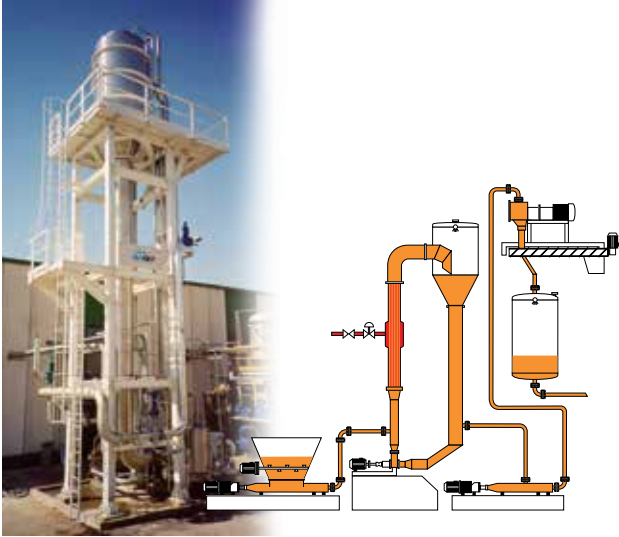


Tomato Processing Line



Simplicity of design high quality
and greater yield



Features and benefits of JBT's tomato paste processing systems

JBT's technology has been developed to meet the demands of today's tomato processing requirements. Our total commitment has led to the development of innovative equipment to improve overall operating efficiency, minimize downtime for maintenance, and, most important, reduce capital investments.

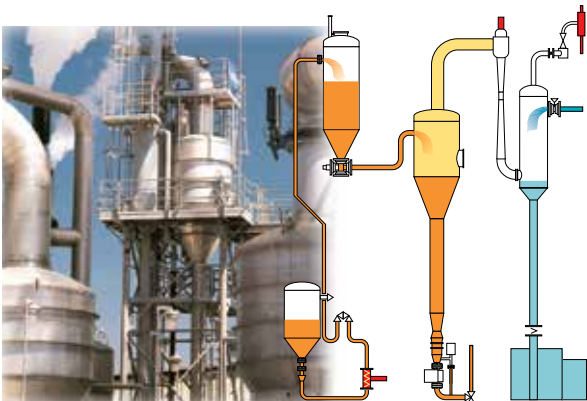
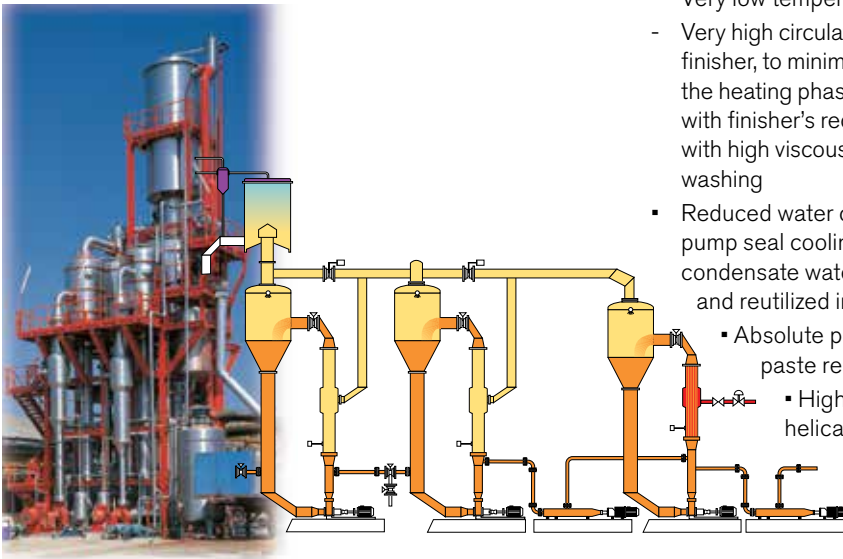
High Quality Juice Preparation

JBT's methods of enzyme treatment is the major reason for the high quality of tomato juice to be concentrated.

High Quality Paste Production

JBT's Corporation has developed state-of-the-art evaporators designed to provide:

- Superior tomato paste quality, achieved by:
 - Reduced holding time, particularly at the higher concentration
 - Very low temperatures in all the effects
 - Very high circulating speed in all the stages, specially in the finisher, to minimize the thermal damage to the product during the heating phase (inside the tube nest). This solution together with finisher's reduced size permit longer operating cycle, even with high viscous products (low Bostwick), without stopping for washing
 - Reduced water consumption (only required for technical needs: pump seal cooling, cooling tower circuit make-up, etc.); Even condensate water from the secondary vapors can be recovered and reutilized in the fresh product supply circuit
 - Absolute precision in the measurement of the optical paste residue
 - High performance of product recirculation pumps, helical centrifugal type, specifically designed and tested to operate even in the most difficult working conditions
 - Special inducers to ensure extremely high efficiency and very low NPSH, thus preventing the well known cavitation phenomena
 - Excellent performance of the recirculation pumps and fast product flow inside the tube nests, results in high final concentration i.e.: up to 32°Bx with Hot Break paste and 40-42°Bx with Cold Break paste
 - Juice deaeration before concentration
 - Automatic set-up
 - Reduced steam consumption by using multi-effects machines.





High Quality Paste Sterilization

The JBT/Franrica Aseptic Flash Cooler is actually the best system for sterilization and aseptic cooling of tomato paste. The machine, which is designed according to specific technological criteria, guarantees the following advantages:

- Better color and higher consistency of the concentrate
- Lower energy consumption
- Lower maintenance
- Longer operations; machine could run without loss of sterility for over 90 days
- Higher flexibility.

Hot break/cold break preparation

Designed to produce the best quality Hot Break tomato juice (it is so flexible that it can be used for Cold Break as well), the unit inactivates completely the pectolytic enzymes by instantaneous product heating.

The unit provides with the following advantages:

- Increased juice extraction yield
- Increased viscosity by practically eliminating the syneresis phenomena
- Increased consistency in the final concentrate.

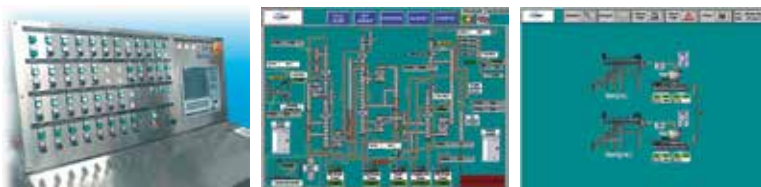
Receiving and Ancillary Equipment



1. Storage pools
2. Receiving, pre-washing and water conveying
3. Water filtering
4. Cooling towers



Cold Break



Evaporation

All JBT's evaporators are specifically designed to obtain high quality tomato paste.

As a matter of facts, the low temperature profile of all the machines is the key factor in maintaining the organoleptic properties of the fresh fruit.

The multiple effects design allows energy saving thus reducing operating costs.

Each effect basically includes:

- a vertical tube-nest
- a liquid vapor separation chamber
- a recirculation pump.

The evaporator operates under vacuum which is maintained by a barometric condenser connected to the evaporator's last effect and to a vacuum pump.

Machines operations, including start-up and shut-down, are controlled by PC/PLC system; operator's intervention is consequently limited to menu's selection.

Juice Refining

Variable speed turbo-extractor(s) separates the peels and seeds from the pulp, extracts and refines the juice. Juice Extractor FTE offers the possibility to adjust the squeeze grade during the process.

The rotor, featuring uninterrupted blade contour, units high juice extraction capacity with a unrivalled product softness.

The machine includes an automatically programmable CIP.



Sterilization, Holding and Aseptic cooling

The JBT/Franrica aseptic flash cooler is widely used to sterilize and cool aseptically the tomato paste coming from the evaporator.

The paste is:

- sterilized with an in-line steam injector
- held in a hot tank
- cooled in an aseptic flash separator
- extracted by an aseptic lobes type pump.

The unit is designed to:

- preserve the natural color and flavors
- assure instantaneous heating and cooling
- make a light evaporation
- maintain paste consistency value.

The Flash Cooler does not reologically stress the product thus not affecting at all both consistency and viscosity over the time.

The fast heating and cooling system prevents any additional thermal spoilage to the product.

As an alternative, the traditional tube-in-tube sterilizer/cooler is also available.



Tube-in-Tube Sterilizer/Cooler

Suitable configurations and type:

4 Tube-in-Tube design

Heat transfer effectively occurs from both sides. Scientifically disposed fins, inside the annular space, act as static mixer, to ensure a more uniform and effective heat exchange by convection also at low product speed.

- High-viscous
- Concentrate.

Dimple Tube

Patented JBT, It utilizes a unique internal tube design that incorporates smooth interruptions on the internal surface to gently agitate product with minimal abrasion and shearing. This type of Heat Exchanger offers: enhanced drainage, stable temperature control, prolonged operation, enhance of heat transfer and easy tube inspection.

Dimple Tube Heat Exchangers are efficient in heating and cooling. Turbulating design facilitates excellent heat transfer with lower product velocity and reduced pressure drop.

- Low-viscous
- Diced/Particulate.



Aseptic filling

After proper heat treatment, paste is filled in aseptic bag. The JBT's wide range of single and double head machines, gives the possibility of filling any type of aseptic bags ranging between 5 and 300 US gallons.



Filling Head



Drum Filling



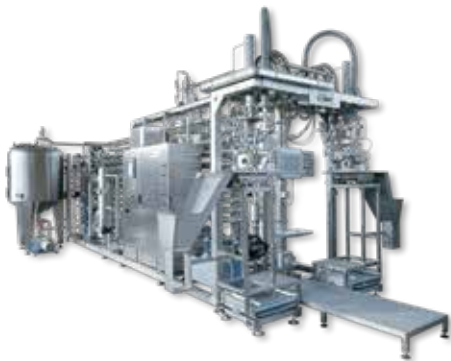
Bin Filling



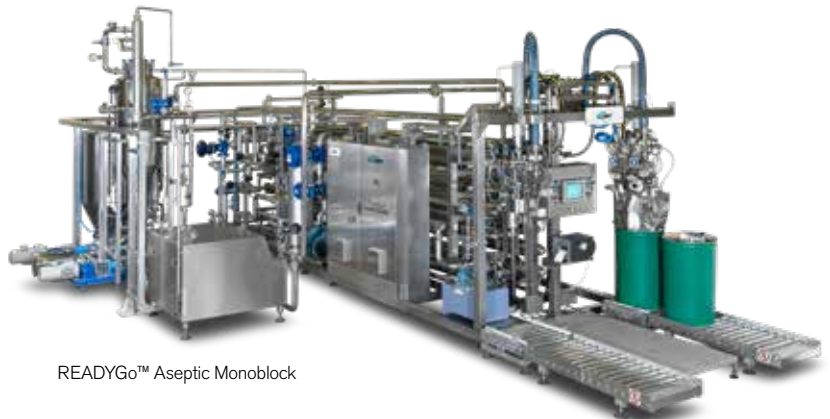
Aseptic Filler



Aseptic Fillers



READYGo™ Aseptic Monoblock with small bags kit



READYGo™ Aseptic Monoblock

COUNT ON JBT TO HELP PROTECT YOUR INVESTMENT

JBT's greatest value in PProCARE® services comes from preventing unexpected costs through smart, purposeful, and timely maintenance based on unmatched knowledge and expertise. PProCARE service packages are offered as a maintenance agreement in various service levels, depending on your production and cost management requirements.



JBT LIQUID FOODS

FRESH PRODUCE TECHNOLOGIES | FRESH-CUT, ROBOTICS, STEAMING | FRUIT AND VEGETABLE PROCESSING | SECONDARY PROCESSING | ASEPTIC SYSTEMS | FILLING AND CLOSING | IN-CONTAINER STERILIZING | TRAY SEALING | HIGH-PRESSURE PROCESSING | POWDER PROCESSING | TUNA PROCESSING

OUR BRANDS



Europe

John Bean Technologies SpA
Via Mantova 63/A
43122 Parma
Italy
Phone: +39 0521 908 411
Fax: +39 0521 460 897

John Bean Technologies NV
Breedstraat 3
9100 Sint-Niklaas
Belgium
Phone: +32 3 780 1211
Fax: +32 3 777 7955

John Bean Technologies Spain, S.L.U.
Autovia A-2, km 34,400
28805 Alcalá de Henares
Madrid, Spain
Phone: +34 91 304 0045
Fax: +34 91 327 5003

Latin America

JBT de México S de RL de CV
Camino Real a San Andrés Cholula No. 2612
Col. San Bernardino Tlaxcalancingo
72820 San Andrés Cholula, Puebla
México
Phone: +52 222 329 4902
Fax: +52 222 329 4903

North America

John Bean Technologies Corporation
400 Fairway Avenue
Lakeland, FL 33801
USA
Phone: +1 863 683 5411
Fax: +1 863 680 3672

John Bean Technologies Corporation
2300 Industrial Avenue
Madera CA 93639
USA
Phone: +1 559 661 3200
Fax: +1 559 661 3156

South America

John Bean Technologies Máq.
e Equip. Ind. Ltda.
Av. Eng Camilo Dinucci 4605
14808-900 Araraquara, São Paulo
Brazil
Phone: +55 16 3301 2000
Fax: +55 16 3301 2144

Asia Pacific

John Bean Technologies (Shanghai) Co., Ltd.
Room 1908, Hongwell International Plaza,
1600 West Zhongshan Road,
Xuhui District, Shanghai 200235,
PRC
Phone: +86 21 3339 1588
Fax: +86 21 3339 1599

John Bean Technologies (Thailand) Ltd.
No. 159/26 Serm-Mit Tower
Room no. 1602-3 Sukhumvit 21 Road
Klongtoey Nua Sub-district, Wattana District
Bangkok 10110 Thailand
Phone: +66 2 257 4000
Fax: +66 2 261 4099

South Africa

John Bean Technologies (Pty) Ltd.
Koper Street
Brackenfell
Cape Town, South Africa 7560
Phone: +27 21 982 1130
Fax: +27 21 982 1136



We're with you, right down the line.™

hello@jbt.com | jbt.com

