

Steam ⁺Batch Sterilization

100% Natural



History

NOW

Going Forward
Imtech-Steri's reputation for providing high quality Sterilization plants is now firmly established. More than 20 plants currently have a Global Support Contract with Imtech Steri.



2007 / 2014



Installation of Pasteurization plants worldwide: USA, India, Egypt, Germany, Italy, France, UK, Turkey.

2006

Creation of a new business unit dedicated to the Food Industry. Imtech becomes Imtech-Steri and starts to brand it's own units and supplies the market direct with the new product line BIOSTEAM.

IMTECH



**Imtech
Steri**



1998

A new partnership is created with SteamLab, the market leader in sales of pasteurization plants designed by Imtech. Three plants are installed in Europe on the basis of this partnership.



1994

First installation of units in the Food Industry (in Switzerland and Germany) in partnership with Zellgern. The first products to be treated are mushrooms and herbs.



1989

The Food Industry shows interest in Pasteurization using Saturated Steam. Imtech starts tests and development to adapt the Autoclave Technology to Food Industry requirements.



1979

Founding of Imtech AG. The name is derived from: Industrial and Medical Technology. Activities start with the installation and maintenance of Autoclaves for the Swiss Pharma & Chemical industries.



Experience

Our Experience of more than 35 years ensures that we offer optimal and current solutions to our customers.

Advanced Technology/Innovation

At all times we want to be one step ahead with our know-how and technology. We are always investing in research and development to offer optimal and advanced Sterilization plants.

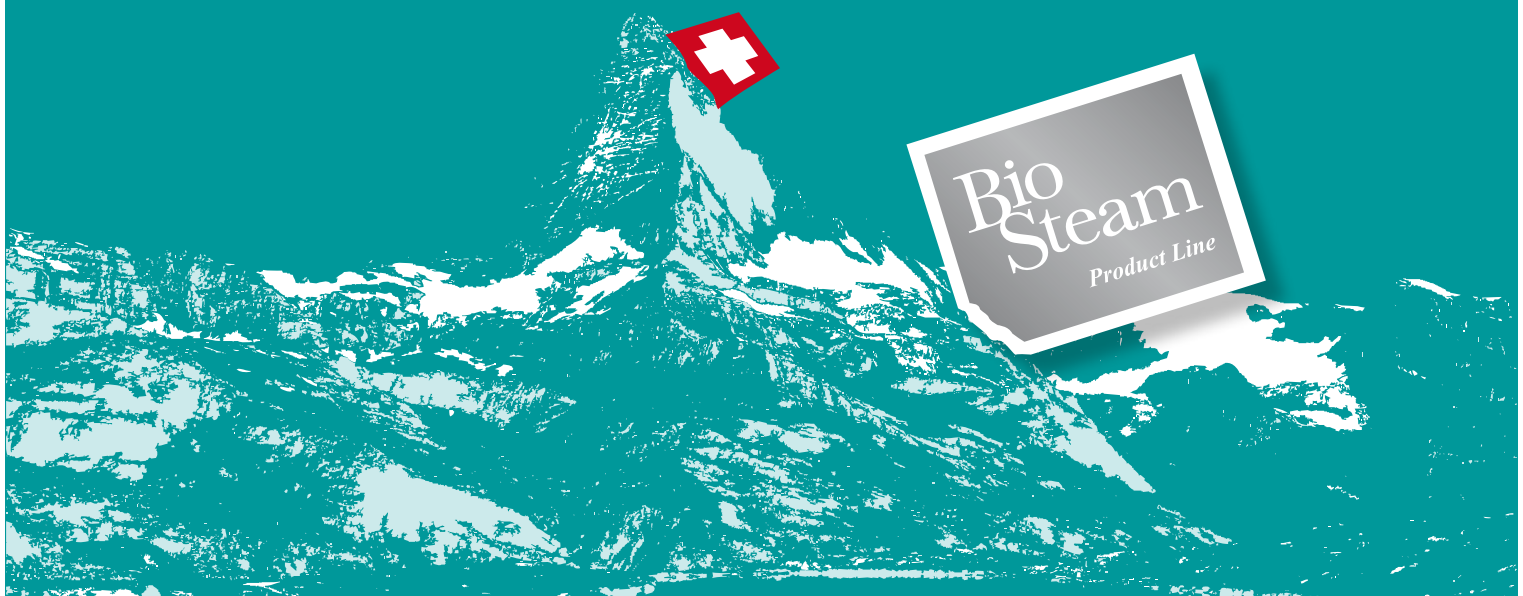
Flexibility/Customized

It is our aim to always offer a customized technical solution that complies with all the specific requirements of the customer – not one that requires clients to adapt their needs.

Service/Sustainability

We are always there for our clients. From first request through after-sales service and maintenance. We are your professional partner, now and in the long term.

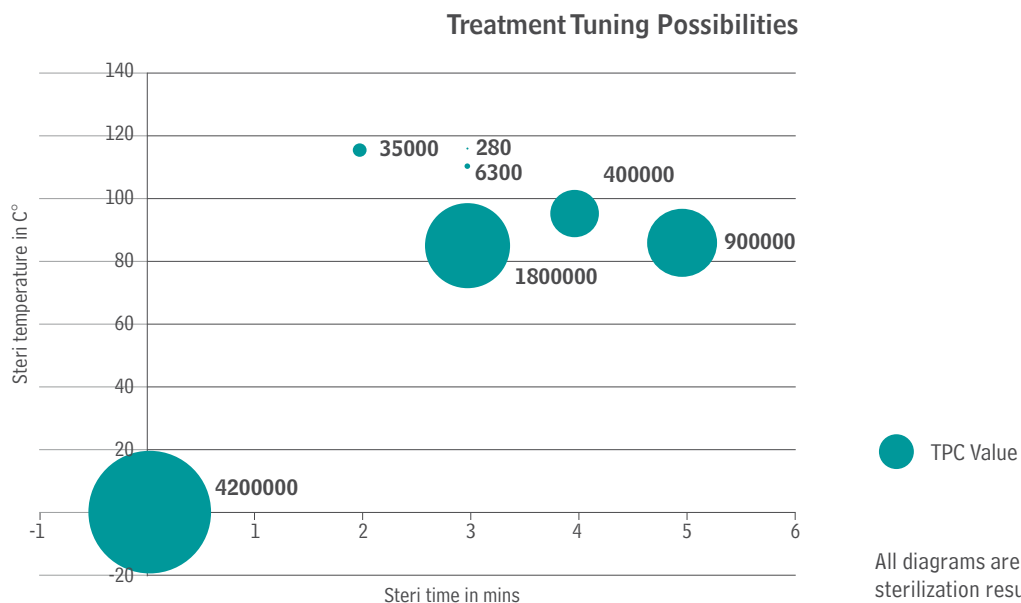
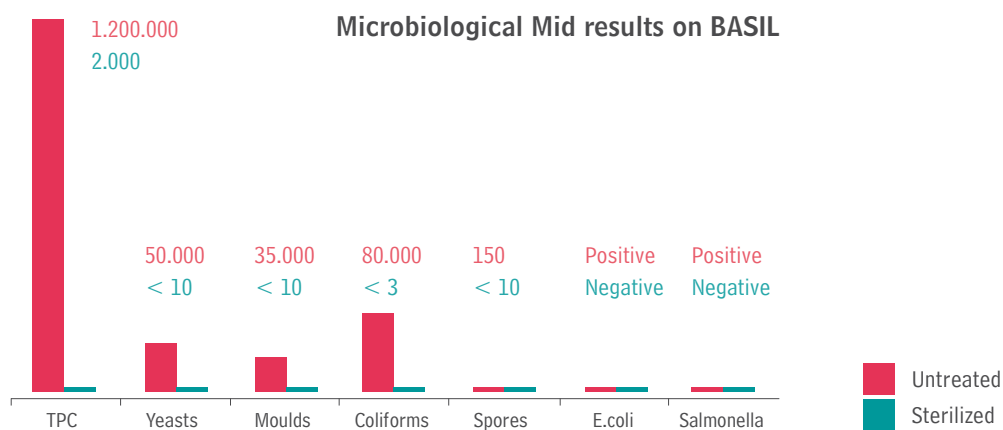
Swiss Made!



Natural Steam Sterilization – Solutions for the Food-Industry

Whether dry fruits, nuts, seeds, herbs or spices: decide on the natural Steam-Sterilization system. Different shapes can be treated: whole, pieces, leaves, chopped, crushed, powdered. You are able to destroy dangerous microorganisms effectively and without residues. Quality and look of the products remains constant. Lastly and most importantly our Sterilization Process is chemical and radiation free.

Reduction from 3 to 7 logs Effective microorganism kill



All diagrams are examples of our sterilization results.



Stability of Consistence: Color/Moisture/Oil

Our Steam Sterilization System maintains the quality of the products. Flavor and Taste, Color and Moisture: there are minimal or no changes. Volatile Oil content is the most difficult to preserve during Sterilization treatment. Our experience allows us to maximize the efficiency of oil preservation.

PRODUCT	Steri. Temp.	Steri. Time	Post Vacuum	Water Activity	Moisture
Ground Turmeric	Untreated			0,527	11,57%
Ground Turmeric	105	3	12	0,489	11,04%
Ground Turmeric	110	2	12	0,467	11,1%

Dandelion Root Powder	Untreated			5,630	13,08%
Dandelion Root Powder	75	3	10	6,570	13,02%
Dandelion Root Powder	90	2	10	6,220	13,05%



The Batch-Process

FLEXIBLE – DIFFERENT PROGRAMMS FOR
DIFFERENT PRODUCTS – REUSABLE

SHORT TREATMENT TIMES

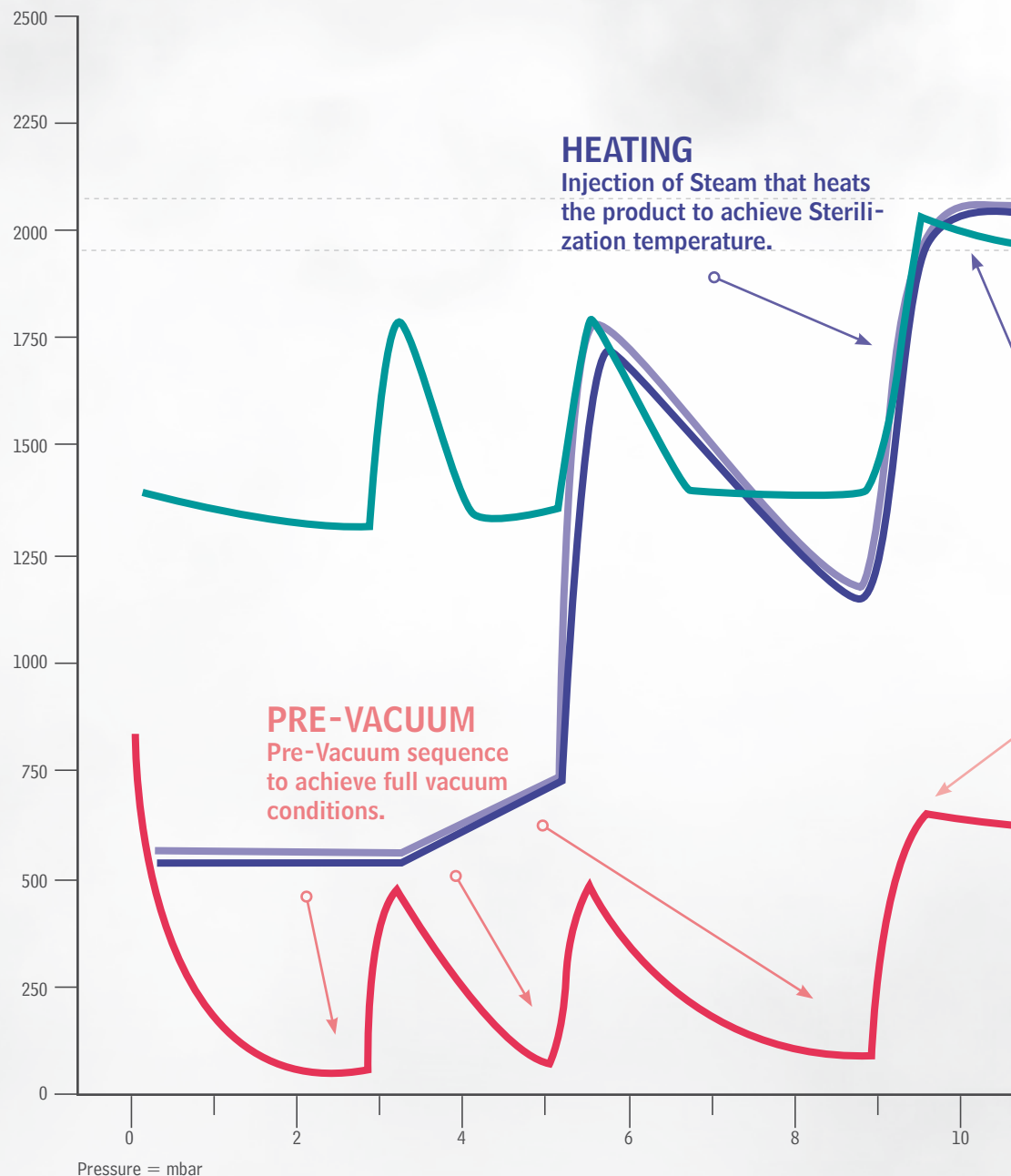
CONSTANT GUARANTEED
TREATMENT PROCESSES

Bio
St

LOADING



CHOICE AND START OF PROGRAM



Saturated Steam demonstrates a constant Temperature / Pressure curve. It is pure steam that comes from boiling water. The Saturated Steam is introduced into an air-free environment (under vacuum) and expands to fill the empty space. This process ensures an optimal penetration and a heat transfer onto the product being sterilized. The fast heat application kills the pathogens efficiently.

Saturated Steam

by  **Imtech**
Steri

100% NATURAL

NO RADIATION

NO CHEMICAL
SUBSTANCES

REMOVAL



Temperature: Product

STERILIZATION

At this stage the load will be sterilized with saturated steam under pressure for a specific predetermined time.

Temperature: Chamber

VENTILATION

The chamber is ventilated to room pressure with sterile air.

Temperature: Product

Pressure

EMPTYING / DRYING

Steam removal, with use of a post-vacuum sequence, to evacuate the steam and the heat from the product.

12

14

Time = 1 mins.

18

20

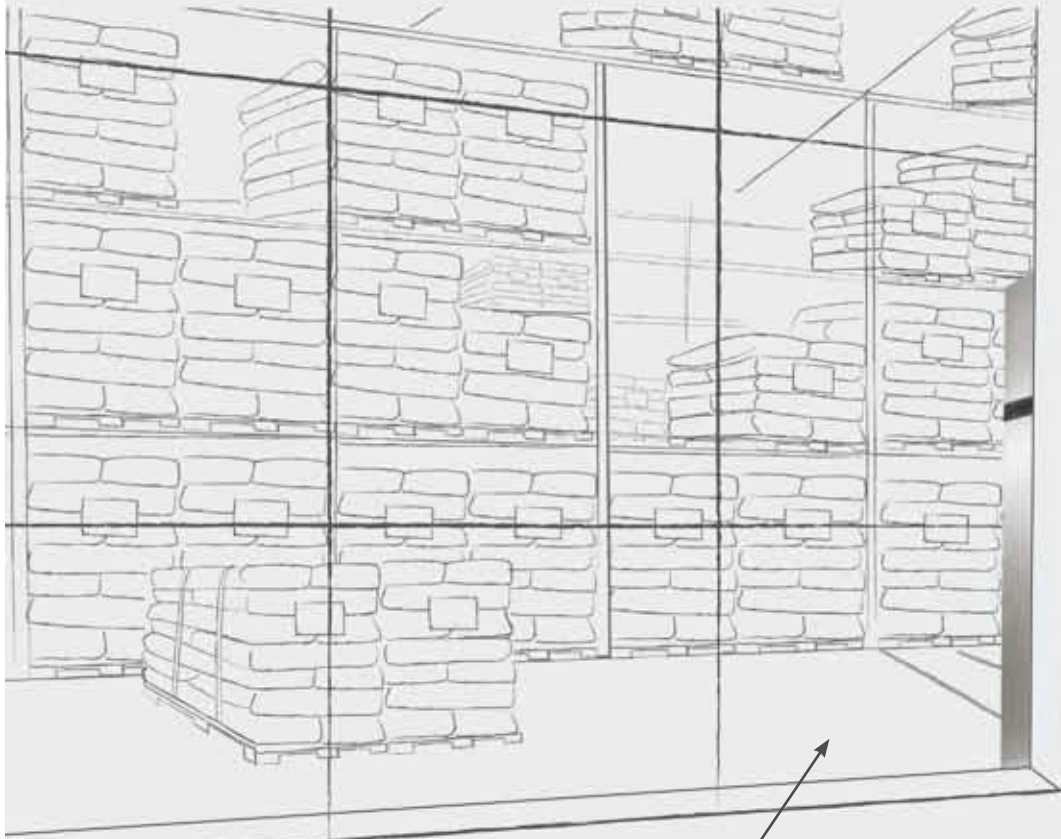
22

24

26

Temp. = 1 °C

Sterilization Plant in Manufacturing Conditions



AFTER TREATMENT

The bags are unloaded and the product repacked or palletized. The product can either go on to further processes or go to storage for shipment.



FULLY AUTOMATED PROCESS

The Batch process is fully controlled by our PLC system and specialized software developed by Imtech-Steri. The system is flexible and offers many options.

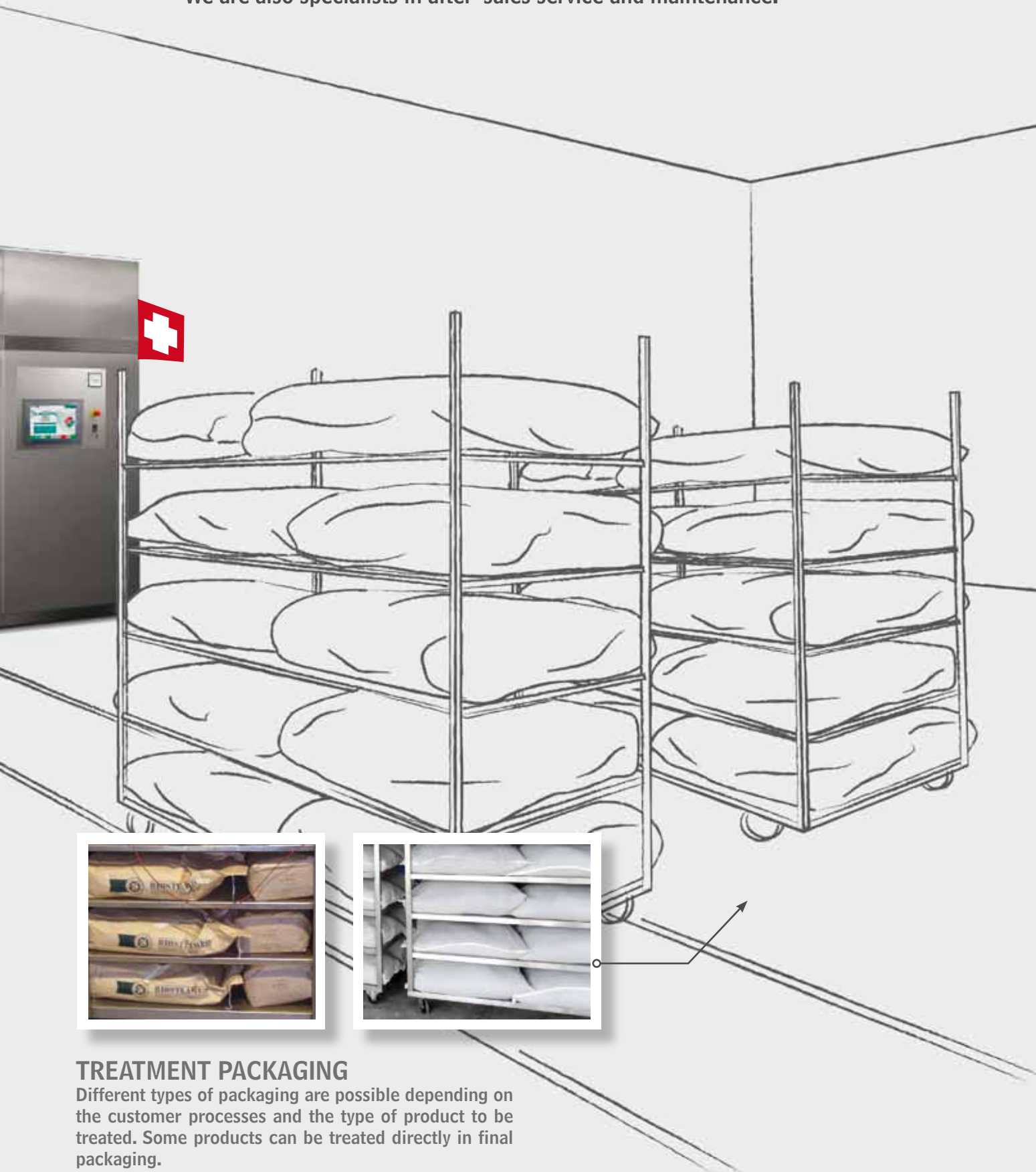


LOADING

The chamber can be loaded by different conveyors including Trolleys. These are loaded by an operator on the Non Sterile Side and unloaded on the Clean Side after the Batch process.

Steam Sterilization – we design, plan, produce and install customized Pasteurization-plants. The Size of the plant is scaled according your production requirements (capacities from 100 kg/h to 3 ton/h).

We are also specialists in after-sales service and maintenance.



TREATMENT PACKAGING

Different types of packaging are possible depending on the customer processes and the type of product to be treated. Some products can be treated directly in final packaging.

Approved all over the world

We have the confidence of our clients.

Our high quality standards, our decades of experience and our reputable workforce have made Imtech-Steri the favorite and trusted partner in many industries.



CUSTOMERS THROUGHOUT THE WORLD AND TIME

EUROPE

More than 10 plants have been installed in European countries, including: Switzerland, France, Germany, Italy, UK, Turkey.

We have been installing units since 1994. Most units are used to treat imported Herbs and Spices.

USA

5 plants installed countrywide for treating Herbs, Spices and Nuts.

ASIA

3 units were installed at different locations in India. These customers are all large exporters of Safe Spices from India.

MIDDLE EAST

After a first installation in Egypt in 2007, we installed another unit in 2012 for the export of Safe products from Egypt.

Case Studies

WEBB JAMES – ITALY

Webb James is one of the first companies to invest in Steam Sterilization in Europe. We installed their unit in 2001 and have constantly updated and serviced it since then. Webb James treats all types of spices from around the world that are imported to Europe.



FRONTIER COOP – USA

Frontier Natural product is an American company that was seeking a Sterilization system compliant with their market focus and philosophy: Organic and Natural products.

We installed a first unit of 2,7m³ in 2009. In 2011 they ordered a second twin unit to expand their production capacity and also to combine production with validation needs.



GIZA SEEDS & HERBS – EGYPT

As a big exporter from Egypt, Giza Seeds & Herbs invested in a Steam sterilization plant in 2012. In partnership with their main customer they selected the Batch system from Imtech-Steri which fulfilled their production requirements.



Natural ^{CH}Quality in your hands



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