



MECHA

ENGINEERING

AN ISO CERTIFIED 9001 : 2015 COMPANY
ISO CERTIFICATE NO. IN/96213941/3245



**“ MANUFACTURER OF ALL
TYPES OF HERBAL,
PHARMA & DAIRY
EQUIPMENTS.
ALSO SPECIALIST
IN HERBAL TURNKEY
PROJECTS ”**



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ABOUT US

Mecha Engineering was founded in 2022 and quickly established a reputation for supplying high quality, cost effective mechanical & automation solutions to a broad range of manufacturing industries. Operating from well equipped, purpose-built premises, we have a skilled and dedicated team of engineers. Mecha Engineering specializes in the design and manufacture of special purpose machines and equipment used in numerous Industries.

For over 2 years Mecha Engineering have been providing mechanical & automated solutions for a wide variety of manufacturing industries. We provide a complete service from initial concept right

through to final commissioning. Mecha Engineering provides a complete service from concept to installation. We work closely with our customers to design and manufacture systems, which meet their particular requirements.

Mecha Engineering offers all the benefits of a specialized design and manufacturing unit operating from well equipped, modern premises. Comprehensive manufacturing facilities and a large assembly area allow us to build and commission a variety of equipment from stand-alone single operator machines through to multi-station production cells.

OUR INFRASTRUCTURE

Our design team have experience working with customers on a vast range of projects producing special purpose equipment.

Working closely with each customer to determine their objectives, our designers would write a project specification and then develop a design which meets or exceeds their requirements.

- Innovative Designs
- Highly Skilled and Experienced Design Team
- Computer Aided Design
- Mechanical and Electrical Design
- Electronic control programming



MANUFACTURE



Comprehensive manufacturing facilities provide our skilled and dedicated team of engineers with the equipment necessary for us to manufacture, assemble and commission all machines on site.





ASSEMBLY

Our Facilities include a large assembly area allowing us to build and commission a variety of equipment up to and including multi-station work cells.

INSTALLATION

A comprehensive service to install equipment on site including commissioning and training is supplied with every project.



AFTER SALES SERVICES & MAINTENANCE

Our engineers are available to carry out any onsite maintenance or servicing that may be required.

SITE PLANNING

- Customer Demand. Before you can plan to assign resources, you have to know how much to produce.
- Materials.
- Equipments.
- Manpower.
- Processes.
- Controls.



ARCHITECTURE

An architecture framework which establishes a common practice for creating, analyzing and representing manufacturing systems during design and re-design processes is proposed. This paper includes a study of the main architecture frameworks and their use within a systematic design process for manufacturing systems.

A class diagram is related to a physical architectural framework with manufacturing system components taxonomies that support it; it is applicable to manufacturing systems including RMS (Reconfigurable Manufacturing System).

As product development life cycle becomes shorter and shorter, a systematic, structured and effective approach is needed to design or reconfigure the manufacturing system as needed. The proposed framework is comprehensive and specifies the system representation from various levels and dimensions.

This paper considers not only abstract and general representation, but also illustration examples to represent manufacturing systems designs.

Q

QUALITY ASSURANCE



We are a quality-driven company and are focused on providing the highest quality equipment. We employ a quality control department to verify each product at different phases, from the procurement of parts, through the delivery to our customers. In order to offer the best quality, we manufacture our products in accordance with international standards.

All machines are supplied with an operating manual which includes operation instructions, recommended maintenance, parts list, recommended spares list, calibration certificates, CE declaration of conformity etc.



OUR CLIENTS

At Mecha Engineering, we are fully committed to every project we undertake. Our clients can rest assured that any project involving Mecha Engineering will be completed on time and in accordance with specifications. We take pride in our contributions to the projects we undertake and are honored by the trust our customers place in us, repeatedly including us in their projects. Some of our prominent clients include:

AMCOR FLEXIBLES INDIA (HARIDWAR)

AYUSHRAJ ENTERPRISES (JAIPUR)

ANKUR HERBALS (MAINPURI)

JMD POLYMERS (PAONTA)

VISHWAKARMA HONEY PRODUCTS

ANANDA DAIRY PVT. LTD

AYUSH HERBALS (KALE AMB)

INDO HERBAL EXTRACTION (KALE AMB)

GOODRICH FOODTECH (KARNAL)

RAMA GREEN ENERGIES (KARNAL)



INDUSTRIES SERVED

At Mecha Engineering, we specialize in fabricating efficient and technically sound machines that consistently meet or exceed our customers' expectations. Our extensive product range serves various industries, including the Dairy & Food Processing and Pharmaceutical sectors.



1

DAIRY & FOOD PROCESSING INDUSTRY

WE HAVE LONG LIST OF THE PRODUCTS WE HAVE EXPERTISE IN

**BUTTER
CHURNER**

**BUTTER
CONTAINER**

**CAN
SCRUBBER**

**STORAGE
TANKS**

**TWO/THREE
WAY VALVE**

UNION

**MILK TRANSFER
PUMP
(ANY CAPACITY)**

CHILLER

PASTEURIZER

**BREAD SLICING
MACHINES**

RADIATOR

DRYER

AUTOMIZER

**BUTTER
TROLLEY**

**CRATE
CONVEYOR**

**CHEESE
VAT**

**CHEESE
PRESS**

2

PHARMACEUTICAL INDUSTRY

**ROTARY
EXTRACTOR**

**CONICAL
BLENDER**

MULTI MILL

PULVERIZER

**PLANETARY
MIXER**

MASS MIXER

**DISTILLED WATER
STORAGE TANK**

MULTI MILL

**VIBRATING
SCREEN**

**FALLING FILM
EVAPORATOR**

**STEAM
JACKETED
KETTLE**

**PACKING BELT
CONVEYOR**

**VACUUM
TRAY DRYER**

CENTRIFUGE

**DOUBLE CONE
BLENDER**

**RIBBON
BLENDER**

**REACTOR
VESSEL**

**ROTARY AIR
LOCK VALVE**

**VACUUM
TANK**

**JELLY
TANK**

**OTHER FABRICATING
& MACHINING WORKS**

AIR LOCK
VALVESCREW
CONVEYERBELT
CONVEYERROTARY AIR
LOCK VALVES.S. RIBBON
BLENDERBELT
CONVEYORSCREW
CONVEYERTRANSFER
PUMPS

ROTARY EXTRACTOR

We hold expertise in manufacturing and exporting a comprehensive range of rotary extractor these are designed and machined using flawless raw materials in compliance with international quality standards. Rotary extractor trial before dispatch like pressure testing defined parameters by our stringent quality controllers to ensure that a defect free equipment reaches buyers end.

FEATURES:

- Low electricity consumption
- Long term equipment life
- Durable finish standards
- Hassle free operation
- Rugged construction



REACTION VESSEL

Reaction vessel most demanding equipment Reaction vessel are used in carrying out a wide variety of chemical reaction vessel including condensation polymerization, esterification, etherification, hydrolysis. Hydration, oxidation, hydrogenation etc. At pressures (up to 30 mg / cm²) and at temperatures ranging - 200c to + 2500c reaction needing simultaneous fractional distillation and azeotropic distillation can also be conducted very efficiently using these chemical reaction vessels.

VACUUM TRAY DRYER

Vacuum Tray Dryer (VTD) is suitable for drying of thermally sensitive Materials easily resolved , polymerized, or deteriorated Under higher temperature widely used in herbal extraction Plants and pharmaceutical plants. Sterilization can be conducted Before the drying process, during which no matter is allowed to Enter the product.





VIBRO SHIFTER

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

PULVERIZER

Pulverizer is used in herbal extraction plant, Phyto Extraction plant, and pharmaceutical plants to make powder of different material. A Pulverizer or grinder is a mechanical device used for grinding many different types of materials.



DOUBLE CONE BLENDER

The double cone blender used in the herbal and phyto extraction plant and pharmaceutical plant for mixing dry powder and granules homogeneously. Double Cone Blender discharge height varies as per the capacities of different models. A suitable manhole for charging is provided with SS-cover & locknuts. Able engineering is a leading manufacturer of herbal extraction plant and herbal extraction plant machinery manufacturer in India.



STEAM JACKETED KETTLE

The steam jacketed kettle is designed for paste preparation. The jacket is for passing steam to melt down the product to make a paste. It has a universal application, resulting in uniform melting. The tilting type arrangement makes it easy to unload the paste into any vessel or container. The material is put in the kettle and added water till desired thickness is achieved. The kettle is heated till the material melts and a thick paste is achieved. This tank is designed to meet the missing needs of a wider range of products under varied operating conditions in chemicals, foods, cosmetics, and the pharmaceutical industry.





OCTAGONAL BLENDERS

Octagonal blenders are used for blending the herbal industry in the granulation department. These octagonal shape blenders have six corners of the product container for more tumbler effect to the material for fast and homogenizing mixing. Octagonal blender is an efficient and versatile blending machine for the mixing and lubrication process of dry granules and powder homogeneously.

RIBBON BLENDER

Ribbon Blenders comprises of a u-shaped horizontal trough and a specially designed double helical ribbon agitator rotating within. Ribbon blenders are based on a proven agitator construction that provides a triple mixing action ensuring fast, efficient blending. A ribbon agitator consists of inner and outer helical agitators.



CENTRIFUGE

Centrifuge is the most energy-efficient machine that separates a solid from a liquid at high rotational speed, four-point centrifuge separates components of different densities. Centrifuge machine is a unique energy-efficient machine that works by spinning a vessel containing the material to be separated at high speed.

MULTI MILL

Multi Mill is widely used for wet and dry granulation pulverization in herbal ex traction, pharmaceuticals plants, and calcium plants. It 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 fed into the hopper goes down to the processing chamber where it moves to the periphery and passes through the screen radially and tangentially.





SPARKLE FILTER

In sparkler filter liquid is pumped through the central channel of the cartridge from the bottom of the body. Suspended particles are retained on the filter media resting on the filter plate. Clean filtrate emerges from the peripheral holes of the plate, into the tank, and comes out from the bottom outlet.

HERBAL EXTRACTION PILOT PLANT

Designed specifically with simplicity of use in mind, the pilot extraction plant allows for easy raw material discharge and fast and straightforward cleaning. This makes it perfect for easy changeover and therefore use with many products during development and testing. Suitable for use with a wide variety of products such as coffee, tea, leaves and barks, roots, spices, fruit, seeds, herbs, medicinal plants and more.



HERBAL EXTRACTION PILOT PLANT



TRANSFER PUMP



INLINE HOMOGENISER



HORIZONTAL ROAD MILL TANKER



CONDENSER



RADIATOR SS



ROTARY



CENTRIFUGAL PUMP



CENTRIFUGE



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