



B&P Engineering

COMPLETE LINES

FOR PRODUCTION OF FRUIT JUICES
AND CONCENTRATES

Greenfield investments | Execution of turnkey projects

- ✓ Evaporation stations
- ✓ Ultrafiltration systems
- ✓ Hydraulic presses
- ✓ Pasteurisation systems
- ✓ Aseptic Filtration Systems
- ✓ Clean in place stations
- ✓ Processing, storage and aseptic tanks
- ✓ Automation and visualisation of technological processes



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Table of Contents

Information about B&P Engineering	4
Why B&P Engineering?	6
Equipment and machines for the production of fruit juices and concentrates	7
Raw material receipt and transport section	
Raw material unloading methods – wet and dry.....	7
Sorting machines.....	7
Water and air cleaners	8
Vertical elevators.....	8
Basket feeders	8
Pulp preparation and juice extraction section	
Belt feeders	9
Roll feeders.....	9
Mills and shredders.....	10
Tube heat exchangers (pulp heaters).....	11
Feed screws.....	11
Piston-cylinder pressing units IPS 5.000, 10.000 i 15.000.....	12
Tanks	
Stainless steel tanks.....	13
Depectinization section	
Clarificant preparation station.....	14
Depectinization tanks.....	14
Filtration section	
XL Ultrafiltration system	15
Concentration section	
Falling film evaporators.....	16
Aroma extraction stations	16
Storage	17
Aseptic warehouses for NFC juices and concentrates.....	17
Tank sterilizer	17
Piping system - pipings.....	18
Automation and visualisation.....	19
Automation and visualisation of production processes	19
Automation and visualisation of individual new and used equipment	19
Control systems for recipe-dependent processes	19
Additional devices	20
MONA Aseptic Filtration Systems	20
CIP cleaning station.....	20
Mixers for processing tanks.....	21
Pasteurisation systems	21
Termobreak.....	22
Juice mixing station	23
Selected realizations	24
A complete line for production of apple and coloured fruits concentrates	24
Manufacturing concentrate production line component parts.....	24
NFC warehouse and juice and concentrate production line modernisation	25
Complete fruit concentrate and puree production line	25
Delivery, assembly and start-up of fruit concentrates production line component parts.....	26
Automated tank room for concentrate storage	26
Quality assurance.....	27

Information about B&P Engineering

We are a dynamically developing and technologically advanced company. Our primary activity is manufacturing of high quality machines and devices for the production of juices and concentrates.

In the turnkey system we construct complete lines for the production of juices and concentrates as well as fully-automated warehouses.



GENERAL INFORMATION

ESTABLISHMENT OF THE COMPANY

2003

NUMBER OF EMPLOYEES

320

PRODUCTION SPACE

25 000 m²

REGISTERED OFFICE AND PRODUCTION PLANT

B&P Engineering
ul. Lubomirskich 1e
37-200 Przeworsk, Poland



In B&P Engineering we concentrate on providing comprehensive services to our customers. We specialize in Greenfield projects. Qualified staff of programmers, automation specialists and designers allows us to build state-of-the-art production facilities and to design and construct reliable machines equipped with the latest automatic and control systems.

Our customers can count on professional support services. Qualified members of the servicing team quickly diagnose and eliminate the problem in order to maximally shorten the downtime of the device.



Equipment and machines for the production of fruit juices and concentrates

■ Raw material receipt and transport section

- Raw material unloading methods – wet and dry
- Sorting machines
- Water and air cleaners
- Vertical elevators
- Basket feeders

■ Pulp preparation and juice extraction section

- Belt feeders
- Roll feeders
- Mills and shredders
- Tube heat exchangers (pulp heaters)
- Feed screws
- Piston-cylinder pressing units IPS 5.000, 10.000 and 15.000

■ Tanks

- Stainless steel tanks

■ Depectinization section

- Clarificant preparation station
- Depectinization tanks

■ Filtration section

- XL ultrafiltration system

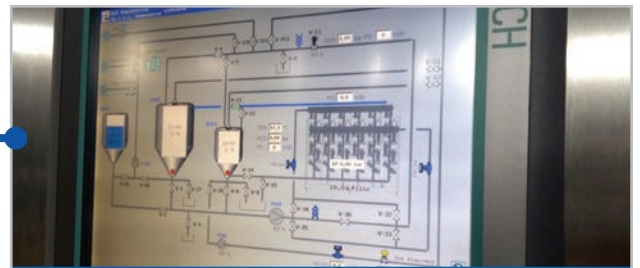
■ Concentration section

- Falling film evaporators
- Aroma extraction sections



Storage

- NFC juice aseptic warehouses and concentrates warehouses
- Tank sterilizer
- Piping system – pipings



Automatic systems and controls

- Automation and visualisation of production processes
- Automation and visualisation of individual new and used equipment
- Control systems for recipe-dependent processes



Additional equipment

- MONA Aseptic Filtration System
- CIP cleaning station
- Processing tanks mixers
- Pasteurisation systems
- Termobreak
- Juice mixing station

Why B&P Engineering?

We started as a company producing fruit juices and concentrates, therefore we perfectly understand our Customers' needs.

At the moment we are one of the few companies in Europe manufacturing high quality devices and complete technological lines for the production of fruit juices and concentrates.



OUR STANDARDS:

■ Partnership-based contacts

Our specialists visit production plants and meet people directly responsible for implementation. They stay in contact with them also after the completion of projects.

■ Swiss quality

During manufacture of the devices and for processing procedures we use only high class materials and components from renowned suppliers.

■ State-of-the-art solutions

We carry out research and development work and implement innovative projects that improve the effectiveness and reliability of our products. We ensure that they make use of advantages of the new technologies.

■ Trust

Our most important objective is the satisfaction of our Customers and their continuous trust towards the quality of our products and services.



Equipment and machines for the production of fruit juices and concentrates

Raw material unloading methods – wet and dry



Series of devices and installations transporting raw material from the unloading point to the storage silos via navigable channels.

- Easy operation
- High efficiency
- Reliability
- Low maintenance costs



- Hydraulic vehicle tippler for rear unloading
- Operator's cab
- Stainless steel receiving container
- Leaves separation system
- Unloading system of conveyor belts located over the silos



- Cannon for unloading apples from vehicles
- Operator's room for operating the cannon and the system for flushing raw materials
- Bucket conveyor for transport of raw material from the unloading chute to the navigable channel
- System of navigable channels with sorters
- Buffer tank for circulating water
- Arched filters
- Control panel

Sorting machines



The role of the sorting machine is to evenly dose the material to the vertical screw conveyor (elevator). The design of the device is adjusted to the efficiency of the remaining elements of the line.



U-type trough	4,0x0,6x0,5 mb x 3,0 mm
Motor power	1,1 kW, 1,7-3,4 rpm
Frequency converter	1,1 kW

Information

Advantages

Deliverables for the dry unloading system

Deliverables for the wet unloading system

Information

Technical data

Water and air cleaners

Information

Water and air cleaner is a device used in food industry for washing fruits. B&P Engineering manufactures two types of water and air cleaners:

- for floating fruits
- for non-floating fruits

Construction

The device is made of stainless steel and consists of the following elements:

- feed hopper
- wash basin
- drying conveyor
- optionally, system for water treatment (filter, buffer tank, circulating pump)



Vertical elevators

Information

Elevators are devices used for vertical transport of e.g. apples. The construction of transporting elements of the conveyors prevents the damage of raw material.

Technical data

Working screw diameter	200, 250, 300, 350, 400, 500
Type of screw	clockwise, anti-clockwise
Screw rotation speed	40 - 112 rpm
Screw length	from 2 to 9 m
Working trough length	according to the customer's needs
Motor power	0,75 - 18,5 kW
Capacity	up to 50 m³/h
Total length	to be arranged



Basket feeders

Information

Basket feeder is an element of raw material transport line used for vertical transport. Size of the elevator, number and width of transport baskets are determined during the designing stage on the basis of performance requirements.

The structure of the feeder, as well as transport baskets are made of acid-resistant steel and the openwork structure of the baskets enables separating water from the transported raw material. Basket feeders are used in the systems of wet unloading of vehicles and transport of raw materials from navigable channels to inspection tables.



Belt feeders



Manufactured by B&P Engineering from certified materials belt feeders are used for transport of apples and coloured fruits. Belt feeders can be horizontal or inclined (rising or falling) at a specific angle.



Belt width	400, 500, 650, 800, 1000, 1200 mm
Blade height	50, 70, 100, 120 mm
Conveyor length	as required by the customer

Information

Technical data

Roll feeders



Used in food industry drive roller tables manufactured by B&P Engineering are a great solution ensuring effective transport of raw material. Their simple design enables also sorting, separating dirt and washing the raw material during transport.



Length	4 - 6 mb
Roller diameter	88,9 mm
Clearance	12 mm
Machine working width	up to 1000 mm
Drive motor power	up to 4,0 kW
Capacity	up to 50 m³/h
Washer	High pressure or ordinary nozzles, circulating water filtering system

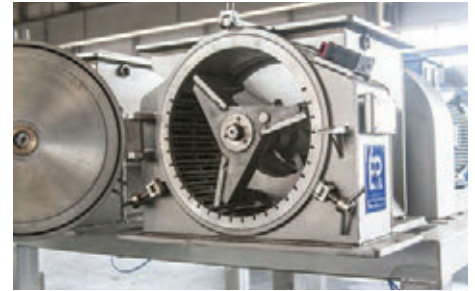
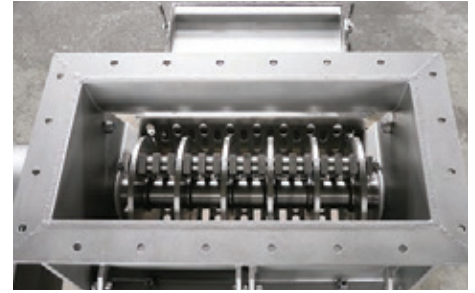
Information

Technical data

Mills and shredders

Information

B&P mills are used in the food industry for processing fruits and vegetables. These systems are used to grind the product to mash. Bearing in mind the subsequent pressing stage, the desired grain size is approx. 5-8 mm.



■ Grating mill

The mill consists of a housing in which the shaft of the main frame and the motor are fitted. The feed screw and the rotor are installed on the shaft, while inside the housing there is a set of grinding blades. The mill is driven by an electrical motor which is coupled to the shaft via an articulated coupling. The outlet funnel is installed in the bottom section of the housing. The complete unit is supported by a steel frame.

■ Hammer mill

Hammer mill is designed to produce mash from vegetables and stone-free fruits. The raw material is fed into the mill via a loading chute and grounded by a beater shaft. The mash is discharged by being pressed through a perforated plate.

■ Crushing mill - crusher

This mill is perfect for mashing berry and stone fruits such as cherries. It is completely made of chromium-nickel steel and consists of two rollers mounted on a frame, with the rollers being driven by a gear motor. The distance between the rollers is adjusted manually, allowing for the crushing of stone fruits (e.g. cherries or plums) without damaging the stones.



Types of mills

Advantages

- High resistance
- Simple and very effective process
- Quick and easy to clean
- Convenient maintenance

Tube heat exchangers (pulp heaters)



The B&P pipe heat exchangers are particularly suited to the thermal treatment of products with a high viscosity range as well as products containing solids or fibrous products (fruit pulp).

They are used in heating or cooling systems in processing lines.

Efficiency	3 to 60 t/h
Heating system	steam – water (Δt) max. temp. increase $\Delta 25-85^{\circ}\text{C}$
Circulating pump	3-7 kW
Steam pressure	up to 4 bar
Air pressure	6-8 bar
Steam consumption	approx. 2 t/h (apple mash 30t/h, $\Delta 20^{\circ}\text{C}$, at 2bar)
Dimensions/device	30 t/h approx. 8m x 0,9m x 2,6m
Materials	stainless steel AISI 304 / optional AISI 316L

- Effective heating of the product
- High efficiency
- Low space requirements
- Convenient maintenance

Information

Technical data

Advantages

PULP PREPARATION AND JUICE EXTRACTION SECTION

Feed screws



Feed screws are used for horizontal or inclined transport of pomace after pressing.

Working screw diameter	200, 250, 300, 350, 400, 500 mm
Type of screw	clockwise, anti-clockwise
Screw rotation speed	40 - 112 rpm
Screw length	1; 2; 2,5; 3 m
Working trough length	according to the customer's needs
Motor power	0,75 - 18,5 kW
Capacity	up to 50 m ³ /h
Total length	to be arranged

Information

Technical data

Piston-cylinder pressing units IPS 5.000, 10.000 and 15.000

Information

Cylinder pressing units IPS are functional devices enabling effective juice extraction from various raw materials: hard fruits such as apples or pears, soft fruits and vegetables. They can also be used in extraction of herbal and spice extracts as well as dehydration of deposits of other products. Both the design and the control system applied in IPS pressing units enable obtaining high quality NFC juices and maximum yield through the extraction of pomace during one work cycle.

Advantages

- High effectiveness 5-15 t/h
- Robust and reliable construction
- Self-optimizing control system
- Hydraulics based on Bosch Rexroth® armature
- Possibility to monitor the level and temperature of oil from operator panel
- Adjustment of rotation speed from operator panel
- Spare sockets for pressure plate guides
- Free access to the cylinder and plates of the pressing unit thanks to adjustment of stainless steel covers to any position
- Two juice chambers with systematic transport of juice guarantee the highest efficiency, optimal aeration of pulp, easier unloading and longer life of the cylinder's drive

Technical data

Capacity	approx. 5 -15 t/h
Yield	83-93%
Dimensions	length: from 7 900 to 8200 mm width: from 3 000 to 3700 mm height: from 3 100 to 3600 mm
Weight net	from 21 to 30 tons
Volume of the operating cylinder	from 6500 to 10000 l
Inside diameter of the operating cylinder	from 2 000 to 2400 mm
Number of filter elements	230, 300, 380 pcs
Installed power	from 30 to 37 kW
Nominal pressure (max.)	210 (280) bar
Operating oil temperature	50°C
Noise level	<90 dBA



Stainless steel tanks



Pulp tanks



Depectinization tanks



Processing tanks with heating or cooling jacket with coned or deep-stamped bottoms



Storage tanks for sterile storage



Processing tanks

B&P Engineering offers a wide range of stainless steel processing tanks for the food, chemical, pharmaceutical and cosmetics industry.

Tanks, depending on customer's needs, are manufactured according to the following standards and certificates: PED 97/23/EC, ASME VIII-1, AD 2000, ATEX, CODAP. We are authorized to manufacture pressure devices according to the Pressure Directive 97/23/EC and ASME Boiler and Pressure Vessel Code VIII-1 with U stamp.

Material	AISI 304 and 316L or other depending on the customer's needs and requirements
Surface	IIIc, IIId, etched, ground, polished, electropolished, shot-peened
Capacity	standard up to 150 000 liters – in the plant or larger made on site at the customer's location
Diameter	up to 4 200 mm or wider for specific orders
Assembly	vertical or horizontal
Insulation plate	coated, rust-proof smooth trapeze sheet tightly welded

- Buffer tanks
- Mixing tanks
- Equalization tanks
- Aseptic tanks
- Storage tanks
- Fermentation tanks
- Tanks for products subject to excise duty
- Non-pressure and low-pressure tanks for poisonous or caustic materials
- Vacuum and pressure reactors
- Silo tanks



External free-standing tanks with capacity of up to 1 million liters



Flat-bottom storage tanks

TANKS

Information

Technical data

We manufacture

Clarificant preparation station

DEPECTINIZATION SECTION

Information

The B&P Engineering clarificant preparation station is a fully automated and compact device with the visualisation system.

Technical data

Efficiency	adjusted to the line size
Control system	Simatic S-7
Power input	5 -15 kW
Dimensions	length 4100, width 2200, height 1800 mm
Steam consumption	max up to 50 kg/h
Steam pressure	1-4 bar
Material	stainless steel AISI 304 / optional 316L

Advantages

- Fully automatic PLC control system with visualisation technology
- Low space requirements
- Exact metering
- Archiving of metering processes



Depectinization tanks

Information

The depectinization process takes place in manufactured by B&P Engineering acid-proof tanks fitted with mixers. Depectinization tanks are used to run the process of depectinization of pasteurised juice after the first section of the evaporating station. In the production process, they can be used to carry out the process of sedimentation if there is no ultrafiltration.

Options

- Side mixer
- Tank with fittings
- Manual or automatic control
- Valve for collecting clear juice from the bottom sediments

Advantages

The tanks are perfectly dimensioned to ensure appropriate metering of enzymatic preparations by the clarificant preparation station.



XL Ultrafiltration system



The XL ultrafiltration system (UF XL) has been designed for applications in food process industry during the production of apple, pear, cherry juices and other stone and berry fruits juices, as well as fruit wines.

- Maximum efficiency and excellent juice quality below 0.5 NTU
- System of replaceable ultrafiltration membrane cartridges ensures low maintenance costs
- High reliability
- Convenient maintenance
- Long work cycles
- Efficient CIP system
- Modular structure providing high efficiency in a small space
- Fully automatic control system with WinCC visualization and archiving of filtration parameters
- Possible turnkey delivery including assembly of all processing tanks, incl. depectinization tanks and measurement peripheries

Efficiency	10 000 – 50 000 l/h (Brix 10)
Membrane modules	PCI/Xylem A37/A19, 200k Daltons 100k Daltons nominal cut-off PVDF
Number of membranes per module	37/19 pcs
Module length	3.66/3.05 m
Filtration surface	120-500 m ²
pH range	1.5 – 10.5
Permeate tank	1500 l
Temperature range	50 – 55 °C
Operating pressure	do 7 bar
Seals	EPDM
Power (3x400, 50Hz)	65-125 kW
Used materials	stainless steel AISI 304/316
PLC Control	Siemens Simatic S-7, WinCC

Information

What distinguishes our XL Ultrafiltration System XL?

Technical data

FILTRATION SECTION

Falling film evaporators

CONCENTRATION SECTION

Information

The B&P Engineering evaporator system is a modern device used to achieve the required degree of fluid concentration. The multistage evaporator with falling juice film is the most important device of the production cycle. It is used to condense apple juices as well as soft (coloured) fruits juices. It is applied in food industry for the production of fruit juices and concentrates. Depending on the Customer's needs and technical constraints we build IV-V-VI-section systems. Number of sections (columns) of the station depends on the Customer's requirements and B&P Engineering suggests the best solutions for a particular application.

Technical data

Falling film evaporator efficiency (pasteurisation feeding)	from 7 000 to 50 000 liters/h
Number of sections	from 4 to 6
Steam consumption/water evaporated	from 0,217 kg steam / 1 kg evaporated water
Steam pressure	8 bar
Power input	60 - 300 kW
Material	stainless steel AISI 304 / optional AISI 316L
Dimension /6-section system/	approx.14m x 3,5m x14m

Advantages

State of the art technologies available on the market and ongoing research works makes B&P Engineering evaporation station marked out by:

- optimal energy consumption
- failsafe operation
- extremely high elasticity in efficiency adjustment
- modern controls

B&P Engineering falling film evaporator ensures high process efficiency, fast vaporization and low steam consumption. Fully automated control system with visualisation technology enables the operator to constantly check the parameters of pasteurised juice.



Aroma extraction stations

Information

The aroma station combines various pieces of equipment to collect fruit aroma during the production of concentrates at the evaporation station.

The device is embedded in the existing pipeline system. It consists of a bell column, in which the initial condensation of the aroma vapours takes place, and the aroma station, where the aroma is condensed to an appropriate concentration level, and then cooled. Cooling takes place in two stages - the first section of the cooling process is performed using the cooling water, the second section is carried out using the refrigerating unit.

Technical data

Material	304, 316L or other according to the Customer's needs and requirements
Surface	IIIc, IIId, etched, polished, electropolished, shot-peened



Storage

Aseptic warehouses for NFC juices and concentrates



Warehouses built by B&P Engineering are fitted with complete piping and control system. The control system enables information archiving. Operating status of the devices and all the systems functioning in the warehouse are visualised on the touchpad. It enables the operator to supervise and control the system from one place.

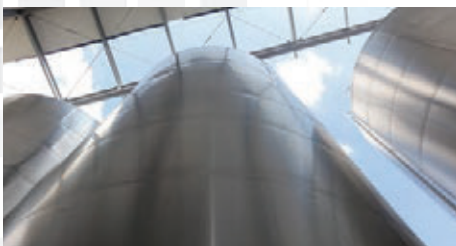


We prepare complete design documentation together with arrangement of all the technical aspects.

We manufacture, deliver and install aseptic and storage tanks together with complete piping and control system equipped with a visualisation system.



Connection plates are used in the performed piping installations and the structure of such plates eliminates the possibility of operator's errors during the operation of the warehouse system.



Moreover, we use an equalization tank which enables extracting juice with precisely specified parameters. The tanks are equipped with the CIP (Clean-In-Place) system and devices protecting against excess pressure fluctuations.

Information

Tank sterilizer



Air sterilizer is a filtration unit used for sterilization of the aseptic tanks.

Second function of the device is filtration of steam and sterile air: due to the fact that rust-generating air particles cannot get into the tank together with steam and the blown air cannot contain mould, yeast, bacteria and other microorganisms.



Using our device you can operate two tanks simultaneously. One tank is at that time sterilized with hot steam, while the other one can be then blown with cold air.

Information

Piping system - pipings

Planning is the basis of every good piping system. At the planning stage all the requirements, guidelines and constraints are taken into consideration for the purpose of production and assembly plan. That is the stage determining the future functionality of the device as far as its operation, maintenance and cleaning are concerned. Then the implementation of the plan takes place.

Pipe supports are made of chromium-nickel steel profiles. They are fitted with a distance mandrel in order to eliminate the unnecessary local soiling.

Pipes are made completely of chromium-nickel steel, welded, formed with argon and etched.

Pneumatic wiring / piping

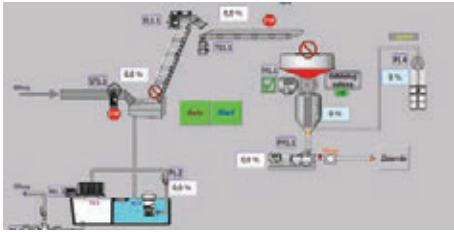
Wiring of the delivered devices will be carried out professionally by B&P Engineering electricians and it applies to internal electrical and pneumatic connections within the devices. Those include all kinds of joints (connections of drives, input and output signals 4...20 mA, any other control signal and Profibus network – falling film evaporator and Ultrafiltration).

In case of pneumatics, those are mainly connections from solenoid valves in supply-control panels to pneumatic drives of flap and control valves. For the abovementioned internal electrical joints we use high class YstY flexible cables for connection of drives and controls and LiYCY (screened) cables for control signals and drives with frequency converters.



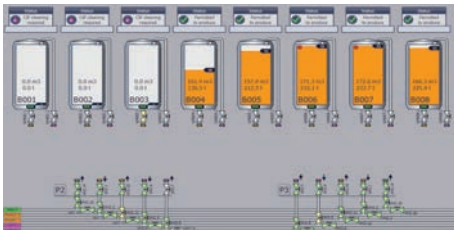
Automation and visualisation

Automation and visualisation of production processes



The latest control systems ensure direct control over each production stage. The high level of automation ensures the optimum level of production and protects devices against operational errors. The use of visualisation and supervision over the production process enables further improvements of the process and reduction in costs.

Information



We offer a system of online production process monitoring for the whole production line. Online access to the system enables also remote diagnostics of the system and monitoring. Visualisation can be installed using ordinary PCs, touchpads or panels with displays of various dimensions.

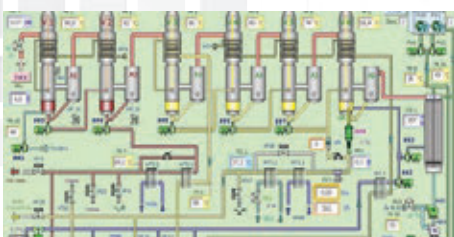
Options

Automation and visualisation of individual new and used equipment



B&P Engineering specializes in the design, realization and programming of various control systems for machines and other industrial devices. We deal with development, modifications, modernization and processing of control systems of particular machines and devices or whole facilities.

Information



- Top quality realization
- Reduction of production costs
- Enhanced product quality
- Archiving of production processes

Advantages

Control systems for recipe-dependent processes



These systems can be applied to various industries, such as the food industry in the production of fruit and vegetable juices or the production of alcoholic beverages, in the chemical industry for paint and dye mixing processes, etc. The formulation systems were devised to enable processes of dosing manifold ingredients grouped according to prescribed weight and quantity formula, i.e. the so-called recipe.

Information



- Possible to introduce an extensive database of formulas
- Avoiding contamination of product with washing solution
- Guaranteed repeatable quality of finished product
- Significant time reduction achieved through optimizing of the production processes
- Significant material saving achieved through precision dosing
- Process control through data archiving

Advantages

Additional devices

MONA pasteurisation and filtration station

Information

The B&P MONA system is used to improve the quality of concentrates and to pasteurise concentrates during aseptic production. The MONA system is a patented and fully automated pasteurisation and filtration device.



Technical data

Concentrate efficiency	up to 8 t/h
Plate filter's filtration area	approx. 55 m ²
System sterowania	Simatic S-7
Total cooling power	approx. 150 kW (optional)
Power input	approx. 100 kW (with refrigerating machine)
Steam consumption	approx. 200 kg/h
Steam pressure	2 bar
Material	AISI 304/ optional AISI 316L



Advantages

- The only effective way to eliminate ACB bacteria spores
- Ensures that the product is safe and constantly monitored throughout the entire process
- Tool ensuring consistent high quality and documentation of data archiving
- Device that provides low unit cost of filtration
- Optimum use of filter plates thanks to particular algorithm

CIP cleaning station

Information

The CIP station is designed for cleaning facilities, devices and pipelines on production lines according to the CIP (Clean In Place) method where hygiene is a top priority. Cleaning in the so-called closed cycle saves cleaning agents and reduces the amount of waste water produced. The CIP station prepares working solutions in the concentrations recommended by the manufacturer and at suitable temperatures. The solutions are stored in tanks and extracted by the pump as required.



Technical data

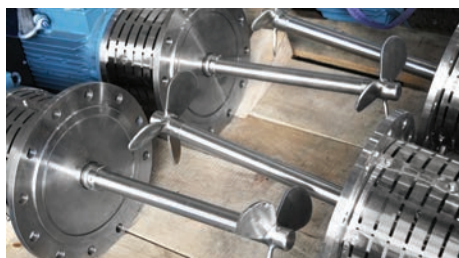
Circulating pump delivery rate	15m ³ /h, 4 bar, 5,5 kW
Power input approx.	13 kW
Steam consumption approx.	1 500 kg/h
Dimensions	length: 5325 mm width: 1565 mm height: 4138 mm



Advantages

- High productivity and efficiency
- Convenient maintenance
- Fully automatic PLC control system with visualisation technology
- Low space requirements

Mixers for processing tanks



B&P Engineering offers mixers used in processing tanks (pressure and atmospheric).

Mixers that we offer fulfil highest standards and ensure effective mixing of the medium.



The mixers may be fitted with typically used seals, such as the radial shaft seal or slide seal. All the parts in the containers, such as shafts and the mixing element can be produced to suit a food-friendly environment.



- Paddle mixer – vertical
- Horseshoe mixer – vertical
- Frame mixer - vertical
- Side mixer with gear-motor
- Side mixer - light

Information

Types of mixers

Pasteurisation systems



B&P pasteurisation systems are used for pasteurisation and sterilization of fruit and vegetable juices and concentrates.



Efficiency range	from 500 l/h to 50 00 l/h
Heating temperatures	from 65°C to 99°C
Material	AISI 304/316L
Mode	manual or automatic /PLC control system/



- Individual design and planning
- Can be cleaned using CIP systems
- Each system can be delivered as a mono-block
- Installation can be performed autonomously by the customer
- Easy operation
- Fully automatic PLC control system with visualisation technology

Information

Technical data

Advantages

Termobreak

Information

The technical parameters are set individually for each application. The dimensions and demand for heating medium are estimated after consultation and defining of production requirements. The dimension depends on efficiency and the temperature difference of the heated raw material, its type, as well as physical and thermodynamic properties. The device is used for defrosting, heating or cooling of raw material in the form of pulp or creamogen as well as products containing the whole fruits.

Technical data

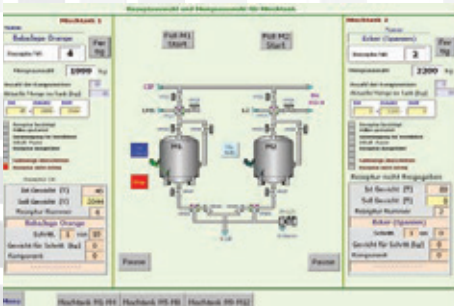
Efficiency	up to 25 tonnes/h during steaming from the temperature of -30 °C to +5 °C
Width	1200 mm
Length	3500 mm
Height	1900 mm
Heating medium	heating water or steam with pressure up to 4 bar
Material type	AISI 304

Advantages

- The biggest advantage of this appliance is the rotatable heating unit in the shape of two spirals placed on the common shaft. The movable heater protects the product against burning and due to the constant stirring of raw material, increases the efficiency of heat transfer. This kind of solution enables also to apply the direct steam injection since constant stirring process protects against adhering of raw material to the heating spiral that could result in burning of the product.
- The heating spiral itself is the stirring unit, which doesn't have any cutting edges and the gentle stirring doesn't damage the structure of raw material, so it can be used for heating of delicate products like fillings or jams containing whole fruits.
- Another advantage of termobreak is high heat transfer coefficient, approx. five times higher than in the standard tubular heater, as well as no need for using the feeding pump, which results in reducing the energy demand.



Juice mixing station



The mixing system has been designed for manufacturers of juices, beverages and other liquid products.

This practical solution enables preparing mixtures of solutions made up from any components available in the plant in order to create a satisfactory finished product of constant quality.

- High level of protection against operational errors
- Possibility of entering an extensive database of recipes
- Elimination of product contamination by the cleaning solution
- Guaranteed repeatability of the finished product quality
- Significant time savings thanks to optimised production processes
- Significant financial savings thanks to increased dosing precision
- Monitoring of processes enabled by data archiving

B&P ensures a comprehensive service, starting with defining the customer's needs through an offer, executing, drawing up the technical documentation being an integral part of the manufactured device, to organising transport as well as providing a number of services related to installation and start-up.

An individual project is prepared for every customer, defining the number, type, capacity of tanks and the type of control system. The mixing station can be integrated into an existing bottling line or other devices.

Information

Advantages

Deliverables

Selected realizations

A complete line for production of apple and coloured fruits concentrates



Our Customer received a ready-for-use concentrate production line.

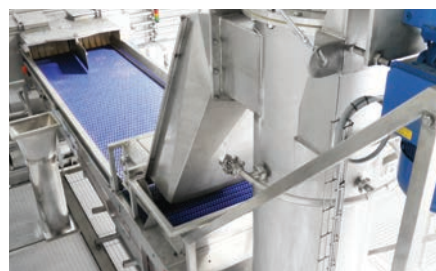
Efficiency: 20 t/h

Country: Poland

Region: Małopolskie Voivodeship

Scope of supply:

- dry unloading system
- raw material transportation and fruit pulp preparation section
- pulp heater
- pulp tanks
- processing tanks
- ultrafiltration system
- 6-section evaporation system with flavour extraction
- control system
- CIP cleaning station
- clarificant metering station
- complete concentrates warehouse equipment
- production floor technological piping
- warehouse piping
- control system



Manufacturing concentrate production line component parts



On implementing the project we used the latest solutions in the field of automation and control.

Efficiency: 30 t/h

Country: Poland

Region: Świętokrzyskie Voivodeship

Scope of supply:

- raw material transportation section
- milling section
- fruit pulp tanks
- IPS 10.000 basket pressing units
- 6-section evaporation system with a flavour extraction
- ultrafiltration system
- visualisation and measuring system of concentrates warehouse



NFC warehouse and juice and concentrate production line modernisation



The investment was a turnkey project. It involved preparation of the whole project documentation including arrangement of all the technical aspects and performing comprehensive installation works.

Storage capacity: 3 mln liters **Country:** Poland **Region:** Mazowieckie Voivodeship

Scope of supply:

- sorting machine, basket feeder
- inspection belt and hammer mill
- IPS 10.000 basket pressing unit
- UF XL 300 ultrafiltration
- natural unclarified juice pasteurisation system
- aseptic storage tanks
- equalization tank
- technological piping consistent with the latest standards
- tank room control and visualisation system
- CIP cleaning station



Complete fruit concentrate and puree production line



This modern, fully automated line was tailored to the Customer's needs and it enables production of fruit concentrates up to 70° Brix as well as natural and concentrated puree up to 32° Brix. Application of termobreak devices, a crushing mill for frozen materials and a multi-section tubular heater allow to process fresh as well as frozen materials. The line is flexible and it enables processing of apples, pears, cherries, strawberries, raspberries, currants, blueberries, plums, peaches and apricots.

Efficiency: 15 t/h **Country:** Serbia

Scope of supply:

- raw material (apples) hydro-transportation section
- coloured fruits receipt section
- complete direct and concentrated puree line
- apple and coloured fruits pulp preparation system
- pressing section
- 5-section evaporation system with flavour extraction
- automated CIP cleaning station
- concentrates warehouse
- NFC juice warehouse



Delivery, assembly and start-up of fruit concentrates production line component parts



The scope of the project was to provide as high capacity as possible with limited funds. It was a successful implementation. Our Customer received a production line with higher capacity.

Efficiency: 25 t/h

Country: Poland

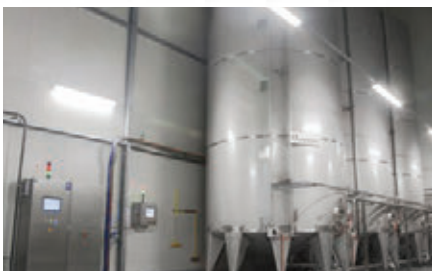
Region: Świętokrzyskie Voivodeship

Scope of supply:

- screw conveyor
- grinding station
- cutting line
- processing tanks
- piston-cylinder pressing unit assembly and start-up
- press peripheral devices and depectinization tanks control
- 6-section evaporation system
- flavour extraction system
- MONA concentrate quality enhancement system



Automated tank room for concentrate storage



Application of an innovative dispersed system with induction sensors enables permanent supervision and diagnostics.

An advanced control system verifies the condition of particular valves on an on-going basis in order for the operator not to make any mistakes in defining the product's path, depending on a selected warehouse operation.

Storage capacity: 4 mln liters

Country: Poland

Region: Mazowieckie Voivodeship

Scope of supply

- storage tanks
- mixing (equalization) tanks
- automated control system with full subassembly diagnostics



Quality assurance

Our certificates confirm our competence and the quality of our products. They also guarantee professional cooperation during project implementation.



ISO 9001:2015



OHSAS 18001:2007



ISO 31000:2012



ASME



AD 2000-Merkblatt



EN ISO 3834-2



B&P Engineering

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