

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 stand out in 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

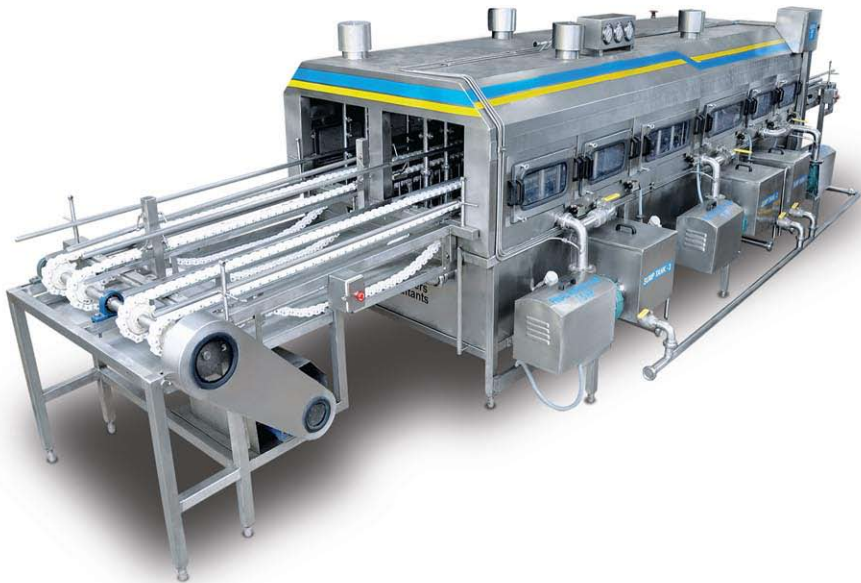
Over the last few years, the manufacturing sector in India has witnessed tremendous growth, which is fuelled by the entry of the Multi National Companies. This growth has brought in vast opportunities for the manufacturing units of Food, Agro, Automotive and Engineering industries. As the Indian economy 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 not 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 speciality. 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.

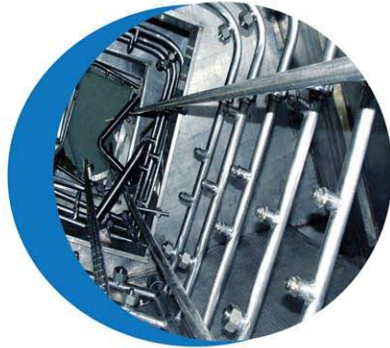
It does not matter what kind of Crates you use, you can clean them through SS Engineer's Crate washing system. SS Engineers uses advanced cleaning technique which can clean all types of crates quickly and efficiently at all the sides.

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



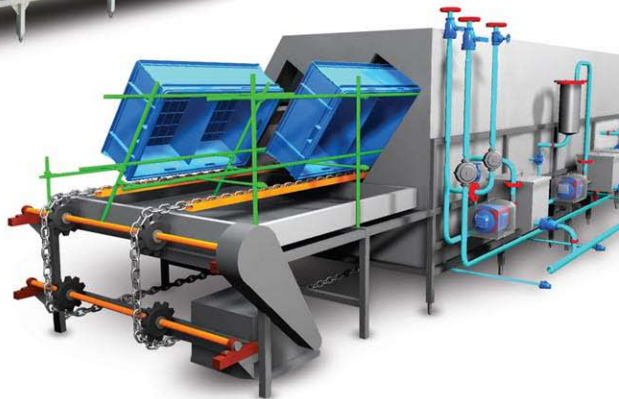
**SS Engineers & Consultants** Crate washers with associated handling systems are manufactured in stainless steel construction to meet the highest possible standards for cleanliness, dryness and efficiency. SS Engineers Washing units fulfill the most demanding requirements for capacity, efficiency, hygiene,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

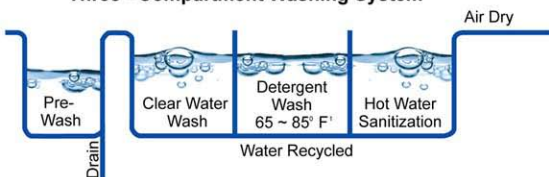


## Must Buy Product

Dairy, Poultry and Live Stock  
 Agro & Sea Food Industries  
 Fruits & Vegetables  
 Processed Food & Beverage  
 Confectionery & Bakeries  
 Super markets & Catering



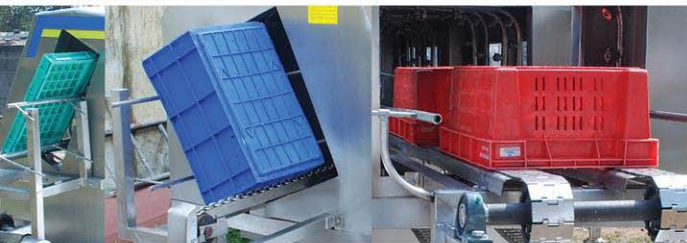
### Three - Compartment Washing System



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 possible 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.

### Three - Compartment Washing System



## SS ENGINEERS STANDARD WASHING MACHINES (CRATE)

Description	400 CPH	800 CPH	1000 CPH	1200 CPH	Double Track 2400 CPH
Crate Dimensions	Crate Sizes are as per customer sizes				
<b>Cycle out put / hr</b>	400 Cr	800 Cr	1000 Cr	1200 Cr	2400 Cr
<b>Dimensions in MM</b>					
Length	4000	4500	5000	5000	5000
Width	900	1000	1200	1200	1800
Height	1750	1850	1850	1850	1750
<b>Loading Pumps</b>					
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
<b>Temperature</b>					
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	75 - 80° C	75 - 80° C	75 - 80° C
<b>Medium Required for Water heating</b>	Steam / Electric Heater	Steam / Electric Heater	Steam / Electric Heater	Steam / Electric Heater	Steam / Electric Heater
<b>Electrical Load</b>	9.75 Kw	14.5 Kw	14.5 Kw	14.5 Kw	20.8 Kw
<b>Chain Type</b>					
Straight through	Polyacetylene / SS Table top	Polyacetylene / SS Table top	Polyacetylene / SS Table top	Polyacetylene / SS Table top	Polyacetylene / SS Table top
Slanting type	SS link chain	SS link chain	SS link chain	SS link chain	SS link chain
<b>Water Consumption per one time fillings</b>					
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
<b>Cleaning</b>	360°	360°	360°	360°	360°
<b>Nozzle</b>	150 nos	190 nos	204 nos	204 nos	360 nos
<b>Nozzle Pressure</b>					
First Rinse	3.5 Kg/cm <sup>2</sup>	3.5 Kg/cm <sup>2</sup>	3.5 Kg/cm <sup>2</sup>	3.5 Kg/cm <sup>2</sup>	3.5 Kg/cm <sup>2</sup>
Detergent Rinse	3.4 Kg/cm <sup>2</sup>	3.4 Kg/cm <sup>2</sup>	3.4 Kg/cm <sup>2</sup>	3.4 Kg/cm <sup>2</sup>	3.4 Kg/cm <sup>2</sup>
Final Rinse	3.5 Kg/cm <sup>2</sup>	3.5 Kg/cm <sup>2</sup>	3.5 Kg/cm <sup>2</sup>	3.5 Kg/cm <sup>2</sup>	3.5 Kg/cm <sup>2</sup>

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.	Type
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 its machines.



## Steam Cleaning/degreasing machine

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

1. Used on carrier, containers to remove excess oil, grease, wax and other non-water soluble particles.
2. Used where water-based system are impractical.
3. 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 and the product recovery is important, 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.



## Tin Cooling Conveyor

SS Engineers Tin Cooler transfer the heat to ambient 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.



## 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.

TIN COOLER (Suitable for 1 Ltr. Tin)				
Model #	Size	Power	Tins / Hr.	Type
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.





## 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 belt 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 washer! 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 sterilization disinfection to the vegetables.

**Characteristics:** Decomposition of pesticide residues and a Vartety of dry becteria



We welcome the opportunity to bring you our industry-specific expertise. From design to installation of the logistic systems.



Let SS Engineers & Consultants solve your material handling concerns.



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 custom-engineered 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 consistent & 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.






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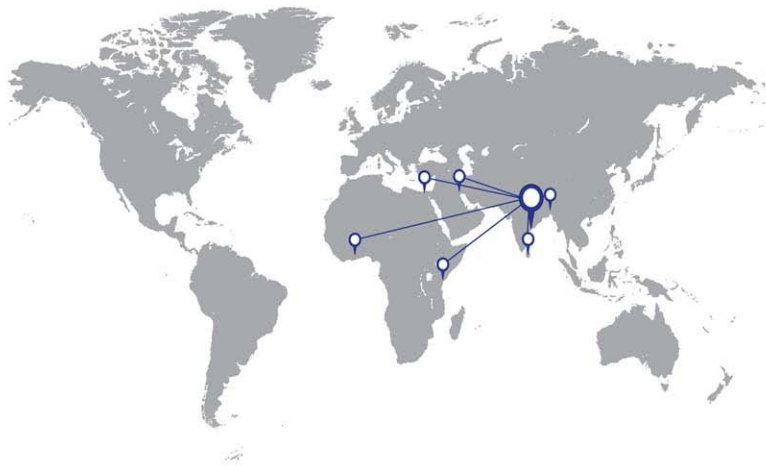

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# manufacturing & solutions



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.

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.

 **SS Engineers  
& Consultants**

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