



Pharmaceuticals

Cosmetics



Chemicals





Sun Earth Engineering

All Kinds of Jobs Chemical Process Equipments, Structure, Pipeline, Scaffolding Works & all Fabrication works.

Company profile:

About Us

We M/s. Sunearth Eng. are one of the eminent organization engaged in offering best solutions in all sorts of M.S & S.S Fabrication and also deal with major production area i.e. from light to heavy engineering services. In addition to

that, we also hold expertise in offering **Our product range comprises ANFD, ANF, RCVD, FORMINTER, DISTILLATION COLUMN, RECEIVER, REACTOR GMP MODEL & NON GMP MODEL, Agitator Vessel, Chemical Machinery, Chemical Process Machinery, Limpet Coil Reactor, Process Reaction Vessel, Heat Exchangers, cylindrical Condensers, Box Type Condensers, Chemical Machinery, Chemical process Equipment's, Agitated Reaction Vessel, Stainless Steel Reaction Vessel, Chemical Reaction Tank, Stainless Steel Tanks, Chemical storage tanks, Chemical Plant & Machinery,** We stand by our name, by

offering quality service in any industry. The products and services offered by us are appreciated for their effectiveness,

We offer a reliable range of products. Our experts use latest technology and quality material with various alloys to offer best engineering services. We ensure that the products developed by us, are at par with industry standards and also by giving best specifications laid by our clients. Our quality controllers conduct various stringent quality checks, with our reliable communication system and zealous workforce. We cater to the needs of our clients, which is by providing services to the stipulated time frame.

The organization is supported by a team of expert professionals which helps us in offering quality product and services that are at par with international standards and major problems are solved by Managing Directors itself. These experts use cutting edge technology and advanced testing tools to provide the best solutions to our clients. With our sincere and dedicated efforts, we have retained the trust of our clients since our inception. It would be great honor to be a supplier of the company who has a great engineering services & best quality product. It would be a pleasure to have a great company relationship with you.

Why choose SUNEARTH ENG...?

- High quality products
- Competitive prices
- Timely delivery of consignments
- Complete client satisfaction
- Best Traders in equipments (M.S /S.S/Glass Line)
- Also working Structure & Pipeline works (Project Works).

Our Expertise

Reactor Vessels need to be manufactured using high grade raw material, as it has to withstand harsh and extreme temperature. Henceforth, we have recruited a competent team to confirm the credibility of products as per ISO and market standards. Further, our team of experts guarantees, whole manufacturing work is done with high precision and within the set time frame. Also, we value the time and money of our clients and hence provide world class products timely and at competitive prices. Also, we have a separate team of researchers and developers. They carry thorough researches based on assorted parameters like designs, raw material used and technology. The results of some of these researches are recorded for forthcoming references and others are enforced as per the assets available with the company.

We are Manufacturers of **Pharmaceutical, Food, and Cosmetics & Chemical Process Equipment**. These are suitable for various pharmaceutical purposes including granulation, coating, liquid & ointment manufacturing.

We have 10 year of experience in Manufacturing of **Pharmaceutical Process Equipment**. Since our inception, we have emerged as one of the prominent organizations that are engaged in the manufacture of equipment suitable for various pharmaceutical processes, such as Ointment Manufacture, Granulation, Coating, Liquid Manufacturing and other such processes. Our ranges are **cosmetic process equipment's, blender equipment's, dryer equipment's, chemical process equipment's, Ointment plant, liquid plants, and granulation equipment's**. These equipment are widely used in industries, such as **Pharmaceuticals, Containment, Active Pharmaceutical Ingredient (API) Manufacturing, Solid & Liquid Formulations, Food And Cosmetics**.

Our Pharmaceutical Machinery Products:

	Pharmaceutical Granulation Section	
Product Name	Discretion	Snap
❖ AGITATED NUTSCHE FILTER DRYER (ANFD)	Agitated Filter is a closed vessel designed to separate solid and liquid by filtration under pressure or vacuum. The closed operation ensures odorless, contamination free and nonpolluting working conditions maintaining product purity and hygiene. The advanced technology of agitation and hydraulics used in the equipment makes it versatile and user friendly. The resulting wet cake can be reslurried and washed thoroughly with water or solvents unlike in "NUTSCHE" type filters or centrifuges. Wash liquid quantity can be controlled and recycled, reducing effluent load. The discharge of wet cake is automatic. If the process demands filtration in chilled or hot condition, it is also possible. Drying of wet cake is also possible when drying features are incorporated. The equipment is functionally safe and easy to operate. It can carry out various phase of process operations, viz: Crystallization, filtration, extraction, Discoloration, Washing and drying. The number of conventional machines employed for filtration process are also reduced. It has multi-functional utility, saves on power, labor, floor space, material wastage and time. The filter/filter dryer has wide field of applications in chemical, pharmaceutical, Agro chemicals, fine chemicals, and food industries. Sterilizable pharmacy versions	

are available for aseptic requirements.

Pharmaceutical Granulation Section

Product Name	Description	Snap
Fermentation.	BioReactors (Fermentation tank): Function, Designs and types! A bioreactor is a device in which a substrate of flow value is utilized by living cells or enzymes to generate a product of higher value. Bioreactors are extensively used for food processing, fermentation, waste treatment, etc. On the basis of the agent used, bioreactors are grouped into the following two broad classes: (i) those based on living cells and, (ii) those employing enzymes. But in terms of process requirements, they are of the following types: (i) aerobic, (ii) anaerobic, (iii) solid state, and (iv) immobilized cell bioreactors. All bioreactors deal with heterogeneous systems dealing with two or more phases, e.g., liquid, gas, solid. Therefore, optimal conditions for fermentation necessitate efficient transfer of mass, heat and momentum from one phase to the other. Chemical engineering principles are employed for design and operation of bioreactors. But, in general, theoretical explanation usually lags behind technical realization. A bioreactor should provide	 

for the following: (i) agitation (for mixing of cells and medium), (ii) aeration (aerobic fermenters; for O₂ supply), (iii) regulation of factors like temperature, pH, pressure, aeration, nutrient feeding, liquid level, etc., (iv) sterilization and maintenance of sterility, and (v) withdrawal of cells/medium (for continuous fermenters). Modern fermenters are usually integrated with computers for efficient process monitoring, data acquisition, etc.

Basic Functions of a Fermenter:

1. It should provide a controlled environment for optimum biomass/product yields.
2. It should permit aseptic fermentation for a number of days reliably and dependably, and meet the requirements of containment regulations. Containment involves prevention of escape of viable cells from a fermenter or downstream processing equipment into the environment.
3. It should provide adequate mixing and aeration for optimum growth and production, without damaging the microorganisms/cells.
4. The above two points (items 2 and 3) are perhaps the most important of all.
5. The power consumption should be minimum.
6. Facility for sampling should be

provided.7.Itshouldhaveasystemformonitoring and regulating pH of the fermentation broth. 8. Evaporationlossesshouldbeaslowaspossible.

9. It should require a minimum of labour in maintenance, cleaning, operating and harvesting operations 10. It should be suitable for a range of fermentation processes. But this range may often berestrictedbythecontainmentregulations.11.It should have smooth internal surfaces, and joints should be welded wherever possible.12. The pilot scale and production stage fermenters should have similar geometry to facilitate scale-up.13. It shouldbecontrastedusingthecheapestmaterials that afford satisfactory results. 14.

Thereshouldbeadequateserviceprovisionsfor individual plants.

❖ Double
Cone
Blender

The Double Cone Blender is an efficient and versatile machine for mixing dry powder and granules homogeneously. All the contact parts made out of stainless steel of required grade by customer. Two third of the volume of the Cone Blender is filled to ensure proper mixing. It can be used for Pharmaceutical, Food, Chemical and Cosmetic products etc.



Rotocone Vacuum Dryer RCVD

RCVD suitable for drying of materials which cannot resist high temperature, material which are easily oxidized, volatile materials which should be retrieved, materials strong irritant and poisonous in nature. The roto cone dryer with improved technology integrates during operation under vacuum. The roto cone dryer facilitates enhanced drying efficiency, low temperature operation and economy of process by total solvent recovery. It helps CGMP based working by achieving optimum dust control, while offering advantages of efficient charging and discharging of materials. The drying unit equipped with lump breakers initially breaks large lumps and subsequently powders them (in single cone). The rotary action of the dryer together with mechanical action of the breakers cuts down drying time and gives a lump free product.



Our manufacturing Capacity of RCVD is as per below list.

- Lab Model: 25L
- Production model: 100L. To 2000L.

capacity in LTRS.		Model:
WORKING	GROSS	
20	25	MERCVD25
75	100	MERCVD100
110	150	MERCVD150
145	200	MERCVD200
200	300	MERCVD300
350	500	MERCVD500
500	750	MERCVD750
750	1000	MERCVD1000
1250	1500	MERCVD1500
1650	2000	MERCVD2000

LiquidSection

ProductName	Discription	Snap
❖ Syrup/Liquid Manufacturing Vessel ❖ RECEIVER	Our Liquid Syrup Pharma Plants are most appropriate tools for the pharmaceutical industry, which finds application in production of Oral Liquids. We have particularly designed it to take care of two critical factors that straightly affects the quality of the Liquids. It is extremely beneficial as it offers: • Extremely hygienic manufacturing of liquid syrup	<u>SYRUP MANUFACTURING PLANT</u> 

Our manufacturing Capacity of Liquid Plant is as per below list.

- 50L.to1500L.
INCREASE.

capacity in LTRS.		Model:
WORKING	GROSS	
40	50	MEOINT50
50	75	MEOINT75
75	100	MEOINT100
110	150	MEOINT150
145	200	MEOINT200
200	300	MEOINT300
350	500	MEOINT500
500	750	MEOINT750
750	1000	MEOINT1000
1250	1500	MEOINT1500

❖ Reactors

Our Reactors Frequently used for the term relates specifically to catalytic reaction systems where either a homogeneous or heterogeneous catalyst is present in the reactor. Sometimes a reactor *per se* is not present by itself, but rather is integrated into a process, for example in reactive separations vessels, retorts, certain fuel cells, and photocatalytic surfaces.



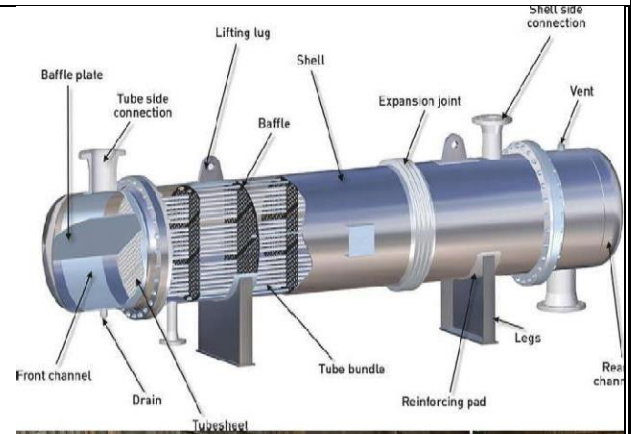
Our manufacturing Capacity of Reactors is as per below list.

- 500L.to10KL.
INCREASE.

capacity in LTRS.		Model:
WORKING	GROSS	
500	750	MEREAC 500
750	1000	MEREAC1000
1500	2000	MEREAC2000
2000	2500	MEREAC2500
2500	3000	MEREAC3000
5000	6120	MEREAC6120
6500	7500	MEREAC7500
7500	10,000	MEREAC10KL

❖ **Heat Exchanger & Box Type Condenser**

A **shell and tube heat exchanger** is a class of heat exchanger. It is the most common type of heat exchanger in oil refineries and other large chemical processes, and is suited for higher-pressure applications. As its name implies, this type of heat exchanger consists of a shell (a large pressure vessel) with a bundle of tubes inside it. One fluid runs through the tubes, and another fluid flows over the tubes (through the shell) to transfer heat between the two fluids.



Our manufacturing Capacity of HE is as per below list.

- **0.5M² TO 10M² INCREASE.**

capacity	Model:
0.5M ²	MEHE500
1.0M ²	MEHE1M ²
1.5M ²	MEHE1.5M ²
2.0M ²	MEHE2M ²
3.0M ²	MEHE3M ²
5.0M ²	MEHE5M ²
7.5M ²	MEHE7.5M ²
10.0M ²	MEHE 10M ²

❖ Pressure Vessel

Our pressure vessels for any application is renowned in the industry. We have designed and manufactured vessels in Carbon steel, Alloy steels, Stainless steel and can also manufacture in any other special material on demand. We have supplied vessels up to 12 meters long and 6 meters in diameter, weighing up to 100 tons from design to fabrication. Quality and testing is assured as per TEMA, ASME Sec VIII and MSME/API etc.



Our manufacturing Capacity of Pressure Vessel is as per below list.

- 500L.to10KL.
INCREASE.

capacity in LTRS.		Model:
WORKING	GROSS	
500	750	MEPV 500
750	1000	MEPV1000
1500	2000	MEPV2000
2000	2500	MEPV2500
2500	3000	MEPV3000
5000	6120	MEPV6120
6500	7500	MEPV7500
7500	10,000	MEPV10KL

❖ Jacketed /Non Jacketed Tank / Mixer	Our Vessel is your single source for jacketed vessels. Whether you need a half-pipe, dimple, or conventional jacket, our experts will help you. We can provide any combination of vessel and jacket materials. Our shop rolls shells and half-pipe coils to alleviate any delays in the fabrication of your vessel. We can also install baffles and agitators for mixing applications. Before you buy your next jacketed vessel		
Our manufacturing Capacity of Jacketed Tank is as per below list. ➤ ➤ ➤ 500L.to10KL. INCREASE.	capacity in LTRS.		Model:
	WORKING	GROSS	
	500	750	MEREAC 500
	750	1000	MEREAC1000
	1500	2000	MEREAC2000
	2000	2500	MEREAC2500
	2500	3000	MEREAC3000
	5000	6120	MEREAC6120
	6500	7500	MEREAC7500
	7500	10,000	MEREAC10KL

Sun Earth Engineering

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Please Note: The Safety & Security of the Material provided to you will be your responsibility.

In case of any damages or losses, the cost of the material will be recovered from you.