



EQUIPMENTS FOR MINI & LARGE FOOD FACTORIES



SS Engineers & Consultants offers the latest in technology from Crates, Tubs, Bins, Pallets, Buckets, Trays, Drums, and Engineered products cleaning to the state-of-the art hygiene material handling systems. SS Engineers and Consultants have grown drastically, since 1999, into a multifaceted, manufacturing conglomerate with state-of-the-art manufacturing plants at Rajahmundry in Andhra Pradesh and offices spread across the country, SS Engineers and Consultants manufactures high-tech Cleaning Machines for mass cleaning requirements in Food, Automotive, and Agri produce factories.

The company has been at the forefront of delivering international quality products suited to custom product cleaning conditions with improved cleaning technique through continuous R & D. SS Engineers & Consultants launched new high efficient cleaning, drying and handling systems.

SSEC Washing systems are designed and constructed with sustained knowledge and attention to detail. They many aspects, for example: perfect cleaning, the great ease of operation, simple maintenance, favorable energy use, low water use and low noise.

SSEC develops and manufactures industrial washing systems for the hygienic cleaning of all re-usable products. Dimensions and types become no issue due to the way our machines are designed, as the height and width differences can be easily accommodated.

Serving Industries:
Sea Food, Egg, Dairy,
Pharma, Poultry, Live stock,
Meat, Automobile and
Industrial parts
manufacturing industries
since decade with its reliable
products & services













Industry Insight

Over the last few years, the manufacturing sector in India has witnessed tremendous growth, which is fuelled by the entry of the Multi National Companies. This growth has brought in vast opportunities for the manufacturing units of Food, Agro, Automotive and Engineering industries. As the Indian economy continues to grow, with an increasing export market and growth in manufacturing, the transport of goods as a raw material or as part of the export market is growing...

The food industry throughout the world uses hundreds of different crates for all sorts of purposes. Small, large, square, rectangular, foldable, stackable, open, closed – there are countless variants. Yet for all these variants SS Engineers have a corresponding industrial cleaning system.

Cleaning of Crates before the transport of food products at warehouses decreases contamination. This could also lead to improvements in Product Quality its transportation and storage, number of companies in India are investing on hygienic logistics facilities. SSEC's know-how is <u>not</u> simply restricted to crate, pallet and container washers. On the contrary we regard the cleaning of every kind of product as a challenge and have made that our specialty. Over the course of the years we have designed all types of cleaning systems for jelly cans, plates, chopping boards, lids, moulds, barrels, buckets, and lots more besides. So if you would like your product cleaned in large quantities, then it's certainly worthwhile coming to talk to us. You can certainly count on us always finding the most suitable solution for your specific need.

The 360° Cleaning Solution Provider





Do you use crates and you need enough clean crates made available for your daily demand?

Discover SS Engineer's industrial washing machine solution today by contacting us directly for a tailor made quotation for your needs.

SS Engineer's washer can clean everything, from transportation and packing Crates to production line Crates and utensils. If necessary, SS Engineers can customized your material handling system suiting to your specific needs.

It does not matter what kind of Crates you use, you can clean them through SS Engineer's Crate washing system. SS Engineers uses advanced cleaning technique which can clean all types of crates quickly and efficiently at all the sides.

SS Engineers Washers features in Single track / Double track with Straight through and Incliened loading system.













SS Engineers & Consultants Crate washers with associated handling systems are manufactured in stainless steel construction to meet the highest possible standards for cleanliness, dryness and efficiency. SS Engineers Washing units fulfill the most demanding requirements for capacity, efficiency, hygiene, energy consumption and environmental protection.

SS Engineers design and build tailor made washing machines, tailored to your specific needs ranging from two hundred to thousands of Crates washing per hour. SS Engineers washing machines gives you the perfect cleaning solution with its three compartment washing system designed to manage large numbers. SS Engineers guarantee the desired washing and drying result.



Must Buy Product Dairy, Poultry and Live Stock Agro & Sea Food Industries

Fruits & Vegetables
Processed Food & Beverage
Confectionery & Bakeries
Super markets & Catering



Three - Compartment Washing System

Pre-

Wash

Clear Water Wash Wash Water Recycled

Wash Water Recycled

Pharmacy and Chemical Automobile Parts Manufacturing Material Handling & Logistics Custom Components Cleaning



The more efficient your production, the better becomes market demand.

Clean crates meets the hygiene requirements of your customer. To achieve that, you need high quality and flexible washing machines. You should be able to wash many types and sizes of crates. Crates with different pollution, without the risk of contamination, label removal and then you also want the crates dried.



SS Engineers supports you with advanced washing systems: industrial washing machines, drying systems and the automated delivery and removal of crates as an integrated system that you can fully automate, SSEC can develop these systems especially for you. SSEC work alongside you to bring out the best possibile solution.











Factors Influencing Cleaning

There are four interrelated factors which effect the overall cleaning process. When designing cleaning machine SSEC carefully consider these factors.

- Time: The longer a cleaning solution remains in contact with the crate surface, the greater the amount of soil is removed.
- Temperature: Soils are affected to vary by temperature. In the presence of a cleaning solution the soils become more readily soluble when the temperature is increased.
- Chemical Concentrations: Chemical concentrations vary depending upon the chemical itself, type of food soil, and the container to be cleaned. Concentration will normally be reduced as time and temperature are increased.

Mechanical Force: Mechanical force aids in quick

 soil removal also reduces time, temperature, and concentration requirements.



Description	400 CPH	800 CPH	1000 CPH	1200 CPH	Double Track
Description	400 CFH	800 CF11	1000 CPH	1200 CPH	2400 CPH
Crate Dimensions	Crate Sizes are				
Cycle out put / hr	400 Cr	800 Cr	1000 Cr	1200 Cr	2400 Cr
Dimensions in MM					
Length	4000	4500	5000	5000	5000
Width	900	1000	1200	1200	1800
Height	1750	1850	1850	1850	1750
Loading Pumps					
First Rinse	3 HP	5 HP	5 HP	5 HP	7.5 HP
Detergent Rinse	5 HP	7.5 HP	7.5 HP	7.5 HP	10 HP
Final Rinse	3 HP	5 HP	5 HP	5 HP	7.5 HP
Conveying Motor	2 HP	2 HP	2 HP	2 HP	3 HP
Gear Box	40 : 1	50 : 1	50 : 1	50 : 1	50 : 1
Temperature					
First Rinse	Ambient	Ambient	Ambient	Ambient	Ambient
Detergent Rinse	60 - 70° C	60 - 65° C	60 - 65° C	60 - 65°C	60 - 65° C
Final Rinse	55 - 65° C	75 - 80° C			
Medium Required for Water heating	Steam / Electric Heater				
Electrical Load	9.75 Kw	14.5 Kw	14.5 Kw	14.5 Kw	20.8 Kw
Chain Type					
Straight through	Polyacetyle / SS Table top				
Slanting type	SS link chain				
Water Consumption per one time fillings					
First Rinse	500 Ltrs	500 Ltrs	675 Ltrs	800 Ltrs	1000 Ltrs
Detergent Rinse	600 Ltrs	800 Ltrs	1000 Ltrs	1000 Ltrs	1500 Ltrs
Final Rinse	500 Ltrs	500 Ltrs	675 Ltrs	800 Ltrs	1000 Ltrs
Cleaning	360°	3600	360°	360°	3600
Nozzle	150 nos	190 nos	204 nos	204 nos	360 nos
Nozzle Pressure					
First Rinse	3.5 Kg/cm ²				
Detergent Rinse	3.4 Kg/cm ²				
Final Rinse	3.5 Kg/cm ²				

Custom designs available to suit your application





Milk Container Cleaning Machine

Thinking about food contamination and responding appropriately to ensure safe food is a crucial part of food processing operations. Mainly in dairy industry milk Containers are a convenient and attractive means of transportation of milk from farms. It protects milk from environmental influences and damage during distribution. Rigid and semi-rigid containers made of a wide variety of materials are filled with product and securely closed. The container needs to be cleaned to remove soil, foreign objects, and other contaminants.

CAN WASHER (Suitable for 40 Ltrs. Al, Can / Neel Kamal Can)						
Model #	Size	Power	Can / Hr.	Туре		
SSEC CW400	8500X1600X1890	18 Kw	400	Single Line		
SSEC CW600	10500X1600X1890	20 Kw	600	Single Line		
SSEC CW800	10500X1600X1890	20 Kw	800	Single Line		

SS Engineers & Consultants milk container washers offer unrivaled power and durability versus other brands in the market especially for inside / out cleaning. Discover your containers washing solution today by contacting us for a made for your needs.













One key that sets SS Engineers & Consultants apart from its competitors is its continuous research and development and utilization of the highest quality components in construction of all it's machines.



Steam Cleaning/ degreasing machine

SS Engineers Steam Cleaning / Degreasing Machine offers the following benefits:

- Used on carrier, containers to remove excess oil, grease, wax and other <u>non-water soluble particles</u>.
- grease, wax and other <u>non-water soluble particles</u>

 Used where water-based system are impractical.
- Cleans and prepares (degreasing) surfaces for various finishing processes.
- 4. Part oxidation and water spots are eliminated.

These machines finds various applications in Pharma, cosmetic and edible oil industries, where the product is very costlier <u>and the product recovery is important</u>, by the application of steam the oil, grease exist on the surface is removed, letting it drain to store.



Bucket Washer

SS Engineers have developed logistic systems to fully automate the washing process, systems from feeding to disposal. The whole process can be automated no manpower is needed. The speed of the logistics system is linked to the capacity of the washing machine. Making your production completely mechanized.

Drying Systems

SS Engineers & Consultants provide uniquely constructed drying systems with air knives that blow hot or cold air to make dry the wash-out product making it ready to process. SS Engineers can manufacture custom drying systems that seamlessly connect to the washing machine to integrate with your production process.





temperature through water sprinkling as it passes on. The total travel of the cooling conveyor is 6~8.5 meters length which is calculated for effective cooling of the product. SS Engineers Cooling Conveyor functions special designed sprinklers through the body to spray the chilled water. SS Engineers Cooling conveyor is made in a modular construction of 2.5 Mtrs. long and connected together to form the required length.

TIN COOLER (Suitable for 1 Ltr. Tin)						
Model #	Size	Power	Tins / Hr.	Туре		
SSEC TC1200	4000X1400X1300	11 Kw	1200	Single Line		
SSEC TC1600	6000X1400X1300	12 Kw	1600	Single Line		
SSEC TC2400	8500X1400X1300	20 Kw	2400	Single Line		

Our know-how is not simply restricted to crate, pallet and container washers and Conveyors we regard the cleaning of every kind of product as a challenge and have made it as our specialty. Over the course of the years we have designed all types of cleaning systems for jelly cans, plates, lids, moulds, barrels, buckets, and lots more besides. So if you would like your product cleaned in large quantities, then it's certainly worthwhile coming to us.

Pallet Washer

The same is true for pallets; they are used in large numbers worldwide in all sorts and sizes. But no matter what sort of pallet you are using, we have a design to suit cleaning system to match.















Milk Can Scrubber

Can Scrubber is used for cleaning of 40 liter aluminum / SS milk cans, constructed with stainless steel body Immersion tank of 400 liter capacity.

The Can cleaning activity is impossible by hand or may need quite laborious and time consuming. SS Engineers Can scrubbing washer is one good solution for milk farmers/ small milk processors to clean their Cans regularly before and after usage.

SSEC Can Washer are equipped with Two Nylon brush suitable for 40 liter cans cleaning. Motor driven with 1 HP 1440 RPM 3 phase motor with gear box and driving chain making very reasonable operating cost.



Drum Washer - Barrel Washer

Drum washing machine

SS Engineers have developed Drum Washing Machine for the internal and external washing of open drums with water. Three brushes rotate at different speeds which causes a rotating movement of the drum as well as an effective functioning of the brushes. The drum washing machine can be executed for the washing of one drum or two drums with varying dimensions at the same time. The washing machine can be executed with a water saving system which reduces the consumption of water considerably.

Automatic washing installation

For those companies who have to clean large quantities of drums almost continuously, SS Engineers offers a fully automatic washing installation. The containers are placed on a driven conveyor system. The conveyor bett transports the drums to the washing machine. The handling and cleaning is executed fully automatically. After cleaning the drums are led to a tilting device and turned upside down so that the water can leave the drums. The cleaned drums are finally collected on a non driven conveyor belt, ready for re-use.

SSEC after sales service

SSEC believes that a reliable after sales service is essential for a long and fruitful relationship with the customers. Its expert staff having specialist know-how provides after service to customers in no time.





SS Engineers & Consultants also manufactures quality and safety proven fruit and vegetable washerl with years of experience in fruit and vegetable washing machines, SSEC is committed to provide its users with exceptional performance and services.

To meet the growing demand for Vegetable Leafs cleaning equipment, SSEC incorporates sophisticated technologies to enhance the power and convenience of each cleaning machine. In fact, SSEC is the most respected in the industry for its production of high quality, efficient cleaning machines, whether you are looking for a commercial or industrial cleaning equipments.

Bubble Washing Machine

Size : 4000 x 1300 x 1300 (mm) Power: 2.2kw

Rated voltage 415 V Frequency: 50hz Capacity: 1 - 3 ton/h

Usage: Cleaning the surace of

fruits or vegetables.





Paper Machine Cleaning drift sprouts class Function Uses

Function Uses: Uses in the bean sprout class

vegetables loating the skin clean

Characteristics: Floats the skin to be through, the clean effect is good, the skin shell recycling is

convenient

Ozone Disinfection Washing Machine

Function Uses: Uses in carries on the sterlization

disinfection to the vegetables.

Characteristics: Decomposition of pesticide

residues and a Vartety of dry becteria













SS Engineers design and manufacture food industry specific Belt, Roller, Screw and Chain Conveyors in Stainless Steel Construction. Whether you need a single standard conveyor or a complete customengineered conveying system, SSEC can meet your needs.

All SSEC conveyors are constructed modularly. SSEC can install the machines as 'stand alone' or link up various sections to place them 'in line'. Many combinations are possible. Depending on the industry specific requirement.





SS Engineers Bucket, Belt, Chain Roller & Screw Conveyors are

Used for industrial handling / Internal Logistic systems, its automatic handling loading and offloading systems reduces labour and space requirements





Industrial Ultrasonic Parts Cleaning / Washers

Cleaning of industrial parts always is a worry in mechanical industries. Most of the industries are still cleaning the parts by hand scrubbing. The residue on parts has been removed by rubbing the cleaning solution with the help of brush. The cleaning method is time consuming, waste of manpower, still cleaning is not consistence & not up to the mark.

Besides Crates washing equipments, SS Engineers & Consultants has developed Ultrasonic Cleaning equipment for industrial parts cleaning. SS Engineers Ultrasonic cleaning machines are successful in removal of grease, hydraulic oil, rust, grime, carbon, aluminum shavings and material gassing contaminated on industrial parts.

Using SS Engineers Ultrasonic cleaner you can reduce your manpower in hours & number of persons, engaged for parts cleaning process. While cleaning parts in ultrasonic cleaner you will not have to disassemble parts. It will also increase the life of parts.

SS Engineers Ultrasonic cleaning machines are available in single stage and multi stage continuous cleaning models. SS Engineers also manufactures Customized USC as per customer's requirements.

Discover SSEC's ultrasonic cleaning equipments today by contacting us directly for a tailor made quotation for your needs.













Vegetable/Fruit Cutting &Washing Line



Features: It cuts leaf vegetable like spinach, leek, celery, cabbage and water convolvulus, cucumber, eggplant, melons or fish meat. By installing different blade, it can cut different shape of vegetables. It fits the user in kitchen or restaurant and school, vegetable retailer and food processing factory.

This machine is made of SS304 type stainless steel. It conveys the cutting vegetables into the vegetable washer with food-grade rubber of PP net-belt.

This is our specific designed machine for washing vegetables. Its principle is: by the stirring power produced by air flow and water flow,

that machine can wash vegetables completely. Inject water inside the washing case before operation. There're many air pipe under the machine. The air bubble jumps into water from the pump, which forms waves to wash vegetables.

There're also some spraying pipes on the machine to wash once again the vegetables from wager case. According to the user's requirement, we can add the ozone sterilization, blanching, cooling and other functions.



Washer & Peeler & Polishing Production Line



This machine is a large scale closed type washer and peeler for vegetable roots. Materials are pushed forward by the solw rolling brushes. It's mainly used for washing and peeling carrots, potatoes and taros.



Potato Weighing Packing Processing Line: washing peeling-polishing-inspecting-cutting-cleaning-weighing-packing It is a full automatic processing line for vegetable roots like potato, carrot, radish, beets, tumip.ect.

Top & Bottom Spray Washing Machine for Vegetable/Fruit



Product Description:

- * Machine is made of #304 stainless steel mesh conveyor, with high-pressure water spray on top and under the conveyor, in order to wash and clean the whole piece of vegetable/fruit surface completely, without any damage.
- * It's suitable for those vegetable/fruit processing factories, agricultural and sideline products processing enterprise, herbal material processing factories.
- * Machine size dimension can be customized according to different requirements.

Main Parameters:

Dimension: 4200*820*1200 Top & Bottom Spray Power: 1.1kw-2

Driving Power: 1.5kw

Water Recycle Power : 0.25KW Conveyor Width : 700mm



Garlic Seperating Machine



This machine uses food-grade silicone.Because of silica the gap of gel plates and the centrifugal force,it will squeeze the garlic to be individual clove.Garlic stem,garlic skin will be blew away by the fan blower to the side of the machine,which can be collected.Garlic cloves come out from the other side of the machine.This machine performance:high separating rate,low damage rate,easy maintenance and suitable for different species and size of the garlic.

Dimension(mm)	Voltage	Power	Capacity	Separating Rate	Power of Blower
1170*570*1270	220V	1.1kw	500-800kg/h	over 95%	0.375kw

Garlic/Shallot Peeler















This machine should be equipped with an air compressor. Because of the strong air flow produced by air compressor, the cyclone peels off skin of onions smoothly, with low damage rate, It is suitable for those garlic processing industries.

(Large Type, Double Barrel)

(Normal Type)

(Economical Type)

Model	Dimension (mm)	Voltage	Power	Capacity	Net Weight	Air Compressor	Air Pressure	Air Flow
FX-128-2	920*740*1480	220V	2.2kw	200kg/h	150kg	15kw	8-9kg/cm2	2m / min
FX-128	950*790*1300	220V	2.2kw	100kg/h	120kg	7.5kw	8-9kg/cm2	1.05m / min
FX-128S	630*630*1470	220V	2.2kw	70kg/h	90kg	7.5kw	8-9kg/cm2	1.05m / min

Small Type Stuff Cutter



Application: It can cut those vegetable like cabbage, celery,melon,carrot,tumip,bamboo shoots and lotus root etc.

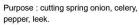
Feature:

- 1. Easy operating and maintenance.
- 2.Small measure, light weight, portable.
- 3.Blades are made of hard manganese steel: Sharp and wear resisting.
- 4.Low power consumption; High efficiency; Suitable for home use.
- 5.No water seepage after cutting.

Dimension (mm)	Voltage	Power	Capacity	Net Weight
290*340*510	220V50/60Hz	1/3hp	40kg/h	15kg

Desk top Onion Cutter









Desk top Leek Cutter











Dimension (mm)	Power	Capacity	Net Weight	Height	Cutting Range
510*360	0.5hp	50kg/h	38kg	520mm	2mm









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Modern life-style is evolving continuously and has given rise to several new needs. In order to meet these needs New Processing Plants have been set up globally. For creating innovative products these processing plants need advanced technologies and equipment. Sri Pumps Group provides such advanced products for numerous industrial sectors.

Established in the year 1999 Sri Pumps Group is a globally recognized manufacturer and supplier of a wide range of products. Sri Pumps Group has a total of 4 manufacturing units located in India. The spacious manufacturing plants, technologically advanced state-of-the-art machinery and modern Infrastructure makes Sri Pumps Group Companies very competitive in this growing world.

SS Engineers & Consultants was established as a subsidiary of Sri Pumps & Fittings Industrial Corporation in 2007. SS Engineers & Consultants specializes in Design, Engineering and Fabrication of Stainless Steel Equipments, Turn-key projects along Cleaning Equipments for a wide Range of Industries.

EQUIPMENTS FOR MINI & LARGE FOOD FACTORIES SS Engineers & consultants are a leading supplier of food processing equipment and solutions in India. Food Processing Equipment requires hygienic design, each processing task is different and has its own difficulties, and today business requires the correct tool for each step in the production process for optimum efficiencies and quality of the end product.

SS Engineers offer complete solutions which includes machinery, complete flow layouts, product lines, CIP Systems, Steam pipe lines, hot and cold water systems, piping and drainage.



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