ElettronicaVeneta

CATALOGUE No. 29-B

FOOD PROCESSING TECHNOLOGIES

ElettronicaVeneta

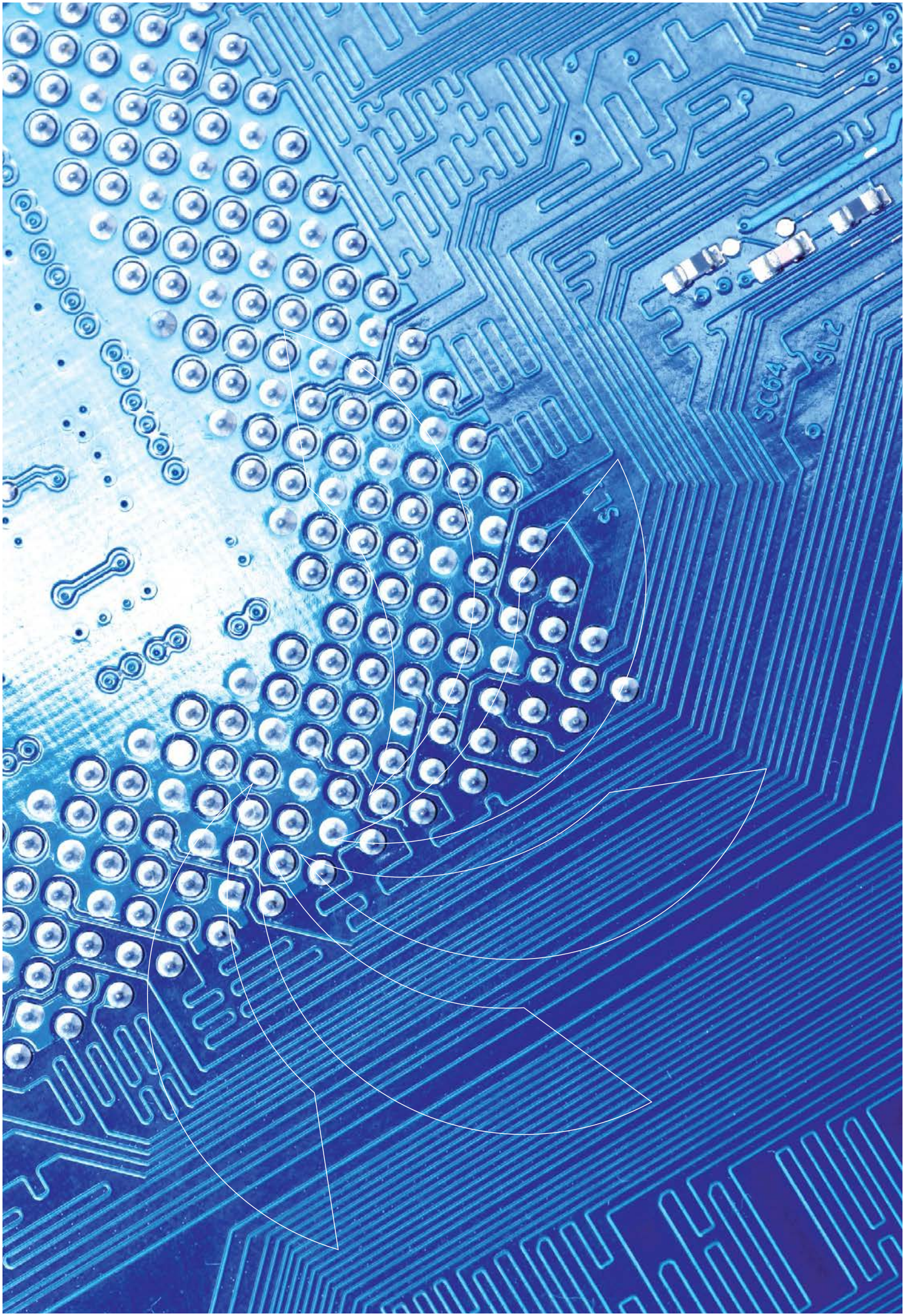
CATALOGUE No. 29-B

FOOD PROCESSING TECHNOLOGIES

Food Processing Technologies

export@elettronicaveneta.com
www.elettronicaveneta.com

29B-E
Rel. G18


SC64
SL2

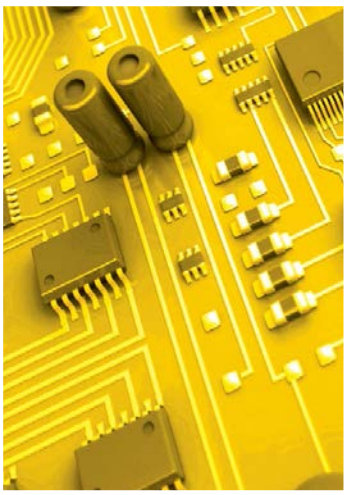
FOOD PROCESSING TECHNOLOGIES
CATALOGUE No. 29-B

INDEX

Note: The catalog is constantly updated. Please send any suggestion you have to export@elettronicaveneta.com. We would also like to remind you that, due to the continuous technological upgrades, the described products may be subjected to design and/or technical modifications. Nevertheless, we guarantee that the educational content of our equipment remains unchanged.


www.elettronicaveneta.com

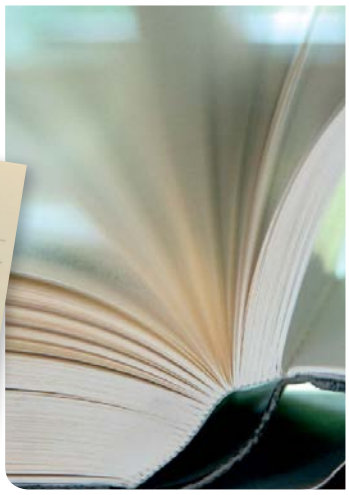
GENERAL INTRODUCTION



ELETTRONICA VENETA S.p.A. has been designing and manufacturing educational equipment since 1963. This equipment, covering the different fields of technology, fulfils two important educational objectives:

- to facilitate the learning process of the student by means of real systems which illustrate practically the important aspects of the theory learned in the classroom.
- to simplify the work of the teacher enabling the demonstration of the real, practical applications of the theory learned.

Increasing the efficiency of the didactic process improves and simplifies the integration of young students into the world of employment and justifies the material and human investments made in schools throughout the world.



ELETTRONICA VENETA S.p.A. operates on an international level and takes into consideration the training programmes and cultures of each specific country. In order to meet different requirements, we offer flexible systems which ensure maximum compliance with the latest technologies, technological advances and the professional profile requirements of local industry.

The proposed laboratories and training equipment are suitable for regular school education as well as ongoing post-diploma training courses and professional re-qualification.

Our training equipment covers most of the technological sectors included in the training programmes of vocational schools, technical institutes and universities, both national and international.

ELETTRONICA VENETA S.p.A. headquarters is located in the green fields of the Veneto region, not far from Venice, and constitute a centre for equipment design and development suited to the training needs of all professional and technical profiles. The modern premises integrates R&D laboratories, a production plant and a fully equipped teacher training centre.

The integration of these efficient training systems into local school structures ensures high-quality, state-of-the-art training programmes which meet the diverse professional expectations of the student and the technological requirements of industry and research within their specific local contexts.

The ISO 9001 (Quality System Certification) obtained in 1998 and updated in application of the latest edition of the International Standard, is further testament to the quality-driven organisation of **ELETTRONICA VENETA S.p.A.** aimed at providing top standard equipment, training and service.

PRESENTATION

A forty-year experience in industrial field has led Elettronica Veneta S.p.A. to design and produce a set of modular and versatile pilot plants for research and training.

The plants and equipment described in this catalogue have been designed and produced according to an industrial outlook to enable configurations of actual and complete production processes, although they are fed with reduced quantities of product. They reproduce the industrial transformation operations normally carried out by the most advanced technological plants of their sector.

An example of complete laboratory can be seen in the following page. This is a polyvalent laboratory of 400 m^2 consisting of 40 plants manufactured by Elettronica Veneta S.p.A. These plants connected in a certain sequence, are designed to process the following products:

- MILK
- FRUIT
- TOMATOES
- CITRUS FRUIT
- OLIVE OIL
- SEED OIL
- GRAPES









www.elettronicaveneta.com

29-B

FOOD PROCESSING SYSTEMS AND TECHNOLOGICAL CYCLES

TECHNOLOGICAL CYCLES – EQUIPMENT AND OPERATION DIAGRAMS:

www.elettronicaveneta.com

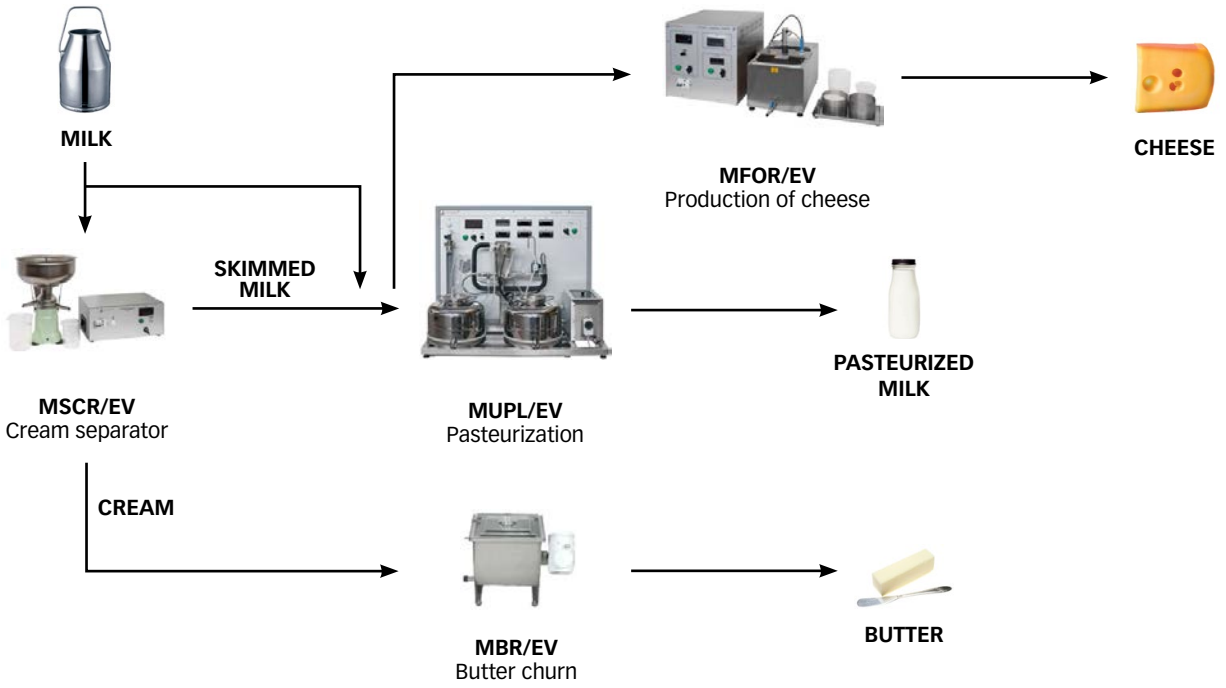
29B-E-FP

ELETTRONICA VENETA S.P.A. - 31045 Motta di Livenza (TV) Italy - Via Postumia 16 - Tel. +39 0422 765 802 - Fax +39 0422 861 901 - E-mail: export@elettronicaveneta.com

29-B

TECHNOLOGICAL CYCLE FOR MILK PROCESSING (table top)

EXAMPLE OF TECHNOLOGICAL CYCLE FOR MILK PROCESSING (TABLE TOP)

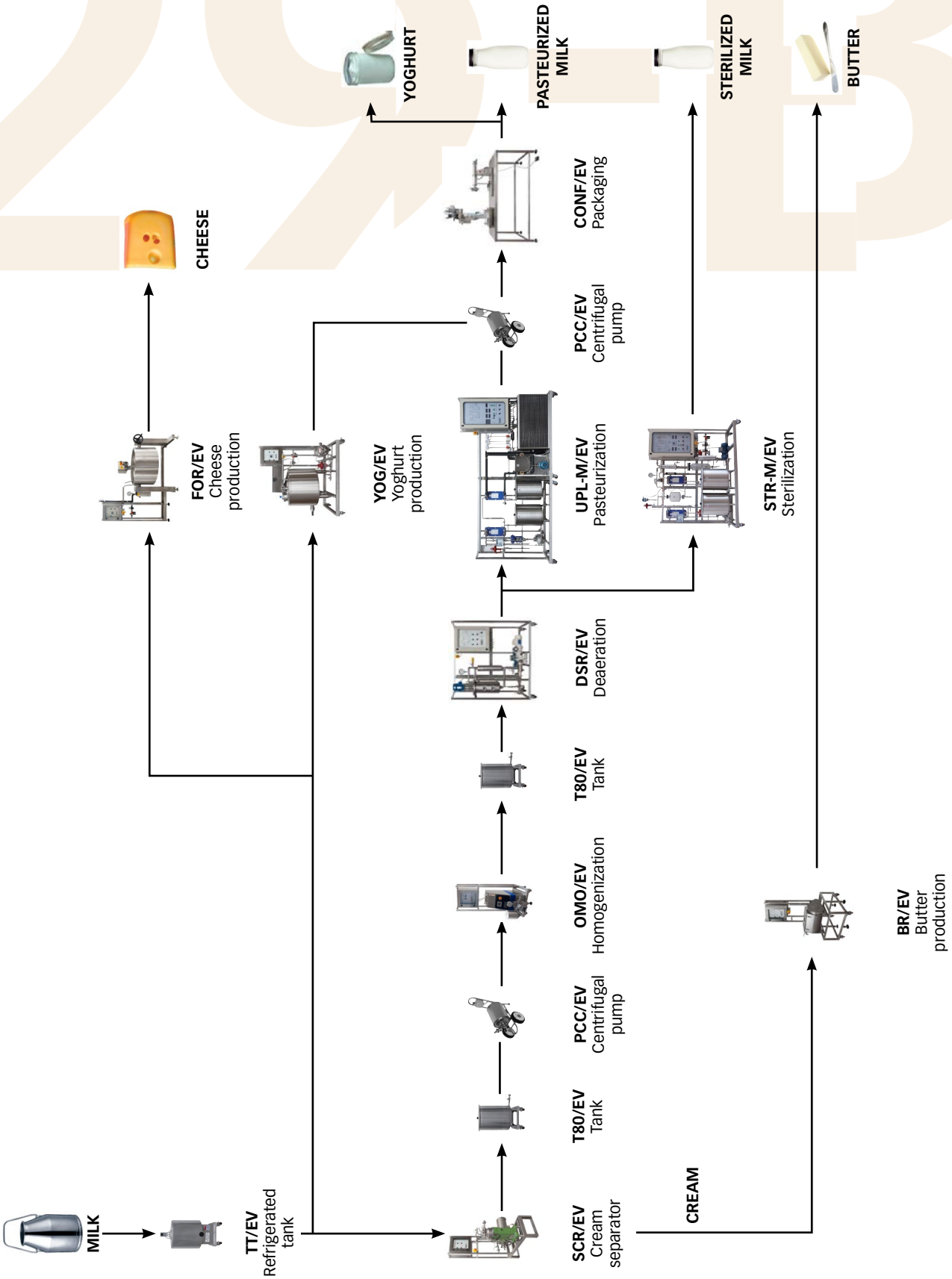


29-B

MILK PROCESSING TECHNOLOGICAL CYCLE (on castors)

ELETTRONICA VENETA S.P.A. - 31045 Motta di Livenza (TV) Italy - Via Postumia 16 - Tel. +39 0422 765 802 - Fax +39 0422 861 901 - E-mail: export@elettronicaveneta.com

EXAMPLE OF MILK PROCESSING TECHNOLOGICAL CYCLE (on castors)

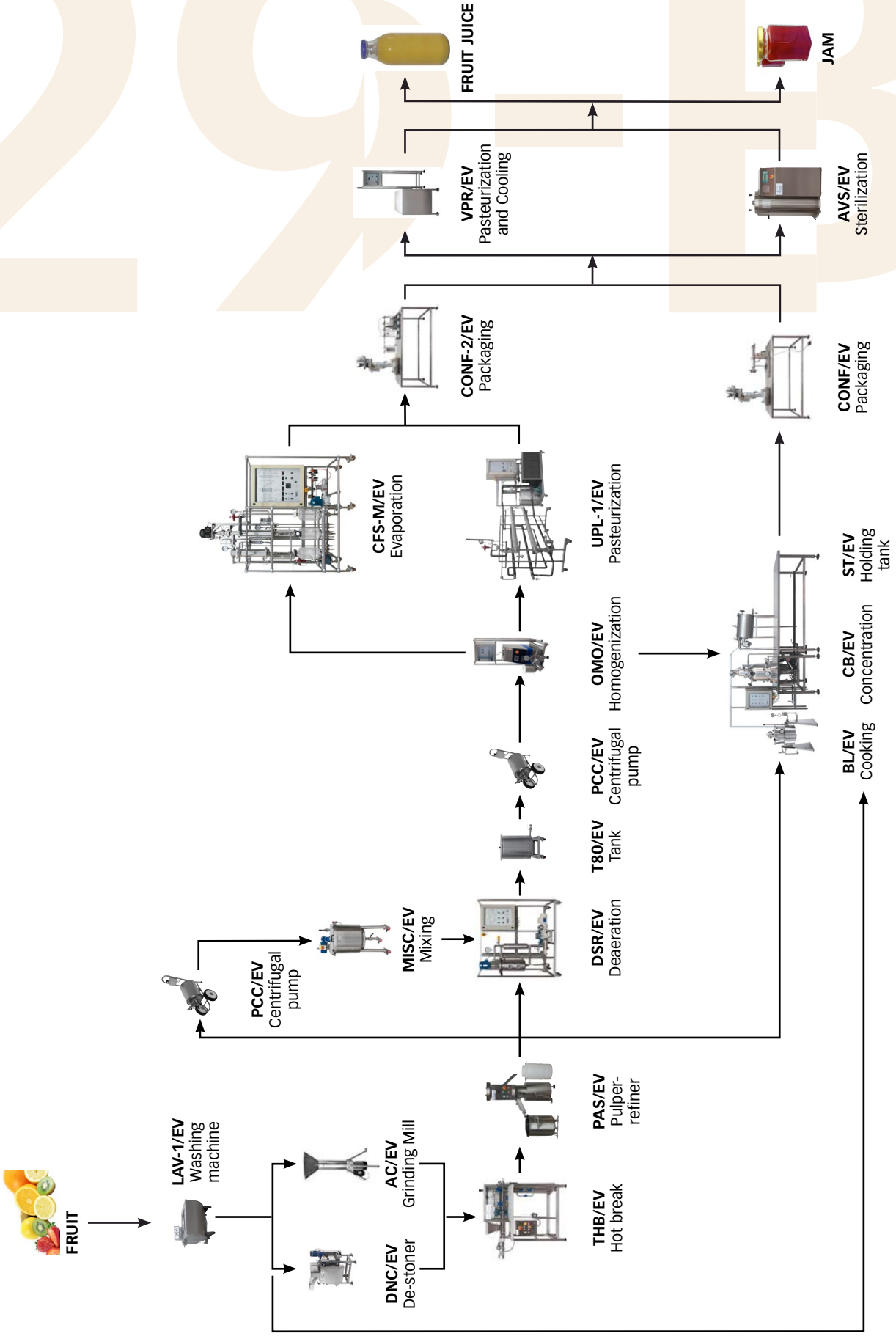


29-B

FRUIT PROCESSING TECHNOLOGICAL CYCLE

ELETTRONICA VENETA S.P.A. - 31045 Motta di Livenza (TV) Italy - Via Postumia 16 - Tel. +39 0422 765 802 - Fax +39 0422 861 901 - E-mail: export@elettronicaveneta.com

EXAMPLE OF FRUIT PROCESSING TECHNOLOGICAL CYCLE



29-B

TOMATO PROCESSING TECHNOLOGICAL CYCLE

ELETTRONICA VENETA S.P.A. - 31045 Motta di Livenza (TV) Italy - Via Postumia 16 - Tel. +39 0422 765 802 - Fax +39 0422 861 901 - E-mail: export@elettronicaveneta.com

EXAMPLE OF TOMATO PROCESSING TECHNOLOGICAL CYCLE

TOMATO

LAV-1/EV
Washing machine

AC/EV
Grinding Mill

THB/EV
Hot break

HOT BROKEN TOMATOES

PAS/EV
Pulper-refiner

REFINED TOMATO JUICE

DSR/EV
Deaeration

DEAERATED TOMATO JUICE

UPL-1/EV
Pasteurization

PASTEURIZED TOMATO JUICE

CB/EV
Concentration

CFS-M/EV
Evaporation

CONF/EV
Packaging

AVS/EV
Sterilization

STERILIZED TOMATO JUICE

STERILIZED CONCENTRATED TOMATO JUICE

VPR/EV
Pasteurization and Cooling

PASTEURIZED TOMATO JUICE

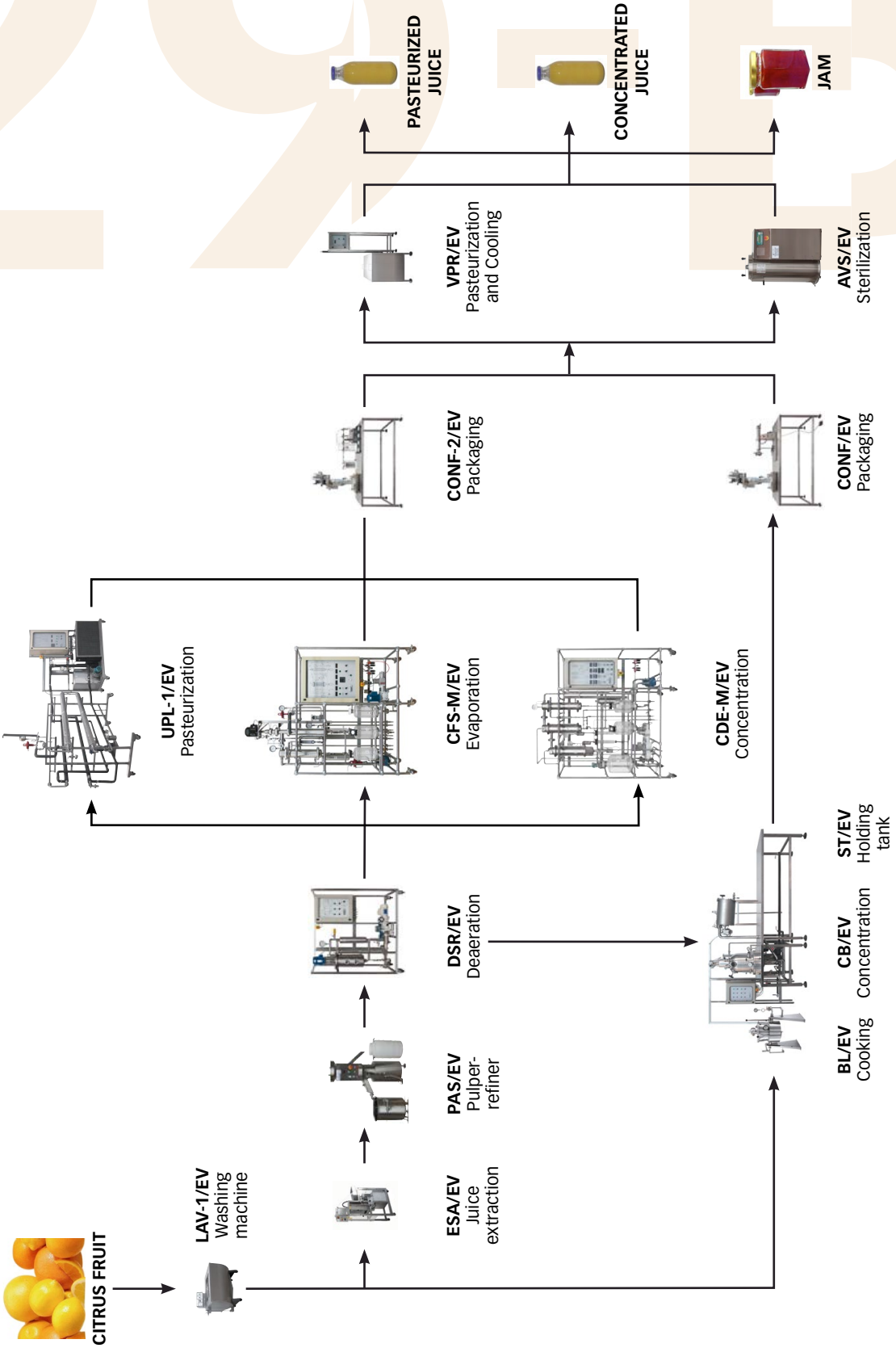
PASTEURIZED CONCENTRATED TOMATO JUICE

29-B

CITRUS PROCESSING TECHNOLOGICAL CYCLE

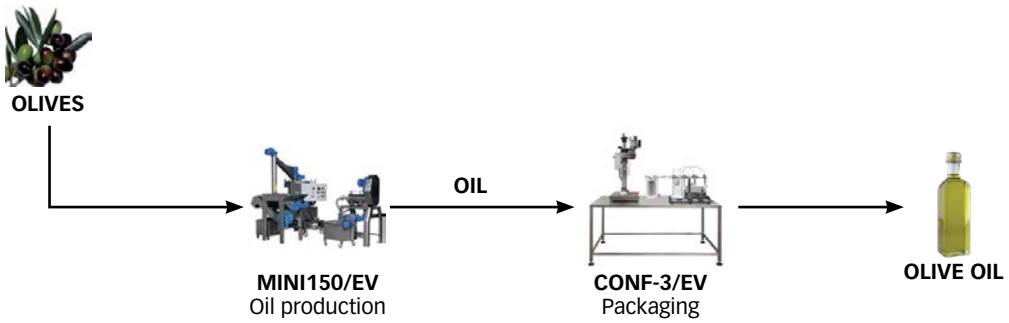
 ELETTRONICA VENETA S.P.A. - 31045 Motta di Livenza (TV) Italy - Via Postumia 16 - Tel. +39 0422 765 802 - Fax +39 0422 861 901 - E-mail: export@elettronicaveneta.com

EXAMPLE OF CITRUS PROCESSING TECHNOLOGICAL CYCLE



OLIVE PROCESSING TECHNOLOGICAL CYCLE

EXAMPLE OF OLIVE PROCESSING TECHNOLOGICAL CYCLE

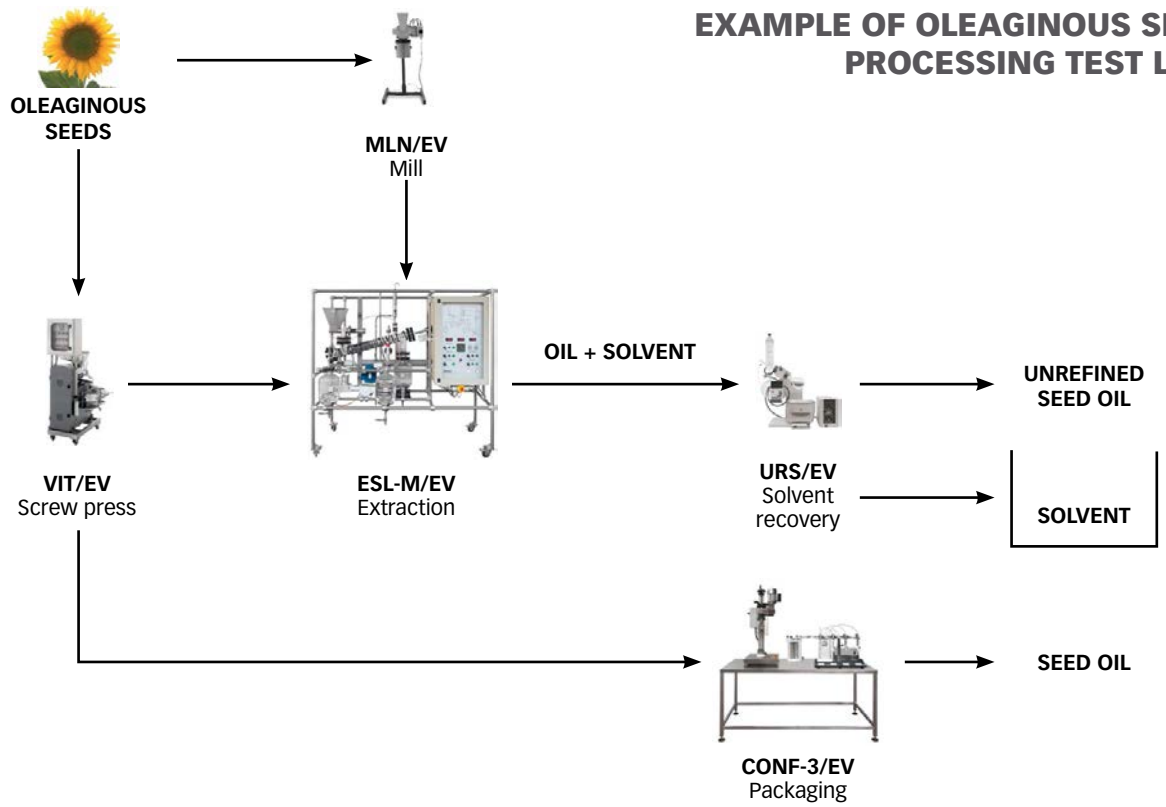


 ELETTRONICA VENETA S.P.A. - 31045 Motta di Livenza (TV) Italy - Via Postumia 16 - Tel. +39 0422 765 802 - Fax +39 0422 861 901 - E-mail: export@elettronicaveneta.com

29-B

OLEAGINOUS SEED PROCESSING TEST LINE

EXAMPLE OF OLEAGINOUS SEED PROCESSING TEST LINE

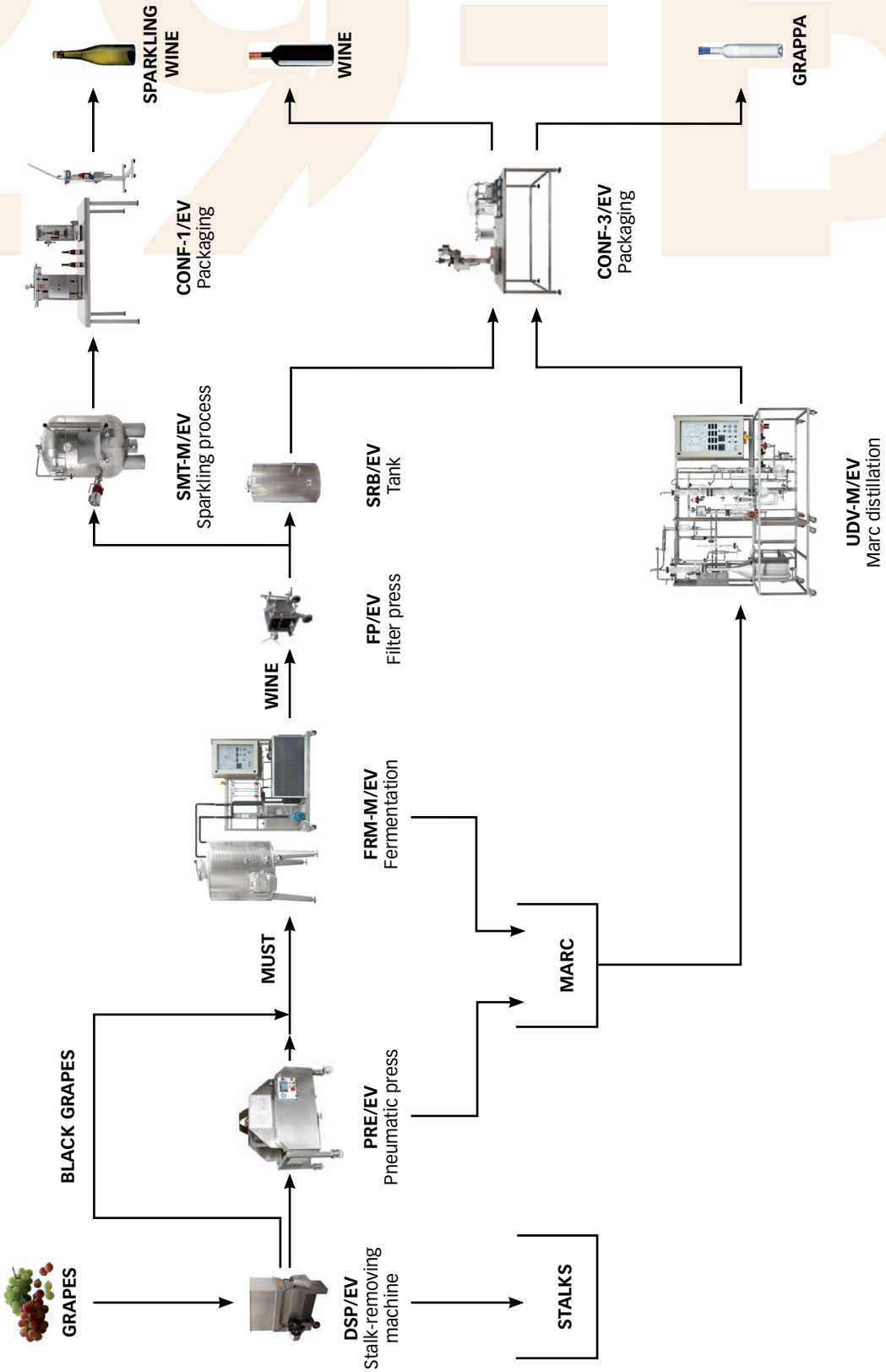


29-B

GRAPE PROCESSING TECHNOLOGICAL CYCLE

ELETTRONICA VENETA S.P.A. - 31045 Motta di Livenza (TV) Italy - Via Postumia 16 - Tel. +39 0422 765 802 - Fax +39 0422 861 901 - E-mail: export@elettronicaveneta.com

EXAMPLE OF GRAPE PROCESSING TECHNOLOGICAL CYCLE



29-B

FOOD PROCESSING SYSTEMS

 ELETTRONICA VENETA S.P.A. - 31045 Motta di Livenza (TV) Italy - Via Postumia 16 - Tel. +39 0422 765 802 - Fax +39 0422 861 901 - E-mail: export@elettronicaveneta.com

PASTEURIZER
Mod. MUPL/EV

29-B

INTRODUCTION

Unit mod. MUPL/EV is a HTST pasteurizer in miniature, designed to study the effect of heat treatments quickly and inexpensively. A three stage plate exchanger enables to heat the product, with hot water, up to pasteurization temperature, then, after crossing the holding pipe, the product is cooled down with cold water and finally it is pre-heated with consequent heat recovery.
This unit is also provided with data acquisition software for Windows.

TRAINING PROGRAM

This unit enables to deepen the following issues:

- Continuous pasteurization and effect on the product under treatment
- Heat exchange and energy balances
- Clean-in-place of a pasteurizer

TECHNICAL SPECIFICATION

- Maximum flow rate = 10 l/h
- Feed tank of AISI 304 stainless steel, with capacity of 10 litres
- Tank of AISI 304 stainless steel, with capacity of 10 litres, for collecting the pasteurized product
- Variable speed peristaltic pump
- Heat exchanger with plates of AISI 304 stainless steel and three sections (pre-heating, pasteurization and cooling)
- Holding pipe of AISI 304 stainless steel
- Diverter valve of stainless steel
- Built-in hot water circulator (85°C max.) with tank of AISI 304 stainless steel, pump and safety level switch
- Variable-area flowmeter for cooling water
- 6 thermoresistances Pt100
- 5 digital temperature indicators
- Electronic controller for temperature control
- The unit also includes a data acquisition system for Windows with real-time and historical trends

Power supply: 230 Vca 50 Hz single-phase - 1.5 kVA (other voltage and frequency on demand)
Dimensions: 850 x 700 x 770 (h) mm
Weight: 70 kg

SUITABLE FOR PROCESSING:

MILK (table top)	MILK (on castors)	FRUIT	TOMATO	CITRUS	OLIVE	OLEAGINOUS SEED	GRAPE	BREWING	SEAFOOD	LIQUEURS
●										

REQUIRED

UTILITIES (PROVIDED BY THE CUSTOMER)

- Mains water
- Water drain

ACCESSORIES (NOT INCLUDED)

- Chiller mod. CHILL4/EV
- Stainless steel table with cabinet Mod. T1400/EV

SUPPLIED WITH

THEORETICAL – PRACTICAL – EXPERIMENTAL HANDBOOK

CHEESE VAT PASTEURIZER
Mod. MFOR/EV

INTRODUCTION

This equipment has been designed as practical training device for cheese making technique; it consists of a control unit and of a cheese vat.
The cheese vat of stainless steel also includes a heating jacket with electric heaters provided with circulation pump: it enables to stabilize milk thermostatically at coagulation or pasteurization temperature. Its jacket can also be connected with mains water to cool milk from pasteurization temperature down to coagulation temperature.
The cheese vat is also equipped with a variable-speed agitator, with a probe for pH measurement and with a thermoresistances Pt100. The equipment also includes a data acquisition software (for pH and temperature) for process supervsion, provided with real-time trend and historical trend.

TRAINING PROGRAM

This unit enables to deepen the following issues:

- Heating of milk and its possible pasteurization
- Coagulation
- Cutting the curd
- Cheese forming and salting
- Pressing

TECHNICAL SPECIFICATION

- Parts in contact with product made of stainless steel
- Maximum operating temperature: 85°C
- Capacity: 10 litres
- Production: approximately 1 kg of cheese
- Agitator of stainless steel (0 to 70 RPM)
- Heating/cooling jacket provided with:
  - 2 electric heaters of 500 W
  - Valve for connection with mains water for cooling operations
  - Safety level switch
  - Safety thermostat
- thermoresistances Pt100
- pH probe
- Control unit including:
  - digital RPM indicator
  - digital thermostat of temperature control
  - Automatic temperature compensation pH-meter with Liquid-Crystal Display (0-14 pH)
  - E.L.C.B.
  - ON/OFF controls
- Curd cutter with 4 blades of stainless steel
- Data acquisition software (pH and temperature) for Windows
- 2 stainless steel molds for pressing the cheese

Power supply: 230 Vca 50 Hz single-phase - 1200 VA (other voltage and frequency on demand)

Overall dimensions: 1200 x 500 x500 (h) mm

Weight: 30 kg

SUITABLE FOR PROCESSING:

MILK (table top)	MILK (on castors)	FRUIT	TOMATO	CITRUS	OLIVE	OLEAGINOUS SEED	GRAPE	BREWING	SEAFOOD	LIQUEURS
●										

REQUIRED UTILITIES (PROVIDED BY THE CUSTOMER)

- Mains water
- Floor drain

ACCESSORIES (NOT INCLUDED)

- Stainless steel table with cabinet Mod. T1400/EV

SUPPLIED WITH

THEORETICAL – PRACTICAL – EXPERIMENTAL HANDBOOK

 ELETTRONICA VENETA S.P.A. - 31045 Motta di Livenza (TV) Italy - Via Postumia 16 - Tel. +39 0422 765 802 - Fax +39 0422 861 901 - E-mail: export@elettronicaveneta.com

BUTTER CHURN
Mod. MBR/EV

INTRODUCTION

This butter churn has been designed as a practical training device for butter making technique.

TRAINING PROGRAM

This unit enables to deepen the following issues:

- Phase inversion in butter making
- Effect of temperature and stirring on the separation process
- Mass balance and output

TECHNICAL SPECIFICATION

- Parts in contact with product made of stainless steel
- Total capacity: 10 litres
- Useful capacity: 1 to 5 litres of cream
- Production: approximately 1 kg of butter
- Thermometer

Power supply: 230 Vca 50 Hz single-phase - 120 VA (other voltage and frequency on demand)
Dimensions: 300 x 200 x 420 (h) mm
Weight: 9 kg

SUITABLE FOR PROCESSING:

MILK (table top)	MILK (on castors)	FRUIT	TOMATO	CITRUS	OLIVE	OLEAGINOUS SEED	GRAPE	BREWING	SEAFOOD	LIQUEURS
•										

REQUIRED ACCESSORIES (NOT INCLUDED)

- Stainless steel table with cabinet Mod. T1400/EV

SUPPLIED WITH

THEORETICAL – PRACTICAL – EXPERIMENTAL HANDBOOK

ELETTRONICA VENETA S.P.A. - 31045 Motta di Livenza (TV) Italy - Via Postumia 16 - Tel. +39 0422 765 802 - Fax +39 0422 861 901 - E-mail: export@elettronicaveneta.com

CREAM SEPARATOR
Mod. MSCR/EV

29-B

INTRODUCTION

This centrifugal cream separator has been designed as a practical training device for the separation technique of liquid phases of different densities, and especially for milk skimming.

TRAINING PROGRAM

This unit enables to deepen the following issues:

- Production of skimmed milk and cream
- Effect of temperature on the separation process
- Effect of speed on the separation process
- Cleaning operations in the processing of food

TECHNICAL SPECIFICATION

- Production: 120 l/h
- Disks of food-grade aluminium
- Chamber of food-grade aluminium
- Outlet units of cream and skimmed milk made of stainless steel
- Feed tank of stainless steel with capacity of 10 litres
- Number of revolutions varying from 8100 RPM to 9600 RPM
- 2 glass vessels of 1 litre and of 0.5 litre
- Digital chronometer
- Control unit with E.L.C.B., speed variator and digital RPM indicator

Power supply: 230 Vca 50 Hz single-phase - 120 VA (other voltage and frequency on demand)

Overall dimensions: 1200 x 500 x 600 (h) mm

Weight: 20 kg

SUITABLE FOR PROCESSING:

MILK (table top)	MILK (on castors)	FRUIT	TOMATO	CITRUS	OLIVE	OLEAGINOUS SEED	GRAPE	BREWING	SEAFOOD	LIQUEURS
•										

REQUIRED ACCESSORIES (NOT INCLUDED)

- Stainless steel table with cabinet Mod. T1400/EV

SUPPLIED WITH

THEORETICAL – PRACTICAL – EXPERIMENTAL HANDBOOK

ELETTRONICA VENETA S.P.A. - 31045 Motta di Livenza (TV) Italy - Via Postumia 16 - Tel. +39 0422 765 802 - Fax +39 0422 861 901 - E-mail: export@elettronicaveneta.com

STAINLESS STEEL TABLE WITH CABINET

Mod. T1400/EV

TECHNICAL SPECIFICATION

- Wholly made of stainless steel AISI 304, scotch brite finish
- Worktop with no sharp edges
- Intermediate shelf
- Legs with adjustable feet

Dimensions: 1200 × 700 × 900 (h) mm
Weight: 60 kg

SUITABLE FOR PROCESSING:

MILK (table top)	MILK (on castors)	FRUIT	TOMATO	CITRUS	OLIVE	OLEAGINOUS SEED	GRAPE	BREWING	SEAFOOD	LIQUEURS
•										

ELETTRONICA VENETA S.P.A. - 31045 Motta di Livenza (TV) Italy - Via Postumia 16 - Tel. +39 0422 765 802 - Fax +39 0422 861 901 - E-mail: export@elettronicaveneta.com

CHILLER
Mod. CHILL4/EV

29-B

INTRODUCTION

This unit is provided with an internal refrigerated tank from which a pump draws the cooled liquid having to be sent to the apparatus using it. A digital thermostat sets the refrigerating unit to work every time the preset temperature rises, and stops it as this temperature is attained again.

TECHNICAL SPECIFICATION

- Power: 2100 W
- Kcal/h @ 7 °C = 3700
- It can cool either water or glycol (down to -10 °C)

Dimensions: 700 x 500 x 600 (h) mm

SUITABLE FOR PROCESSING:

MILK (table top)	MILK (on castors)	FRUIT	TOMATO	CITRUS	OLIVE	OLEAGINOUS SEED	GRAPE	BREWING	SEAFOOD	LIQUEURS
•										

 ELETTRONICA VENETA S.P.A. - 31045 Motta di Livenza (TV) Italy - Via Postumia 16 - Tel. +39 0422 765 802 - Fax +39 0422 861 901 - E-mail: export@elettronicaveneta.com

REFRIGERATED TANK
Mod. TT/EV

INTRODUCTION

Refrigerated tank equipped with refrigeration system and agitator, for temperature control of liquid foods.

TECHNICAL SPECIFICATION

- Capacity: 100 litres
- Framework of AISI 304 stainless steel
- Evaporator of stainless steel in direct contact with the liquid
- Inclined bottom for complete draining
- High-thickness insulation with ecological polyurethane foam
- Internal manhole for draining
- Lower drain with round nut of DN 50 stainless steel provided with plug
- Stirring blade of stainless steel
- Total protection of the condenser housing with pierced panels
- Digital thermostat

Power supply: 230 Vac 50 Hz single-phase - 0,5 kVA
(Other voltage and frequency on request)
Dimensions: 600 × 600 × 1110 mm
Weight: 60 kg

SUITABLE FOR PROCESSING:

MILK (table top)	MILK (on castors)	FRUIT	TOMATO	CITRUS	OLIVE	OLEAGINOUS SEED	GRAPE	BREWING	SEAFOOD	LIQUEURS
	•									

VARIATIONS OF THE UNIT ON DEMAND:

This unit is also available with higher capacities (200 and 300 litres).

SUPPLIED WITH

OPERATING MANUAL

TANK ON CASTORS
Mod. T80/EV

29-B

INTRODUCTION

Wheeled tank for storing liquid foods.

TECHNICAL SPECIFICATION

- Capacity: 80 litres
- Framework of AISI 304 stainless steel
- Drain valve of AISI 316 stainless steel
- Provided with lid and with wheels for an easy transport

SUITABLE FOR PROCESSING:

MILK (table top)	MILK (on castors)	FRUIT	TOMATO	CITRUS	OLIVE	OLEAGINOUS SEED	GRAPE	BREWING	SEAFOOD	LIQUEURS
	•									

ELETTRONICA VENETA S.P.A. - 31045 Motta di Livenza (TV) Italy - Via Postumia 16 - Tel. +39 0422 765 802 - Fax +39 0422 861 901 - E-mail: export@elettronicaveneta.com

CREAM SEPARATOR
Mod. SCR/EV

INTRODUCTION

This centrifugal separator is designed to separate cream from milk and it can also be used for cleaning operations.

TECHNICAL SPECIFICATION

- Framework of AISI 304 stainless steel
- Cream separator of closed type
- Feeding: 300 kg/h max. (higher flow rates on demand)
- Drum of AISI 304 stainless steel, rotation speed: 10200 r.p.m.
- Three-way mixing valve of AISI 304 stainless steel
- Micrometer adjustment of cream density
- Centrifugal feed pump of AISI 304 stainless steel
- 2 tanks of food grade plastic (30 litres and 50 litres)
- Pressure gauge of AISI 304 stainless steel, range of 0 to 10 bar
- Switchboard of AISI 304 stainless steel with protection degree IP55 complying with EC standards and including a differential circuit breaker
- Emergency button

Dimensions: 560 × 1000 × 1700 mm
Weight: 210 kg

SUITABLE FOR PROCESSING:

MILK (table top)	MILK (on castors)	FRUIT	TOMATO	CITRUS	OLIVE	OLEAGINOUS SEED	GRAPE	BREWING	SEAFOOD	LIQUEURS
	•									

REQUIRED UTILITIES (PROVIDED BY THE CUSTOMER)

- Power supply: 400 Vac 50 Hz three-phase - 2,0 kVA (Other voltage and frequency on request)

SUPPLIED WITH

OPERATING AND MAINTENANCE MANUAL

CENTRIFUGAL PUMP ON CASTORS

Mod. PCC/EV

INTRODUCTION

Very versatile centrifugal pump for liquid foods provided with wheeled framework. The very low r.p.m. number of its motor does not provoke any shaking of the product. Very easy cleaning.

TECHNICAL SPECIFICATION

- Wheeled framework of AISI 304 stainless steel
- Centrifugal pump of stainless steel (sanitary type)
- Maximum flow rate: 2000 l/h @ 2 metres
- ON-OFF switch

Dimensions: 680 × 360 × 700 mm
Weight: 23 kg

SUITABLE FOR PROCESSING:

MILK (table top)	MILK (on castors)	FRUIT	TOMATO	CITRUS	OLIVE	OLEAGINOUS SEED	GRAPE	BREWING	SEAFOOD	LIQUEURS
	•	•								

REQUIRED UTILITIES (PROVIDED BY THE CUSTOMER)

- Power supply: 400 Vac 50Hz three-phase - 4 kVA (Other voltage and frequency on request)

SUPPLIED WITH

OPERATING AND MAINTENANCE MANUAL

ELETTRONICA VENETA S.P.A. - 31045 Motta di Livenza (TV) Italy - Via Postumia 16 - Tel. +39 0422 765 802 - Fax +39 0422 861 901 - E-mail: export@elettronicaveneta.com

MULTIFUNCTIONAL HOMOGENIZATION PILOT PLANT

Mod. OMO/EV

INTRODUCTION

High-pressure homogenization is a wholly mechanical process consisting in forcing the product through a special valve of adjustable opening, just called homogenizing valve.
The sudden and simultaneous emergence of some phenomena (compression, acceleration, cavitation, etc...) provokes the micronization of the particles in suspension that are dispersed uniformly without surfacing.
This technique is used by food industry to ensure stability, long duration and digestibleness to the products.

TECHNICAL SPECIFICATION

- Framework of AISI 304 stainless steel
- Max. feeding: 100 kg/h (higher flow rates on demand)
- Max. operating pressure 250 bar
- Single-stage homogenization
- High-efficiency homogenizing valve being able to create an optimum micronization even at rather low pressures
- Volumetric piston pump
- All the parts in contact with the product are of AISI 316 stainless steel
- Pressure gauge of AISI 316 stainless steel
- Switchboard of stainless steel with protection degree IP55 complying with EC standards and including a differential circuit breaker

Dimensions: 900 × 600 × 1600 mm
Weight: 243 kg

ACCESSORIES ON DEMAND

- This plant can be washed by the auxiliary unit mod. LAV/EV.

SUITABLE FOR PROCESSING:

MILK (table top)	MILK (on castors)	FRUIT	TOMATO	CITRUS	OLIVE	OLEAGINOUS SEED	GRAPE	BREWING	SEAFOOD	LIQUEURS
	●	●								

REQUIRED UTILITIES (PROVIDED BY THE CUSTOMER)

- Power supply: 400 Vac 50 Hz three-phase - 4 kVA (Other voltage and frequency on request)
- Water: max. consumption 50 l/h
- Floor drain

SUPPLIED WITH

OPERATING AND MAINTENANCE MANUAL

MULTIFUNCTIONAL DEAERATION PILOT PLANT

Mod. DSR/EV

INTRODUCTION

This deaeration unit is designed to eliminate the air and any bad-smelling volatile substance absorbed during the processing phases so that the resulting product is stabler, uniform and free from any defect of taste.

TECHNICAL SPECIFICATION

- Framework of AISI 304 stainless steel
- Max. feeding: 200 l/h (higher flow rates on demand)
- Cylindrical deaerator of AISI 316 stainless steel, with capacity of 15 l, motor-driven agitator and level gauge
- Motor for agitator
- Turbine agitator of AISI 316 stainless steel, with water-cooled mechanical seal
- Liquid-ring vacuum pump, P = 0.7 kW, provided with air/water separator
- Screw pump for extracting and recycling the deaerated product, with flow rate of 300 l/h, body of AISI 316 stainless steel and Viton, P = 0.55 kW
- Connecting lines and valves of AISI 304 and 316 stainless steel
- Vacuum gauge with range of -1 to 0 bar
- Switchboard with protection degree IP55 complying with EC standards and including a differential circuit breaker and a schematic diagram of the plant
- Emergency button

Dimensions: 1400× 600×1550 mm
Weight: 190 kg

ACCESSORIES ON DEMAND

- This plant can be washed by the auxiliary unit mod. LAV/EV

SUITABLE FOR PROCESSING:

MILK (table top)	MILK (on castors)	FRUIT	TOMATO	CITRUS	OLIVE	OLEAGINOUS SEED	GRAPE	BREWING	SEAFOOD	LIQUEURS
	●	●	●	●						

REQUIRED UTILITIES (PROVIDED BY THE CUSTOMER)

- Power supply: 400 Vac 50 Hz three-phase - 2,5 kVA (Other voltage and frequency on request)
- Water: max. consumption 150 l/h
- Floor drain

SUPPLIED WITH

OPERATING AND MAINTENANCE MANUAL

 ELETTRONICA VENETA S.P.A. - 31045 Motta di Livenza (TV) Italy - Via Postumia 16 - Tel. +39 0422 765 802 - Fax +39 0422 861 901 - E-mail: export@elettronicaveneta.com

MULTIFUNCTIONAL PASTEURIZATION PILOT PLANT

Semiautomatic vers. mod. UPL-M/EV
Computer-aided vers. mod. UPL/EV

INTRODUCTION

This pasteurizer is designed to pasteurize liquid foods such as milk, clear juices, etc…
Pasteurization is carried out in a plate heat exchanger; after a holding period, it is followed by a fast cooling in a second plate heat exchanger, to limit the growth of residual microorganisms and the alteration of organoleptic characteristics of products.
If users are not interested in process control issues, it is better to purchase the semiautomatic version mod. UPL-M/EV.

TRAINING PROGRAM

This unit enables to deepen the following issues:

- Product quality versus the following parameters
  - feed flow rate / holding time
  - pasteurization temperature
- PID temperature control by microprocessor controller
- Energy balance
- Plant supervision (only in computer-aided version)

TECHNICAL SPECIFICATION

- Wheeled framework of AISI 304 stainless steel
- Max. feeding: 100 l/h (higher flow rates on demand)
- 2 plate heat exchangers (pasteurization and cooling) of AISI 316 stainless steel, with exchange surface of 0.1 m^2
- Centrifugal feed pump of sanitary type with body of AISI 304 stainless steel and maximum flow rate of 1000 l/h
- Variable-area flowmeter of AISI 304 stainless steel, with range of 10 to 100 l/h, accuracy: ± 0.5%
- Cylindrical feed tank of AISI 304 stainless steel, mirror polished inside, with capacity of 80 l
- Cylindrical tank of AISI 304 stainless steel, mirror polished inside, with capacity of 80 l, for collecting the pasteurized product
- Tank of AISI 304 stainless steel, with capacity of 80 l, for collecting water/glycol solution
- Cooling circuit for water/glycol solution, including Freon 404a compressor, P = 3.5 kW, condenser, filter, liquid separator, thermostat
- Circulation pump of water/glycol solution with body of AISI 304 stainless steel and maximum flow rate of 2000 l/h
- Plate heat exchanger of AISI 304 stainless steel, for Freon/water-glycol solution
- Four Pt100 thermoresistances with sheath of AISI 316 stainless steel
- 2 electronic temperature indicators
- 2 thermostats for controlling the cooling temperature of product and of glycol solution

- Microprocessor PID controller for controlling pasteurization temperature
- Electropneumatic converter
- Pneumatic valve of AISI 316 stainless steel, Cv = 2.5, for controlling the flow rate of hot water
- Connecting lines and valves of AISI 304 and 316 stainless steel
- Switchboard with protection degree IP55 complying with EC standards and including a differential circuit breaker and a schematic diagram of the plant
- Emergency button
- Pneumatic valve of AISI 316 stainless steel, Cv = 0.32, for controlling feed flow rate (only for mod. UPL/EV)
- Electropneumatic converter, 4 to 20 mA / 0.2 to 1 bar, accuracy: ± 1% (only for mod. UPL/EV)
- Supervision software mod. SW-UPL/EV: this software runs in Windows and it is designed to control ON-OFF signals, analog signals coming from the controller, real-time trend and historical trend (only for mod. UPL/EV)

Dimensions: 3200×800×2000 mm
Weight: 520 kg

SUITABLE FOR PROCESSING:

MILK (table top)	MILK (on castors)	FRUIT	TOMATO	CITRUS	OLIVE	OLEAGINOUS SEED	GRAPE	BREWING	SEAFOOD	LIQUEURS
	•									

REQUIRED

UTILITIES (PROVIDED BY THE CUSTOMER)

- Power supply: 400 Vac 50 Hz three-phase - 7 kVA (Other voltage and frequency on request)
- Hot water: T = 98 °C, maximum consumption of 300 l/h with recovery
- Compressed air: max. consumption 2 Nm^3/h, P = 6 bar
- Water: occasional consumption

ACCESSORIES (NOT INCLUDED)

- Hot water generator mod. SCT01/EV

SUPPLIED WITH

THEORETICAL – PRACTICAL – EXPERIMENTAL HANDBOOK

ELETTRONICA VENETA S.P.A. - 31045 Motta di Livenza (TV) Italy - Via Postumia 16 - Tel. +39 0422 765 802 - Fax +39 0422 861 901 - E-mail: export@elettronicaveneta.com

MILK STERILIZATION PILOT PLANT

Semiautomatic vers. mod. STR-M/EV
Computer-aided vers. mod. STR/EV

INTRODUCTION

This unit reproduces a UHT system with direct steam heating, on a pilot scale.

Milk is pre-heated in a plate heat exchanger and it reaches sterilization temperature after a direct injection of steam; then part of the absorbed water is removed during an expansion stage followed by a fast cooling carried out in a second plate exchanger.

If users are not interested in process control issues, it is better to purchase the semiautomatic version mod. STR-M/EV.

TRAINING PROGRAM

This unit enables to deepen the following issues:

- Product quality versus sterilization time and temperature
- PID temperature control by microprocessor controller
- Energy balance
- Plant supervision (only in computer-aided version)

TECHNICAL SPECIFICATION

- Wheeled framework of AISI 304 stainless steel
- Max. feeding: 100 l/h (higher flow rates on demand)
- Cylindrical feed tank of AISI 304 stainless steel, mirror polished inside, with capacity of 80 l
- Cylindrical tank of AISI 304 stainless steel, mirror polished inside, with capacity of 80 l, for collecting the sterilized product
- Gear-type feed pump with body of AISI 316 stainless steel and flow rate of 200 l/h
- Electronic frequency variator for feed pump
- Feed flowmeter of AISI 316 stainless steel, with range of 0 to 100 l/h, accuracy: ± 0.5%
- Plate-type milk pre-heater of AISI 316 stainless steel, with exchange surface of 0.6 m^2
- Sterilization chamber of AISI 304 stainless steel
- Vacuum chamber of borosilicate glass, with capacity of 5 l, for reducing milk temperature after sterilization
- Liquid-ring vacuum pump, P = 0.7 kW, provided with air/water separator
- Plate heat exchanger of AISI 316 stainless steel, for milk cooling, exchange surface of 0.6 m^2

- Gear pump of AISI 316 stainless steel (flow rate of 200 l/h) for transferring sterlized milk from flash chamber to cooling exchanger
- Electronic frequency variator for milk transfer pump
- Connecting lines and valves of AISI 304 and 316 stainless steel
- Four Pt100 thermoresistances with sheath of AISI 316 stainless steel
- 4 electronic temperature indicators
- Microprocessor PID controller
- Pneumatic valve of AISI 316 stainless steel, Cv = 0.13, for controlling the flow rate of sterlization steam
- Pneumatic valve of AISI 316 stainless steel, Cv = 2.5, for controlling the flow rate of milk pre-heating water
- Shell-and-tube condenser of AISI 304 stainless steel, with exchange surface of 0.3 m^2
- 2 electropneumatic converters, 4 to 20 mA / 0.2 to 1 bar
- Switchboard with protection degree IP55 complying with EC standards and including a differential circuit breaker and a schematic diagram of the plant
- Pneumatic valve of AISI 316 stainless steel, Cv = 2.5, for adjusting vacuum degree (only for mod. STR/EV)
- Electropneumatic converter, 4 to 20 mA / 0.2 to 1 bar, accuracy: ± 1% (only for mod. STR/EV)
- Supervision software mod. SW-STR/EV: this software runs in Windows and it is designed to control ON-OFF signals, analog signals coming from the controller, real-time trend and historical trend (only for mod. STR/EV)

Dimensions: 2100 × 800 × 2000 mm
Weight: 380 kg

SUITABLE FOR PROCESSING:

MILK (table top)	MILK (on castors)	FRUIT	TOMATO	CITRUS	OLIVE	OLEAGINOUS SEED	GRAPE	BREWING	SEAFOOD	LIQUEURS
	●									

REQUIRED

UTILITIES (PROVIDED BY THE CUSTOMER)

- Power supply: 400 Vac 50 Hz three-phase - 3 kVA (Other voltage and frequency on request)
- Compressed air: 3 Nm^3/h, P = 6 bar
- Hot water: 300 l/h, T = 98°C, with recovery
- Sanitary steam: 10 kg/h, P = 4.5 bar
- Tap water: max. consumption of 300 l/h
- Floor drain

ACCESSORIES (NOT INCLUDED)

- Hot water generator mod. SCT01/EV
- Steam generator mod. SCT04/EV (if the plant is not included in a line) or mod. SCT03/EV

SUPPLIED WITH

THEORETICAL – PRACTICAL – EXPERIMENTAL HANDBOOK

ELETTRONICA VENETA S.P.A. - 31045 Motta di Livenza (TV) Italy - Via Postumia 16 - Tel. +39 0422 765 802 - Fax +39 0422 861 901 - E-mail: export@elettronicaveneta.com

BUTTER PRODUCTION PILOT PLANT
Mod. BR/EV

29-B

INTRODUCTION

This pilot plant is designed to produce butter by using the cream output by pilot plant mod. SCR/EV. It must be fed with the cream separated from at least 200 litres of milk.

TECHNICAL SPECIFICATION

- Framework of AISI 304 stainless steel
- Max. feeding: 19 l of cream per working cycle (higher flow rates on demand)
- Tank of stainless steel, with capacity of 50 litres
- Rotor of stainless steel, equipped with motor
- Proximity contact for lid
- Switchboard of AISI 304 stainless steel, with protection degree IP55 including a differential circuit breaker and a schematic diagram of the plant
- Emergency button

Power supply: 230 Vac 50 Hz single-phase - 1 kVA
(Other voltage and frequency on request)
Dimensions: 500×600×1900 mm
Weight: 150 kg

SUITABLE FOR PROCESSING:

MILK (table top)	MILK (on castors)	FRUIT	TOMATO	CITRUS	OLIVE	OLEAGINOUS SEED	GRAPE	BREWING	SEAFOOD	LIQUEURS
	•									

REQUIRED
UTILITIES (PROVIDED BY THE CUSTOMER)
- Water: occasional consumption

SUPPLIED WITH
THEORETICAL – PRACTICAL – EXPERIMENTAL HANDBOOK

CHEESE PRODUCTION PILOT PLANT

Mod. FOR/EV

INTRODUCTION

This plant is designed to analyze and check all the operations for manufacturing various cheeses from milk processing.

TECHNICAL SPECIFICATION

- Framework of AISI 304 stainless steel
- Max. feeding: 80 l of milk per working cycle (higher flow rates on demand)
- Boiler of AISI 304 stainless steel for the production of various cheeses, with capacity of 100 l, provided with jacket for heating steam
- Agitator equipped with motor, reducer and lyre
- Water trap
- Safety valve
- Pt100 thermoresistance with sheath of AISI 316 stainless steel
- Electronic temperature control
- Temperature control valve
- Switchboard of stainless steel with protection degree IP55 complying with EC standards and including a differential circuit breaker and a schematic diagram of the plant
- Emergency button

Dimensions: 1300 × 800 × 1300 mm
Weight: 250 kg

NECESSARY ACCESSORIES:

- Moulding table
- Pressing table
- Salting tank
- Stewing tank
- Maturing shelves

SUITABLE FOR PROCESSING:

MILK (table top)	MILK (on castors)	FRUIT	TOMATO	CITRUS	OLIVE	OLEAGINOUS SEED	GRAPE	BREWING	SEAFOOD	LIQUEURS
	•									

REQUIRED

UTILITIES (PROVIDED BY THE CUSTOMER)

- Power supply: 400 Vac 50 Hz three-phase - 0,5 kVA (Other voltage and frequency on request)
- Steam: 20 kg/h, P = 4 bar
- Water: occasional consumption

ACCESSORIES (NOT INCLUDED)

- Steam generator mod. SCT04/EV (if the plant is not included in a line) or mod. SCT03/EV

SUPPLIED WITH

THEORETICAL – PRACTICAL – EXPERIMENTAL HANDBOOK

MOULDING TABLE Mod. BFF/EV

TECHNICAL SPECIFICATION

- Framework of AISI 304 stainless steel
- 4 legs with castors
- Raised edges
- Drain valve of ½"

Dimensions: 1900 × 900 × 840 (h) mm

 ELETTRONICA VENETA S.P.A. - 31045 Motta di Livenza (TV) Italy - Via Postumia 16 - Tel. +39 0422 765 802 - Fax +39 0422 861 901 - E-mail: export@elettronicaveneta.com

PRESSING TABLE WITH INTERNAL BASIN
Mod. BFPF/EV

TECHNICAL SPECIFICATION

- Framework of AISI 304 stainless steel
- 4 legs with castors
- Raised edges
- Tank of 200 litres with drain valve of ½" and supporting perforated plate

Dimensions: 1900 × 900 × 800 (h) mm

SALTING TANK
Mod. SAL/EV

TECHNICAL SPECIFICATION

- Framework of AISI 304 stainless steel
- 4 legs with adjustable feet
- Tank of 500 litres with drain valve of ½" and supporting perforated plate

Dimensions: 1000 × 1000 × 870 (h) mm

STEWING TANK
Mod. FOR-2/EV

TECHNICAL SPECIFICATION

- Framework of AISI 304 stainless steel
- 4 legs with adjustable feet
- Supporting perforated plate
- Thermometer
- Steam injection pipe with solenoid valve
- Pt100 thermoresistance
- Digital thermostat
- Drain valve
- Switchboard with protection degree IP55 including a differential circuit breaker

Dimensions: 960 × 960 × 800 (h) mm

MATURING SHELVES
Mod. SCAF/EV

TECHNICAL SPECIFICATION

- Framework of AISI 304 stainless steel
- 3 shelves of food grade PVC
- 4 legs with adjustable feet

Dimensions: 1500 × 800 × 2000 (h) mm

YOGHURT PRODUCTION UNIT
Mod. YOG/EV

29-B

INTRODUCTION

This plant is designed to produce yoghurt from whole milk or from semi-skimmed milk with addition of enzymes.

TECHNICAL SPECIFICATION

- Wheeled framework of AISI 304 stainless steel
- Max. feeding: 100 l of milk per working cycle (higher flow rates on demand)
- Jacketed fermenter of AISI 304 stainless steel, with capacity of 150 l
- Motor variable-speed drive for agitator
- Agitator of AISI 304 stainless steel
- Centrifugal feed pump of AISI 304 stainless steel being also used for recycling
- Electronic temperature control
- Temperature control valve
- Switchboard of AISI 304 stainless steel with protection degree IP55 complying with EC standards and including a differential circuit breaker and a schematic diagram of the plant
- Emergency button

Dimensions: 1500 × 900 × 1900 mm
Weight: 230 kg

SUITABLE FOR PROCESSING:

MILK (table top)	MILK (on castors)	FRUIT	TOMATO	CITRUS	OLIVE	OLEAGINOUS SEED	GRAPE	BREWING	SEAFOOD	LIQUEURS
	•									

REQUIRED

UTILITIES (PROVIDED BY THE CUSTOMER)

- Power supply: 400 Vac 50 Hz three-phase - 1,5 kVA (Other voltage and frequency on request)
- Recycled hot water: T = 95°C
- Water: occasional consumption

ACCESSORIES (NOT INCLUDED)

- Hot water generator, mod. SCT01/EV

SUPPLIED WITH

THEORETICAL – PRACTICAL – EXPERIMENTAL HANDBOOK

 ELETTRONICA VENETA S.P.A. - 31045 Motta di Livenza (TV) Italy - Via Postumia 16 - Tel. +39 0422 765 802 - Fax +39 0422 861 901 - E-mail: export@elettronicaveneta.com

MULTIFUNCTIONAL FREEZE-DRYING PILOT PLANT
Mod. LFZ/EV

INTRODUCTION

Freeze drying or sublimation drying is a process enabling to dry a product previously frozen, under high vacuum.
This pilot plant is designed to carry out freeze-drying tests on small quantities of food products.

TRAINING PROGRAM

This unit enables to deepen the following issues:

- Freeze-drying process control versus the following operational parameters:
  - residual pressure
  - power of the electric heater
  - product typology

TECHNICAL SPECIFICATION

- Wheeled framework of AISI 304 stainless steel
- Feeding: 300 g of frozen product per working cycle
- Freezer with capacity of 80 l
- Freeze-drying and condensation chamber of borosilicate glass and AISI 304 stainless steel
- 2-stage vacuum pump, P = 1 kW, minimum pressure = $1x10^{-4}$ mbar
- Freon 404a refrigeration compressor, P = 0.5 kW
- Freon control thermostat
- Freon condenser provided with motor and fan
- Residual vacuum indicator-transmitter, range of 1 to $1x10^{-3}$ mbar
- 2 pressure gauges
- Three Pt100 thermoresistances
- 2 electronic temperature thermostats
- Electronic temperature indicator
- Sheathed electric heater of freeze-drying tray, P = 500 W
- Switchboard of stainless steel with protection degree IP55 complying with EC standards and including a differential circuit breaker and a schematic diagram of the plant

Dimensions: 1400 × 650 × 1700 mm
Weight: 250 kg (including freezer)

SUITABLE FOR PROCESSING:

MILK (table top)	MILK (on castors)	FRUIT	TOMATO	CITRUS	OLIVE	OLEAGINOUS SEED	GRAPE	BREWING	SEAFOOD	LIQUEURS
		•	•	•						

REQUIRED UTILITIES (PROVIDED BY THE CUSTOMER)

- Power supply: 400 Vac 50 Hz three-phase - 4 kVA (Other voltage and frequency on request)

SUPPLIED WITH

THEORETICAL – PRACTICAL – EXPERIMENTAL HANDBOOK

CLEAN IN PLACE UNIT
Mod. LAV/EV

29-B

INTRODUCTION

This unit consists of two tanks and it can be used for CIP washing of some food processing equipment and connecting lines.

TECHNICAL SPECIFICATION

- Wheeled framework of AISI 304 stainless steel
- Feed tank of AISI 316 stainless steel for basic solution, with capacity of 100 l, provided with thermometer
- Feed tank of AISI 316 stainless steel for acid solution, with capacity of 100 l, provided with thermometer
- Centrifugal feed pump of AISI 316 stainless steel
- Switchboard of AISI 304 stainless steel with protection degree IP55 complying with EC standards and including a differential circuit breaker and a schematic diagram of the plant
- Connecting lines and valves of AISI 316 stainless steel
- Quick connections of AISI 316 stainless steel for the connection with the plant having to be washed

Dimensions: 1600×600×1700 mm
Weight: 200 kg

SUITABLE FOR PROCESSING:

MILK (table top)	MILK (on castors)	FRUIT	TOMATO	CITRUS	OLIVE	OLEAGINOUS SEED	GRAPE	BREWING	SEAFOOD	LIQUEURS
	•									

REQUIRED

UTILITIES (PROVIDED BY THE CUSTOMER)

- Power supply: 400 Vac 50 Hz three-phase - 2 kVA (Other voltage and frequency on request)
- Steam: 20 kg/h at 4 bar

ACCESSORIES (NOT INCLUDED)

- Steam generator mod. SCT04/EV (if the plant is not included in a line) or mod. SCT03/EV

SUPPLIED WITH

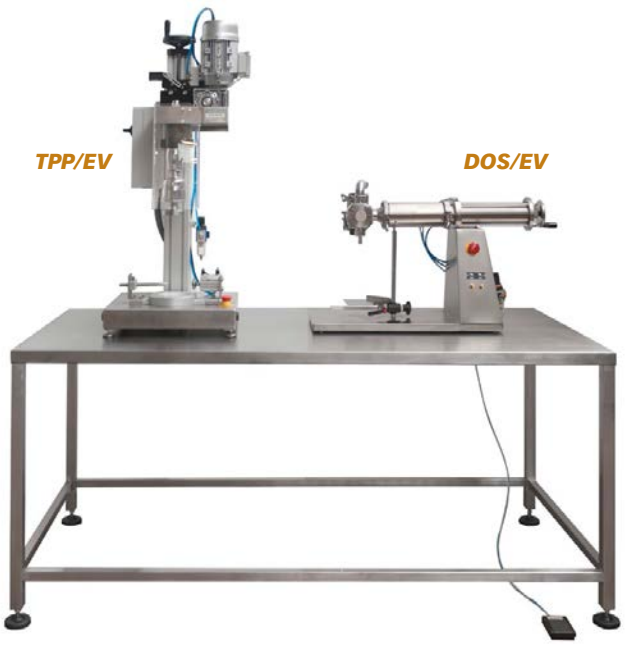
OPERATING MANUAL

 ELETTRONICA VENETA S.P.A. - 31045 Motta di Livenza (TV) Italy - Via Postumia 16 - Tel. +39 0422 765 802 - Fax +39 0422 861 901 - E-mail: export@elettronicaveneta.com

ACCESSORIES FOR PACKAGING
Mod. CONF/EV

INTRODUCTION

This packaging system consists of two units: pneumatic dosing machine mod. DOS/EV and capping machine mod. TPP/EV.
It is designed to package liquid, semi-thick, thick and doughy products.



DOSING MACHINE Mod. DOS/EV

TECHNICAL SPECIFICATION

- Supporting table of AISI 304 stainless steel
- Pneumatic dosing machine of AISI 314 stainless steel
- Height adjustable case holding top
- Dosing adjusted via handwheel
- Capacity ranging from 50 to 700 cm^3

Dimensions: 1900×900×800 mm

CAPPING MACHINE Mod. TPP/EV

TECHNICAL SPECIFICATION

- Potentiality: 300 bottles/hour
- Tabletop semi-automatic machine for twist-off caps
- Adjustable clutch for a perfect closing of caps

Power supply: 230 Vac 50 Hz single-phase - 0,3 kVA
(Other voltage and frequency on request)
Dimensions: 400 x 400 x 900 mm
Weight: 50 kg

SUITABLE FOR PROCESSING:

MILK (table top)	MILK (on castors)	FRUIT	TOMATO	CITRUS	OLIVE	OLEAGINOUS SEED	GRAPE	BREWING	SEAFOOD	LIQUEURS
	•	•	•	•						

REQUIRED UTILITIES (PROVIDED BY THE CUSTOMER)

- **Dosing Machine DOS/EV:**
  - Compressed air at 6 bar

SUPPLIED WITH
OPERATING MANUAL

29-B STAINLESS STEEL TABLE

TECHNICAL SPECIFICATION

- Framework of AISI 304 stainless steel
- 4 legs with adjustable feet

Dimensions: 1900×900×850 mm

ELETTRONICA VENETA S.P.A. - 31045 Motta di Livenza (TV) Italy - Via Postumia 16 - Tel. +39 0422 765 802 - Fax +39 0422 861 901 - E-mail: export@elettronicaveneta.com

MULTIFUNCTIONAL WASHING MACHINE
Mod. LAV-1/EV

INTRODUCTION

This equipment is designed for the washing of citrus fruit, fruit and tomatoes.

TECHNICAL SPECIFICATION

- Framework of AISI 304 stainless steel
- Washing tank of AISI 304 stainless steel, with perforated bottom and walls, capacity of 150 l
- Pump for recycling washing water, with body of AISI 304 stainless steel
- Water feed and drain valve of AISI 304 stainless steel
- Switchboard

Dimensions: 1200×700×900 mm
Weight: 200 kg

SUITABLE FOR PROCESSING:

MILK (table top)	MILK (on castors)	FRUIT	TOMATO	CITRUS	OLIVE	OLEAGINOUS SEED	GRAPE	BREWING	SEAFOOD	LIQUEURS
		•	•	•						

REQUIRED

UTILITIES (PROVIDED BY THE CUSTOMER)

- Power supply: 400 Vac 50 Hz three-phase - 2 kVA (Other voltage and frequency on request)
- Tap water
- Floor drain

SUPPLIED WITH

OPERATING MANUAL

ELETTRONICA VENETA S.P.A. - 31045 Motta di Livenza (TV) Italy - Via Postumia 16 - Tel. +39 0422 765 802 - Fax +39 0422 861 901 - E-mail: export@elettronicaveneta.com

DE-STONER
Mod. DNC/EV

29-B

INTRODUCTION

This equipment is designed to remove stones from plums, cherries, apricots, peaches and mussel plums.

TECHNICAL SPECIFICATION

- Max. feeding: 200 kg/h (higher flow rates on demand)
- Framework of AISI 304 stainless steel
- Loading hopper of AISI 304 stainless steel
- Unloading chutes of AISI 304 stainless steel for product and stones
- Fairing and parts in contact with product made of AISI 304 stainless steel
- 2 interchangeable stone-removing rolls of AISI 304 stainless steel: one for plums, apricots, peaches and mussel plums; and the other for cherries
- Motor (P = 2.2 kW) with chain and trapezoid belt drive, wholly covered by protecting hood
- Tank of food grade plastic for pitted product, with capacity of 50 l
- Tank of food grade plastic for stones

Dimensions: 800×1100×1300 mm
Weight: 290 kg

SUITABLE FOR PROCESSING:

MILK (table top)	MILK (on castors)	FRUIT	TOMATO	CITRUS	OLIVE	OLEAGINOUS SEED	GRAPE	BREWING	SEAFOOD	LIQUEURS
		•								

REQUIRED

UTILITIES (PROVIDED BY THE CUSTOMER)

- Power supply: 400 Vac 50 Hz three-phase - 3 kVA (Other voltage and frequency on request)
- Tap water

SUPPLIED WITH

OPERATING MANUAL

 ELETTRONICA VENETA S.P.A. - 31045 Motta di Livenza (TV) Italy - Via Postumia 16 - Tel. +39 0422 765 802 - Fax +39 0422 861 901 - E-mail: export@elettronicaveneta.com

GRINDING MILL
Mod. AC/EV

29-B

INTRODUCTION

This machine is designed to prepare fruit for the next "hot break" operation.

TECHNICAL SPECIFICATION

- Framework of AISI 304 stainless steel
- Hopper capacity: 30 litres
- Production: up to 800 kg/h
- Motor of 1.5 HP

Dimensions: 600×600×1200 mm
Weight: 20 kg

SUITABLE FOR PROCESSING:

MILK (table top)	MILK (on castors)	FRUIT	TOMATO	CITRUS	OLIVE	OLEAGINOUS SEED	GRAPE	BREWING	SEAFOOD	LIQUEURS
		•	•							

REQUIRED

UTILITIES (PROVIDED BY THE CUSTOMER)

- Power supply: 400 Vac 50 Hz three-phase - 1,0 kVA (Other voltage and frequency on request)

SUPPLIED WITH

OPERATING MANUAL

ELETTRONICA VENETA S.P.A. - 31045 Motta di Livenza (TV) Italy - Via Postumia 16 - Tel. +39 0422 765 802 - Fax +39 0422 861 901 - E-mail: export@elettronicaveneta.com

MULTIFUNCTIONAL HOT BREAK PILOT PLANT

Mod. THB/EV

INTRODUCTION

This equipment is designed to cook and grind food products continuously using steam. The output product can be refined, deaerated, pasteurized and concentrated.

TRAINING PROGRAM

This unit enables to deepen the following issues:

- Product quality control versus the following operating parameters
  - output product temperature
  - feeding
  - residence time

TECHNICAL SPECIFICATION

- Framework of AISI 304 stainless steel
- Max. feeding: 200 kg/h (higher flow rates on demand)
- Cylindrical jacketed cooker of AISI 304 stainless steel
- Mixing-grinding mill of AISI 304 stainless steel, inserted in the cooker
- Variable-speed motor reducer (0-400 r.p.m.)
- Water trap
- Pt 100 thermoresistance with sheath of AISI 316 stainless steel
- Electronic temperature control
- Pneumatic valve for controlling cooker temperature
- Switchboard with protection degree IP55 complying with EC standards

Dimensions: 1700 × 600 × 1600 mm
Weight: 250 kg

SUITABLE FOR PROCESSING:

MILK (table top)	MILK (on castors)	FRUIT	TOMATO	CITRUS	OLIVE	OLEAGINOUS SEED	GRAPE	BREWING	SEAFOOD	LIQUEURS
		●	●							

REQUIRED

UTILITIES (PROVIDED BY THE CUSTOMER)

- Power supply: 400 Vac 50 Hz three-phase - 0,5 kVA (Other voltage and frequency on request)
- Steam: 20 kg/h, P = 4 bar
- Compressed air: max. consumption of 5 Nm³/h, P = 6 bar

ACCESSORIES (NOT INCLUDED)

- Steam generator mod. SCT04/EV (if the plant is not included in a line) or mod. SCT03/EV

SUPPLIED WITH

OPERATING AND MAINTENANCE MANUAL

 ELETTRONICA VENETA S.P.A. - 31045 Motta di Livenza (TV) Italy - Via Postumia 16 - Tel. +39 0422 765 802 - Fax +39 0422 861 901 - E-mail: export@elettronicaveneta.com

PULPER-REFINER PILOT PLANT
Mod. PAS/EV

INTRODUCTION

This equipment is designed to refine fruit, citrus and tomato juices.

TECHNICAL SPECIFICATION

- Single-stage pulping machine of AISI 304 stainless steel
- Max. feeding: 200 kg/h (higher flow rates on demand)
- Sieve of AISI 316 stainless steel
- Switchboard with protection degree IP55 complying with EC standards and including emergency button and machine start and stop buttons
- Tank of AISI 304 stainless steel for refined juice
- Tank of plastic material for waste

Dimensions: 600 × 600 × 1450 mm
Weight: 160 kg

SUITABLE FOR PROCESSING:

MILK (table top)	MILK (on castors)	FRUIT	TOMATO	CITRUS	OLIVE	OLEAGINOUS SEED	GRAPE	BREWING	SEAFOOD	LIQUEURS
		•	•	•						

REQUIRED

UTILITIES (PROVIDED BY THE CUSTOMER)

- Power supply: 400 Vac 50 Hz three-phase - 3 kVA (Other voltage and frequency on request)

SUPPLIED WITH

OPERATING AND MAINTENANCE MANUAL

ELETTRONICA VENETA S.P.A. - 31045 Motta di Livenza (TV) Italy - Via Postumia 16 - Tel. +39 0422 765 802 - Fax +39 0422 861 901 - E-mail: export@elettronicaveneta.com

MIXING TANK
Mod. MISC/EV

29-B

INTRODUCTION

This tank is designed to mix natural juices and sugar solution to obtain nectar.

TECHNICAL SPECIFICATION

- Capacity: 100 litres
- Made of AISI 304 stainless steel
- Drain valve of AISI 316 stainless steel
- Motor-driven agitator

Dimensions: 680 × 630 × 1500 mm
Weight: 80 kg

SUITABLE FOR PROCESSING:

MILK (table top)	MILK (on castors)	FRUIT	TOMATO	CITRUS	OLIVE	OLEAGINOUS SEED	GRAPE	BREWING	SEAFOOD	LIQUEURS
		•								

REQUIRED UTILITIES (PROVIDED BY THE CUSTOMER)

- Power supply: 400 Vac 50 Hz three-phase - 0,7 kVA (Other voltage and frequency on request)

SUPPLIED WITH

OPERATING MANUAL

 ELETTRONICA VENETA S.P.A. - 31045 Motta di Livenza (TV) Italy - Via Postumia 16 - Tel. +39 0422 765 802 - Fax +39 0422 861 901 - E-mail: export@elettronicaveneta.com

COOKING KETTLE
Mod. BL/EV

INTRODUCTION

This equipment is designed to prepare fruit and citrus fruit for jam and marmalade production. Cooking at 50°C enables to eliminate part of the water of constitution and to obtain the following results: tissue softening, sugar dissolution and partial transformation of sucrose into glucose and fructose.

TECHNICAL SPECIFICATION

- Framework of AISI 304 stainless steel
- Max. feeding: 20 kg of pitted fruit or citrus fruit per working cycle
- Tilting kettle of AISI 304 stainless steel, with capacity of 40 l
- Motor reducer for agitator
- Agitator of AISI 304 stainless steel with scrapers of PTFE
- Steam heating jacket
- Steam valve
- Water trap
- Pressure gauge, range of 0 to 10 bar
- Thermometer, range of 0 to 100 °C
- Switchboard with protection degree IP55 complying with EC standards

Dimensions: 800 × 800 × 1100 mm
Weight: 170 kg

SUITABLE FOR PROCESSING:

MILK (table top)	MILK (on castors)	FRUIT	TOMATO	CITRUS	OLIVE	OLEAGINOUS SEED	GRAPE	BREWING	SEAFOOD	LIQUEURS
		•		•						

REQUIRED

UTILITIES (PROVIDED BY THE CUSTOMER)

- Power supply: 400 Vac 50 Hz three-phase - 0,5 kVA (Other voltage and frequency on request)
- Steam: 20 kg/h at 4 bar

ACCESSORIES (NOT INCLUDED)

- Steam generator mod. SCT04/EV (if the plant is not included in a line) or mod. SCT03/EV

SUPPLIED WITH

OPERATING MANUAL

BATCH CONCENTRATION PILOT PLANT
Mod. CB/EV

INTRODUCTION

This concentration plant is designed to concentrate fruit, citrus and tomato juices and to produce jams and marmalades.

TECHNICAL SPECIFICATION

- Framework of AISI 304 stainless steel
- Feeding: 40 l per working cycle
- Concentration unit of AISI 304 stainless steel, with diameter of 400 mm and capacity of 40 l, hydraulically tested at 3 bar and provided with connections for steam heating and water cooling
- Safety valve inserted in the steam line
- Thermometer, range of 0 to 100 °C
- Pressure gauge, range of 0 to 6 bar
- Vacuum gauge, range of -1 to 0 bar
- Drain valve of AISI 304 stainless steel, DN 50
- Sight glass with lamp
- Agitator with motor reducer (P = 0.25 kW; 15 r.p.m.) and scrapers of PTFE
- Liquid-ring vacuum pump (P = 0.7 kW) provided with air/water separator
- Shell-and-tube condenser of AISI 304 stainless steel, provided with condense tank with level indicator
- Switchboard with protection degree IP55 complying with EC standards and including emergency button and start and stop buttons

Dimensions: 900 × 1100 × 2100 mm
Weight: 260 kg

SUITABLE FOR PROCESSING:

MILK (table top)	MILK (on castors)	FRUIT	TOMATO	CITRUS	OLIVE	OLEAGINOUS SEED	GRAPE	BREWING	SEAFOOD	LIQUEURS
		•	•	•						

REQUIRED

UTILITIES (PROVIDED BY THE CUSTOMER)

- Power supply: 400 Vac 50 Hz three-phase - 2 kVA (Other voltage and frequency on request)
- Water: 400 l/h
- Steam: 20 kg/h at 4 bar
- Compressed air: occasional consumption, P = 3 bar

ACCESSORIES (NOT INCLUDED)

- Steam generator mod. SCT04/EV (if the plant is not included in a line) or mod. SCT03/EV

SUPPLIED WITH

THEORETICAL – PRACTICAL – EXPERIMENTAL HANDBOOK

 ELETTRONICA VENETA S.P.A. - 31045 Motta di Livenza (TV) Italy - Via Postumia 16 - Tel. +39 0422 765 802 - Fax +39 0422 861 901 - E-mail: export@elettronicaveneta.com

HOLDING TANK
Mod. ST/EV

29-B

INTRODUCTION

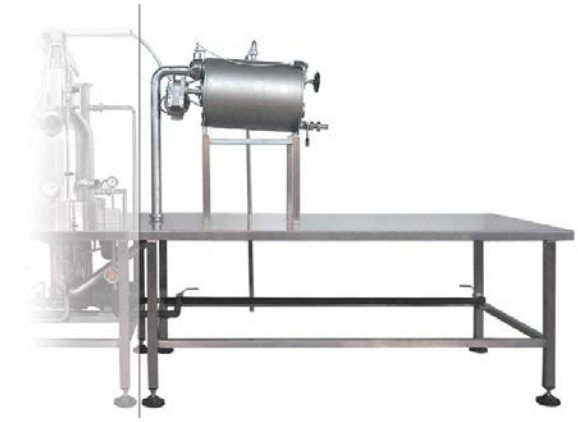
This tank is used to maintain the temperature of food products coming out of concentration unit at approximately 70°C, before the packaging phase.

TECHNICAL SPECIFICATION

- Supporting table of AISI 304 stainless steel
- Cylindrical holding tank of AISI 304 stainless steel, mirror polished inside, with capacity of 45 l
- Outer insulation of mineral wool plated with stainless steel coating
- Agitator with bars of AISI 304 stainless steel
- Motor reducer for agitator (14 r.p.m.)
- Two sight glasses with lamp
- Inspection door
- Feed and drain valves and lines of AISI 304 stainless steel
- Thermometer, range of 0 to 100 °C
- Switchboard with protection degree IP55 complying with EC standards and including machine start and stop buttons

Dimensions: 2100×1100×1600 mm (including the supporting table)

Weight: 180 kg



SUITABLE FOR PROCESSING:

MILK (table top)	MILK (on castors)	FRUIT	TOMATO	CITRUS	OLIVE	OLEAGINOUS SEED	GRAPE	BREWING	SEAFOOD	LIQUEURS
		•		•						

REQUIRED UTILITIES (PROVIDED BY THE CUSTOMER)

- Power supply: 400 Vac 50 Hz three-phase - 0,5 kVA (Other voltage and frequency on request)

SUPPLIED WITH

OPERATING MANUAL

ELETTRONICA VENETA S.P.A. - 31045 Motta di Livenza (TV) Italy - Via Postumia 16 - Tel. +39 0422 765 802 - Fax +39 0422 861 901 - E-mail: export@elettronicaveneta.com

PASTEURIZATION AND COOLING TANK
Mod. VPR/EV

INTRODUCTION

This unit is designed to pasteurize and cool bottles or jars with food products.

TECHNICAL SPECIFICATION

- Framework of AISI 304 stainless steel
- Pasteurization and cooling tank of AISI 304 stainless steel, with capacity of 200 l, provided with cavity and with connections for steam heating and water cooling
- Support of AISI 304 stainless steel for the jars having to be pasteurized
- Solenoid on-off valve of steam
- Drain valve of AISI 304 stainless steel, DN 15
- Steam line on-off valve of AISI 304 stainless steel
- Pt 100 thermoresistance with sheath of AISI 316 stainless steel
- Electronic thermostat
- Connecting lines and valves of AISI 304 and 316 stainless steel
- Switchboard with protection degree IP55 complying with EC standards and including a differential circuit breaker

Power supply: 230 Vac 50 Hz single-phase - 0,2 kVA
Dimensions: 950 × 860 × 1850 mm
Weight: 125 kg

SUITABLE FOR PROCESSING:

MILK (table top)	MILK (on castors)	FRUIT	TOMATO	CITRUS	OLIVE	OLEAGINOUS SEED	GRAPE	BREWING	SEAFOOD	LIQUEURS
		•	•	•						

REQUIRED

UTILITIES (PROVIDED BY THE CUSTOMER)

- Tap water: occasional consumption
- Steam: 10 kg/h at 4.5 bar

ACCESSORIES (NOT INCLUDED)

- Steam generator mod. SCT04/EV (if the plant is not included in a line) or mod. SCT03/EV

SUPPLIED WITH

OPERATING MANUAL

 ELETTRONICA VENETA S.P.A. - 31045 Motta di Livenza (TV) Italy - Via Postumia 16 - Tel. +39 0422 765 802 - Fax +39 0422 861 901 - E-mail: export@elettronicaveneta.com

MULTIFUNCTIONAL AUTOMATED PASTEURIZATION PILOT PLANT

Mod. UPL-1/EV

INTRODUCTION

Pasteurization is a heat treatment that destroys all pathogens, and most non pathogenic agents, of microorganisms living in foods, besides deactivating enzymes. Normally pasteurization is followed by a fast cooling of product to limit the growth of residual microorganisms and the alteration of organoleptic characteristics of the same product.
This double-pipe pasteurizer is designed to pasteurize liquid foods, even thick liquids such as tomato or fruit juices.

TRAINING PROGRAM

This unit enables to deepen the following issues:

- Product quality control versus the following parameters
  - residence times
  - pasteurization temperature

TECHNICAL SPECIFICATION

- Framework of AISI 304 stainless steel
- Max. feeding: 100 kg/h (higher flow rates on demand)
- Double-pipe heat exchanger of AISI 316 stainless steel for pasteurization, insulated with mineral wool, with exchange surface of 0.2 m^2
- Double-pipe heat exchanger of AISI 316 stainless steel for cooling, insulated with mineral wool, with exchange surface of 0.2 m^2
- Holding pipe of AISI 316 stainless steel, with capacity of 1.3 l
- Cooling circuit of glycol solution including compressor P = 3.5 kW, condenser, filter, liquid separator, thermostat
- Circulation pump of glycol solution with body of AISI 304 stainless steel and maximum flow rate of 2000 l/h
- Plate heat exchanger of AISI 304 stainless steel, for heat exchange between Freon and glycol solution
- Four Pt100 thermoresistances with sheath of AISI 316 stainless steel
- 2 electronic temperature indicators
- Thermostat for controlling the temperature of glycol solution
- Pneumatic control valve of AISI 304 stainless steel, Cv = 0.32
- Microprocessor PID controller for controlling pasteurization and cooling temperatures
- 2 electropneumatic converters, 4 to 20 mA / 0.2 to 1 bar
- Pneumatic control valve of AISI 316 stainless steel, Cv = 4
- Connecting lines and valves of AISI 304 and 316 stainless steel
- Switchboard with protection degree IP55 complying with EC standards and including a differential circuit breaker and a schematic diagram of the plant

Dimensions: 3000 × 700 × 1500 mm (pasteurization unit)
1700 × 800 × 1500 mm (cooling unit)
Weight: 500 kg

ACCESSORIES:

- Steam generator mod. SCT04/EV (if the plant is not included in a line) or mod. SCT03/EV
- The plant can be washed with the auxiliary unit mod. LAV/EV

If plant mod. UPL-1/EV is purchased without the unit mod. DSR/EV it must be equipped with the following accessories:

- 2 Tanks on castors mod. T80/EV of AISI 304 stainless steel, with capacity of 80 litres (one for feeding, one for storing the product)
- Feed screw pump for foodstuff mod. PMF/EV

SUITABLE FOR PROCESSING:

MILK (table top)	MILK (on castors)	FRUIT	TOMATO	CITRUS	OLIVE	OLEAGINOUS SEED	GRAPE	BREWING	SEAFOOD	LIQUEURS
		●	●	●						

REQUIRED UTILITIES (PROVIDED BY THE CUSTOMER)

- Power supply: 400 Vac 50 Hz three-phase - 6 kVA (Other voltage and frequency on request)
- Water: occasional consumption
- Steam: 17 kg/h at 4 bar
- Compressed air: consumption 1 Nm^3/h, P = 6 bar

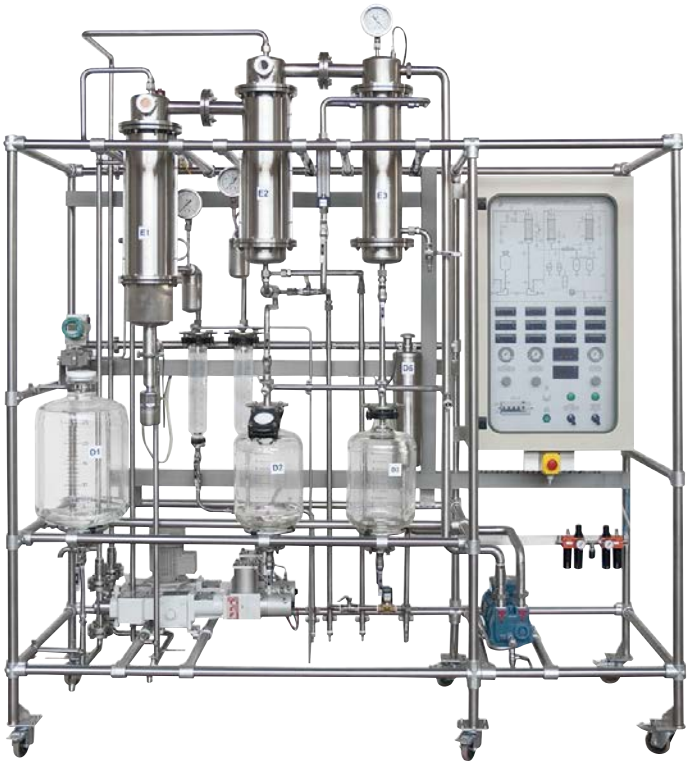
SUPPLIED WITH

THEORETICAL – PRACTICAL – EXPERIMENTAL HANDBOOK

ELETTRONICA VENETA S.P.A. - 31045 Motta di Livenza (TV) Italy - Via Postumia 16 - Tel. +39 0422 765 802 - Fax +39 0422 861 901 - E-mail: export@elettronicaveneta.com

MULTIFUNCTIONAL CONCENTRATION PILOT PLANT

Semiautomatic vers. mod. CDE-M/EV
Computer-aided vers. mod. CDE/EV



INTRODUCTION

This plant consists of a double-effect falling-film evaporator and it is designed to concentrate juices of low viscosity.
The water evaporated in the first stage is used as heating steam for the second stage, with a consequent improvement of process efficiency as regards the steam consumption.
If users are not interested in process control issues, it is better to purchase the semiautomatic version mod. CDE-M/EV.

TRAINING PROGRAM

This unit enables to deepen the following issues:

- Mass balance
- Heat balance
- Determination of overall heat exchange coefficient
- Determination of optimum operating conditions
- Automatic PID control (only in computer-aided version)
- Process supervision (only in computer-aided version)

TECHNICAL SPECIFICATION

- Framework of AISI 304 stainless steel
- Max. feeding: 20 kg/h (higher flow rates on demand)
- Feed tank of borosilicate glass, with capacity of 25 l
- Tank of borosilicate glass, with capacity of 10 l, for storing the concentrated product
- Tank of borosilicate glass, with capacity of 10 l, for storing solvent
- 1st-stage evaporator of AISI 304 stainless steel, with exchange surface of 0.25 m^2
- 2nd-stage evaporator of AISI 304 stainless steel, with exchange surface of 0.25 m^2
- Shell-and-tube condenser of AISI 304 stainless steel, with exchange surface of 1 m^2
- 2 water traps of AISI 304 stainless steel for the first and second stages
- 2 graduated tanks of borosilicate glass for condensate, with capacity of 1 l
- Feed metering pump, with double body of AISI 316 stainless steel, flow rate of 0 to 30 l/h: it can be driven by a pneumatic signal of 0.2 to 1 bar

 ELETTRONICA VENETA S.P.A. - 31045 Motta di Livenza (TV) Italy - Via Postumia 16 - Tel. +39 0422 765 802 - Fax +39 0422 861 901 - E-mail: export@elettronicaveneta.com

- Liquid-ring vacuum pump, P = 0.7 kW, provided with air/water separator
- Screw pump of AISI 316 stainless steel and Viton, for recycling the product in the 2nd stage
- Flowmeter of steel and glass, range of 30 to 300 l/h, for measuring the flow rate of water feeding the condenser
- 9 electronic temperature indicators
- Nine Pt100 thermoresistances with sheath of AISI 316 stainless steel
- Pneumatic valve of AISI 316 stainless steel, Cv = 0.32, for controlling the 1st-stage steam
- Pneumatic valve of AISI 316 stainless steel, Cv = 0.32, for controlling the 2nd-stage level
- 3 electropneumatic converters
- Switchboard with protection degree IP55 complying with EC standards and including a differential circuit breaker and a schematic diagram of the plant
- Electronic transmitter of 1st-stage level with capacitive sensor, output signal of 4 to 20 mA, accuracy: ± 0.25%
- Electronic transmitter of 2nd-stage level with capacitive sensor, output signal of 4 to 20 mA, accuracy: ± 0.25%
- Electronic transmitter of steam flow rate
- Microprocessor PID controller
- Pneumatic valve of AISI 316 stainless steel, Cv = 2.5, for controlling the residual pressure (only for mod. CDE/EV)
- Electronic transmitter of residual pressure with range of 0 to 1000 mbar, output signal of 4 to 20 mA, accuracy: ± 0.1% (only for mod. CDE/EV)
- Electropneumatic converter; range: 4 to 20 mA / 0.2 to 1 bar, accuracy: ± 1% (only for mod. CDE/EV)
- Microprocessor PID controller accuracy: ± 0.1% (only for mod. CDE/EV)
- Supervision software mod. SW-CDE/EV: this software runs in Windows and it is designed to control ON-OFF signals, analog signals coming from the controller, real-time trend and historical trend (only for mod. CDE/EV)

Dimensions: 2350 × 800 × 2500 mm
Weight: 520 kg

SUITABLE FOR PROCESSING:

MILK (table top)	MILK (on castors)	FRUIT	TOMATO	CITRUS	OLIVE	OLEAGINOUS SEED	GRAPE	BREWING	SEAFOOD	LIQUEURS
		•		•						

REQUIRED

UTILITIES (PROVIDED BY THE CUSTOMER)

- Power supply: 400 Vac 50 Hz three-phase - 3 kVA (Other voltage and frequency on request)
- Tap water: 400 l/h
- Compressed air: 20 Nm^3/h, P = 6 bar
- Steam: 15 kg/h a 4 bar
- Floor drain

ACCESSORIES (NOT INCLUDED)

- Steam generator mod. SCT04/EV (if the plant is not included in a line) or mod. SCT03/EV

SUPPLIED WITH

THEORETICAL – PRACTICAL – EXPERIMENTAL HANDBOOK

MULTIFUNCTIONAL THIN-FILM EVAPORATION PILOT PLANT

Manual vers. mod. CFS-M/EV
Computer-aided vers. mod. CFS/EV

INTRODUCTION

What distinguishes thin film evaporators with mechanical agitation from other types of evaporators is the turbulent thin film of process liquid appearing on the evaporating surface. The advantages are:

- shorter residence time
- high matter and heat transfer coefficients
- no fouling of surface
- no thermal decomposition
- possibility of processing even thick fluids (e. g.: tomato juice)

If users are not interested in process control issues, it is better to purchase the manual version mod. CFS-M/EV.

TRAINING PROGRAM

This unit enables to deepen the following issues:

- Mass balance
- Energy balance
- Determination of evaporator heat exchange coefficient
- Automatic PID control (only in computer-aided version)
- Plant supervision (only in computer-aided version)

ELETTRONICA VENETA S.P.A. - 31045 Motta di Livenza (TV) Italy - Via Postumia 16 - Tel. +39 0422 765 802 - Fax +39 0422 861 901 - E-mail: export@elettronicaveneta.com

TECHNICAL SPECIFICATION

- Framework of AISI 304 stainless steel
- Max. feeding: 20 kg/h (higher flow rates on demand)
- Feed tank of borosilicate glass, with capacity of 10 l
- Tank of borosilicate glass, with capacity of 10 l, for the concentrated product
- Tank of borosilicate glass, with capacity of 10 l, for solvent
- Thin film evaporator of AISI 316 stainless steel, DN 50 with rotor; distance of blades from wall: 0.5 mm; exchange surface of 0.12 m^2; double mechanical seal lubricated with silicone oil and water cooled
- Shell-and-tube condenser of AISI 316 stainless steel (on tube side) and AISI 304 (on shell side), with exchange surface of 1 m^2
- Feed metering pump of AISI 316 stainless steel, with flow rate of 0 to 20 l/h, driven by a signal of 0.2 to 1 bar
- Liquid-ring vacuum pump, P = 0.7 kW, provided with air/water separator
- Graduated tank of borosilicate glass for condensate, with capacity of 1 l
- Variable-speed motor for rotor, P = 1 kW, driven by signal of 4 to 20 mA
- Electronic frequency variator for rotor motor, adjustable via signal of 4 to 20 mA
- 2 Bourdon spring pressure gauges of AISI 304 stainless steel, ranges of 0 to 6 and 0 to 1.6 bar
- Vacuum gauge of AISI 316 stainless steel, range of 0 to -1 bar
- Six Pt100 double thermoresistances with sheath of AISI 316 stainless steel
- 6 electronic temperature indicators
- Pneumatic valve of AISI 316 stainless steel, Cv = 0.32, for controlling the steam flow rate to the evaporator
- 2 electropneumatic converters
- Electronic transmitter of steam flow rate of AISI 316 stainless steel
- Switchboard with protection degree IP55 complying with EC standards and including a differential circuit breaker and a schematic diagram of the plant
- Connecting lines and valves of AISI 304 and 316 stainless steel
- Electronic transmitter of residual pressure with range of 0 to 1000 mbar, signal of 4 to 20 mA, made of AISI 316 stainless steel (only for mod. CFS/EV)
- Pneumatic valve of AISI 316 stainless steel, Cv = 2.3, for vacuum control (only for mod. CFS/EV)
- Electropneumatic converter (only for mod. CFS/EV)
- Microprocessor PID controller (only for mod. CFS/EV)
- Supervision software mod. SW-CFS/EV: this software runs in Windows and it is designed to control ON-OFF signals, analog signals coming from the controller, real-time trend and historical trend (only for mod. CFS/EV)

Dimensions: 2050 × 830 × 3270 mm
Weight: 330 kg

SUITABLE FOR PROCESSING:

MILK (table top)	MILK (on castors)	FRUIT	TOMATO	CITRUS	OLIVE	OLEAGINOUS SEED	GRAPE	BREWING	SEAFOOD	LIQUEURS
		●	●	●						

REQUIRED

UTILITIES (PROVIDED BY THE CUSTOMER)

- Power supply: 400 Vac 50 Hz three-phase - 3 kVA (Other voltage and frequency on request)
- Tap water: 350 l/h
- Compressed air: 10 Nm^3/h, P = 6 bar
- Steam: 15 kg/h at 4 bar
- Floor drain

ACCESSORIES (NOT INCLUDED)

- Steam generator mod. SCT04/EV (if the plant is not included in a line) or mod. SCT03/EV

SUPPLIED WITH

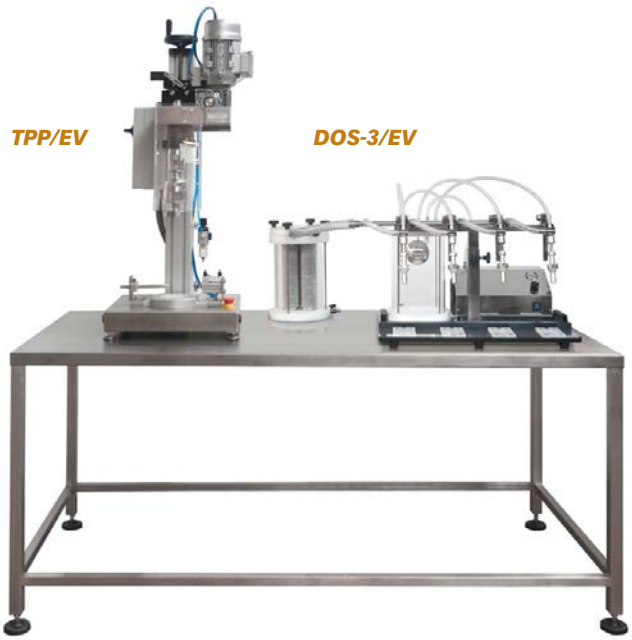
THEORETICAL – PRACTICAL – EXPERIMENTAL HANDBOOK

ACCESSORIES FOR PACKAGING
Mod. CONF-2/EV

29-B

INTRODUCTION

This packaging system consists of two auxiliary units: dosing machine mod. DOS-3/EV and capping machine mod. TPP/EV. It is designed to package liquid and semi-thick products (fruit and citrus juices).



VACUUM DOSING MACHINE Mod. DOS-3/EV

TECHNICAL SPECIFICATION

- Maximum potentiality: 200 bottles/hour
- Supporting table of AISI 304 stainless steel, dimensions: 1900x900x800 mm
- Dosing machine of glass and AISI 304 stainless steel
- 4 filling nozzles
- Two 5-µm filters of AISI 304 stainless steel
- Vacuum pump included in the dosing machine
- On-off switch

Power supply: 230 Vac 50 Hz single-phase - 0,3 kVA (Other voltage and frequency on request)
Dimensions: 600×300×500 mm
Weight: 30 kg

CAPPING MACHINE Mod. TPP/EV

TECHNICAL SPECIFICATION

- Potentiality: 300 bottles/hour
- Tabletop semi-automatic machine for twist-off caps
- Adjustable clutch for a perfect closing of caps

Power supply: 230 Vac 50 Hz single-phase - 0,3 kVA (Other voltage and frequency on request)
Dimensions: 400 x 400 x 900 mm
Weight: 50 kg

SUITABLE FOR PROCESSING:

MILK (table top)	MILK (on castors)	FRUIT	TOMATO	CITRUS	OLIVE	OLEAGINOUS SEED	GRAPE	BREWING	SEAFOOD	LIQUEURS
		•		•						

SUPPLIED WITH
OPERATING MANUAL

 ELETTRONICA VENETA S.P.A. - 31045 Motta di Livenza (TV) Italy - Via Postumia 16 - Tel. +39 0422 765 802 - Fax +39 0422 861 901 - E-mail: export@elettronicaveneta.com

STERILIZATION AUTOCLAVE
Mod. AVS/EV

INTRODUCTION

This equipment is designed to sterilize packed food products. Sterilization cycle and parameters are controlled by a microprocessor.

TECHNICAL SPECIFICATION

- Framework of AISI 304 stainless steel
- Useful capacity: 75 l; equipment of AISI 304 stainless steel including 2 baskets of stainless steel
- Safety valve
- Microprocessor control system
- On-off valves of AISI 304 stainless steel
- Level display unit
- Max. operating pressure: 2.5 bar
- Switchboard including the microprocessor control system and LCD screen

Dimensions: 950 x 600 x 1150 mm
Weight: 130 Kg

SUITABLE FOR PROCESSING:

MILK (table top)	MILK (on castors)	FRUIT	TOMATO	CITRUS	OLIVE	OLEAGINOUS SEED	GRAPE	BREWING	SEAFOOD	LIQUEURS
		●	●	●						

REQUIRED

UTILITIES (PROVIDED BY THE CUSTOMER)

- Power supply: 400 Vac 50 Hz three-phase - 5 kVA (Other voltage and frequency on request)

SUPPLIED WITH

OPERATING MANUAL

CITRUS JUICE EXTRACTION PILOT PLANT

Mod. ESA/EV

INTRODUCTION

This plant is designed specifically for the extraction of drinkable juice from whole citrus fruit: tangerines, grapefruit, lemons and oranges. Generally it is used in experimental laboratories or for small productions.

TRAINING PROGRAM

This unit enables to deepen the following issues:

- Juice quality and yield versus the following parameters:
  - fruit hardness
  - fruit ripening degree
  - shape of the product
  - fruit size

TECHNICAL SPECIFICATION

- Wheeled framework of AISI 304 stainless steel
- Max. feeding: 40 citrus fruit per minute (higher flow rates on demand)
- Extractor driven by oil-hydraulic control unit
- The parts in contact with fruit and juices are of AISI 304 stainless steel
- Feed hopper with motor-driven vibrator
- PLC- controlled operation
- Tank of food grade plastic for juice
- Plastic bin for peels
- Switchboard complying with EC standards and including machine start-stop button and emergency button

Dimensions: 600 × 900 × 2050 mm
Weight: 450 kg

SUITABLE FOR PROCESSING:

MILK (table top)	MILK (on castors)	FRUIT	TOMATO	CITRUS	OLIVE	OLEAGINOUS SEED	GRAPE	BREWING	SEAFOOD	LIQUEURS
				•						

REQUIRED

UTILITIES (PROVIDED BY THE CUSTOMER)

- Power supply: 400 Vac 50 Hz three-phase - 3 kVA (Other voltage and frequency on request)
- Tap water: occasional consumption

SUPPLIED WITH

THEORETICAL – PRACTICAL – EXPERIMENTAL HANDBOOK

ELETTRONICA VENETA S.P.A. - 31045 Motta di Livenza (TV) Italy - Via Postumia 16 - Tel. +39 0422 765 802 - Fax +39 0422 861 901 - E-mail: export@elettronicaveneta.com

SEED PRESSING PILOT PLANT
Mod. VIT/EV

29-B

INTRODUCTION

The extractor is made of a stave chamber where a screw rotates squeezing the seeds (sent by the loading hopper) against the external sides, from whose slits oil flows.

TRAINING PROGRAM

This unit enables to deepen the following issues:

- Product yield versus the following operating parameters:
  - type of seed
  - pressing temperature
  - cake thickness

TECHNICAL SPECIFICATION

- Wheeled base of AISI 304 stainless steel
- Capacity: 6 to 12 kg/h
- The parts in contact with product are of AISI 304 stainless steel
- Loading hopper of AISI 304 stainless steel
- Cake outlet chute of AISI 304 stainless steel
- Invertible screw direction of rotation
- Handwheel for adjusting cake thickness
- Heating cylinder of 600 W
- Vacuum pump of 1/3 HP
- 2 filters provided with tanks for the oil and connected with the vacuum circuit
- Oil chute of AISI 304 stainless steel, provided with electric heater
- Motor for screw of ½ HP
- Thermostat
- Switchboard IP 55 complying with EC standards and including a differential circuit breaker
- Emergency button

Dimensions: 800 × 500 × 1500 (h) mm
Weight: 100 kg

SUITABLE FOR PROCESSING:

MILK (table top)	MILK (on castors)	FRUIT	TOMATO	CITRUS	OLIVE	OLEAGINOUS SEED	GRAPE	BREWING	SEAFOOD	LIQUEURS
						•				

REQUIRED

UTILITIES (PROVIDED BY THE CUSTOMER)

- Power supply: 400 Vac 50 Hz three-phase - 3 kVA (Other voltage and frequency on request)

SUPPLIED WITH

THEORETICAL – PRACTICAL – EXPERIMENTAL HANDBOOK

ELETTRONICA VENETA S.P.A. - 31045 Motta di Livenza (TV) Italy - Via Postumia 16 - Tel. +39 0422 765 802 - Fax +39 0422 861 901 - E-mail: export@elettronicaveneta.com

MILL
Mod. MLN/EV

29-B

INTRODUCTION

Grinding is carried out by two steel rollers mounted on ball bearings and properly machined and heat-treated. The control system enables to adjust the final squeezing degree.

TECHNICAL SPECIFICATION

- Max. feeding: 70 kg/h
- Adjustable distance of rollers
- Motor of 1.5 HP with motor protector

Power supply: 230 Vac 50 Hz single-phase - 1,5 kVA
(Other voltage and frequency on request)
Dimensions: 400 × 400 × 1200 mm
Weight: 45 kg

SUITABLE FOR PROCESSING:

MILK (table top)	MILK (on castors)	FRUIT	TOMATO	CITRUS	OLIVE	OLEAGINOUS SEED	GRAPE	BREWING	SEAFOOD	LIQUEURS
						•				

SUPPLIED WITH
OPERATING MANUAL

 ELETTRONICA VENETA S.P.A. - 31045 Motta di Livenza (TV) Italy - Via Postumia 16 - Tel. +39 0422 765 802 - Fax +39 0422 861 901 - E-mail: export@elettronicaveneta.com

MULTIFUNCTIONAL CONTINUOUS SOLID-LIQUID EXTRACTION PILOT PLANT

Manual vers. mod. ESL-M/EV
Computer-aided vers. mod. ESL/EV

INTRODUCTION

This pilot plant is designed to study solid-liquid extractions in counter-flow. The solid, stored in a hopper, is sent into the extractor by an Archimedean screw. After being pre-heated, solvent is sent onto the upper part of the extractor by a metering pump; the contact between liquid and solid phases is ensured by an Archimedean screw.
Solvent can also be recycled by pilot plant mod. URS/EV.
If users are not interested in process control issues, it is better to purchase the manual version mod. ESL-M/EV.

TRAINING PROGRAM

This unit enables to deepen the following issues:

- Check of process efficiency versus the following operating parameters:
  - solid feed flow rate
  - solvent feed flow rate
  - solvent temperature
  - residence time of solid inside the extractor
- Automatic PID control (only in computer-aided version)
- Plant supervision (only in computer-aided version)

TECHNICAL SPECIFICATION

- Framework of AISI 304 stainless steel
- Max. feeding: 3 kg/h (approximate value)
- Extractor (DN 100; l = 1000 mm) of borosilicate glass, provided with Archimedean screw of PTFE and AISI 316 stainless steel
- Motor reducer for Archimedean screw of extractor, P = 250 W; it can be driven by signal of 4 to 20 mA
- Loading hopper of AISI 304 stainless steel, with feed screw
- Motor reducer for solid feed screw, P = 100 W; it can be driven by signal of 4 to 20 mA
- Solvent feed tank of borosilicate glass, with capacity of 10 l
- Tank of borosilicate glass, with capacity of 10 l, for storing the extracted phase
- Tank of borosilicate glass, with capacity of 10 l, for storing the worn-out solid phase
- Water-cooled reflux condenser of solvent vapours, made of AISI 304 stainless steel, with exchange surface of 0.1 m^2
- Metering pump of solvent feed, with body of AISI 316 stainless steel, and max. flow rate of 12 l/h
- Solvent electric heater with quartz sheath, P = 300 W
- Three Pt100 double thermoresistances with sheath of AISI 316 stainless steel
- 3 electronic digital temperature indicators
- Connecting lines and valves of AISI 304 and 316 stainless steel
- Switchboard with protection degree IP55 complying with EC standards and including a differential circuit breaker and a schematic diagram of the plant
- Electropneumatic converter
- Microprocessor PID controller (only for mod. ESL/EV)
- Supervision software mod. SW-ESL/EV: this software runs in Windows and it is designed to control ON-OFF signals, analog signals coming from the controller, real-time trend and historical trend (only for mod. ESL/EV)

Dimensions: 2000 × 800 × 2300 mm
Weight: 290 kg

SUITABLE FOR PROCESSING:

MILK (table top)	MILK (on castors)	FRUIT	TOMATO	CITRUS	OLIVE	OLEAGINOUS SEED	GRAPE	BREWING	SEAFOOD	LIQUEURS
						●				

REQUIRED

UTILITIES (PROVIDED BY THE CUSTOMER)

- Power supply: 400 Vac 50 Hz three-phase - 1,5 kVA (Other voltage and frequency on request)
- Compressed air: max. consumption 15 Nm^3/h, P = 6 bar
- Water: 150 l/h
- Floor drain

SUPPLIED WITH

THEORETICAL – PRACTICAL – EXPERIMENTAL HANDBOOK

SOLVENT RECOVERY UNIT
Mod. URS/EV

29-B

INTRODUCTION

This unit consists of a rotary evaporator that recycles the solvent used for oil extraction.

TECHNICAL SPECIFICATION

- Evaporation and reception tank of borosilicate glass
- Condenser of borosilicate glass
- Rotation speed: 20 – 280 r.p.m.
- Thermostatic bath of 1300 W

Power supply: 230 Vac 50 Hz single-phase - 1,5 kVA
(Other voltage and frequency on request)
Dimensions: 600 × 500 × 900 mm
Weight: 30 kg

SUITABLE FOR PROCESSING:

MILK (table top)	MILK (on castors)	FRUIT	TOMATO	CITRUS	OLIVE	OLEAGINOUS SEED	GRAPE	BREWING	SEAFOOD	LIQUEURS
						•				

REQUIRED UTILITIES (PROVIDED BY THE CUSTOMER)

- Water: max. 250 l/h

SUPPLIED WITH

OPERATING MANUAL

 ELETTRONICA VENETA S.P.A. - 31045 Motta di Livenza (TV) Italy - Via Postumia 16 - Tel. +39 0422 765 802 - Fax +39 0422 861 901 - E-mail: export@elettronicaveneta.com

OLIVE OIL PRODUCTION PILOT PLANT

Mod. MINI150/EV

INTRODUCTION

This oil production plant can process up to 80 kg/h of olives and it mainly consists of an olive stemming unit with washing system and elevator, an olive-press and of a centrifugal separator.

TECHNICAL SPECIFICATION

- Olive stemming machine with washing system and screw elevator, wholly made of AISI 304 stainless steel
- Hammer crusher provided with water jacket with electric heater, single-screw pump for feeding decanter with mechanical r.p.m. variator and control board
- Continuous centrifugal separator with supporting framework of AISI 304 stainless steel, Archimedean screw for discharging marc and amurca with motor reducer
- Elliptical rotor pump of AISI 304 stainless steel for discharging marc

Dimensions: 3300×1500×2050 mm
Weight: 350 kg

SUITABLE FOR PROCESSING:

MILK (table top)	MILK (on castors)	FRUIT	TOMATO	CITRUS	OLIVE	OLEAGINOUS SEED	GRAPE	BREWING	SEAFOOD	LIQUEURS
					•					

REQUIRED

UTILITIES (PROVIDED BY THE CUSTOMER)

- Power supply: 400 Vac 50 Hz three-phase - 5 kVA (Other voltage and frequency on request)
- Tap water: max. 100 l/h

SUPPLIED WITH

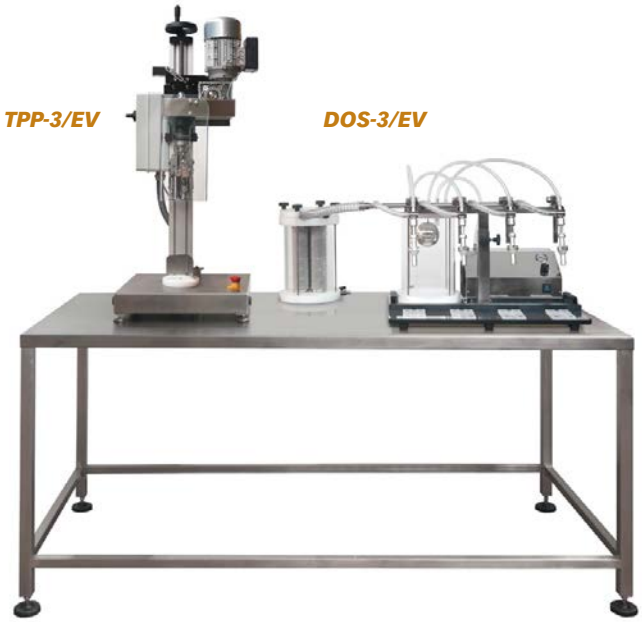
OPERATING MANUAL

ACCESSORIES FOR PACKAGING
Mod. CONF-3/EV

29-B

INTRODUCTION

This packaging system consists of two auxiliary units: dosing machine mod. DOS-3/EV and capping machine mod. TPP-3/EV. It is designed to bottle olive oil and seed oil.



VACUUM DOSING MACHINE Mod. DOS-3/EV

TECHNICAL SPECIFICATION

- Maximum potentiality: 200 bottles/hour
- Supporting table of AISI 304 stainless steel, dimensions: 1900x900x800 mm
- Dosing machine of glass and AISI 304 stainless steel
- 4 filling nozzles
- Two 5-µm filters of AISI 304 stainless steel
- Vacuum pump included in the dosing machine
- On-off switch

Power supply: 230 Vac 50 Hz single-phase - 0,3 kVA (Other voltage and frequency on request)
Dimensions: 600×300×500 mm
Weight: 30 kg

CAPPING MACHINE Mod. TPP-3/EV

TECHNICAL SPECIFICATION

- Maximum potentiality: 300 bottles/hour
- Adjustable clutch for a perfect closing of caps
- Motor
- Double start button

Power supply: 230 Vac 50 Hz single-phase - 0,3 kVA (Other voltage and frequency on request)
Dimensions: 400×400×900 mm
Weight: 50 kg

SUITABLE FOR PROCESSING:

MILK (table top)	MILK (on castors)	FRUIT	TOMATO	CITRUS	OLIVE	OLEAGINOUS SEED	GRAPE	BREWING	SEAFOOD	LIQUEURS
					•	•	•			

SUPPLIED WITH
OPERATING MANUAL

 ELETTRONICA VENETA S.P.A. - 31045 Motta di Livenza (TV) Italy - Via Postumia 16 - Tel. +39 0422 765 802 - Fax +39 0422 861 901 - E-mail: export@elettronicaveneta.com

STALK-REMOVING MACHINE
Mod. DSP/EV

INTRODUCTION

This machine separates stalks from grapes.

TECHNICAL SPECIFICATION

- Wheeled framework of AISI 304 stainless steel
- Feeding: 500 kg/h of grapes
- Body of AISI 304 stainless steel
- Centrifugal pump of AISI 304 stainless steel for transferring must and grape-husk
- Switchboard with protection degree IP55, complying with EC standards and including start-stop button and emergency button

Dimensions: 1100 × 840 × 620 mm
Weight: 85 kg

SUITABLE FOR PROCESSING:

MILK (table top)	MILK (on castors)	FRUIT	TOMATO	CITRUS	OLIVE	OLEAGINOUS SEED	GRAPE	BREWING	SEAFOOD	LIQUEURS
							•			

REQUIRED

UTILITIES (PROVIDED BY THE CUSTOMER)

- Power supply: 400 Vac 50 Hz three-phase - 1,5 kVA (Other voltage and frequency on request)
- Water: occasional consumption

SUPPLIED WITH

OPERATING MANUAL

PNEUMATIC PRESS
Mod. PRE/EV

29-B

INTRODUCTION

This pneumatic press carries out a soft pressing system by stages being faster than that carried out by traditional vertical presses, thus output must is of higher quality with respect to the product of continuous presses.
This press consists of a bag of plastic material that is squeezed against a steel cage by compressed air.
This machine can be programmed to carry out automatic cycles.

TRAINING PROGRAM

This unit enables to deepen the following issues:

- Product quality control versus the following operating parameters:
  - applied pressure
  - number of cycles
- Determination of optimum pressing conditions

TECHNICAL SPECIFICATION

- Wheeled framework of AISI 304 stainless steel
- Feeding: 500 kg/h of trodden grapes without stalks (higher flow rates on demand)
- Pneumatic press of AISI 304 stainless steel, with bag of plastic material
- Tank of AISI 304 stainless steel for must; dimensions: 1000 x 600 x 300 mm
- Air compressor included in the machine
- Switchboard with protection degree IP55 complying with EC standards and including machine start-stop buttons, emergency button and PLC for programming pressing times and pressures
- Schematic diagram of the equipment

Dimensions: 1480 × 1600 × 1710 mm
Weight: 400 Kg

SUITABLE FOR PROCESSING:

MILK (table top)	MILK (on castors)	FRUIT	TOMATO	CITRUS	OLIVE	OLEAGINOUS SEED	GRAPE	BREWING	SEAFOOD	LIQUEURS
							•			

REQUIRED

UTILITIES (PROVIDED BY THE CUSTOMER)

- Power supply: 400 Vac 50 Hz three-phase - 3 kVA (Other voltage and frequency on request)
- Water: occasional consumption

SUPPLIED WITH

THEORETICAL – PRACTICAL – EXPERIMENTAL HANDBOOK

 ELETTRONICA VENETA S.P.A. - 31045 Motta di Livenza (TV) Italy - Via Postumia 16 - Tel. +39 0422 765 802 - Fax +39 0422 861 901 - E-mail: export@elettronicaveneta.com

FERMENTATION PILOT PLANT

Semiautomatic vers. mod. FRM-M/EV
Computer-aided vers. mod. FRM/EV

INTRODUCTION

Fermentation is the process in which part of fermentable sugars are metabolized by yeasts and transformed into alcohol. Fermentation main products are alcohol, carbon dioxide and heat.

This very ticklish phase must be carried out with a particular care because it may be affected by a lot of factors.

If users are not interested in process control issues, it is better to purchase the semiautomatic version mod. FRM-M/EV.

TRAINING PROGRAM

This unit enables to deepen the following issues:

- Mass balance
- Product quality and yield versus the following operating parameters:
  - grapes ripening degree
  - initial composition of must
  - fermentation temperature
  - fermentation time
- Product analysis:
  - organoleptic examination
  - alcoholic strength
  - total dry extract
  - determination of methyl alcohol
  - sulphur dioxide
  - acidity
  - reducing sugars
- Automatic PID control (only in computer-aided version)
- Plant supervision (only in computer-aided version)

TECHNICAL SPECIFICATION

- Framework of AISI 304 stainless steel
- Mini wine making tank of AISI 304 stainless steel, provided with cooling jacket, insulation, Pt 100 thermoresistances for measuring and controlling fermentation temperature, quick-closing upper cover, bottom drain valve, capacity of 700 l
- Unit for the production of ice water consisting of:
  - tank of AISI 304 stainless steel for glycol solution, with capacity of 100 l
  - compressor, P = 3.5 kW
  - condenser
  - heat exchanger of AISI 304 stainless steel for cooling set
  - liquid-gas separator
  - 2 pressure gauges for high and low pressures
  - differential pressure switch
  - circulation pump of AISI 304 stainless steel for glycol solution
- Solenoid on-off valve of glycol solution to the fermenter
- 3 ON-OFF electronic regulators of temperature
- Four Pt100 double thermoresistances with sheath of AISI 316 stainless steel
- Electronic temperature indicator
- Connecting lines and valves of AISI 304 and 316 stainless steel
- Switchboard with protection degree IP55 complying with EC standards and including a differential circuit breaker and a schematic diagram of the plant
- Emergency button
- Microprocessor PID controller (only for mod. FRM/EV)
- Pneumatic control valve of AISI 316 stainless steel, Cv = 2.5 (only for mod. FRM/EV)
- Electropneumatic converter (only for mod. FRM/EV)
- Supervision software mod. SW-FRM/EV: this software runs in Windows and it is designed to control ON-OFF signals, analog signals coming from the controller, real-time trend and historical trend (only for mod. FRM/EV)

Dimensions: 2000×1000×1700 mm
Weight: 350 kg

SUITABLE FOR PROCESSING:

MILK (table top)	MILK (on castors)	FRUIT	TOMATO	CITRUS	OLIVE	OLEAGINOUS SEED	GRAPE	BREWING	SEAFOOD	LIQUEURS
							●			

REQUIRED

UTILITIES (PROVIDED BY THE CUSTOMER)

- Power supply: 400 Vac 50 Hz three-phase - 5 kVA (Other voltage and frequency on request)
- Compressed air: consumption of 5 Nm³/h, P = 6 bar (automatic vers. only)
- Water: occasional consumption

SUPPLIED WITH

THEORETICAL – PRACTICAL – EXPERIMENTAL HANDBOOK

OPTIONAL

- Additional mini wine making tank of stainless steel, with capacity of 700 l

 ELETTRONICA VENETA S.P.A. - 31045 Motta di Livenza (TV) Italy - Via Postumia 16 - Tel. +39 0422 765 802 - Fax +39 0422 861 901 - E-mail: export@elettronicaveneta.com

SPARKLING PROCESS PILOT PLANT
Mod. SMT-M/EV

INTRODUCTION

Sparkling wines are wines enriched with carbon dioxide. This enrichment can be obtained by a refermentation or by a direct addition of this gas, in artificial sparkling wines.
One of the commonest methods is Charmat method that uses pressure-resisting fermentation tanks (autoclaves) where sugar and yeasts are added to the wine after being refrigerated. After this refermentation process that can last some days up to some months, wine is refrigerated, filtered and bottled without any pressure loss.

TRAINING PROGRAM

This unit enables to deepen the following issues:

- Check of end product versus the following operating parameters:
  - operating pressure
  - refermentation times
- End product analysis:
  - organoleptic examination
  - alcoholic strength
  - total dry extract
  - sulphur dioxide
  - acidity
  - reducing sugars
  - wine stability test
  - determination of carbon dioxide
- Determining the best conditions for sparkling process

TECHNICAL SPECIFICATION

- Autoclave supporting framework of AISI 304 stainless steel
- Jacketed autoclave of AISI 304 stainless steel for the sparkling process, insulation of expanded polyurethane plated with sheet steel, with maximum pressure of 6 bar and capacity of 500 l
- Motor reducer for autoclave agitator, P = 1 kW
- Agitator for autoclave of AISI 304 stainless steel
- Safety valve of stainless steel AISI 3004
- Electric resistor, P = 2 kW
- Drain valve of AISI 316 stainless steel, DN 25
- Wine filling valve of AISI 316 stainless steel, DN 25
- Bourdon pressure gauge, range of 0 to 6 bar
- Dial thermometer
- Pt100 thermoresistance with sheath of AISI 316 stainless steel, for measuring the temperature of sparkling wine
- ON-OFF electronic regulator of the temperature of sparkling wine
- Solenoid quick on-off valve of glycol solution
- Connecting lines and valves of AISI 304 and 316 stainless steel
- Pressure reduce for N_2
- Switchboard with protection degree IP55 complying with EC standards and including a differential circuit breaker and a schematic diagram of the plant
- Emergency button

Dimensions: 2500 × 1100 × 1800 mm
Weight: 500 kg

SUITABLE FOR PROCESSING:

MILK (table top)	MILK (on castors)	FRUIT	TOMATO	CITRUS	OLIVE	OLEAGINOUS SEED	GRAPE	BREWING	SEAFOOD	LIQUEURS
							●			

REQUIRED

UTILITIES (PROVIDED BY THE CUSTOMER)

- Power supply: 400 Vac 50 Hz three-phase - 5 kVA (Other voltage and frequency on request)
- Compressed air: 1 Nm^3/h, P = 6 bar (automatic vers. only)
- Water: occasional consumption
- Nitrogen cylinder
- Using the cooling system of pilot plant a mod. FRM/EV

ACCESSORIES (NOT INCLUDED)

- Unit for the production of ice water mod. URF/EV, if plant mod. FRM/EV is not available
- Sterilizing-grade cartridge filter with housing of AISI 304 stainless steel

SUPPLIED WITH

THEORETICAL – PRACTICAL – EXPERIMENTAL HANDBOOK

ELETTRONICA VENETA S.P.A. - 31045 Motta di Livenza (TV) Italy - Via Postumia 16 - Tel. +39 0422 765 802 - Fax +39 0422 861 901 - E-mail: export@elettronicaveneta.com

FILTER PRESS
Mod. FP/EV

29-B

INTRODUCTION

When must becomes wine, it flows out of the fermenter and crosses a filter: according to the used filtering paperboard, the filtering action may be rough-refining (to remove coarse suspensions), sparkling (to clarify) or sterilizing (to eliminate microorganisms).

TECHNICAL SPECIFICATION

- Wheeled framework of AISI 304 stainless steel
- Feeding: 500 l/h (higher flow rates on demand)
- Drip tray of AISI 304 stainless steel
- Feed pump of AISI 304 stainless steel
- Pressure gauge, range of 0 to 6 bar
- 10 Noryl-type filtering plates; dimensions: 400 x 400 mm

Dimensions: 900 × 700 × 1000 mm
Weight: 120 kg

SUITABLE FOR PROCESSING:

MILK (table top)	MILK (on castors)	FRUIT	TOMATO	CITRUS	OLIVE	OLEAGINOUS SEED	GRAPE	BREWING	SEAFOOD	LIQUEURS
							●			

REQUIRED

UTILITIES (PROVIDED BY THE CUSTOMER)

- Power supply: 400 Vac 50 Hz three-phase - 1 kVA (Other voltage and frequency on request)
- Water: occasional consumption

SUPPLIED WITH

OPERATING MANUAL

ELETTRONICA VENETA S.P.A. - 31045 Motta di Livenza (TV) Italy - Via Postumia 16 - Tel. +39 0422 765 802 - Fax +39 0422 861 901 - E-mail: export@elettronicaveneta.com

GRAPE MARC DISTILLATION PILOT PLANT

Manual vers. mod. UDV-M/EV
Computer-aided vers. mod. UDV/EV

INTRODUCTION

The end product of grape marc distillation is ethyl alcohol mixed, in different concentrations, with water and with several volatile constituents that enrich the alcoholic beverage with its typical odour and taste going well with the particular sensation of alcohol.

The process being carried out is steam distillation of grape marc, but also indirect steam distillation can be carried out: vapours are condensed and the resulting mixture is distilled to obtain the end product.

This plant can also distil binary mixtures.

If users are not interested in process control issues, it is better to purchase the manual version mod. UDV-M/EV.

TRAINING PROGRAM

This unit enables to deepen the following issues:

- Mass balance
- Energy balance
- Analysis of the end product versus the following operating parameters:
  - steam flow rate
  - characteristics of raw material
- End product analysis:
  - determination of alcoholic strength
  - determination of methyl alcohol
  - determination of total acidity
  - determination of higher alcohols
  - determination of aldehydes

ELETTRONICA VENETA S.P.A. - 31045 Motta di Livenza (TV) Italy - Via Postumia 16 - Tel. +39 0422 765 802 - Fax +39 0422 861 901 - E-mail: export@elettronicaveneta.com

TECHNICAL SPECIFICATION

- Wheeled framework of AISI 304 stainless steel
- Batch dealcholization column of AISI 304 stainless steel, provided with toroidal steam distributor and outer jacket for indirect steam heating, capacity of 25 l
- Fractionating column of AISI 304 stainless steel
- Head condenser of borosilicate glass, with exchange surface of 0.3 m^2
- Electronic flowmeter for measuring steam flow rate to dealcoholization column, range of 0 to 20 kg/h
- Electronic indicator of steam flow rate
- Reflux head of borosilicate glass
- Flowmeter for the water feeding the condenser, range of 20 to 300 l/h
- Alcoholometer inserted in the line
- Pneumatic valve of AISI 316 stainless steel, Cv = 0.32, DN 10, for controlling steam flow rate
- Tank of borosilicate glass for collecting distillate, with capacity of 5 l
- Reboiler of borosilicate glass, with capacity of 3 l
- Distillation column of borosilicate glass, DN 50
- Head condenser of borosilicate glass, with exchange surface of 0.3 m^2
- Reflux head of borosilicate glass, provided with electromagnetic valve for distillate extraction and control of reflux ratio
- Quartz-sheathed electric heater, P = 1.6 kW
- Flowmeter for measuring the water feeding the head condenser, range of 20 to 250 l/h
- Feed metering pump, programmable from 0 to 8 l/h
- 12 Pt100 double thermoresistances with sheath of AISI 316 stainless steel
- 12 electronic temperature indicators, range of 0 to 200 °C
- 2 tanks of borosilicate glass for collecting distillate and residuum, with capacity of 2 l and 3 l
- 2 timers for the control of reflux ratio and distillate extraction
- Thyristor unit of 0 to 1,6 kW/ 4 to 20 mA
- Connecting lines and valves of AISI 304 and 316 stainless steel
- Switchboard with protection degree IP55 complying with EC standards and including a differential circuit breaker and a schematic diagram of the plant
- Vacuum circuit
- Variable-area electronic indicator transmitter of flow rate for the water feeding the head condenser, made of AISI 304 stainless steel, range of 20 to 250 l/h, output signal of 4 to 20 mA (only for mod. UDV/EV)
- Pneumatic valve of AISI 316 stainless steel, Cv = 0.32, for controlling the flow rate of water feeding the head condenser (only for mod. UDV/EV)
- Vacuum pump with oil-bath lubricated vanes (only for mod. UDV/EV)
- Electronic transmitter of residual pressure, with cell of AISI 316 stainless steel, range of 0 to 1000 mbar, output signal of 4 to 20 mA (only for mod. UDV/EV)
- Pneumatic control valve of AISI 316 stainless steel, Cv = 0.32 (only for mod. UDV/EV)
- 2 electropneumatic converters of 4 to 20 mA / 0.2 to 1 bar (only for mod. UDV/EV)
- Microprocessor PID controller (only for mod. UDV/EV)
- Supervision software mod. SW-UDV/EV: this software runs in Windows and it is designed to control ON-OFF signals, analog signals coming from the controller, real-time trend and historical trend (only for mod. UDV/EV)

Dimensions: 2600 × 720 × 2020 mm
Weight: 165 kg

SUITABLE FOR PROCESSING:

MILK (table top)	MILK (on castors)	FRUIT	TOMATO	CITRUS	OLIVE	OLEAGINOUS SEED	GRAPE	BREWING	SEAFOOD	LIQUEURS
							●			

REQUIRED

UTILITIES (PROVIDED BY THE CUSTOMER)

- Power supply: 400 Vac 50 Hz three-phase - 2,5 kVA (Other voltage and frequency on request)
- Compressed air: 2 Nm^3/h, P = 6 bar
- Water: 500 l/h
- Steam: 20 kg/h a 4 bar
- Floor drain

ACCESSORIES (NOT INCLUDED)

- Steam generator mod. SCT04/EV (if the plant is not included in a line) or mod. SCT03/EV

SUPPLIED WITH

THEORETICAL – PRACTICAL – EXPERIMENTAL HANDBOOK

THERMOSTAT-CONTROLLED TANK
Mod. SRB/EV

INTRODUCTION

This tank can be used to cool down the trodden grapes so that their fermentation stops, or to maintain liquid foods at low temperature.

TECHNICAL SPECIFICATION

- Framework of AISI 304 stainless steel
- Capacity: 1000 l
- Provided with cooling system
- Valves of AISI 304 stainless steel

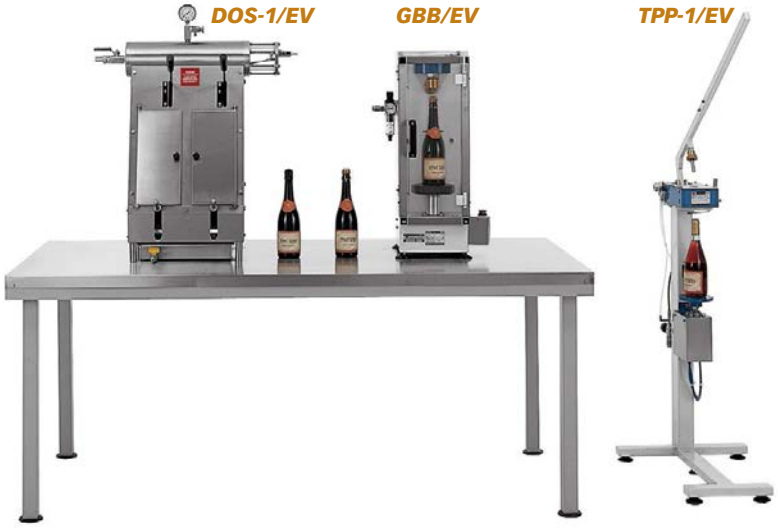
Power supply: 230 Vac 50 Hz single-phase - 1 kVA
(Other voltage and frequency on request)
Dimensions: 1400 × 900 × 900 mm
Weight: 100 kg

SUITABLE FOR PROCESSING:										
MILK (table top)	MILK (on castors)	FRUIT	TOMATO	CITRUS	OLIVE	OLEAGINOUS SEED	GRAPE	BREWING	SEAFOOD	LIQUEURS
							•			

SUPPLIED WITH
OPERATING MANUAL

ELETTRONICA VENETA S.P.A. - 31045 Motta di Livenza (TV) Italy - Via Postumia 16 - Tel. +39 0422 765 802 - Fax +39 0422 861 901 - E-mail: export@elettronicaveneta.com

ACCESSORIES FOR PACKAGING
Mod. CONF-1/EV



INTRODUCTION

This packaging system consists of three auxiliary units: isobaric dosing machine mod. DOS-1EV, corking machine mod. TPP-1EV and wire-hooder mod. GBB/EV. It is designed to bottle wines and parkling wines.

ISOBARIC DOSING MACHINE Mod. DOS-1/EV

- Maximum potentiality: 200 bottles/hour
- Framework of AISI 304 stainless steel
- Bottle supporting table of AISI 304 stainless steel, dimensions: 1900x900x800 mm
- 2 piston dosing devices
- 2 filling nozzles

Dimensions: 500×500×600 mm
Weight: 100 kg

CORKING MACHINE Mod. TPP-1/EV

- Maximum potentiality: 300 bottles/hour
- Square base with bearing column and support for bottles

Dimensions: 600×700×1100 mm
Weight: 50 kg

WIREHOODER Mod. GBB/EV

- Maximum potentiality: 300 bottles/hour
- Framework of AISI 304 stainless steel
- Guards of plexiglas

Dimensions: 400×400×800 mm
Weight: 30 kg

SUITABLE FOR PROCESSING:

MILK (table top)	MILK (on castors)	FRUIT	TOMATO	CITRUS	OLIVE	OLEAGINOUS SEED	GRAPE	BREWING	SEAFOOD	LIQUEURS
							•			

REQUIRED UTILITIES (PROVIDED BY THE CUSTOMER)

- **Isobaric Dosing Machine DOS-1/EV:**
  - Water: occasional consumption
  - Nitrogen cylinder
- **Corking Machine TPP-1/EV and Wirehooder GBB/EV**
  - Compressed air: P = 6 bar

SUPPLIED WITH

OPERATING MANUAL

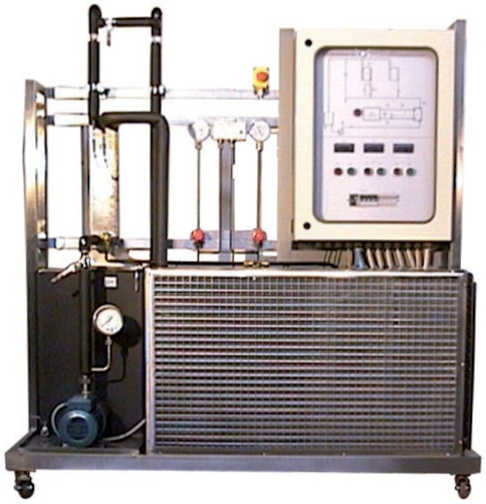
ELETTRONICA VENETA S.P.A. - 31045 Motta di Livenza (TV) Italy - Via Postumia 16 - Tel. +39 0422 765 802 - Fax +39 0422 861 901 - E-mail: export@elettronicaveneta.com

UNIT FOR THE PRODUCTION OF ICE WATER

Mod. URF/EV

INTRODUCTION

This unit is designed to produce ice water (water/glycol) for all the plants using it.



TECHNICAL SPECIFICATION

- Wheeled framework of AISI 304 stainless steel
- Compressor, P = 3.5 kW
- Evaporator of stainless steel
- Two-fan condenser
- 2 pressure gauges
- Filter for Freon
- Thermostat
- Tank of AISI 304 stainless steel for water/glycol solution, with capacity of 80 litres
- Centrifugal pump of AISI 304 stainless steel
- Switchboard with protection degree IP55 complying with EC standards and including a schematic diagram of the plant
- Emergency button

Dimensions: 1700×800×1900 mm
Weight: 300 kg

SUITABLE FOR PROCESSING:

MILK (table top)	MILK (on castors)	FRUIT	TOMATO	CITRUS	OLIVE	OLEAGINOUS SEED	GRAPE	BREWING	SEAFOOD	LIQUEURS
							•			

REQUIRED

UTILITIES (PROVIDED BY THE CUSTOMER)

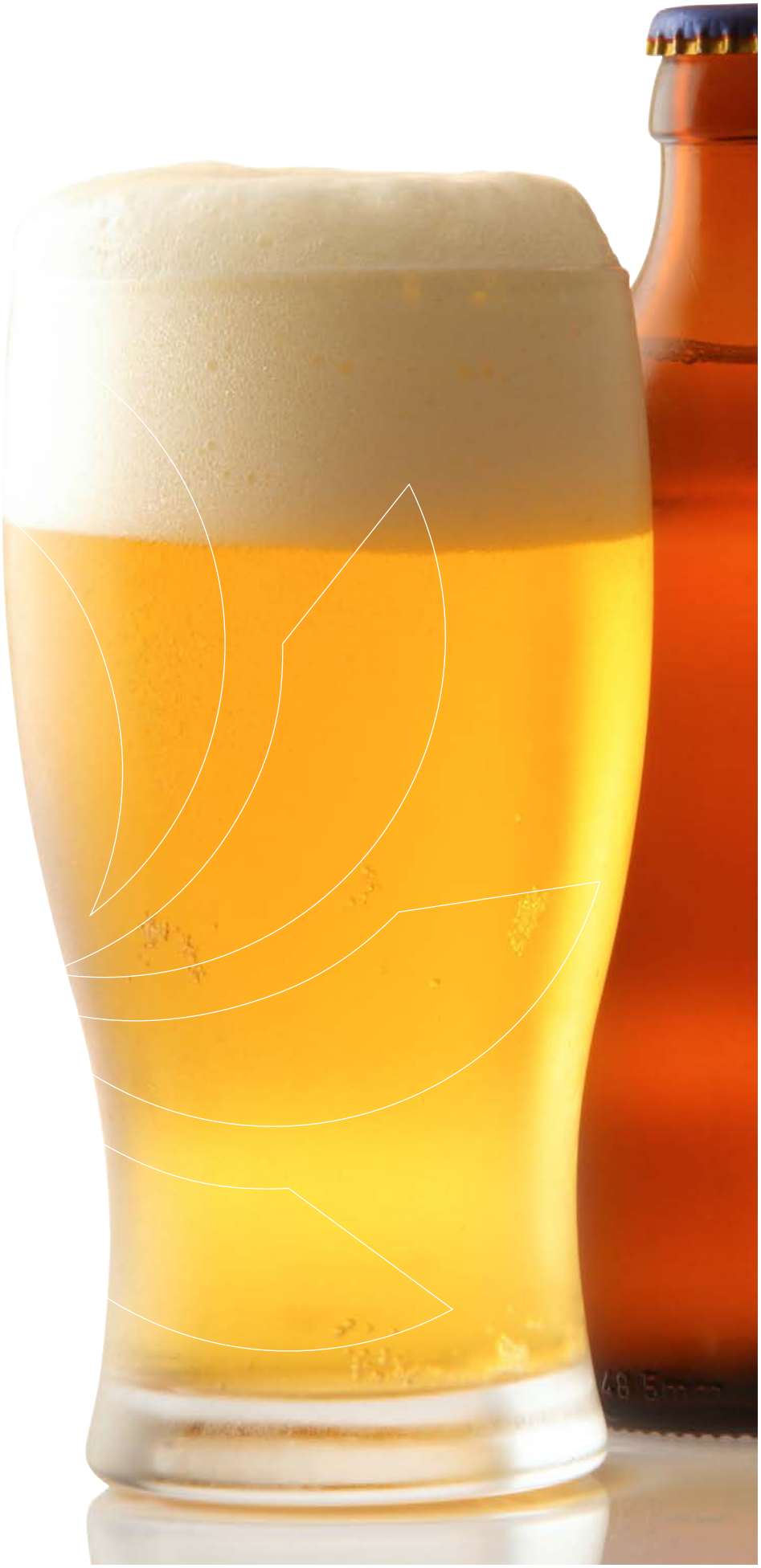
- Power supply: 400 Vac 50 Hz three-phase - 5 kVA (Other voltage and frequency on request)

SUPPLIED WITH

OPERATING MANUAL

29-B

 ELETTRONICA VENETA S.P.A. - 31045 Motta di Livenza (TV) Italy - Via Postumia 16 - Tel. +39 0422 765 802 - Fax +39 0422 861 901 - E-mail: export@elettronicaveneta.com



29-B

BR **BREWING LINE**

ELETTRONICA VENETA S.P.A. - 31045 Motta di Livenza (TV) Italy - Via Postumia 16 - Tel. +39 0422 765 802 - Fax +39 0422 861 901 - E-mail: export@elettronicaveneta.com

BREWING PILOT PLANT
Mod. BEER150/EV

INTRODUCTION

This plant is designed to make craft beer with the traditional method consisting in cooking mashed malt, filtering the resulting must by special equipment and adding some hop during the final boiling phase. Then adding yeast will start the fermentation process.
This process enables to personalize the end product in every part of its: different raw materials can be used, they can be brewed in most various combinations and the result will always be different recipes.

Brewing phases can be summarized as follows:

- Grinding: this phase consists in grinding malt; this operation is necessary to prepare the product for the next boiling phase.
- Cooking: it consists in boiling the mashed malt in water and mixing constantly with an agitator.
- Filtering: must is filtered in two different phases developing differently. The first filtering phase separates stillage from the liquid part in a basket of stainless steel, immediately after cooking malt. Then the second whirlpool phase is carried out after boiling malt and adding hop. The whirlpool developed inside the vat makes the residues still available in must, settle on bottom central part. Then the product that can be drawn from the side of the vat is already filtered and clean.
- Fermentation: it is the biological transformation of sugars into alcohol and carbon dioxide, provoked by the metabolism of yeast.
- Maturation: at the end of this process, must reaches a more or less stable balance of all its components. A lot of enzymes brought by yeast are still active in this phase, thus enabling to complete what already done by fermentation.
- Packaging: it consists in filling bottles and barrels with beer.

The equipment that makes up the brewing line is described in detail below.

MILL

- Production: 150 kg/h

COOKING AND FILTERING VAT

- Capacity: 150 litres
- Material: AISI 304 stainless steel
- Stillage filtering basket
- Electric heater of 7 kW
- Jacket of AISI 304 stainless steel with very high thermal insulation
- Upper dust-proof cover with exhaust of fumes
- Temperature sensor
- Agitator of stainless steel without stillage cutter

BOILING AND HOP BREWING BOILER

- Capacity: 220 litres
- Material: AISI 304 stainless steel
- Electric heater of 7 kW
- Jacket of AISI 304 stainless steel with very high thermal insulation
- Upper dust-proof cover with exhaust of fumes
- Temperature sensor

WHIRLPOOL VAT

- Capacity: 250 litres
- Material: AISI 304 stainless steel
- Jacket of AISI 304 stainless steel with very high thermal insulation
- Upper dust-proof cover

BEER PASSAGE VESSEL

- Capacity: 10 litres
- Material: AISI 304 stainless steel
- Upper dust-proof cover

BREWING CONTROL BOARD

- Programming beer recipe
- Control of temperature rise with automatic heat reduction
- Display of elapsed time
- Possibility of setting the recipe step by step
- Speed variator for cooking vat
- Setting beer decanting pump at work
- Control and programming of temperature in hot water tank

FERMENTER WITH FREE BLEEDING OF CO_2

- Capacity: 300 litres
- Material: AISI 304 stainless steel
- Conical bottom
- Duct-shaped refrigeration band of stainless steel
- Level holding cock
- Taster of stainless steel
- Digital thermometer with pocket
- Insulation of bottom and plating
- Adjustable feet
- Washing pipe with washing ball
- External airlock with water drain
- Bleeder valve of stainless steel

BEER MIXER

- Capacity: 300 litres
- Material: AISI 304 stainless steel
- Conical bottom
- Central manhole cover
- Bleeder valve of PVC
- Level holding cock
- Taster of stainless steel
- Partial and total drain
- Adjustable feet
- Washing pipe with washing ball
- Agitator with motor reducer

REFRIGERATION UNIT

- 1 Compressor
- Maximum power: 1.75 kW
- Internal tank of glycol
- Internal displacement pumps

COOLING CONTROL SYSTEM

- Control board of stainless steel with thermostat
- Temperature sensor
- Solenoid valve

Total dimensions: about 6000 x 2500 x 2200 (h) mm
Total weight: about 1800 kg

SUITABLE FOR PROCESSING:

MILK (table top)	MILK (on castors)	FRUIT	TOMATO	CITRUS	OLIVE	OLEAGINOUS SEED	GRAPE	BREWING	SEAFOOD	LIQUEURS
								●		

SUPPLIED WITH

ACCESSORIES

- Heat exchanger of AISI 316 stainless steel for beer cooling, using countercurrent tap water
- Pump for transferring must and beer from the plant to product cooling and storing units, provided with variable-speed motor controlled by inverter in the control board
- Pipe of stainless steel provided with throttle valve, for the connection between masher, filter and whirlpool
- Platform of welded stainless-steel tubes with castors and supporting feet.

REQUIRED

UTILITIES (PROVIDED BY THE CUSTOMER)

- Power supply: 400 Vac 50 Hz three-phase - 8 kVA (Other voltage and frequency on request)
- Tap water

 ELETTRONICA VENETA S.P.A. - 31045 Motta di Livenza (TV) Italy - Via Postumia 16 - Tel. +39 0422 765 802 - Fax +39 0422 861 901 - E-mail: export@elettronicaveneta.com

SP

29-B

SEAFOOD PROCESSING LABORATORY

SP

ELETTRONICA VENETA S.P.A. - 31045 Motta di Livenza (TV) Italy - Via Postumia 16 - Tel. +39 0422 765 802 - Fax +39 0422 861 901 - E-mail: export@elettronicaveneta.com

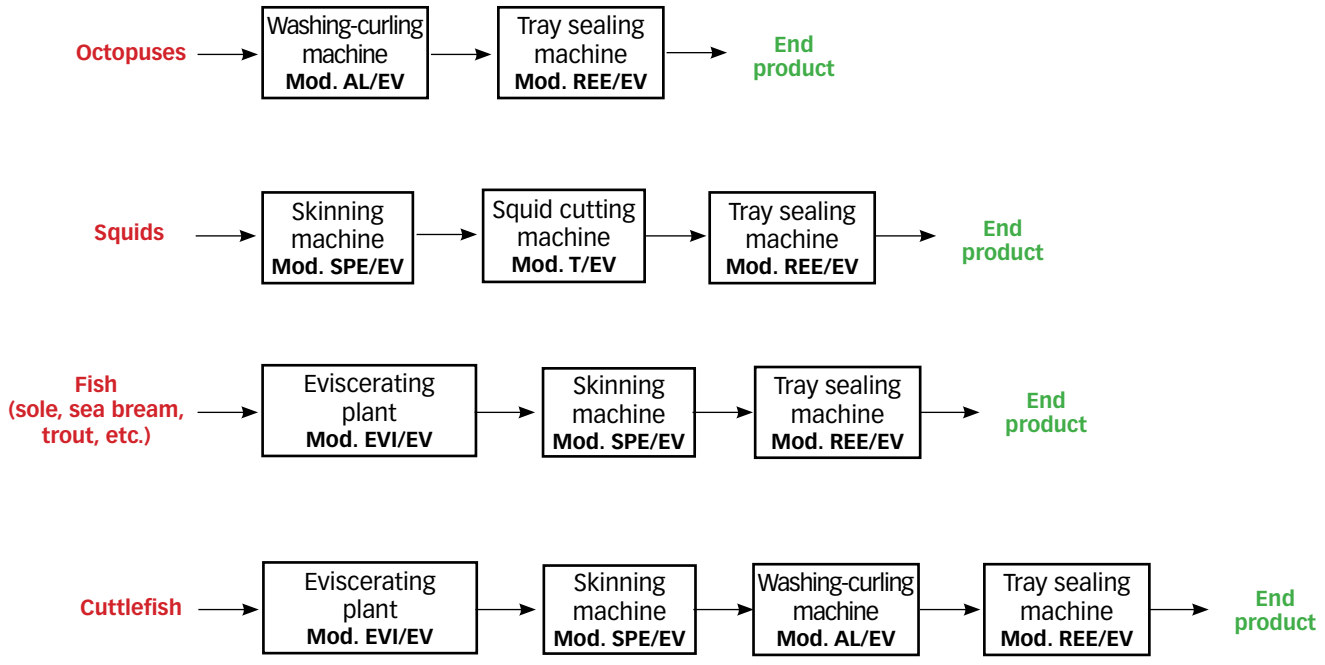
SEAFOOD PROCESSING LABORATORY

INTRODUCTION

Seafood processing phases are remarkably different according to the species being processed, but they can be summarized as follows:

- Defrosting: when processing frozen seafood, first of all defrost it by using a hot water bath or waiting that products thaw out at ambient temperature (frequent in warm countries).
- Evisceration: it consists in removing the entrails by suction via a vacuum line
- Skinning: this phase consists in removing fish skin that is not very appetizing if seafood is packed.
- Cutting: this operation is generally carried out on squids that are cut into rings or stripes.
- Washing – curling: this phase is generally carried out to wash and curl cephalopods such as octopuses and cuttlefishes
- Packaging: it consists in vacuum packing the product in a tray heat sealed with plastic film.

The different technologic cycles are indicated here below according to the processed species.



EVISCERATING PLANT

Mod. EVI/EV

29-B

SP

INTRODUCTION

This equipment is designed to remove the entrails from fishes with a suction system of entrails, blood and other waste.
This system includes a suction evisceration table, a suction unit and a tank for entrails.

TECHNICAL SPECIFICATION

- Evisceration table of AISI 304 stainless steel
- Suction unit
- Tank of AISI 304 stainless steel for entrails
- Connecting lines and valves of AISI 304 stainless steel

Power supply: 230 Vac 50 Hz single-phase - 3 kVA
(Other voltage and frequency on request)
Dimensions: 1700 × 800 × 1400 (h) mm
Production: 100 kg/h

SUITABLE FOR PROCESSING:

MILK (table top)	MILK (on castors)	FRUIT	TOMATO	CITRUS	OLIVE	OLEAGINOUS SEED	GRAPE	BREWING	SEAFOOD	LIQUEURS
									•	

VARIATIONS OF THE EQUIPMENT ON DEMAND:

The machine potentiality can be increased on specific demand.

REQUIRED UTILITIES (PROVIDED BY THE CUSTOMER)

- Tap water

SUPPLIED WITH

OPERATING MANUAL

FOOD PROCESSING TECHNOLOGIES

www.elettronicaveneta.com

29B-E-SP-EVI-0

ELETTRONICA VENETA S.P.A. - 31045 Motta di Livenza (TV) Italy - Via Postumia 16 - Tel. +39 0422 765 802 - Fax +39 0422 861 901 - E-mail: export@elettronicaveneta.com

SKINNING MACHINE

Mod. SPE/EV

29-B

SP

INTRODUCTION

This machine is designed to skin soles, eels, trout and salmon fillets, squibs and cuttlefish.

A foot-switch will start and stop the machine and the working top is constantly washed by a water flow.

TECHNICAL SPECIFICATION

- Made of AISI 304 stainless steel
- Foot Pedal Switch

Dimensions: 600 × 600 × 1000 (h) mm
Production: approx. 70 kg/h

SUITABLE FOR PROCESSING:

MILK (table top)	MILK (on castors)	FRUIT	TOMATO	CITRUS	OLIVE	OLEAGINOUS SEED	GRAPE	BREWING	SEAFOOD	LIQUEURS
									•	

VARIATIONS OF THE EQUIPMENT ON DEMAND:

The machine potentiality can be increased on specific demand.

REQUIRED UTILITIES (PROVIDED BY THE CUSTOMER)

- Power supply: 400 Vac 50 Hz three-phase - 0,5 kVA (Other voltage and frequency on request)
- Tap water

SUPPLIED WITH

OPERATING MANUAL

SQUID CUTTING MACHINE

Mod. T/EV

29-B

SP

INTRODUCTION

This machine is designed to cut squids, cuttlefishes and octopuses.

TECHNICAL SPECIFICATION

- Made of AISI 304 stainless steel
- Manual feeding

Dimensions: 1200 × 700 × 1100 (h) mm
Production: approximately 300 kg/h

SUITABLE FOR PROCESSING:

MILK (table top)	MILK (on castors)	FRUIT	TOMATO	CITRUS	OLIVE	OLEAGINOUS SEED	GRAPE	BREWING	SEAFOOD	LIQUEURS
									•	

VARIATIONS OF THE EQUIPMENT ON DEMAND:

The machine potentiality can be increased on specific demand.

REQUIRED UTILITIES (PROVIDED BY THE CUSTOMER)

- Power supply: 400 Vac 50 Hz three-phase - 1,1 kVA (Other voltage and frequency on request)
- Tap water

SUPPLIED WITH

OPERATING MANUAL

FOOD PROCESSING TECHNOLOGIES

www.elettronicaveneta.com

29B-E-SP-T-0

ELETTRONICA VENETA S.P.A. - 31045 Motta di Livenza (TV) Italy - Via Postumia 16 - Tel. +39 0422 765 802 - Fax +39 0422 861 901 - E-mail: export@elettronicaveneta.com

WASHING-CURLING MACHINE

Mod. AL/EV

INTRODUCTION

This machine washes squibs, cuttlefishes, octopuses and other fishes from sand and dirt, besides curling them.
Seafood does not suffer any damage during washing operations because this machine has not any rotating part.

TECHNICAL SPECIFICATION

- Made of AISI 304 stainless steel

Dimensions: 1000 × 1250 × 900 (h) mm
Production: 80 kg/h

SUITABLE FOR PROCESSING:

MILK (table top)	MILK (on castors)	FRUIT	TOMATO	CITRUS	OLIVE	OLEAGINOUS SEED	GRAPE	BREWING	SEAFOOD	LIQUEURS
									•	

VARIATIONS OF THE EQUIPMENT ON DEMAND:

The machine potentiality can be increased on specific demand.

REQUIRED

UTILITIES (PROVIDED BY THE CUSTOMER)

- Power supply: 400 Vac 50 Hz three-phase - 1,5 kVA (Other voltage and frequency on request)
- Tap water

SUPPLIED WITH

OPERATING MANUAL

TRAY SEALING MACHINE

Mod. REE/EV

29-B

SP

INTRODUCTION

Any operator can use this machine very easily because its operation is intuitive and simple: it is sufficient to position the tray and to push the mold into the machine, then the operation is automatic.

TECHNICAL SPECIFICATION

- Framework of stainless steel
- Electronic temperature control
- Motor-driven automatic sealing system

Power supply: 230 Vac 50 Hz single-phase - 1 kVA
(Other voltage and frequency on request)
Dimensions: 315 x 450 x 390 (h) mm
Weight: 30 kg

FOOD PROCESSING TECHNOLOGIES

www.elettronicaveneta.com

29B-E-SP-REE-1

SUITABLE FOR PROCESSING:

MILK (table top)	MILK (on castors)	FRUIT	TOMATO	CITRUS	OLIVE	OLEAGINOUS SEED	GRAPE	BREWING	SEAFOOD	LIQUEURS
									•	

VARIATIONS OF THE EQUIPMENT ON DEMAND:

The machine potentiality can be increased on specific demand.

SUPPLIED WITH

OPERATING MANUAL

ELETTRONICA VENETA S.P.A. - 31045 Motta di Livenza (TV) Italy - Via Postumia 16 - Tel. +39 0422 765 802 - Fax +39 0422 861 901 - E-mail: export@elettronicaveneta.com

29-B

LI

LABORATORY FOR THE PRODUCTION OF LIQUEURS

LI

ELETTRONICA VENETA S.P.A. - 31045 Motta di Livenza (TV) Italy - Via Postumia 16 - Tel. +39 0422 765 802 - Fax +39 0422 861 901 - E-mail: export@elettronicaveneta.com

LIQUEUR PRODUCTION LINE

INTRODUCTION

This line is designed to produce liquors by cold infusion of fruit, citrus fruit and herbs, with a capacity of approximately 150 litres per processing cycle (approximately 300 bottles per cycle); usually the duration of a processing cycle ranges from one week to one month, but the operations requiring the presence of an operator are reduced to few hours.

The most famous liquors that can be output from this line are:

- Lemon liquor
- Orange liqueur
- Fennel, basil, sage liqueurs, laurel liqueur, etc…
- 13-herb liqueur
- Mint liqueur
- Melon liqueur
- Rhubarb liqueur

The production phases of citrus liqueurs can be summarized as follows:

- Peeling: it consists in removing the outer part of citrus peel; of course this phase is not necessary in herbal liqueurs.
- Infusion: it consists in cold-soaking the raw material in ethyl alcohol to extract its aromatic oils.
- Mixing: a sugar solution is added to the alcoholic fraction in this phase.
- Filtering: this operation is carried out to separate the suspended solids from liqueur.
- Packaging: it consists of filling bottles with liqueur, putting caps and shrinkable capsules and applying labels.

The block diagram of liqueur production line is available in the last page.

Essential components for the technological cycle (bordered with continuos line in the block diagram):

- Infusion tank: Mod. INF/EV
- Mixer: Mod. MISC/EV
- Transfer pump: Mod. PUMP/EV (not included in the diagram)
- Filter press: Mod. FP-1/EV

The optional components (mainly used to facilitate and speed up the operations of selection, peeling and packaging) for completing the technological cycle (bordered with a broken line in the block diagram) are indicated here below:

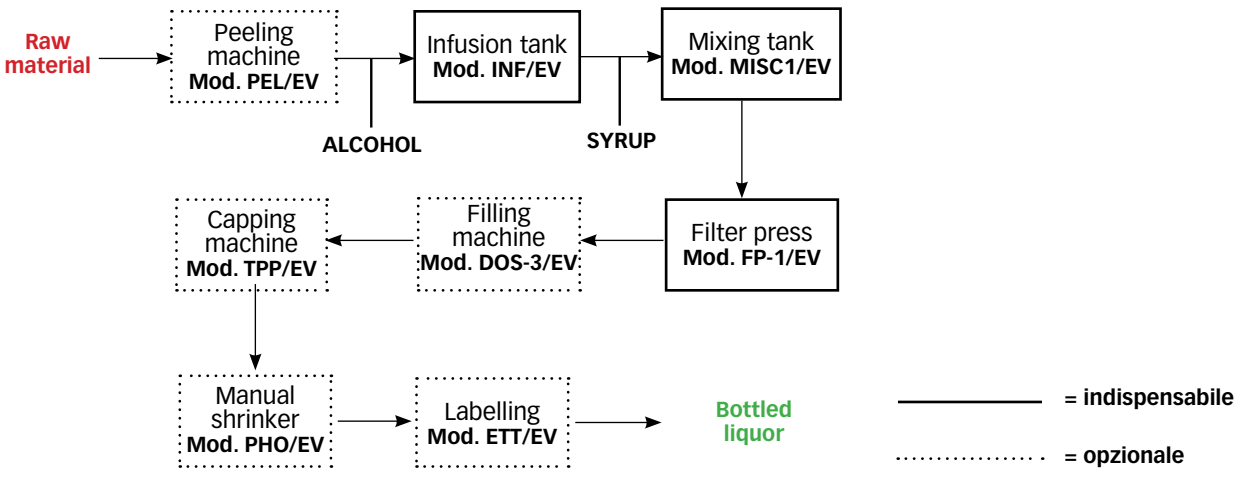
Selection and peeling

- Stainless steel table (not included in the diagram)
- Citrus peeling machine Mod. PEL/EV

Packaging

- Semiautomatic two-nozzle filling machine Mod. DOS-3/EV
- Semiautomatic electric capping machine Mod. TPP/EV
- Manual capsule shrinker Mod. PHO/EV
- Semiautomatic labelling machine mod. ETT/EV.

The machines included in the production line will be described in detail in the following pages.



INFUSION TANK
Mod. INF/EV

INTRODUCTION

A lot of liqueurs are processed from the infusion of plants, aromatic herbs, fruit, grains, barks, peels or roots. This operation is simple and rather fast and it consists in cold-soaking the raw material in ethyl alcohol for a prefixed time period according to the liqueur that must be produced.
This process enables to extract the aromatic oils from vegetable substances, generally shredded or crushed.
Soak usually lasts one to two weeks, but it can also be extended to one month or to a longer period in particular cases (walnut liqueur, myrtle liqueur, etc…).

TECHNICAL SPECIFICATION

- Framework of AISI 304 stainless steel
- Capacity: 100 litres
- Conical bottom with drain valve DN32
- Product drawing cock
- Lid
- Basket of perforated AISI 304 stainless steel
- Level gauge
- Sampling cock

SUITABLE FOR PROCESSING:

MILK (table top)	MILK (on castors)	FRUIT	TOMATO	CITRUS	OLIVE	OLEAGINOUS SEED	GRAPE	BREWING	SEAFOOD	LIQUEURS
										•

REQUIRED UTILITIES (PROVIDED BY THE CUSTOMER)

- Tap water

SUPPLIED WITH

OPERATING MANUAL

ELETTRONICA VENETA S.P.A. - 31045 Motta di Livenza (TV) Italy - Via Postumia 16 - Tel. +39 0422 765 802 - Fax +39 0422 861 901 - E-mail: export@elettronicaveneta.com

MIXING TANK
Mod. MISC1/EV

INTRODUCTION

Mixing water and sugar according to a prefixed ratio in this mixer prepares the syrup; then the syrup output from this operation is mixed with the alcoholic fraction coming from the infusion tank. This mixture will settle for a given time interval according to the liqueur that must be produced.
The mixing phase can also last approximately ten months, as for mint elixir, if liqueur is forced to mature in the mixer and not in bottles.

TECHNICAL SPECIFICATION

- Framework of AISI 304 stainless steel
- Capacity: 200 litres
- Conical bottom with drain valve
- Lid that can be opened, with a fixed half
- Washing sprayball
- Motor-driven agitator with motor reducer and switchboard

SUITABLE FOR PROCESSING:

MILK (table top)	MILK (on castors)	FRUIT	TOMATO	CITRUS	OLIVE	OLEAGINOUS SEED	GRAPE	BREWING	SEAFOOD	LIQUEURS
										•

REQUIRED

UTILITIES (PROVIDED BY THE CUSTOMER)

- Power supply: 400 Vac 50 Hz three-phase - 0,37 kVA (Other voltage and frequency on request)
- Tap water

SUPPLIED WITH

OPERATING MANUAL

TRANSFER PUMP
Mod. PUMP/EV

29-B

INTRODUCTION

It is used to send alcohol into the infusion tank and to transfer the product from the infusion tank to the mixer.
As this pump is used to transfer alcohol (flammable liquid), its electric components are in AD-PE execution (explosion-proof).

TECHNICAL SPECIFICATION

- The parts in contact with the product are of AISI 304 stainless steel
- Wheeled framework
- Joints DN32
- ATEX electric execution
- 2 flexible pipes of connection

SUITABLE FOR PROCESSING:

MILK (table top)	MILK (on castors)	FRUIT	TOMATO	CITRUS	OLIVE	OLEAGINOUS SEED	GRAPE	BREWING	SEAFOOD	LIQUEURS
										•

REQUIRED

UTILITIES (PROVIDED BY THE CUSTOMER)

- Power supply: 400 Vac 50 Hz three-phase - 0,37 kVA (Other voltage and frequency on request)

SUPPLIED WITH

OPERATING MANUAL

ELETTRONICA VENETA S.P.A. - 31045 Motta di Livenza (TV) Italy - Via Postumia 16 - Tel. +39 0422 765 802 - Fax +39 0422 861 901 - E-mail: export@elettronicaveneta.com

FILTER PRESS
Mod. FP-1/EV

INTRODUCTION

The mixture output from mixing phase is filtered to separate the suspended solids from liqueur.
The filtering phase outputs a clear and stable product.

TECHNICAL SPECIFICATION

- Wheeled framework of AISI 304 stainless steel
- Wheeled framework
- 10 plates of 20x20 cm
- Capacity: 300 l/h

SUITABLE FOR PROCESSING:										
MILK (table top)	MILK (on castors)	FRUIT	TOMATO	CITRUS	OLIVE	OLEAGINOUS SEED	GRAPE	BREWING	SEAFOOD	LIQUEURS
										•

SUPPLIED WITH
OPERATING MANUAL

STAINLESS STEEL TABLE

INTRODUCTION

It is used for the selection and manual peeling of raw material.

TECHNICAL SPECIFICATION

- Framework of AISI 304 stainless steel
- 4 legs with adjustable feet

Dimensions: 1900×800×850 mm

SUITABLE FOR PROCESSING:

MILK (table top)	MILK (on castors)	FRUIT	TOMATO	CITRUS	OLIVE	OLEAGINOUS SEED	GRAPE	BREWING	SEAFOOD	LIQUEURS
										•

ELETTRONICA VENETA S.P.A. - 31045 Motta di Livenza (TV) Italy - Via Postumia 16 - Tel. +39 0422 765 802 - Fax +39 0422 861 901 - E-mail: export@elettronicaveneta.com

CITRUS PEELING MACHINE
Mod. PEL/EV

INTRODUCTION

It is designed to peel citrus fruit. After inserting the fruit, the operator starts the peeling operation. Then the peeled fruit must be removed manually.

TECHNICAL SPECIFICATION

- Production: 4 lemons per minute
- Fruit support
- Peeling knife
- Fruit centering pin

Power supply: 230 Vac 50 Hz single-phase - 20 VA
(Other voltage and frequency on request)

SUITABLE FOR PROCESSING:

MILK (table top)	MILK (on castors)	FRUIT	TOMATO	CITRUS	OLIVE	OLEAGINOUS SEED	GRAPE	BREWING	SEAFOOD	LIQUEURS
										•

SUPPLIED WITH

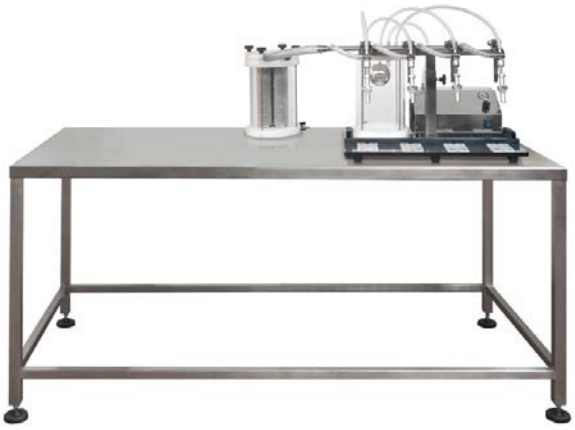
OPERATING MANUAL

VACUUM DOSING MACHINE
Mod. DOS-3/EV

INTRODUCTION

This machine can simultaneously fill the bottles with the necessary quantity of liquid; just place them under the filling nozzle and switch the filling selector on.

The dosing machine is useful especially in the bottling phase that could be slow, if carried out manually.



TECHNICAL SPECIFICATION

- Maximum potentiality: 200 bottles/hour
- Supporting table of AISI 304 stainless steel, dimensions: 1900 x 900 x 800 mm
- Dosing machine of glass and AISI 304 stainless steel
- 4 filling nozzles
- Two 5-µm filters of AISI 304 stainless steel
- Vacuum pump included in the dosing machine
- On-off switch

Power supply: 230 Vac 50 Hz single-phase - 0,3 kVA
(Other voltage and frequency on request)
Dimensions: 600×300×500 mm
Weight: 30 kg

SUITABLE FOR PROCESSING:

MILK (table top)	MILK (on castors)	FRUIT	TOMATO	CITRUS	OLIVE	OLEAGINOUS SEED	GRAPE	BREWING	SEAFOOD	LIQUEURS
										•

SUPPLIED WITH
OPERATING MANUAL

ELETTRONICA VENETA S.P.A. - 31045 Motta di Livenza (TV) Italy - Via Postumia 16 - Tel. +39 0422 765 802 - Fax +39 0422 861 901 - E-mail: export@elettronicaveneta.com

CAPPING MACHINE
Mod. TPP/EV

INTRODUCTION

This machine can put the caps onto the bottles of liqueur: a rotary head provided with clutch clamps the cap onto the bottle neck.

TECHNICAL SPECIFICATION

- Maximum potentiality: 300 bottles/hour
- Square base with column supporting the clamping head for twist-off caps
- Adjustable clutch for a perfect closing of caps
- Motor

Power supply: 230 Vac 50 Hz single-phase - 0,3 kVA
(Other voltage and frequency on request)
Dimensions: 400×400×800 mm
Production: 50 kg

SUITABLE FOR PROCESSING:

MILK (table top)	MILK (on castors)	FRUIT	TOMATO	CITRUS	OLIVE	OLEAGINOUS SEED	GRAPE	BREWING	SEAFOOD	LIQUEURS
										•

SUPPLIED WITH
OPERATING MANUAL

ELETTRONICA VENETA S.P.A. - 31045 Motta di Livenza (TV) Italy - Via Postumia 16 - Tel. +39 0422 765 802 - Fax +39 0422 861 901 - E-mail: export@elettronicaveneta.com

MANUAL CAPSULE SHRINKER
Mod. PHO/EV

INTRODUCTION

This manual shrinker with electric resistor is designed to heat shrink capsules onto the bottle caps.

Power supply: 230 Vac 50 Hz single-phase - 1,5 kVA
(Other voltage and frequency on request)

LI

FOOD PROCESSING TECHNOLOGIES

www.elettronicaveneta.com

29B-E-LI-PHO-1

SUITABLE FOR PROCESSING:

MILK (table top)	MILK (on castors)	FRUIT	TOMATO	CITRUS	OLIVE	OLEAGINOUS SEED	GRAPE	BREWING	SEAFOOD	LIQUEURS
										•

SUPPLIED WITH

OPERATING MANUAL

ELETTRONICA VENETA S.P.A. - 31045 Motta di Livenza (TV) Italy - Via Postumia 16 - Tel. +39 0422 765 802 - Fax +39 0422 861 901 - E-mail: export@elettronicaveneta.com

SEMIAUTOMATIC LABELLING MACHINE
Mod. ETT/EV

INTRODUCTION

This machine is designed to apply self adhesive labels and back labels onto round bottles and it is useful especially when all the bottles must be labelled with precision and homogeneity.

TECHNICAL SPECIFICATION

- System for adjusting the distance between labels and back labels
- Rotary smoothing system

Power supply: 230 Vac 50 Hz single-phase - 0,5 kVA
(Other voltage and frequency on request)
Dimensions: 350×450×550 mm
Weight: 26 kg

SUITABLE FOR PROCESSING:

MILK (table top)	MILK (on castors)	FRUIT	TOMATO	CITRUS	OLIVE	OLEAGINOUS SEED	GRAPE	BREWING	SEAFOOD	LIQUEURS
										•

SUPPLIED WITH
OPERATING MANUAL

29-B

 ELETTRONICA VENETA S.P.A. - 31045 Motta di Livenza (TV) Italy - Via Postumia 16 - Tel. +39 0422 765 802 - Fax +39 0422 861 901 - E-mail: export@elettronicaveneta.com

EO

29-B

LABORATORY FOR THE EXTRACTION OF ESSENTIAL OIL

EO

www.elettronicaveneta.com

ESSENTIAL OIL EXTRACTION PILOT PLANT

UDC-2/EV
UDC-2a/EV

EO 3

29B-E-EO

ELETTRONICA VENETA S.P.A. - 31045 Motta di Livenza (TV) Italy - Via Postumia 16 - Tel. +39 0422 765 802 - Fax +39 0422 861 901 - E-mail: export@elettronicaveneta.com

ESSENTIAL OIL EXTRACTION PILOT PLANT

Mod. UDC-2/EV manual
Mod. UDC-2a/EV automated

INTRODUCTION

Essential oils can be used in many different ways and are nowadays very popular in the cosmetic industry. After being properly dissolved and dispersed, they can be added to water to get a detergent or refreshing effect, according to the specific characteristics of each oil. They can also be added to fixed oils and vegetable fats to help their active principles sink deep into the skin. Essential oils can be found in moisturizers, body oils, haircare products and face masks depending on their properties.

TRAINING PROGRAM

- Extraction of essential oils by steam distillation
- Mass and energy balances
- Yield and purity of the oils
- Optimization of the extraction process
- Process supervision with a Personal Computer (only for mod. UDC-2a/EV)
- Liquid and steam flow control with automatic PID (only for mod. UDC-2a/EV)

TECHNICAL SPECIFICATION

Mod. UDC-2/EV

- Framework of AISI 304 stainless steel with castors
- Tank of borosilicate glass, DN 300, 50 l, with 1.5 kW electric heater and steam diffuser
- Overhead condenser of AISI 304 stainless steel
- Borosilicate glass condenser/separator
- 2x 5 l borosilicate glass tanks
- Variable area flowmeter (only for mod. UDC-2/EV)
- Bourdon pressure gauge of AISI 304 stainless steel, range 0÷6 bar
- Pneumatic valve of AISI 316 stainless steel to control the steam flow rate, Cv = 0.32
- 4 thermoresistances Pt 100 with sheath of AISI 316 stainless steel
- Calibrated diaphragm of AISI 316 stainless steel
- Electronic differential pressure transmitter of stainless steel, range 0÷1000 mm H2O
- IP 55 switchboard, CE marked, including (only for mod. UDC-2/EV):
  - 4 digital temperature indicators
  - Start and stop buttons
  - ELCB
  - Synoptic diagram
- Emergency button
- Piping and valves of AISI 304 and AISI 316 stainless steel
- Pressure reducer for compressed air

Mod. UDC-2a/EV

Besides being provided with all the characteristics of mod. UDC-2/EV, this model also includes the following additional items:

- Variable area flowmeter of stainless steel with 4÷20 mA transmitter

- Pneumatic valve of stainless steel to control the water flow rate to the condenser, Cv=2.5
- 2x IP 55 electropneumatic converter 4÷20 mA/0.2÷1 bar
- Switchboard including:
  - 3 digital temperature indicators
  - Digital thermostat
  - Microprocessor PID controller, 2 control loops
  - Start and stop buttons
  - ELCB
  - Synoptic diagram
- Supervision software SCADA for Windows, mod. SW-UDC2A/EV

Power supply: 230 Vac 50 Hz single-phase
(Other voltage and frequency on request)
Dimensions: 1600 x 700 x 2020 mm
Weight: 200 kg

REQUIRED

UTILITIES (PROVIDED BY THE CUSTOMER)

- Steam: 20 kg/h @ 4 bar or Mod. SCT04/EV (optional)
- Tap water: at least 400 l/h
- Compressed air : 6 bar, 0.5 Nm^3/h
- Water floor drain

SUPPLIED WITH

THEORETICAL - EXPERIMENTAL HANDBOOK

PRODUCTS INDEX
SORTED ALPHABETICALLY BY MODEL

FP	FOOD PROCESSING PLANTS
BR	BREWING LINE
SP	SEAFOOD PROCESSING LABORATORY
LI	LIQUEUR PRODUCTION LINE
EO	LABORATORY FOR THE EXTRACTION OF ESSENTIAL OIL

MODEL	DESCRIPTION	TECHNOLOGICAL CYCLES								LINES			PAGE
		MILK (table-top)	MILK (on castors)	FRUIT	TOMATO	CITRUS	OLIVE	OLEAGINOUS SEED	GRAPE	BREWING	SEAFOOD	LIQUEUR	
AC/EV	GRINDING MILL			●	●								FP 43
AL/EV	WASHING-CURLING MACHINE										●		SP 7
AVS/EV	STERILIZATION AUTOCLAVE			●	●	●							FP 57
BEER150/EV	BREWING PILOT PLANT									●			BR 3
BFF/EV	MOULDING TABLE (Accessory mod. FOR/EV)		●										FP 34
BFPF/EV	PRESSING TABLE WITH INTERNAL BASIN (Accessory mod. FOR/EV)		●										FP 34
BL/EV	COOKING KETTLE			●		●							FP 47
BR/EV	BUTTER PRODUCTION PILOT PLANT		●										FP 33
CB/EV	BATCH CONCENTRATION PILOT PLANT			●	●	●							FP 48
CDE-M/EV CDE/EV	MULTIFUNCTIONAL CONCENTRATION PILOT PLANT					●							FP 52
CFS-M/EV CFS/EV	MULTIFUNCTIONAL THIN-FILM EVAPORATION PILOT PLANT			●	●	●							FP 54
CHILL4/EV	CHILLER	●											FP 22
CONF/EV	ACCESSORIES FOR PACKAGING *(INCLUDING DOSING MACHINE DOS/EV, CAPPING MACHINE TPP/EV)*		●	●	●	●							FP 39
CONF-1/EV	ACCESSORIES FOR PACKAGING *(INCLUDING ISOBARIC DOSING MACHINE DOS-1/EV, CAPPING MACHINE TPP-1/EV, WIREHOODER GBB/EV)*								●				FP 74
CONF-2/EV	ACCESSORIES FOR PACKAGING *(INCLUDING VACUUM DOSING MACHINE DOS-3/EV, CAPPING MACHINE TPP/EV)*			●		●							FP 56
CONF-3/EV	ACCESSORIES FOR PACKAGING *(INCLUDING VACUUM DOSING MACHINE DOS-3/EV, CAPPING MACHINE TPP-3/EV)*						●	●	●				FP 64
DNC/EV	DE-STONER			●									FP 42
DOS-3/EV	VACUUM DOSING MACHINE											●	LI 10
DSP/EV	STALK-REMOVING MACHINE								●				FP 65
DSR/EV	MULTIFUNCTIONAL DEAERATION PILOT PLANT		●	●	●	●							FP 28
ESA/EV	CITRUS JUICE EXTRACTION PILOT PLANT					●							FP 58
ESL-M/EV ESL/EV	MULTIFUNCTIONAL CONTINUOUS SOLID-LIQUID EXTRACTION PILOT PLANT							●					FP 61
ETT/EV	SEMIAUTOMATIC LABELLING MACHINE											●	LI 13
EVI/EV	EVISCERATING PLANT										●		SP 4
FOR/EV	CHEESE PRODUCTION PILOT PLANT		●										FP 34
FOR-2/EV	STEWING TANK (Accessory mod. FOR/EV)		●										FP 35
FP/EV	FILTER PRESS (Grape cycle)								●				FP 70
FP-1/EV	FILTER PRESS (Liqueur line)											●	LI 7
FRM-M/EV FRM/EV	FERMENTATION PILOT PLANT								●				FP 67

MODEL	DESCRIPTION	TECHNOLOGICAL CYCLES								LINES				PAGE
		MILK (table-top)	MILK (on castors)	FRUIT	TOMATO	CITRUS	OLIVE	OLEAGINOUS SEED	GRAPE	BREWING	SEAFOOD	LIQUEUR		
INF/EV	INFUSION TANK											●		LI 4
LAV/EV	CLEAN IN PLACE UNIT		●											FP 38
LAV-1/EV	MULTIFUNCTIONAL WASHING MACHINE			●	●	●								FP 41
LFZ/EV	MULTIFUNCTIONAL FREEZE-DRYING PILOT PLANT			●	●	●								FP 37
MBR/EV	BUTTER CHURN	●												FP 19
MFOR/EV	CHEESE VAT PASTEURIZER	●												FP 18
MINI150/EV	OLIVE OIL PRODUCTION PILOT PLANT						●							FP 63
MISC/EV	MIXING TANK			●										FP 46
MISC1/EV	MIXING TANK											●		LI 5
MLN/EV	MILL							●						FP 60
MSCR/EV	CREAM SEPARATOR (table-top)	●												FP 20
MUPL/EV	PASTEURIZER	●												FP 17
OMO/EV	MULTIFUNCTIONAL HOMOGENIZATION PILOT PLANT		●	●										FP 27
PAS/EV	PULPER-REFINER PILOT PLANT			●	●	●								FP 45
PCC/EV	CENTRIFUGAL PUMP ON CASTORS		●	●										FP 26
PEL/EV	CITRUS PEELING MACHINE											●		LI 9
PHO/EV	MANUAL CAPSULE SHRINKER											●		LI 12
PRE/EV	PNEUMATIC PRESS								●					FP 66
PUMP/EV	TRANSFER PUMP											●		LI 6
REE/EV	TRAY SEALING MACHINE										●			SP 8
SAL/EV	SALTING TANK (Accessory mod. FOR/EV)		●											FP 35
SCAF/EV	MATURING SHELVES (Accessory mod. FOR/EV)		●											FP 35
SCR/EV	CREAM SEPARATOR (on castors)		●											FP 25
SMT-M/EV	SPARKLING PROCESS PILOT PLANT								●					FP 69
SPE/EV	SKINNING MACHINE										●			SP 5
SRB/EV	THERMOSTAT-CONTROLLED TANK								●					FP 73
ST/EV	HOLDING TANK			●		●								FP 49
STR-M/EV STR/EV	MILK STERILIZATION PILOT PLANT		●											FP 31
T/EV	SQUID CUTTING MACHINE										●			SP 6
T1400/EV	STAINLESS STEEL TABLE WITH CABINET	●												FP 21
T80/EV	TANK ON CASTORS		●											FP 24
THB/EV	MULTIFUNCTIONAL HOT BREAK PILOT PLANT			●	●									FP 44
TPP/EV	CAPPING MACHINE											●		LI 11
TT/EV	REFRIGERATED TANK		●											FP 23
UDC-2/EV UDC-2a/EV	ESSENTIAL OIL EXTRACTION PILOT PLANT												●	EO 3
UDV-M/EV UDV/EV	GRAPE MARC DISTILLATION PILOT PLANT								●					FP 71
UPL-1/EV	MULTIFUNCTIONAL AUTOMATED PASTEURIZATION PILOT PLANT			●	●	●								FP 51
UPL-M/EV UPL/EV	MULTIFUNCTIONAL PASTEURIZATION PILOT PLANT		●											FP 29
URF/EV	UNIT FOR THE PRODUCTION OF ICE WATER								●					FP 75
URS/EV	SOLVENT RECOVERY UNIT							●						FP 62
VIT/EV	SEED PRESSING PILOT PLANT							●						FP 59
VPR/EV	PASTEURIZATION AND COOLING TANK			●	●	●								FP 50
YOG/EV	YOGHURT PRODUCTION UNIT		●											FP 36
	STAINLESS STEEL TABLE			●	●									FP 40
	STAINLESS STEEL TABLE											●		LI 8

Elettronica Veneta S.p.A.
Via Postumia, 16
31045 Motta di Livenza (Treviso) Italy
Tel. +39 0422 7657 r.a. - Fax +39 0422 860 784
E-mail: italia@elettronicaveneta.com
www.elettronicaveneta.com