# BORN TO NNOVATE













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WE ARE LEADERS IN THE PRODUCTION OF CUTTING-EDGE EQUIPMENT AND SYSTEMS IN THE WINE-MAKING AND BEVERAGE INDUSTRY: BEER, MINERAL WATERS, SOFT DRINKS, JUICES, SPIRITS AND BEVERAGES.

## YOUR PARTNER FOR HIGH TECH SOLUTIONS.

ABOUT US

PIONEERS IN THE MANUFACTURE OF AUTOMATED SYSTEMS FOR THE WINE SECTOR, WE JOINED THE AEB GROUP IN 2017 AND HAVE SINCE EXPANDED OUR FOCUS TO THE FOOD SECTOR WITH A TEAM OF HIGHLY QUALIFIED ENGINEERS. INNOTEC WORLD

## TWENTY YEARS OF TECHN AND DESIGN.



## OLOGICAL INNOVATION

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#### िंग TAILOR-MADE PLANTS

£[]]}}

PRODUCT

(3)

PROJECT SUSTAINABILITY

FUNCTIONAL DESIGN



TECHNICAL SUPPORT AND CUSTOMER SERVICE



## SPECIALISED TEAMS AND CONSTANT SUPPORT.

Our systems are designed by staff that have high levels of expertise. Our mechanical, electronic, chemical and IT engineers, guided by process experts, competently give shape to projects, turning them into real masterpieces of technology tailored to suit the needs of every customer.

## EQUIPMENT BUILT TO MEET EVERY NEED.

INNOTEC solutions are mainly intended for the food and beverage industry. We produce exclusive systems designed to suit the needs of our customers, according to a tailor-made philosophy.



## AUTHENTIC SUSTAINABILITY.

## ATTENTION TO RESOURCES STARTS WITH THE DESIGN.

CARBON FOOTPRINT



RENEWABLE

WATER RECOVERY



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THE SENSORS AND THE SOFTWARE OF OUR UNITS CAN BE EASILY CONNECTED WITH OTHER MACHINERY AND WITH CLIENT MANAGEMENT SYSTEMS, ALLOWING COMPLETE CONTROL AND TRACEABILITY OF THE PROCESS, EVEN REMOTELY.



## HOW WE SHAPE

## 16

#### **MICRO-FILTRATION**

Manual or automatic plants that guarantee microbiological stability.



#### C.I.P.

Cleaning In Place systems for washing, cleaning and sanitising components and production plants.

P.D.S. (PIPING DISCHARGE SYSTEM)

Systems for the optimisation of product transfers by means of a mobile diaphragm.



DOSING SYSTEMS

In-line dosing of products and liquid processing aids.

## E TECHNOLOGY.



DEOX

Monitoring and stripping systems of oxygen and gases dissolved in the product through nitrogen.



CARBOX CO<sub>2</sub> in-line dosing and stabilisation systems.



R.W.S. (RECOVERY WINE SYSTEM)

Recovery and re-dosing plants of wine from micro-filtration and filler.



POWDER

MIXER

Automatic system that ensures complete homogenization to liquid of powder adjuvants.



## MICRO-FILTRATION

MICRO-FILTRATION SYSTEMS ALLOW MICROBIOLOGICAL STABILITY TO BE ACHIEVED AT COLD TEMPERATURES WHILE MAINTAINING ORGANOLEPTIC PROPERTIES.

Thanks to filter cartridges, which can be washed and regenerated with the aid of detergent and sanitising products, it is possible to obtain a product that is micro-biologically stable and long-lasting.

We manufacture both manual and automatic micro-filtration systems: the latter are capable of carrying out all work cycles independently.



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Housing with chamber lifter

Vent units

#### **MICRO-FILTRATION**



#### FEATURES OF AUTOMATIC SYSTEMS

Single acting automatic valves.

Pressure and temperature checks.

Digital interface and dedicated software. Automatic production and washing cycles. Automatic integrity test.

Double counterweight chamber lifter.

Integrated wiring within the perimeter channel.

#### FEATURES OF AUTOMATIC PLUS SYSTEMS

Automatic double acting valves with feedback to position.

Flow meters.

Enlarged touch-screen.

Customisable washing cycles and recipes.

Full traceability of work and washing cycles.

Consumption traceability.

Equipped to communicate with external machines.

## C.I.P.

C.I.P. PLANTS (CLEANING IN PLACE) ARE SYSTEMS FOR THE MANAGEMENT OF CLOSED CIRCUIT WASHING PROCESSES AND ARE THE IDEAL CHOICE FOR CLEANING MICRO-FILTRATION SYSTEMS, BOTTLING LINES, STORAGE TANKS, EXCHANGERS AND OTHER TYPES OF FOOD AND WINE EQUIPMENT.

Concentrated detergents and sanitisers are automatically measured out in order to prepare the desired washing solution, which can then be recovered in dedicated tanks by verifying the characteristics of the solution with internal sensors.

The efficiency of our systems is further guaranteed by the possibility of heating the solutions with systems that provide for the recovery of calories. In the automatic systems, the PLC managed processes allow complete traceability of the washing activities.



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Actuator

#### C.I.P. (CLEANING IN PLACE)



#### FEATURES

Control of dosing and temperatures. Recovery and recirculation of solutions. Calorie recovery system. Flow control. Process traceability. Remote technical support. Interface with external systems.

### DEOX

DEOX IS AN AUTOMATIC SYSTEM THAT ALLOWS IN LINE MONITORING AND THE ELIMINATION OF DISSOLVED OXYGEN AND CARBON DIOXIDE VIA THE PROPORTIONAL DOSAGE OF NITROGEN, THUS ELIMINATING SENSORY AND SHELF-LIFE DEFECTS.

Based on the concentration of  $O_2$  and  $CO_2$ , Deox measures out the exact quantity of  $N_2$  necessary - which is added through a microporous membrane - and subsequently stabilises the product inside a tank, where the agglomerated nitrogen with  $O_2$  and  $CO_2$  is released.

Before bottling, the product is analysed in-line with very high precision instruments to guarantee the achievement of the desired parameters set.

Perimeter channel with corner



#### **FEATURES**

Dosing proportional to the flow. AISI 316 stainless steel structure. Technopolymer microporous membrane for efficient and turbulence-free dosing. Adaptation to variable flow rates during bottling. Easy washing and sanitising with dedicated line. Full process traceability. Interface compatibility with C.I.P. and micro-filtration systems. Double in-out sensor for differential processing.

### CARBOX

CARBOX IS THE AUTOMATIC SYSTEM FOR ADDING CO<sub>2</sub> WITH RELATIVE PROPORTION TO THE PRODUCT FLOW JUST BEFORE BOTTLING TAKES PLACE.

The result is a fine and persistent effervescence, obtained thanks to a technology that prevents the formation of turbulent flows that are responsible for coarse and unpleasant bubbles.

Dosing takes place through a microporous membrane; the exact quantity of  $CO_2$  is calculated automatically. For high-dosing systems, the product is stabilised in an autoclave to ensure complete gas dissolution.

Before bottling, the product is analysed in-line with very high precision instruments to guarantee the achievement of the desired parameters set.





#### FEATURES

Dosing from 0.5 to 10 g/l of CO<sub>2</sub>. Dosing proportional to the flow. AISI 316 stainless steel structure. Microporous membrane in technopolymer. Adaptation to variable flow rates during bottling. Easy washing and sanitising with dedicated line. Full process traceability. Interface compatibility with C.I.P. and micro-filtration systems. Possibility of integration with cooler. Double in-out sensor for differential processing.

### P.D.S.

PIPING DISCHARGE SYSTEMS ALLOW SEPARATING THE DIFFERENT PRODUCTS TO BE TRANSFERRED BY MEANS OF A DIAPHRAGM, PREVENTING THEM FROM MIXING, DRASTICALLY REDUCING PRODUCT LOSSES.

The system is ideal when the distances, both in the production and in the emptying phases, are long. The diaphragm is designed to be detected during its movement and is compatible with all detergent and sanitising solutions that may be used for washing the lines.

The P.D.S. consists of techno-polymer ball which is elastic enough to slide inside a special pipe thanks to the thrust of a gas or of water or wine. The movement is automatic and managed by a central PLC.

In addition to the departure and arrival station, it is also possible to have intermediate stations and the pipe can thermostatically control the product circulating inside it (whether hot and cold), thus optimising filling functions.



Liquid handling ball

#### P.D.S. (PIPING DISCHARGE SYSTEM)



#### **FEATURES**

Internally polished AISI 316 stainless steel structure. Flange connections. 3" pipes sectioned by automatic ball valves. In-line acclimatisation also for pressure products. Real-time ball movement feedback. Can be integrated with C.I.P., dosing and micro-filtration systems. Better pressure management during filling to prevent the formation of froth. Total product recovery.

### **DOSING SYSTEMS**

IN-LINE DOSING SYSTEMS ALLOW ADDITIVES AND ADJUVANTS TO BE MEASURED AND DOSED DIRECTLY INTO THE PRODUCT BEFORE IT IS PACKAGED; HIGH PRECISION AND MAXIMUM SAFETY ARE ENSURED BY MONITORING THE LEVELS OF REDUDANT PRODUCTS ADDED DURING ALL PHASES OF THE PROCESS.

The use of cutting-edge sensors guarantees accurate dosing operations.

![](_page_25_Picture_3.jpeg)

![](_page_26_Picture_1.jpeg)

#### FEATURES

Step by step diaphragm pumps with feedback in case of anomalies. Mass flow dosing monitoring sensor.

Scale that weighs the consumption of the product that has been dosed.

Can be integrated with C.I.P., micro-filtration and P.D.S. systems.

### R.W.S.

A SYSTEM FOR COLLECTING PRODUCT USED FOR RINSING THE PLANT IN PRE-BOTTLING AND OTHER PHASES, THAT, ONCE VERIFIED, CAN BE REDOSED IN LINE AND TOTALLY RECOVERABLE IN THE SAME PRODUCT.

Upon the commencement of a bottling process a certain volume of wine to be bottled is used to push through and rinse pumps, tubes, housings and fillers. Post rinsing this volume of wine is automatically stored in a holding tank.

It is then dosed directly back in line upstream of microfiltration. The dosing system guarantees high precision thanks to the controls managing the pressure of the dosing pumps. In order to guarantee the integrity of the wine, inert gas is used in the holding tank to form a cap.

![](_page_27_Picture_4.jpeg)

Washing spray ball Bottle unloading grid

#### R.W.S. (RECOVERY WINE SYSTEM)

![](_page_28_Picture_1.jpeg)

#### **FEATURES**

Dosing of retentate proportional to the production batch. Reduction of oxidative matter. Precision dosing to guarantee the integrity of the wine. Splitting incoming wine. Interface with C.I.P. and micro-filtration systems. Full automation of production and washing operations.

## POWDER MIXER

AUTOMATIC DISSOLVING SYSTEM THAT ALLOWS SOLUBILISATION OF RAW INGREDIENTS INCLUDING POWDER, GUARANTEEING QUALITY, OPTIMUM SOLUTION HOMOGENISATION AND SAFETY FOR THE OPERATORS.

The induction points of the liquid and powder are separated to prevent a reaction prior to the designated meeting point, which is at the centre of the impeller. Prompt dissolving is ensured thanks to the high speed generated which enables friction to be created between the liquid and powders.

The dissolver limits contact with air, thus reducing the presence of oxygen in the solution to be used. This system does not use the classic marine propeller agitator and combines the powder with the liquid.

![](_page_29_Picture_4.jpeg)

#### POWDER MIXER

![](_page_30_Picture_1.jpeg)

#### **FEATURES**

Better homogenisation of solutions. Speed and safety of work. Pumps sized for the specific application. Raw material dissolving capacity of 3,000 to 9,000 kgs/h.

![](_page_32_Picture_0.jpeg)

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![](_page_32_Picture_3.jpeg)

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![](_page_33_Picture_1.jpeg)