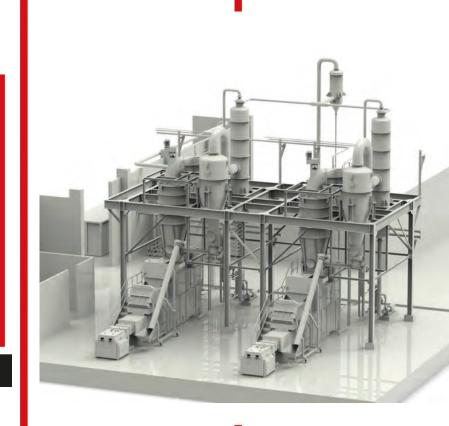


## THE THIRD MILLENIUM COMPANY

Customer satisfaction is our mission, experience is our strenght.







## PRODUCER OF SOAP PLANTS









60 COUNTRIES +50 INSTALLED 250 FINISHING PLANTS















#### Soap and detergent experts



Soaptec is an Italian company specialized in design, production and marketing of equipment and plants for the production of soap and detergent.

Thanks to a staff that can boast over sixty years of experience in the field and a solid group of companies that use our machinery for the production of solid and liquid detergents, our company is recognized as one of the market leaders in the sector at an international level

#### Soaptec is synonym of quality, competence and professionalism.

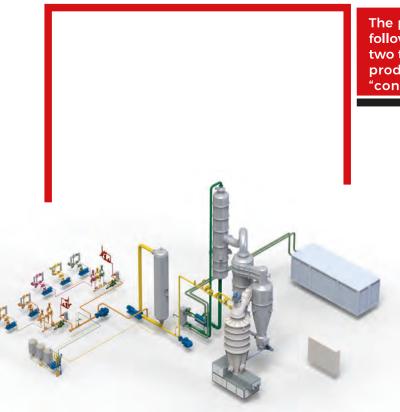
The team of engineers and technicians who collaborate in the design and construction of equipment and plants for the production of soap works tirelessly, with attention and passion, always offering products of exceptional reliability, functionality and flexibility.

All our projects are tailor made, to best meet the needs of customers keeping the costs at minimum.

The great attention to details and the robustness of the construction ensure longevity and resistance of the machinery, so that the value of the equipment persists over time.



### **Saponification plants**



The process leading to saponification, whether you follow a Full Boiled or Half Boiled process, can be of two types: "batch", in which you work in batches and produce a fixed quantity of soap at a time, or "continuous".

> The batch process consists of loading raw materials and processing them until the desired product is obtained

> For the Half Boiled version, we use Crutchers, vertical liquid mixers that ensure contact between the reactants (raw materials) until the reaction is complete. For the Full Boiled version, a saponification kettle is normally used.

> Precise dosing of Raw materials is not extremely important as the nature of this process allows for corrections during processing.

> The continuous process, on the other hand, does not allow dosing errors and it is therefore important to rely on a plant with well designed dosing units.



### **Saponification plants**



TAILOR MADE PROJECTS

sophisticated and dedicated The software controls and records all the sensitive parameters of the plant. Each detail of the plant is designed by our technical team, the core of our business.







#### Toilet and laundry soap vacuum dryers



Soaptec can supply all the types of vacuum dryer plant capable to produce Laundry soap (low tfm) and Toilet soap (up to 82% TFM), with all the different configurations. in terms of equipment and automatization. We cover all the capacity from 1 to 10 t/h.

#### **Brief Description of our integrated and compact Dryer:**

The liquid soap (Neat Soap) coming from the saponification is sent directly to the atomiser through a shell and tube heat exchanger.

The conditions inside the atomiser are such that the soap releases excess moisture and reaches the desired temperature. The vapours released during the process are sucked out of the vacuum system through powder separators (cyclones). The vacuum system must ensure that evaporated moisture is removed and residual pressure is maintained at the desired levels.



#### Toilet and laundry soap vacuum dryers

Soaptec has developed a direct condensation system in the separate circuit that offers many advantages over alternative systems. The extra water (with the newly formed condensate) undergoes a temperature rise due to the absorption of the condensation heat of the vapours coming from the system.

The water is recirculated around the condenser through a heat exchanger in which it gives up this excess heat to the cold water produced by a chiller, which circulates in a counter-corrent flow. This system offers almost total control of the condensing temperature, ensuring the required residual pressure levels.

Excess recirculating water (the condensate) is eliminated by means of a level maintenance system in the condenser. The excess water is sent back into the process water storage tank.

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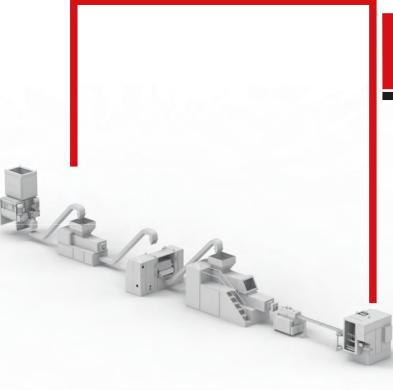
#### TAILOR MADE PROJECTS

We supply our plants with all the engineering drawings and all the engineering support.





#### Finishing lines



The finishing line represents the last stage of soap processing.

Through the use of cutting-edge machinery, the product is prepared to be put on the market.

Soaptec proposes industrial finishing lines, composed of a wide selection of machinery, able to complete all the steps that come before storage and sale of bar soap.

All the machines and lines designed and built by our company are made to perfectly meet the client's needs. For this reason they are completely customized; for example, the customer can select the most suitable piece of machinery according to their production capacity, the type of soap they produce and the soap shape.

Soaptec produces all the machineries from Mixer to Flow Packing machine, all the way through plodder refiners, roll mills, duplex or triplex vacuum plodders cutters and stampers.



## Finishing lines





Easy maintenance is what we strive for when designing our machines.

Advanced technology and a customer oriented mind for a user friendly equipment.







#### Powder detergent technology



Soaptec supplies spray tower plants for hand washing and machine washing powder detergent, from the dosing of the raw materials up to finished product, all the way through the spray tower and including post addition plant.

The spray tower is essentially a suitably sized (quite large!) steel tube in which the hot air entering the lower part of the tower (burner) bakes the droplets of detergent slurry that are sprayed on top of it. As they fall to the bottom of the tower, these droplets form perfect spherical shapes and heat up, causing the water inside to boil.

This steam forces the solids onto the outer surface of the sphere and finally, when the internal pressure rises beyond the limit, breaks away from the sphere leaving it hollow. This shape is called a 'hollow bead'. These hollow beads are what the detergent powder is mainly composed of. What we find at the bottom of the tower is called "base powder".

Before its further use, the product has to cool and be sieved to ensure its homogenity and the correct size of its particles. Any lump and out-of-specification material is recycled back into slurry production.



### Powder detergent technology





#### Liquid detergent technology



The Personal Care category includes all products used for personal care, such as shampoo, shower gel, conditioner, body lotion, and face cream; whereas, the Household one includes the full range of household care products, such as dishwasher, floor cleaner, liquid detergent, and fabric softener.

Although similar in nature, the production of these different types of soap requires specific processes. Soaptec's state-of-the-art of liquid soap production plants help soap manufacturers to create products that fully comply with safety regulations and market expectations.

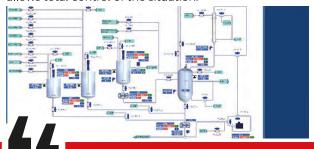
Our company specializes in the manufacture of customized plants and machinery dedicated to the production of Personal Care and Household soaps.

Based on individual requirements, our company designs and builds custom compound plants using different types of basic elements such as reactors and mixers, agitators, homogenizers, recycle pumps, heat exchangers and so on.



#### Liquid detergent technology

**Soaptec knows how much the dosing of raw materials is essential to produce good-quality liquid soap**; that's why, other than manually dosing solutions, Soaptec also offers sophisticated instrumentation to perfectly weigh the ingredients before feeding them to the reactor. The sequence of the various production steps also plays a key role in the quality of the soap. To address the need for control and monitoring of the various activities, Soaptec has developed a complex software that allows total control of the situation.



TAILOR MADE PROJECTS

"Chem studio" is the unique and flexible software to obtain the finished product top quality.







## SCAN THE QR CODE

to access the download area of our website where you will find commercial and technical presentations of our company and products.





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