

Title:
hemrajindia

Word Count:
1495

Summary:

We, Hemraj Enterprises would like to introduce ourselves as one of the leading engineering company supplying laboratory and process equipment for R & D. Our range of products include glass laboratory spray dryers, pilot, industrial, reaction systems, distillation systems, fractional columns, nutsche filter, peristaltic pumps, pharmaceutical machinery and packaging machinery vist our site <http://www.hemrajindia.com>

Keywords:

Glass Laboratory Spray Dryer, Pilot Spray Dryer, Industrial Spray Dryers, Spray Dryer, Spray Drying Plant, Benchtop Nutsche Filter Dryer with Agitator, Molecular Stills, Wiped Film Molecular Stills, Wiped Film Molecular Evaporators, Wiped Film Hybrid Fractionators, Reaction Systems, Fractional Column, Distillation Systems, Dispensing System, Filling System, Peristaltic Pump, Syringe Pumps, Pharmaceutical Machinery, Packaging Machinery

Article Body:

With experience of over 25 years in the field of spray drying, Hemraj - India provides to their clients very cost effective solutions in supplying world-class equipment with full technical and service back up. During the last 7 years Hemraj - India has successfully supplied and installed more than 35 PSD (pilot) and ISD (industrial) series spray dryers and over 30 glass laboratory spray dryers. We have exported our spray dryers to more than 9 countries. vist our site <http://www.hemrajindia.com>

Glass Laboratory Spray Dryers :

A compact laboratory spray dryer with a maximum temperature of 200 maximum liquid flow rate/ evaporation capacity of 2000 ml per hour. The unit is ideal for product research and development and sample preparation in many industries. The unit incorporates all parts necessary for the spray drying process and allows control of inlet temperature, liquid sample flow, drying air flow and compressor pressure. The internal compressor activates the cleaning needle and the frequency of cleaning can be controlled. The M1 spray dryer is manufactured using the highest quality materials including 316 stainless steel, PTFE and borosilicate glass 3.3. A screw cap assembly allows for easy mounting of the

atomizer directly on to the drying chamber. The atomizer and AL series nozzle is quickly dismantled for cleaning.

Pilot Spray Dryer :

M.O.C.:Stainless Steel including the supporting structure {skid mounted) with castor wheels.

GMP / Pharmaceutical standards are observed in manufacturing like avoiding crevasses, smooth finish, guards provided for electric motors, use of food grade silicon gaskets etc.

Operations - Co-Current & Counter Current.: Powder Collection - Spray Dried powder can be collected under cyclone as Single Point Discharge or optionally under chamber and cyclone as Two Point Discharge system. This gives flexibility to check particle size under chamber and Atomization - Two types of nozzle system are provided i.e. Pressure Nozzle and Two Fluid Nozzle

Features :Both exhaust and supply blowers are provided so the drying chamber is maintained under a slight vacuum hence minimizing powder loss A cleaning door is provided on the main chamber for ease of cleaning

The spray dried powder samples produced will be very much representative as of any industrial size spray dryer and hence the plant can also be used for producing small batches for sampling or for scale up Optional Programmable Logic Control (PLC) system can also be provided. Optionally available in Flame Proof construction for evaporating solvents instead of water using nitrogen.

Industrial Spray Dryer :

M.O.C.:Product contact partsS.S 316.,Support Structure M.S.

Operations - Co Current & Counter Current.:Powder Collection - Spray Dried powder can be collected under cyclone as Single Point Discharge or optionally under chamber and cyclone as Two Point Discharge system. This gives flexibility to check particle size under chamber and cyclone

Atomization : Two types of nozzle system are provided i.e. Pressure Nozzle and Two Fluid Nozzle

Features : Both exhaust and supply blowers are provided so the drying chamber is maintained under a slight vacuum hence minimizing powder loss.A cleaning door is provided on the main chamber for ease of cleaning.

Applications : Spray drying can be used in a wide range of applications where the production of a free flowing powder sample is required. This technique has successfully processed materials in the following areas

Nutsche Filter Dryers :

Vessel Features : Wide variety of filter media and pore-size offerings.

ASME : Section VIII Coded, butt-weld construction with fittings welded both inside and out.

Materials of Construction : 316L Stainless steel, other alloys including

Hastelloy, Titanium, etc. available (any machinable metal)

Optional Coatings : Teflon, Halar, Kynar and others

Ports : NPT, Sanitary, ANSI Flanged, others as required.

Fittings / Components : Slight Glass, Inspection, Temperature, Pressure, Feed, Drain, Purge, Vent, Relief, Sampling, Instrumentation and others.

Finish : 2B mill finish standard; Optional pharmaceutical grade mechanical polishes and electro polishing available.

Agitator : Pneumatic or Electrical with interchangeable shaft extensions and impellers, Crane Type 8 standard seal.

Heating / Cooling : ASME jacketing, internal coils or electric heating jackets.

Benchtop Nutsche Filter Dryer with Agitator :

o minimize contamination and exposure, high purity chemicals, pharmaceutical intermediates, specially solids, etc. are efficiently filtered, washed reslurried and dried in this portable lab scale Nutsche filter device with special manually turned agitator. Design allows withdrawal of filter cake utilizing removable bottom head and filter support assembly. The unit can be pressurized to aid solvent removal. Drying can be enhanced by adding vacuum and heating capacity. Unit size as shown is 6" in diameter with 4 liter capacity-alternate sizes are available. ASME certification is optional. Offered in stainless steel, Hastelloy, or alternate metals ; pharmaceutical grade mechanical and electro-polish finishes; Teflon or alternate Coatings. Custom design features include temperature control options, jacketing, valving, special porting, sprayers, slight glasses, instrumentation, pumps, alternate mixer types, etc., plus a wide variety of filter media.

Reaction Systems:

Flat or round base design. Single jacket for temperature control. Double jacket with outer vacuum for best possible heat insulation. Wide range of bottom outlet tap designs. High quality stainless steel support stands. Wide range of ancillary glassware. Extensive range of stirring options. PTFE, glass and stainless steel impellers which can be Halar or Fluorine coated. Three reaction Systems with "Huber" heater / cooler supplied in India.

Wiped Film Molecular Still and Evaporators (Short-part):

Designed for separations of heat-sensitive, high molecular weight or viscous materials. Through put range of 0.1 to 1000kg/hr.

Fractional Column Distillation Systems and Components:

Designed for purification, fractionation and solvent recovery. Through put of range of 0.1 to 500kg/hr.

For purification, fractionation and solvent recovery. Sized for small to mid-

sized processing, pilot plants and laboratory work. 1" to 12" diameters, 0.1 to 50kg/hr throughput. Batch or continuous configurations. Wide range of packagings and internals, system designs and materials, including stainless steel, Hastelloy, glass, etc. Offered as: individual components, basic system or complete turnkey engineered systems

Peristaltic Pump :

Applicable pump heads: YZ1515x, YZ2515X, YZ1515W, DG-4 High torque and low power consumption Timing Function, realizing simple auto dispensing and filling Half currently locking Memory Function, storing the running parameter automatically At normal lab conditions

Dispensing & Filling Systems:

ne filling unit consists of 4 basic channels. Max 16 channels (4 units) available Control each channel separately. Control back suction angle uniformly. Easy to use. Each channel is separate. Easy to maintain. Flow rates calibration and stop filling when short of bottle 128 x 64 graphic LCD displays current running status Computer control available through RS485 communication. And customized software available on customer's requirements.

Pharmaceuticals & Packaging Machines:

Capsule Filling, Blister Packing, Tridimensional Packing, Coating, Bottling line, Liquid Filling, Encapsulator

Pilot Spray Dryer Trial Facility :

Please note that we do have trial facilities available for your specific products at our workshop in our pilot plant, you are more than welcome to come visit our facility and witness a trial. We have successfully conducted over 300 trials on a variety of products and sold many working units all over India and abroad to a variety of industries including zinc oxide, acrylics, PMA's, flavours and fragrances, vegetable dyes, pharma, API's etc. our client list includes M/s. Indofil Chemicals, M/s. S.K. Flavours and Fragrances, M/s. Oriental Aromatics, Ranbaxy, Cipla, Dr. Reddy's, USV ...and many more visit our website <http://www.hemrajindia.com>

Spray Drying :

Spray drying begins with the atomization of the feed liquid into a spray of fine droplets. Various methods are used for atomization these include using a high speed Rotary Disc, a Pressure Nozzle or a Two Fluid Nozzle. The atomized liquid is usually sprayed into a drying chamber along with a hot gas stream, either in a co or counter current flow. Consequently, the liquid's solvent is evaporated, leaving behind the product in a form of spherical powder. The dry powder is separated from the gas stream and collected at the bottom of the drying chamber

or outside of it by means of a cyclone. Thereafter the exhaust gas is treated to meet environmental requirements and is released into the atmosphere, or in case of a closed system, de-humidified, reheated and lead back into the drying chamber.

Resource Box :

Hemraj Enterprises are also the sole authorized agents in India for
Labtex Ltd., England has over 35 years experience in supplying laboratory scale equipments to the pharmaceutical and chemical industries, which include bench top glass laboratory spray dryers and reaction systems.

Pope Scientific Inc., U.S.A, has been at the forefront of manufacturing chemical processing equipment, engineered systems and laboratory apparatus for science and industry. Today Pope is internationally known - with specialized technical expertise in design and manufacturing of distillation processing equipment, as well as toll processing services.

Baoding Longer Precision Pump Co. Ltd., China founded in 1997, invested in by USA, has been contributing itself to R & D and manufacture of precision pumps that includes Peristaltic Pump, Dispensing & filling System, Syringe Pump, Gear Pump and Magnetic Stirrer and has become the biggest manufacturer in China.

Sanity Int'l Machinery Ltd., China is engaged in the research, design & Manufacture of various machines such as Pharmaceutical Equipment, Packaging Machines, and Foodstuff machine. All the products are reliable with high performance and energy saving features adhering to the national industry's standards ISO9001.