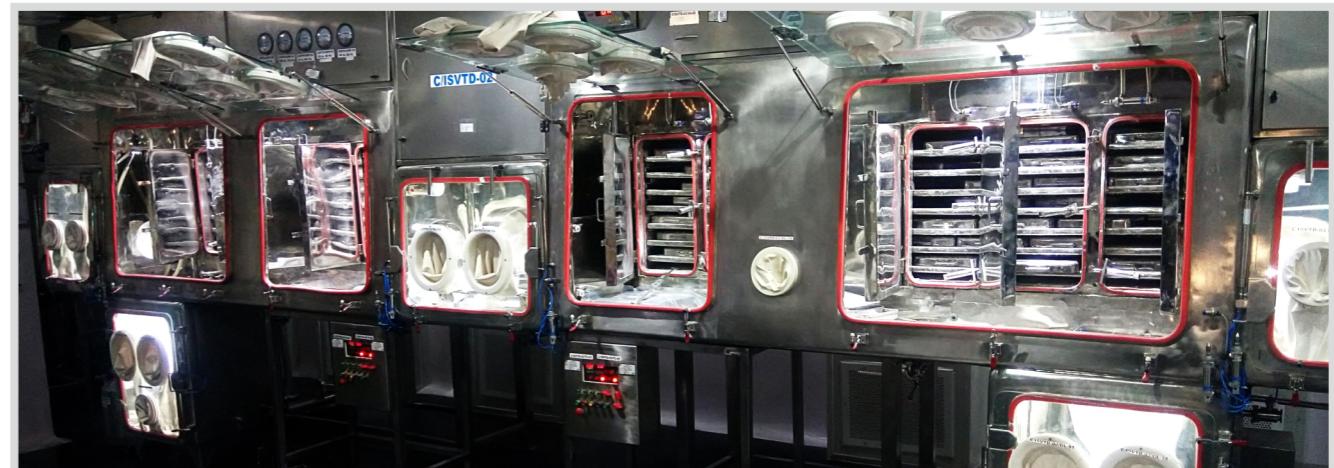
Centrifuge Unloading Isolator



ANFD Discharge Isolator

Drying Isolator with VTD / Tray Dryer

- Uphill can provide isolators for the integration of tray dryers, Vacuum tray dryers & lyophilizers. This equipment must be specially designed in order to guarantee proper sealing and operation. Trays can be either discharged manually or automatically with respect to the space availability . The isolator gives comfort in handling toxic or sterile applications without risking the operator or environment.
- India's biggest drying isolator with 140 tray VTD twice supplied and installed.
- Existing VTD solutions with our expert solutions without disturbing the setup in fully rigid containment.
- Expert in integrating the tray drying suits to your product application.
- Lyophilizers application in sterile isolator.



Milling/ Milling Sieving/ Milling Sieving & Blending Isolator

Uphill custom made isolator is integrated with full single line process includes Milling, Sieving and blending operation.

- Milling isolator can be integrated with 1 HP to 10 HP Multimill
- Commill can also be integrated
- Air driven milling has been successfully designed & installed for portable Multimill.
- Milling, Sieving and blending is a perfect combination for the oncology process needs which successfully designed and installed in various reputed companies.



Milling Sieving



Milling Sieving Isolator



Portable Air Driven Multimill



Milling Sieving & Blending Isolator

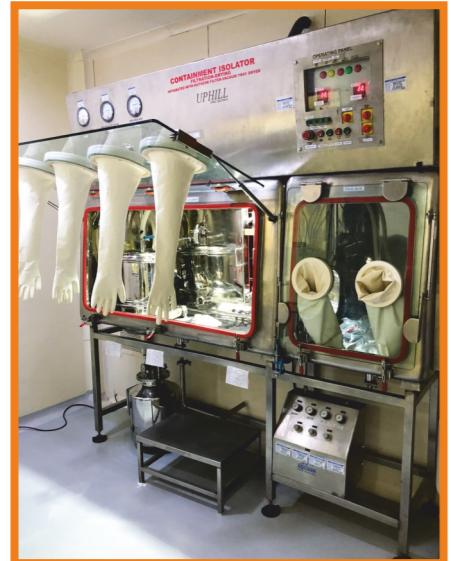
Air Jet mill/ Micronizing Isolator :

Micronization/ Air jet mill involves operations for the size reduction of highly potent active pharmaceutical ingredients (APIs). Uphill Containment system reduce the exposure to operator / environment with less than 0.3 $\mu\text{g}/\text{m}^3$ throughout the operation while following the proper Defined Standard Operating Procedure (SOP).

- Our system can be easily integrated with air jet mill of size - 2/4/8/12 inch micronizer.
- Our system provides tool free working for dismantling of micronizer accessories.
- Vibrator feeder to screw feeder ensures the exact amount of feeding to gain the particle size reduction.



Dispensing Isolator



Air Jet Mill 2 inch



Air Jet Mill 4 inch



Air Jet Mill 8 inch

Dispensing Isolator / Weighing Pack Off Isolator



Sampling and dispensing containment strategy is the need for every industry who is in to high toxic material handling as raw material. Dispensing isolator is completely depending on the raw material package size and weight. The volume of the raw material container also important when material is floppy in nature with big size of packet.

Following are the key factors affecting while choosing the isolator design:

1. Raw material packing size
2. Type of raw material containers
3. Frequency of sampling/dispensing of the raw material

Flexible Isolators :

Solution of containment with flexible structure gives added advantage where the space availability and the retro equipment gives challenge to convert them into the Containment zone.

The Flexible glove bag or isolator is made up of Flexible Polyurethane/ PU/ Antistatic LDPE suitable to the client requirement.

Best suitable for mostly 1 time operation only.

Advantages :

1. Affordable solutions of containment
2. Provide ergonomic flexibility
3. Ease of operation with respect to the rigid containment
4. Can achieve containment up to less than 1 $\mu\text{g}/\text{m}^3/8\text{hr}$ using standard SOP.

Disadvantage :

1. Not for long term use
2. continuous cost consumption becomes very high
3. Fails after repetitive use, client has to replace and retest the canopy to keep confirming the containment integrity of the system



Milling & Micronizing Solutions :

Where particle reduction is a problem, Uphill gives you the solutions through its engineering expertise.
 1.Multimill 2.Con-mill 3.Air classifier mill 4.Airjet mill (Micronizers) 5.Integrated Turbo-Millsieve with PTS

1. Multimill :

Multimill is an equipment used widely in the pharmaceutical, Chemical and Food industry to minimize the particle size in millimeter sized particle. Uphill Multimill gives an added advantage with its hopper leak proof solutions with venting provisions.

- Special Hopper with Triclover clampings.
- Special bolt free screen locking arrangements.
- Can be used in sterile application/inline under vacuum application.
- Complete flameproof



2. Con-mill :

This Equipment designed for size reduction in dry as well as wet material application. This machine generates low heat, low sound facilitate with speed variables through panel. Particles fall from the hopper into the blades of the mill which are moving at a very high RPM. The impact of the blades on the particles and crushing against the conical walls with minimum gaps between screen and blades cause the sizing.

- The blade is of sharp edge on one side and blunt on the other.
- Silent in operation respectively.
- Minimize dusting with its designed features
- Easy cleaning and tool free dismantling features.
- Better result in sterile application and inline vacuum loading and unloading.

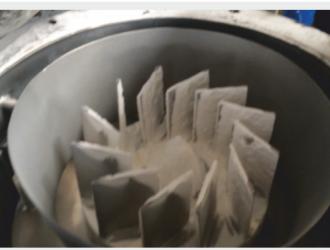


3. Air Classifier Mill (ACM) :

Uphill air classifier mill is designed to meet high performance with bulk production in the field of food, pharma and chemical industry.

Principal of Working :

The material charged in hopper and feeding into the particle size reduction chamber through screw with feeding controls through VFD. The self-diversion classification zone for the first classification from the feed system. Most of the coarse particles are separated. A small amount of coarse particles are carried by the fine powder and the secondary air is carried into the turbine classification zone by the ascending airflow. The fine powder enters the collector through the classification wheel, the coarse particles are discharged from the discharge rotary valve of the classifier and ultra fine material will be collected in to the dust collection chamber.



Salient Features

- Low power consumption for higher output.
- Particle size-2 to 60 micron can be achieved with minimum output of 100 kg per hour
- Heating is controlled through water circulation across bearing housing/main housing and product output line.
- Negative pressure production, no dust pollution, excellent environment.
- High automatic, strong stability and easy operation.

4. Air Jet Mill (Micronizer) :

Micronization is a process to reduce the coarse particles enter the system and fine powder exit the system by adjusting the grinding pressure and the product feed rate into the system it is possible to get desired result, without much knowledge of the process. New molecules development, a better process control (PSD, amorphous content, specific surface value).

- The Powder Particles are accelerated in spiral movement inside the milling chamber by number of angular holes in a ring and placed around the periphery of the chamber. Air jet Mill easily micronizes the heat sensitive and low melting point materials
- Jet mills do not have any moving parts, thus the chances of contamination due to contact with grinding media is eliminated. It's an ideal process to grind material that are heat- sensitive and sticky as no additional heat is generated. It works solely on fluid energy
- No Contamination and No Heat Generation
- Easy cleaning and Maintenance
- Extreme fine powder output, more uniform & more efficient
- Most suitable for 1 micron to 50 micron particle size
- Optimal air consumption depending on the size of the mill.
- Dust Free operation



TECHNICAL PARAMETER

| Equipment Model | UES-50 | UES-100 | UES-200 | UES-300 |
|-------------------------|-------------|------------|--------------|------------|
| Mill Nominal Diameter | 50mm | 100mm | 200mm | 300mm |
| Particle Size Range | 3-60µm | 3-60µm | 3-60µm | 3-60µm |
| Treatment Capacity | 2-300g/h | 1-3kg/h | 5-40kg/h | 15-80kg/h |
| Batch Quantity | 0.1 to 1 kg | 1-10kg | 10-50 kg | 50-100kg |
| Working Pressure | 2-8bar | 2-8 bar | 2-10 bar | 2-10 bar |
| Process Gas Consumption | 0.5-1m/Min | 1.5-2m/Min | 2.5-3.5m/Min | 5.5-7m/Min |
| Equipment Power | 0.2Kw | 0.746Kw | 3Kw | 4.5Kw |



5. Integrated Turbo-Millsieve for Bulk Powder Handling

Uphill is a manufacturer of custom pneumatic conveying systems. The Pneumatic conveying system happened through the vacuum generated by roots blower which including the milling and sieving operation along with collection of the material with proper weighing through load cells which is best suitable for mass production and batch unloading in contained fashion without the risk of product loss or dusting in the area.

Pneumatic conveying system on your site, your company's product can move gently and quickly from point to point, with nothing in the way to impede the efficiency of its movement.

UPHILL offer various advantages over other means of handling pharma powders, chemical powders, granules, food product, grain, fertilizers, paint powder etc. Our Machine is an operator-friendly, sanitary design pneumatic conveyor. Featuring simple, adjustable "air logic" controls, provide foreign particle free product.



Technical Specification :

- Milling sieving and loading capacity-50 to 400 kg /hr
- Specially designed Roots blower for vacuum source
- Powder transfer system bags with pulse jet for inline filter cleaning during process.
- Discharge through VFD and screw feeder along with specially designed valve to control the flow as per requirement during batch filling.
- Load cells for auto weighing system
- PLC based operation.



Pharmaceutical Application :

Our range of system includes automation for Granulation department right from raw material to mixing/drying/sizing/blending and finally conveying to packing/compression. Inline Sifting/ RMG Loading/ Inline Milling/ Blender & Mixer powder charging/ IPC Loading/ Tablet Press Loading/ Auto Coater Loading/ Unloading/ Blister/ Strip Pack Loading/ Tablet-Capsule Transferring/ Auto. Drum/Bag Filling weighing system/ Other application can be designed on demand.



Bulk Drug Application :

In Bulk Drug/ Chemical Section right from Raw material/Reaction Vessel/ Centrifuge/ Drying / Sifting-Sizing & finally conveying to Automated weighing scale for Filling required capacity Drum or Barrel.

Food Application :

Flour/Granulated Sugar/Dextrose/Coffee/Tea/Milk Powder/Peanuts/Salt & Many more.

Chemical Application :

Talcum Powder/Aerosol/Sodium Sulphate/Gelatine & many more.

Looking for Dryers for your process needs?

Vacuum Tray Dryer

Vacuum drying in Pharmaceuticals, Chemical and Food industries, allowing sensitive materials to be dried without inhibiting critical properties. Intermediates and API happens to be heat-sensitive products which makes them unsuitable for high-temperature drying processes. Highly valuable compounds must be gently dried with precise temp. conditions otherwise, they may degrade and result in loss of product/quality/colour leads to loss. Although various new methods have been developed, vacuum tray dryers remain in needs for API and onco process owing to their outstanding reliability and efficiency. Nevertheless, there is a no one-size-fits-all solution when it comes to vacuum drying, and there are various considerations to bear in mind when selecting a drying system, including:

- Batch Size / Moisture Content / Liquid Properties
- Temperature Uniformity
- Flameproof/ Atex Approved Designs



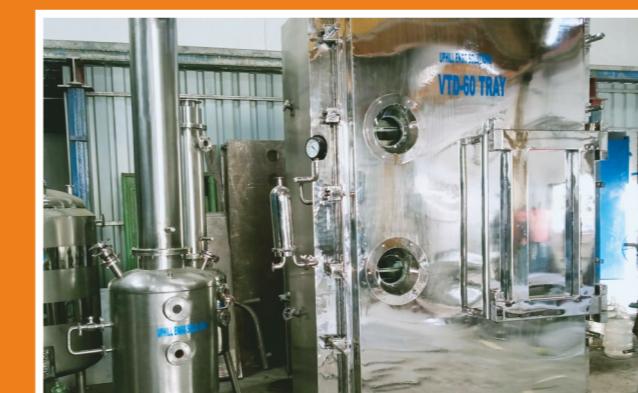
Uphill's Standard Models : 3 Tray, 6 Tray, 12 Tray, 24 Tray, 36 Tray, 48 Tray, 96 Tray & 192 Tray.

Tray Dryer

Tray dryer is an equipment used to gradually dry various products which contain a very high level of moisture. It is a batch type process, where the material to be dried has to be filled in the trays which are then mounted on a Rack/Trolley. The mounted trolleys are loaded in the drying chamber and once the desired results are achieved the material is unloaded.

Trays can be of various material like – Stainless steel / Aluminum / PP depending upon the process needs.

- Steam heating / Electrical heating
- ATEX approved design
- Faster drying experience with its specially designed Co-axial Fans.



Rotocone Vacuum Dryer

Uphill's Rotocone Vacuum Dryer facilitates enhanced drying efficiency, low-temperature operation, and process economy by total solvent recovery. It helps cGMP base working by achieving optimum dust control while offering efficient charging and discharging of materials. This is suitable for drying materials that cannot resist high temperature, easily oxidized materials, volatile materials that should be retrieved, and potent irritants and poisonous in nature. The Rotocone Vacuum Dryer with improved technology integrates during operation under vacuum. The drying unit equipped with lump breakers initially breaks large lumps and subsequently powders them (in a single cone). The dryer's rotary action, together with the breakers' mechanical action, cuts down drying time and gives a lump-free product.

- Capacity - 5 - 4000 Ltrs
- MOC-SS304/SS316L/Hestalloy
- cGMP Model
- Drying at a lower temperature under vacuum
- Complete discharge



Fluid Bed Dryer

In this equipment process, hot air is introduced at high pressure through a perforated bed of moist solid particulate. The wet solids are lifted from the bottom and suspended in a stream of air (fluidized state). Heat transfer is accomplished by direct contact between the wet solid and hot gases. The vaporized liquid is carried away by the drying gasses.

Advantages :

1. High rates of moisture removal due to excellent gas-particle constant which results in high heat and mass transfer rates.
1. High thermal efficiency is usually achieved if part of the thermal energy for drying is supplied by the internal heat exchanger.
2. Lower capital and maintenance cost.
3. Reduced contact time for drying.
4. Ease of control.

Salient Features :

- Batch size, times, space, energy labour saver
- Electrically steam operated available
- MOC SS 304/316/316L
- Flame proof model available
- PLC options available
- CGMP with documentation



Rapid Mixer Granulator

RMG is used in pharmaceuticals to make granules. 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.

Critical points for RMG :

- Pre-binder addition mix time
- Impeller speed and ON time
- Chopper speed and ON time
- Binder fluid temperature
- Binder addition rate and time
- Post-granulation mix time



Features :

- Uphill's Rapid Mixer Granulator is easy to operate from PLC panel
- Requires less time for cleaning and easy to clean
- Safety is adequate
- Standardized according to GMP
- Self-discharge
- Mixing can be performed at a large scale at less time
- Can produce Homogenous mass and later on granules in less time

Blender



Double Cone Blender :

Double Cone Blender is an efficient and versatile machine for mixing of dry powders and granules homogeneously. All the contact parts are made of stainless steel. The effective volume for optimum homogeneity is between 35-70% of gross volume. The SLANT double cone design eliminates dead spots.

Octagonal Blender :

The OCTAGONAL BLENDER is a blending machine for the mixing and lubrication process of dry granules homogeneously. Two third of the volume of the Cone Blender is filled to ensure proper mixing.

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.

It is used in application of Pharmaceutical, Food, Chemical and Cosmetic products. In Octagonal Blender the granules come from all sides due to the octagonal shape of the product container, hence requirement of blender RPM is less.



| Model | Capacity | Working Capacity | Blender RPM |
|----------|-----------------|------------------|-------------|
| OCB 100 | 100 Ltrs Gross | 60 Liters | 5-22 |
| OCB 200 | 200 Ltrs Gross | 120 Liters | 2-16 |
| OCB 300 | 300 Ltrs Gross | 180 Liters | 2-16 |
| OCB 500 | 500 Ltrs Gross | 300 Liters | 2-12 |
| OCB 1000 | 1000 Ltrs Gross | 600 Liters | 2-12 |
| OCB 1500 | 1500 Ltrs Gross | 900 Liters | 1-8 |
| OCB 2000 | 2000 Ltrs Gross | 1500 Liters | 1-8 |
| OCB 3000 | 3000 Ltrs Gross | 2100 Liters | 1-8 |

Bin Blender :

The draft granules enter IBC containers in the granulation area for blending. The blending process is done through a dust-free connection. The IBC container is loaded to a blender for the blending process. The IBC bin is locked at 15 degrees in the resting frame. Fitted with lid, butterfly & split butterfly valves for dust free loading & discharge.



Salient Features :

- Design is cGMP
- Contact parts AISI 316 & non-contact parts AISI 304.
- IBC Bin Blender for Ideal dry mixer
- Available Capacity: 25 kg to 500 kg batch size.

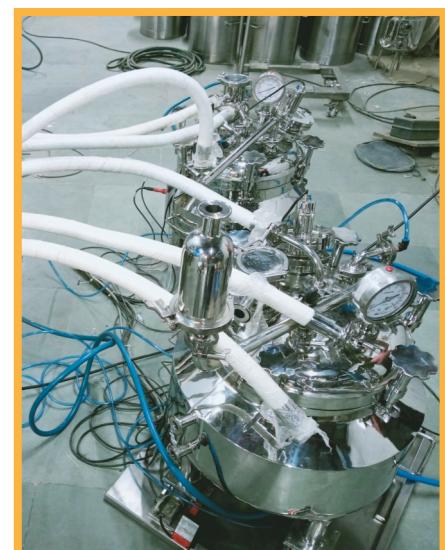
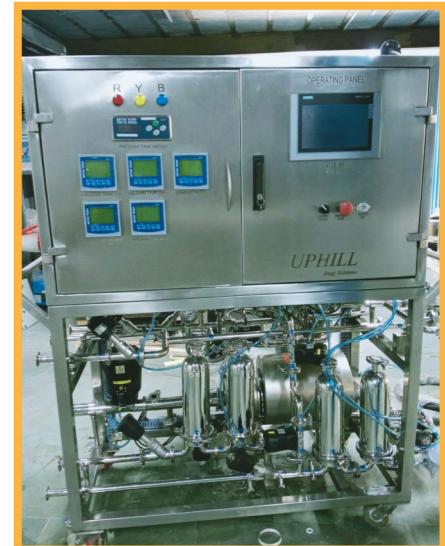
Uphill's Clean in place and Sterilization in Place

These systems are designed for automatic cleaning and disinfecting without contaminate the vessels inner environment. Clean-In-Place (CIP) systems are automated systems used to clean the interior surfaces of food and beverage process pipes, processing vessels, tanks, spiral freezers, mixers, blenders, homogenizers, roasters and associated fittings, without disassembling the process.

SIP (Sterilize or Steam In Place) is a timed sterilization of the upstream and downstream biopharmaceutical production train with clean steam. It is part of the sanitization routine that occurs after every production batch, and follows the final rinse after CIP.

Salient Features :

- Sanitary Design to meet all cGMP criteria.
- Contact parts: SS 316 L, Mirror polished & EP to < 0.2 Micron finish
- All Non- Contact parts : SS 304 Matt finish
- Orbital Tube welding on the piping.
- Automation as per MCA & USFDA 21 CFR Part 11
- Vessel/Tanks Capacity suits to customer requirement.
- With Zero hold up designs.
- GMP documentation& Protocols



Mobile Unit for SIP & CIP :

- Pure Steam Header with PI, TI & Safety Valve
- Condensate Header with sterile steam trap unit and Temp. Sensor
- Control Panel with Time/Temperature control program, printer, alarm etc as required
- SS Mobile Stand with PU Castors
- CIP Distribution header
- Branches and interconnecting piping with pre programmed PLC unit.
- Dosing Tanks/Pumps
- Supply Pump/Return Pump
- Inter-connected Pipings/Valves/Instrumentation

Applications :

- Pharmaceutical
- Biotechnology
- Food
- Beverage

1. 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.

Salient Features :

- Capacity -1 liter to 2 KLAuxiliarys - Pressure Gauge, Ball Valves, and Suitable Elastomer Silicon/ PTFE/ EPDM/ Viton.
- GMP Model and Design as per ASME guidelines.
- Various types of Coating for Wetted Parts like - HALAR/ ETFE/ PFA/ PVDF/ PP (Food Grade) and Hastelloy for Friction Parts etc.
- Available Lining - PVDF, PP and Teflon.



2. Sparkler Filter :

We manufacture GMP Model Zero Hold up Sparkler Filter (Horizontal type) using in Pharmaceuticals, Biotech, API, Bulk-Drugs, Chemicals, Distilleries, Food, and other related Industries. The Sparkler Filter has wide usage in pharmaceutical and cosmetic industry for filtering out the foreign and unwanted elements from liquid. The filter is manufactured with two options viz. deep plate for high percentage of cake holding capacity & shallow plate for small percentage of cake capacity.

Salient Features :

- Available from 8 inch dia filtration plate to 24 inch dia plates.
- We manufacture in SS 304/ SS 316 / Hast Alloy material as Contact parts.
- Our own designed hast alloy pumps gives added advantage instead of PFA lined pumps.
- Available with jacket and non-jacketed main shell.



3. Filter Dryer :

It is designed to overcome well-known production challenges faced by manufacturers when using traditional production methods such as Büchner filtration and oven tray-drying and is the ideal technology to successfully complete scale-up and scale-down activities and to obtain predictive performance results.

Salient Features :

- Combined Filtration and drying which is not possible through ANFD
- Efficient product recovery with replacement of filtration baskets
- Safe to change the basket without changing its basic structure
- Containment or Isolator friendly design to meet the customer requirement.
- Very advanced and helpful in developing the nano-technology.



"Auto coater" is an automatic coating machine which is designed to create a uniform coating of tablet with an organic solvent, aqueous or enteric coating to coat tablets, pills, candies, granules, sweets with sugar film, an organic film, and aqueous coating in the Pharmaceutical and food industry. we are well known for auto coaters manufacturer in India and Mumbai. Featuring mechatronics and confirming the requirement of cGMP. It is a high efficiency, energy-saving, safe and clean equipment for film & sugar coating of tablets, Pills, and candies with film – organic solvent and aqueous coating and film coating of tablets. The tablet to be coated makes a continuous complicated orbital motion the closed rotating Drum under the action of a streamline of Baffles.

During the movement, the coating medium automatically sprays according to the technological process and rational technical parameters. At the same time, hot filtered air is supplied under negative pressure. The hot air penetrates through the tablet's core layers. It is discharged from the bottom of the layers. The coating medium sprayed on the tablet cores' surface will dry rapidly and evenly, forming a stable and smooth surface film on the tablet.

Salient Features :

- Automated process.
- Flexible batch operations.
- Complete separation of production area.
- Excellent mixing and tumbling by a unique design of baffles.
- Made up entirely of S.S. 316.
- Conforms to cGMP.

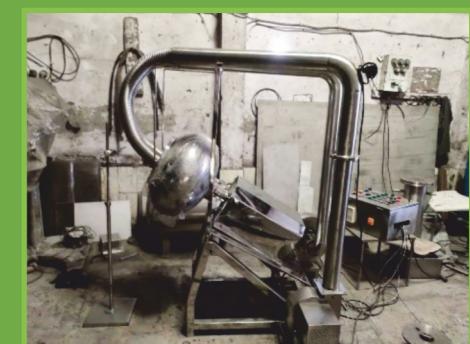


Conventional Coating Pan

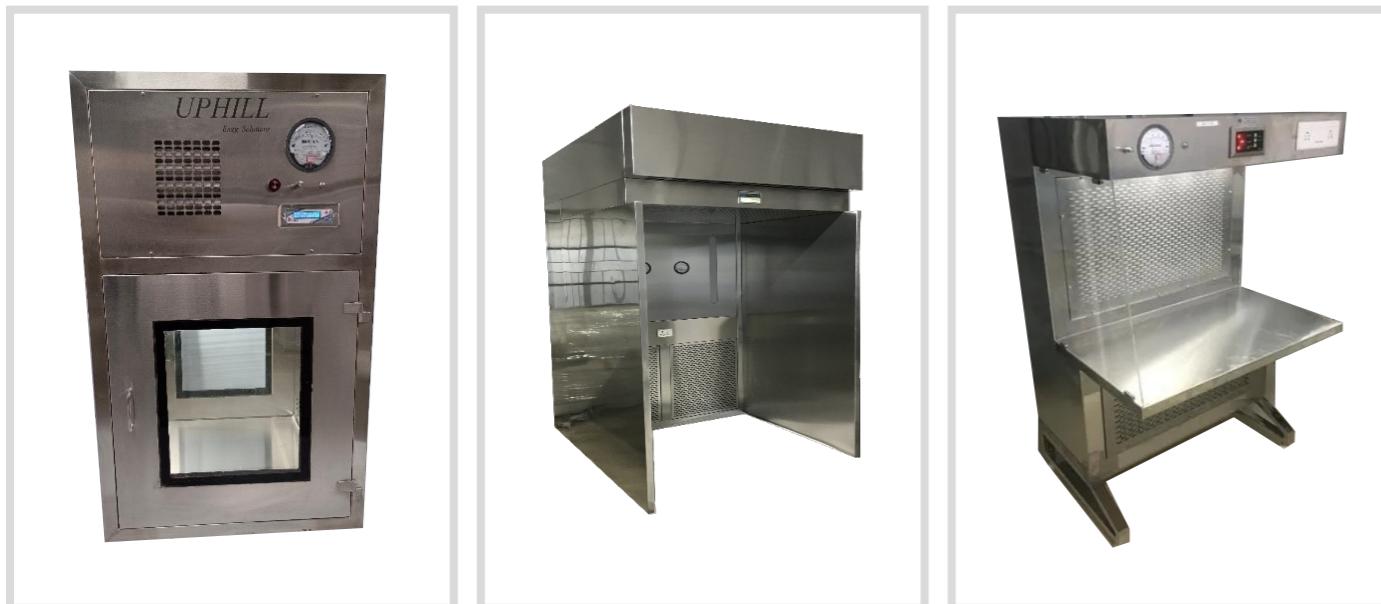
Coating pan is utilized to create a coat around the pellets with the help of some aqueous or organic film. The components of this device include a semi ellipsoidal pan fitted with a circular cover to facilitate the charging and discharging of tablets. This pan is rotated with the help of a motor and a gear.

Salient Features :

- Size- 8 inch to 72 inch
- Model Flameproof & Non-Flameproof
- Mixing vessel with peristaltic pump
- Auto lifting mechanism



Clean Room Equipment makes sure that the in-room environment is free of microorganisms and other undesirable foreign particles that may be harmful to the products or processes of the business. Sampling and Dispensing Booths are designed and manufactured to meet the specific requirements of our clientele. It is based on the re-circulation of air principle. This unit eliminates powder contamination and thus, provides aseptic conditions to protect the operator and the surrounding environment. It is used for weighing, mixing and dispensing of the powder. 0.3 micron downward air streams deflect air borne dust away from the operator breathing zone, which is caused by handling operation.



Dynamic Pass Box

Dispensing Booth

Horizontal LAF



Ceiling Suspended LAF

Reverse Laminar Air Flow Booth



Glove Leak Tester

Glove Leak Tester Round

Glove Ports



Rotate Transfer Port (RTP)

Split Butterfly valve (SBV)

QC Glove Box



Continuous Liner System

Candle Filter Housing

Half Suit for Isolator



Push Push Filter

High Containment Tool Kit

Spray Gun for Isolators