

CORPORATE DOSSIER 2025



INTRODUCTION

Biotechnology, Pharma & Veterinary

Bioprocess Technology is a company specializing in the design of pharmaceutical and biotechnological processes. The **Know-How developed over 25 years of experience in a highly demanding professional sector, such as the process industry, allows us to design, manufacture, and commission** equipment for any pharma-process plant.

* The Project on the right was  Funded by the
European Union
NextGenerationEU





INTRODUCTION

Strenghts

After so many years of experience in these sectors, we can highlight some strengths that we have acquired, and which we continue to work on, to fully satisfy the needs of each client.

01

Biotechnology, Pharma & Veterinary process expertise.

02

State-of-the-art equipment and installations.

03

Process Systems **designing and manufacturing.**

04

Suppliers of a wide range of biotechnological equipment, including fermenters and bioreactors.

05

Extensive expertise in the design and development of customized equipment and process control solutions, tailored to meet the specific needs of each client.

06

Self-development of PLC software and SCADA systems.

07

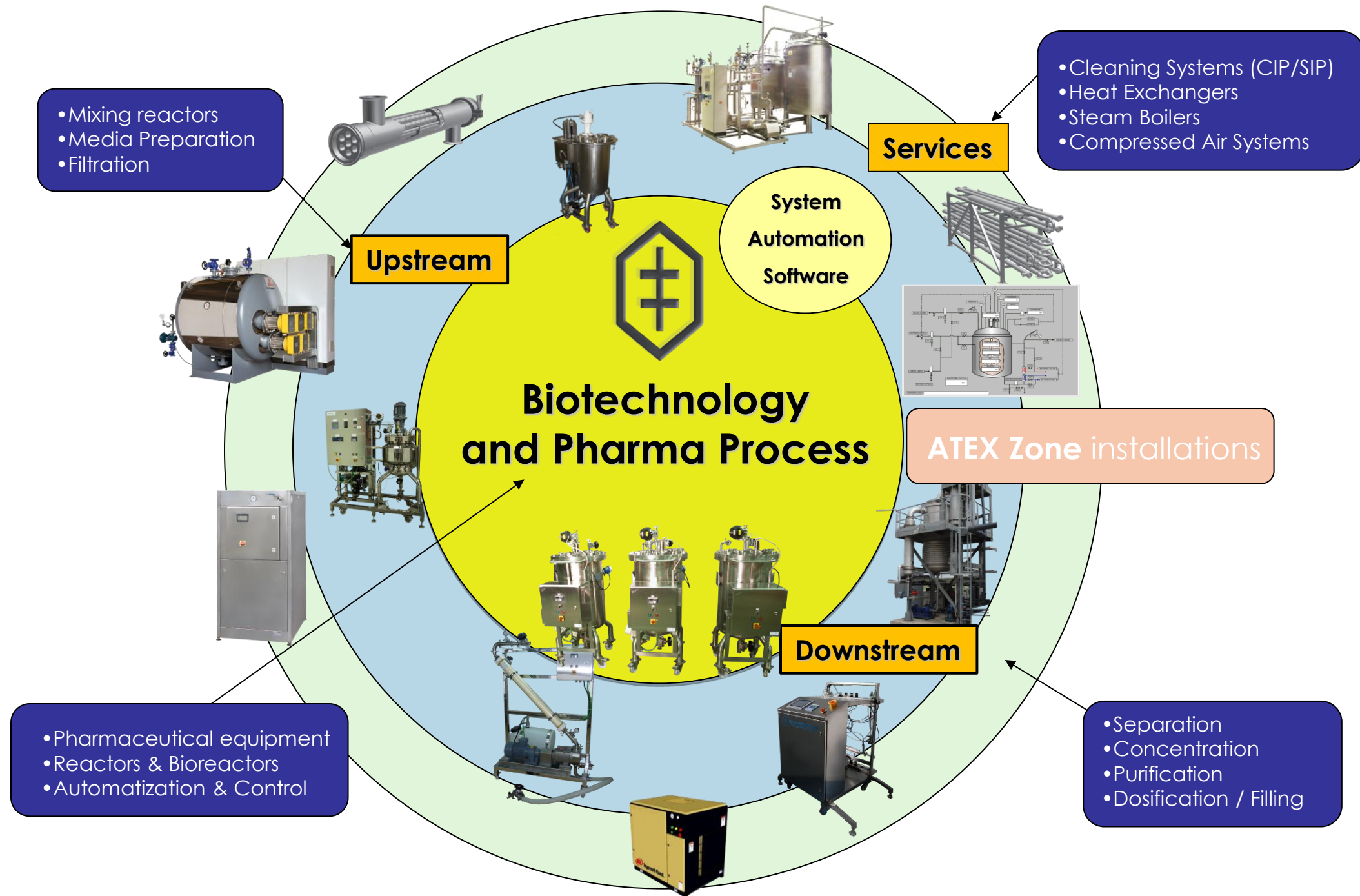
FAT, Commissioning, SAT, DQ, IQ, OQ and PQ of equipment.

08

FDA & EMA compliance.

09

Fully integrated installations – **Turnkey plants.**





INTRODUCTION

DIVISIONS





01

Aseptic Solutions for Pharma and Biotechnological Processes

- Pharmaceutical Equipment.
- Reactors for Pharmaceutical Process.
- Storing tanks.
- ATEX Zone Installations.
- Bioreactors / Fermenters.

02

Engineering and Process Automation Division

- Engineering / Re-engineering / Process design.
- Process automation.
- Development and Implementation of SCADA systems.

03

Industrial Process Equipment Division

- Pressure vessels.
- Equipment of customer design.
- Equipment of our design.
- Skids.
- Heat exchanger

04

BioTechnological Services Division

- Scaling up processes at industrial volumes.
- Microbial fermentation services.
- Metabolites production and purification.
- Strain characterization.



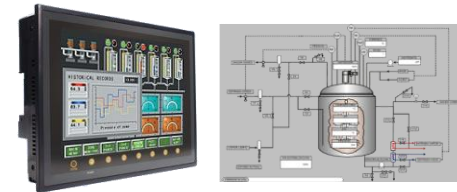
01

Aseptic Solutions for Pharma and Biotechnological Processes



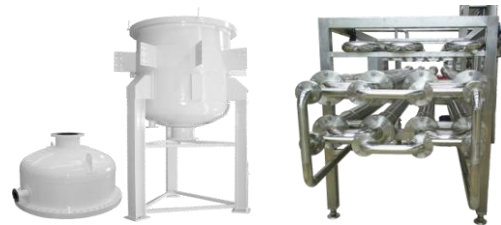
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Engineering and Process Automation Division



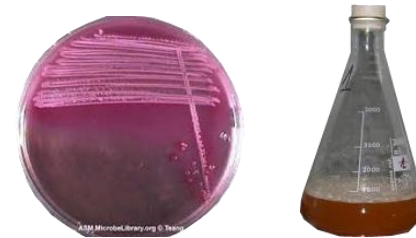
03

Industrial Process Equipment Division



04

BioTechnological Services Division





PRODUCTS





01

**Aseptic Solutions for Pharma
and Biotechnological
Processes**



03

**Engineering and Process
Automation Division**



02

**Industrial Process Equipment
Division**



04

**BioTechnological Services
Division**





BIOTECHNOLOGICAL PROCESS EQUIPMENT

Bioreactors and Fermenters **LAB, I+D** Scale (Capable of handling volumes up to 100 m³)

Bioprocess Technology was born from the biotech industry as a bioprocess expertise company, and nowadays, we have developed the capacity to design and manufacture our own equipment.

Developing projects for big R&D institutions as the **European Space Agency(ESA)** but with the total flexibility for adapting our budgets to small projects and small R&D institutions with limited resources.

Designing, manufacturing, installation and **validation** of state-of-the-art bioprocess equipment.

Our designs, fit all cases the 100% of **customers and process needs**, and always under strict **compliance with international regulations**.

Some of the most important features of our stainless-steel units are:

- Stainless steel construction AISI-316L/ AISI-304/ 304L on demand.
- Integration of bioreactors made of Borosilicate
- Manufacturing of **SKID-mounted equipment** (process modularity).
- Fixed or mobile facilities.
- Development of **control and automation** systems.
- Automated systems for simulation of process behavior.





BIOTECHNOLOGICAL PROCESS EQUIPMENT

Aseptic Solutions for Pharma and BioTechnological Processes

Sizing and finishing reactors are specific to each **pharmaceutical process** with special emphasis on the agitation system and the optimal D/H ratio vessel.

Our vessels have all their parts in contact with the product (vessel, valves, pipes ...) made of **stainless steel** AISI 316L.

All equipment has surface finishes product type contact **SHINE MIRROR** with roughness according to needs (Ra<0,4-0,8).

Our reactors are **sterilized in situ** by several methods selectable by the user and each vessel is certified to withstand both +3 to +6 barg positive pressure and vacuum (-1 barg).



A brief but not exhaustive list of equipment within this product section that Bioprocess Technology offers to its clients, including any reactors requested for pharmaceutical processes:

- **Dosing, Transfer, Mobile Reactors**
- **Concentration & Purification Reactors**
- **Formulation & Filling Reactors**
- **Purified water (PW)**
- **Water for injection (WFI)**



STORING TANKS

Aseptic Solutions for Pharma and BioTechnological Processes

Bioprocess Technology manufactures any kind of container for application in the pharmaceutical and biotechnological industries, such as **storage tanks or CIP tanks for cleaning the facilities**.

Our reactors are designed according to the standards of the **pharmaceutical industry**, in compliance with the requirements contained in the instructions of good practices in industrial production and laboratories (GMP / GLP) set by the **FDA** and **EMA**.

A brief but not exhaustive list of equipment within this product section that Bioprocess Technology offers to its clients:

- **Media Preparation**
- **Media Sterilization**
- **Cooling tanks**
- **Mixers**





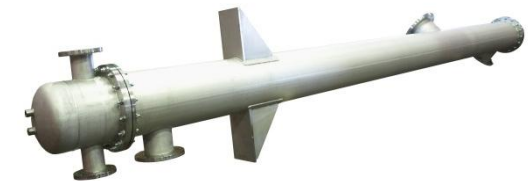
OTHER PHARMA EQUIPMENT

Aseptic Solutions for Pharma and BioTechnological Processes

Bioprocess Technology manufactures any kind of **pharma equipment** for application in the pharmaceutical and biotechnological industries. This equipment is manufactured following the most demanding national and international regulations, depending on customer needs.

A brief but not exhaustive, list of equipment within this products section that Bioprocess Technology offers to its clients:

- **Special Tanks & Vessels**
- **Condenser**
- **Vaporizer**
- **Vacuum station**
- **Filtration Systems**





ATEX ZONE INSTALLATIONS

Aseptic Solutions for Pharma and BioTechnological Processes

Our experience allows design and manufacture equipment for work at ATEX zones compliance regulations applied to these types of facilities. All equipment that are included in the installation are under Directive 94/9/EC (ATEX 95).

Developing projects for big and small companies with the **total flexibility for adapting** our budgets to small projects and small R&D institutions with limited resources.

Designing, manufacturing, installation and validation of state-of-the-art bioprocess equipment.





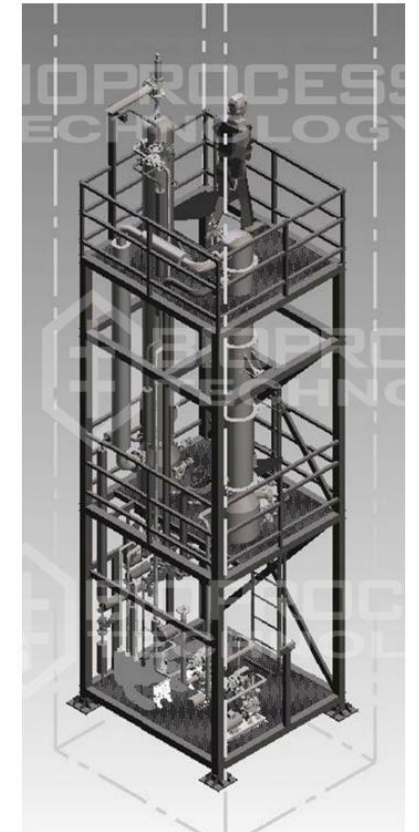
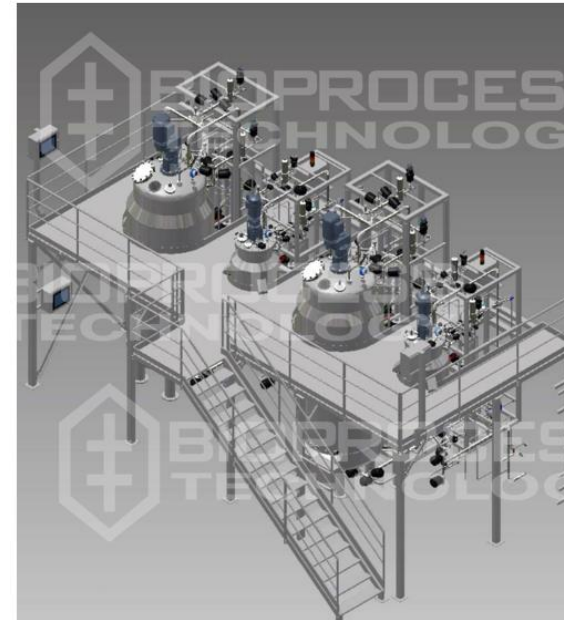
TURNKEY PLANTS

Aseptic Solutions for Pharma and BioTechnological Processes

The most complete proposal of Bioprocess Technology is the turnkey plant/process installation.

This proposal includes all stages associated with the aseptic process, including:

- Design, basic and detailed engineering of the process or plant.
- Manufacturing and integration of each component according to requirements and customer or process needs.
- Installation and commissioning of the process.
- Qualification, certification and validation if required.
- Maintenance Contract for pharmaceutical processes, plants or systems.





SOME OF OUR PROJECTS





Centre for Plant Biotechnology

📍 Madrid



Group for Biomaterials, Biomimicry and
Nanobiotechnology

📍 Madrid



Enzyme manufacturer for biomedical use

📍 Albacete



BioTechnological Process Equipment

Division - Aseptic Solutions



Biotechnological company specializing in Marine Microbiology

 León



Yeast production for food industry

 Ciudad Real

BioTechnological Process Equipment

Division - Aseptic Solutions



National Institute of Agricultural Health

📍 Venezuela



National Renewable Energy Centre

📍 Navarra



BioTechnological Process Equipment

Division - Aseptic Solutions



A global integrated healthcare leader

 Barcelona




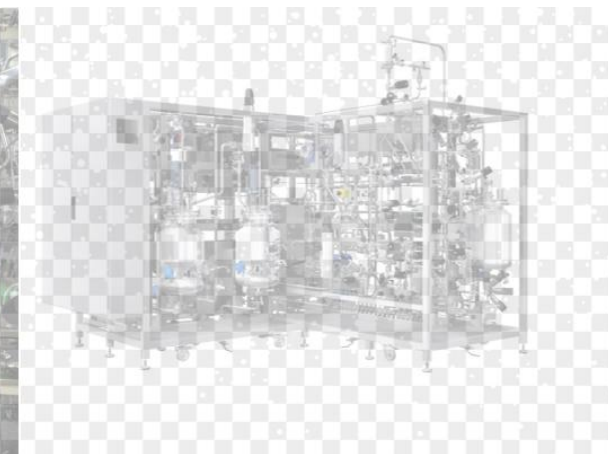
Institute of Natural Resources

 León



European Space Agency (ESA)

 Belgium



BioTechnological Process Equipment

Division - Aseptic Solutions

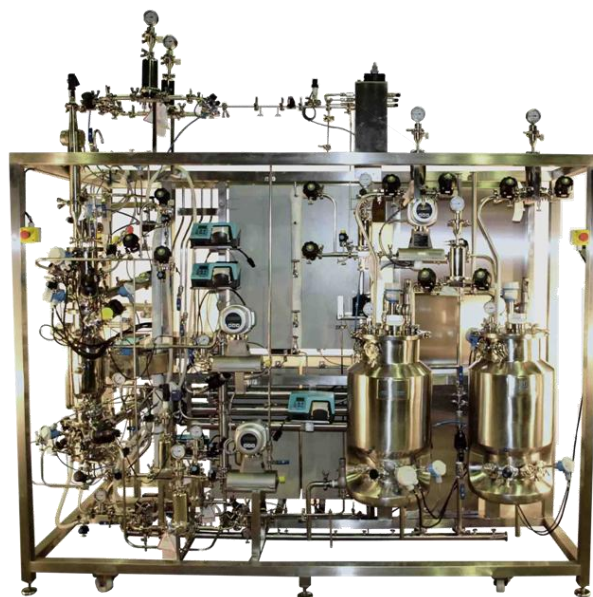


Fermenter for the alimentary industry

 Finland

BioTechnological Process Equipment

Division – Aseptic Solutions for Pharma and Biotech Processes



European Space Agency (ESA)

 Belgium

BioTechnological Process Equipment

Division - Aseptic Solutions



Biotechnological company specialized
in Microbiology

 Spain



*"Worldwide leader in the production of **veterinary vaccines** and one
of the foremost biotechnology companies in the European Union"*

 Spain



Veterinary laboratory

 Spain

BioTechnological Process Equipment

Division - Aseptic Solutions



01

Aseptic Solutions for Pharma
and Biotechnological
Processes



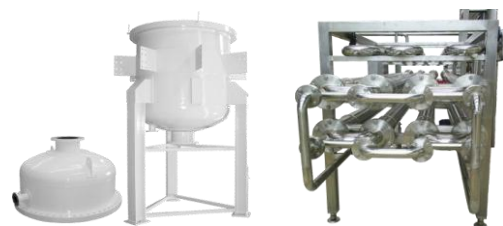
03

Engineering and Process
Automation Division



02

Industrial Process Equipment
Division



04

BioTechnological Services
Division





Another product offering of Bioprocess Technology includes the manufacture of large numbers of equipment or sets of them under the heading of industrial process equipment, whose dimensions fit within our production capabilities. A brief but not exhaustive list of equipment under this heading is:

- **Pasteurizer**
- **Concentrators**
- **Vacuum Systems**
- **Esterilizers**
- **Membrane Tank For Wastewater Treatment**

As with the other kind of equipment, our company offers the possibility of manufacturing them in a wide range of possible materials within the applicable rules of design, and ensures the traceability of our manufacturing through manufacturing dossiers that are delivered with every one of the teams we build.



Equipment of the customer or our design

Division - Industrial Process Equipment



SKID with **a compact and accessible structure providing an easily connected modular system** (sometimes even a mobile structure) along with the necessary **valves and instrumentation**, as well as a **PLC system controlling the operation**.

Some of the typical applications for these units may be:

- **Production and distribution systems (purified water, water for injection)**
- **In situ cleaning and/or sterilization systems (CIP / SIP)**
- **Sanitization**
- **Filtration systems**

The manufacture of the product pipelines involves the use of **orbital welding machines** with heads on each tube.

These pipes are manufactured with **total guarantee** following the **ASME BPE standards**. Our manufacturing process ensures **the complete traceability of all the components and accessories** incorporated into the finished project and ensures optimal execution of welding, verifiable employing X-rays and/or boroscopy.



SKIDS

Division - Industrial Process Equipment

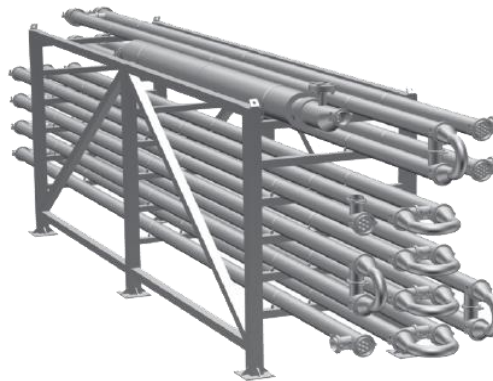


We have advanced technology for manufacturing **Corrugated Tubes**, which show outstanding properties in terms of heat transmission. Most of our **Heat Exchangers** incorporate these tubes, showing the following **main advantages**:

- **Increase in turbulence.**
- **Reduction of the critical Reynolds number.**
- **Rupture of laminar flow.**

Bioprocess Technology incorporates different types of corrugation depending on the application and needs of each project.

Our company has a wide range of models that we customize to meet the needs of each customer.



DOUBLE-TUBE



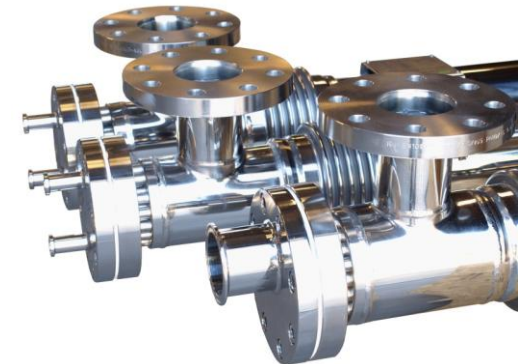
TRIPLE-TUBE



MULTITUBE EXCHANGERS



Double Tubular Plate multi-tube exchanger specially designed and suitable for **pharmaceutical processes**.



Heat exchangers

Division - Industrial Process Equipment



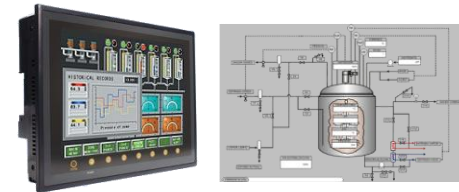
01

Aseptic Solutions for Pharma
and Biotechnological
Processes



03

Engineering and Process
Automation Division



02

Industrial Process Equipment
Division



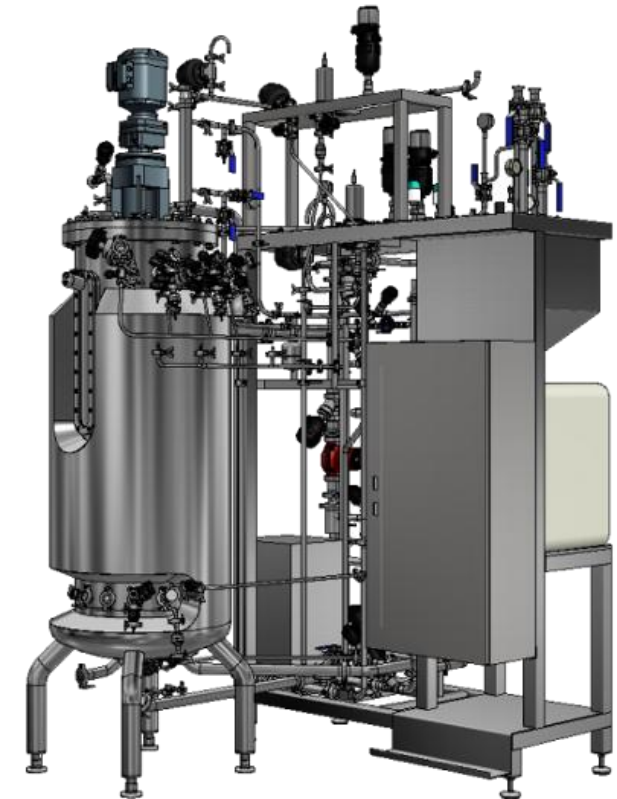
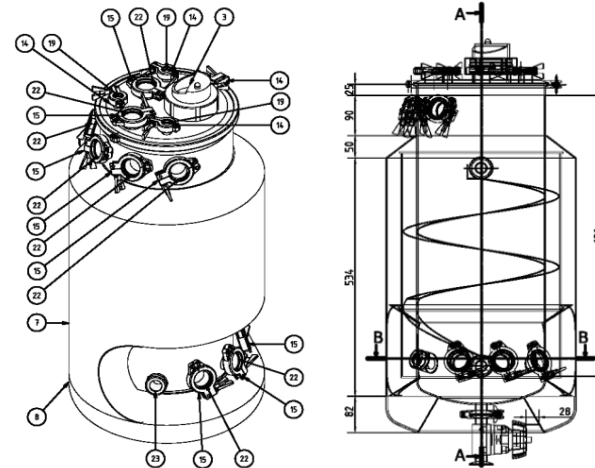
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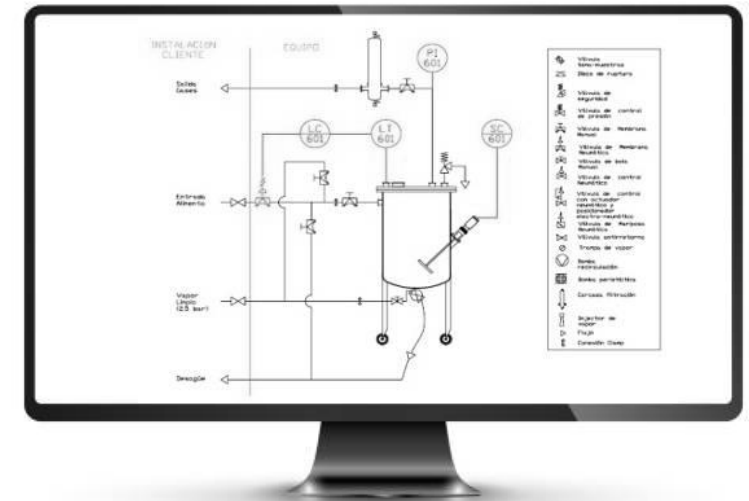
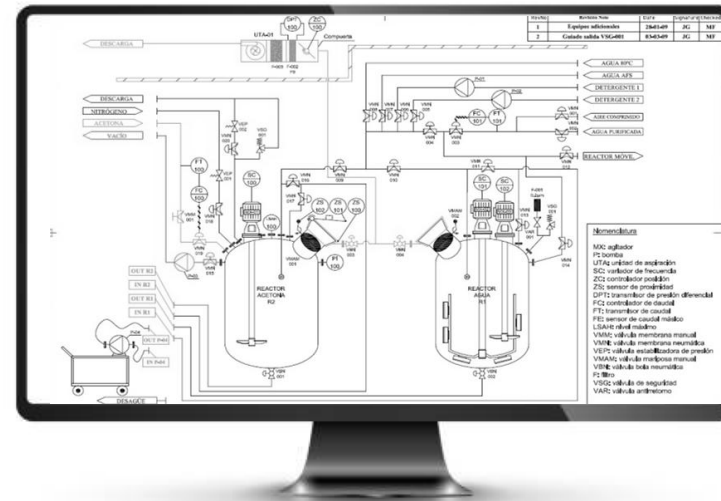
BioTechnological Services
Division





In these 25 years of life, we have developed skills in the knowledge of pharmaceutical and industrial processes in general. Bioprocess Technology is and will remain a company that is always **one step ahead of the processes involved in the pharmaceutical industry, with comprehensive development of the Spanish market with active projects** at European and wider international.





To meet **the needs of each client** we are able to integrate and develop the automation of any industrial process.

We work with **leading brands**, which had fully demonstrated the highest confidence that are not only efficient but at the same time a long life for the processes we design manufacture and install.



SCADA system

The development of **SCADA** systems is every day more and more important in order to obtain a **full control of the process**, even to achieve greater repeatability results and ensure proper behavior.

As software developers for **Supervisory Control and Data Acquisition systems** we do recommend our customers the acquisition of such technology for doing **more reliable processes and obtaining a better handle finished product** at the same time.

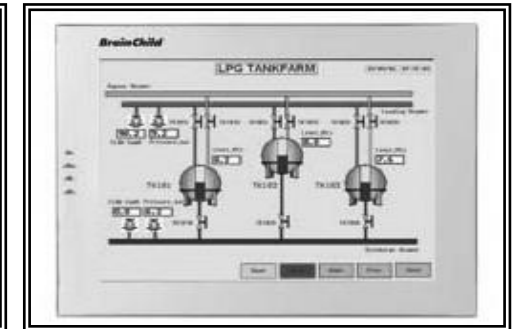
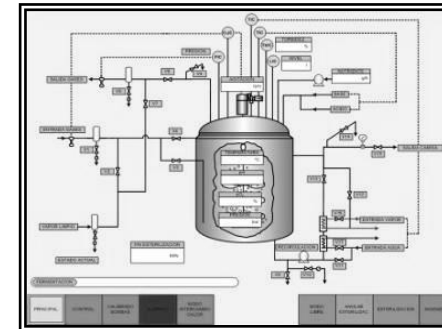
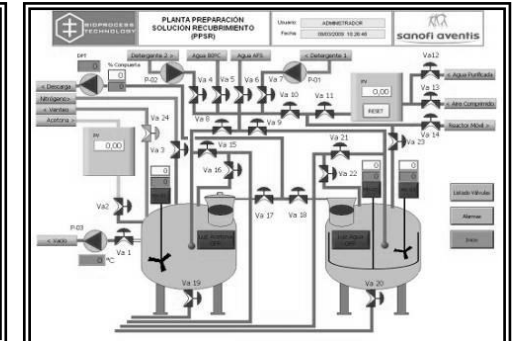
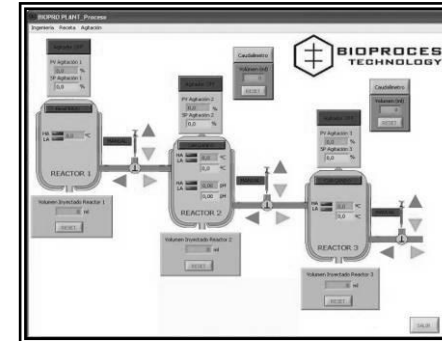
This type of system is as flexible as the user imagination, with a capacity of supervision through networks like the Internet and control of many processes from **a unique control room**.

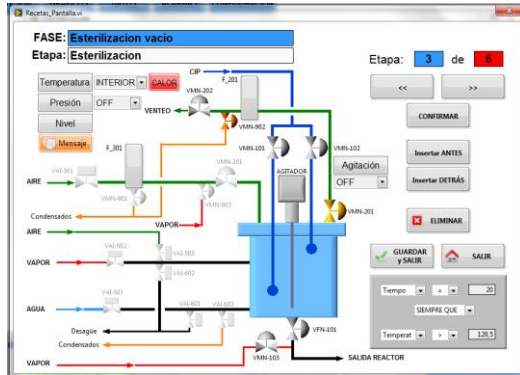
- We can develop the control software in several programming systems LabVIEW (from National Instruments), SIEMENS...
- Also, if required, CFR21 part 11 compliance is also offered.

SIEMENS
Ingenuity for life

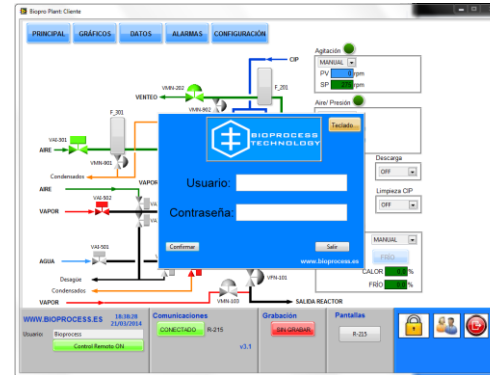


**NATIONAL INSTRUMENTS™
LabVIEW™**

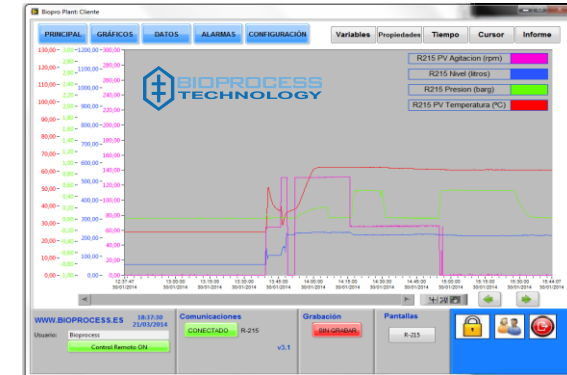




Recipes and Automatic Sequential Processes



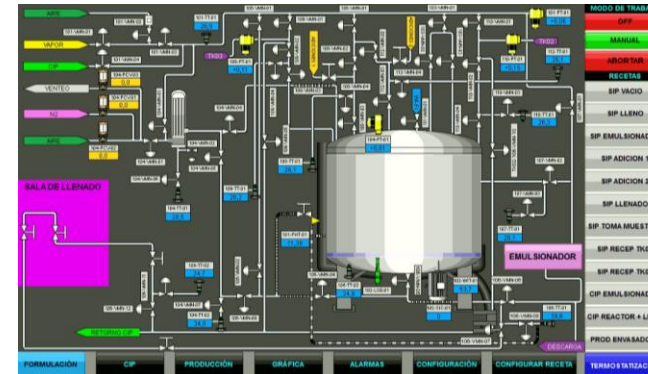
Access control with permissions



Graphical display of process variables values in Real Time



Possibility of multiple equipment in the same control according to customer needs

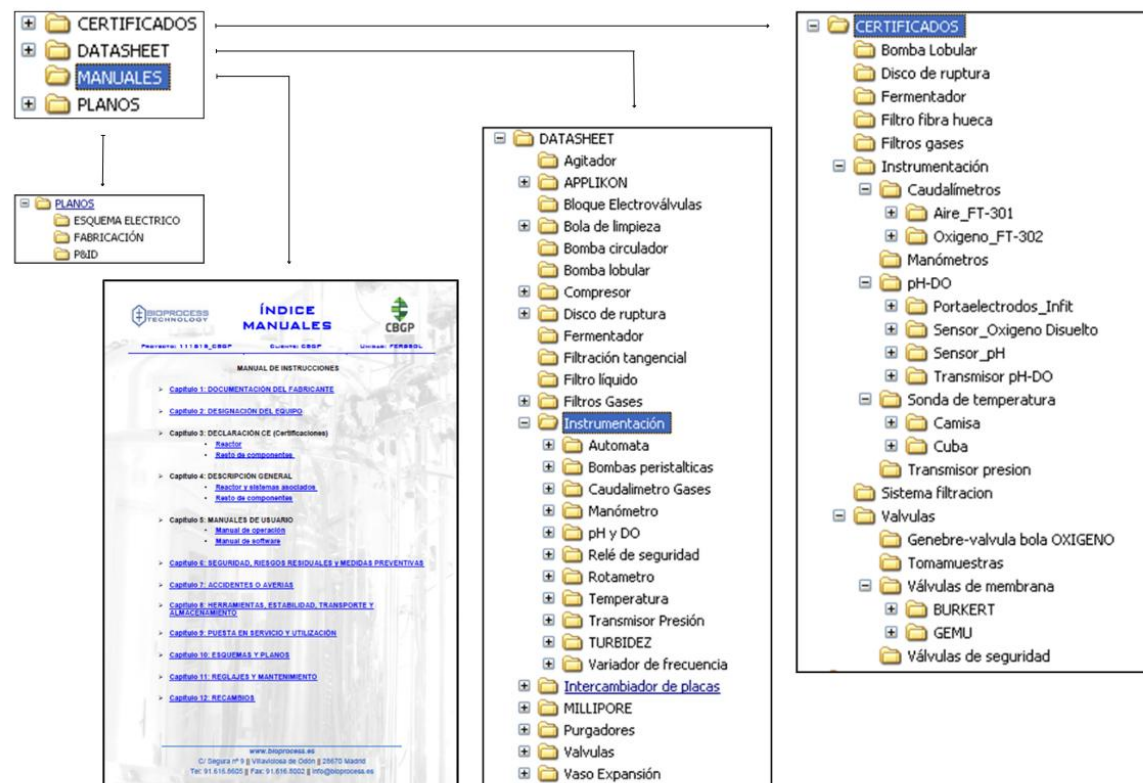




Documents and certificates

The documentation is one of the most important procedures when **planning, designing, constructing, mounting, and setting up an installation.**

Our documentations conform to the current laws, bodies of rules and regulations, directives (e.g., pressure equipment directive, machinery directive), **the requirements of the FDA and cGMP as well as to your requests.**



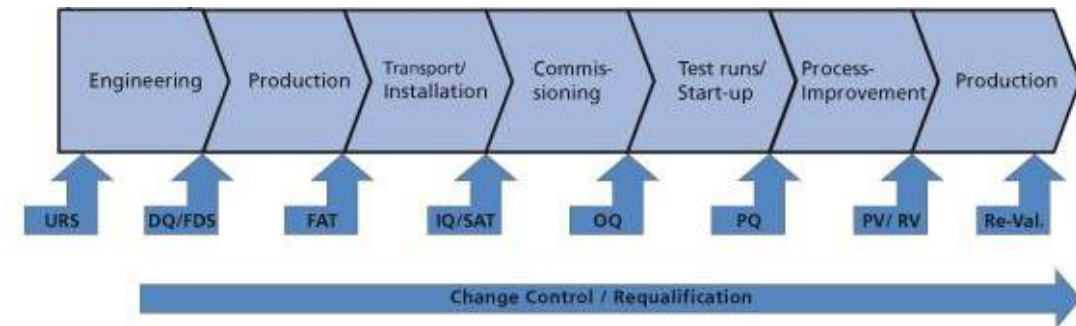


Equipment qualification and process validation

Professional assembly and initial operation.

Our assemblers install your installation professionally and clear possible faults directly on site.

We follow the current **GMP recommendations** and guidelines and consider the current requirements according to the **GAMP and FDA for our qualification** work.



We support our customers in all steps of the successful qualification of our installations:

- Development of **the qualification test plans for all the steps of the qualification/validation**
- Carrying out / supporting **the design qualification (DQ)**
- Carrying out / supporting **factory acceptance test (FAT)**
- Carrying out / supporting **site acceptance test (SAT)**
- Carrying out / supporting **the installation qualification (IQ)**
- Carrying out / supporting **the operational qualification (OQ)**
- Carrying out / supporting **the performance qualification (PQ)**

REFERENCES

URS: User Requirement Specifications

FDS: Functional Design Specifications



ACCEPTANCE TESTS & QUALIFICATIONS

Bioprocess Technology creates and executes protocols for different acceptance tests and qualifications, according to Customer requirements:

- If Customer only requires machinery delivery, **FAT** (Factory Acceptance Tests) protocols and tests are done.
- If Customer requires machinery delivery and commissioning in site, **FAT** and **SAT** (Site Acceptance Tests) protocols and tests are done.
- If Customer additionally requires in site qualifications, **DQ** (Design Qualifications), **IQ** (Installation Qualification), **OQ** (Operation Qualification), **SQ** (Software Qualification) protocols and qualifications tests are done in site.

Several protocols and test are the same for **FAT**, **SAT**, **IQ** and **OQ**, according to Customer requirements.

Test
Checking the presence of every piece of equipment included in detail design specifications
Checking that every piece of equipment is fitted according to detail design specifications.
Checking reference numbers and Recording serial numbers of every piece of equipment
As-built design documentation review: <ul style="list-style-type: none"> • P&ID • Constructive drawings • Design calculations • Functional Specifications • Hardware Design Specifications • Software Design Specifications
Manuals review: <ul style="list-style-type: none"> • User manuals • Technical & Maintenance manuals • Software manuals
Certificates reviews: <ul style="list-style-type: none"> • Material certificates • Calibration certificates • EC declaration of conformity • Risk assessment
Checking in site location and installation
Checking connections of required services
Checking require services capacities and regulation/control systems

Test
Functional tests for every piping circuits: <ul style="list-style-type: none"> • Leaking tests • Drain tests
Checking actuation of every piece of equipment in Manual mode: <ul style="list-style-type: none"> • Automatic & manual valves • Pumps • Agitators...
Functional tests for control loops: <ul style="list-style-type: none"> • Pressure • Temperature • pH • Level...
Functional tests for software: <ul style="list-style-type: none"> • PLC program • Touch Panel software • Server PC application software • Client PC application software
Pressure leak test for pressure vessels
Automatic Sterilization test: <ul style="list-style-type: none"> • Full vessel • Empty vessel
Functional tests for Recipes and other Automatic Sequential Operations.



01

Aseptic Solutions for Pharma
and Biotechnological
Processes



03

Engineering and Process
Automation Division



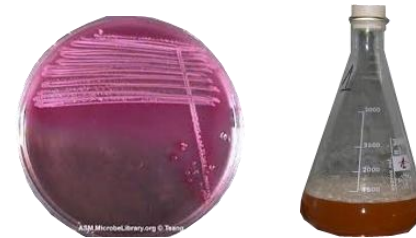
02

Industrial Process Equipment
Division



04

BioTechnological Services
Division





BioTechnological Services Division

Fermenter Scale





BioTechnological Services Division

Lab Scale





ABOUT BIOPROCESS TECHNOLOGY S.L.



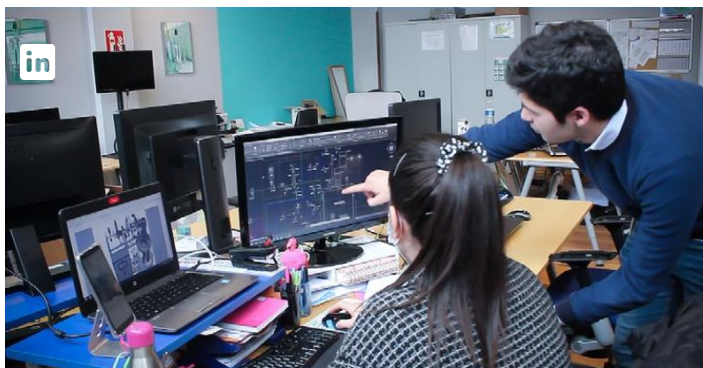


While Bioprocess Technology was born as a **bio-safety expert engineering company**, now we have a division **specializing in pharmaceutical, veterinary, and agro-food processes**, serving our clients in **consulting, engineering, reengineering, and designing** the entire process.

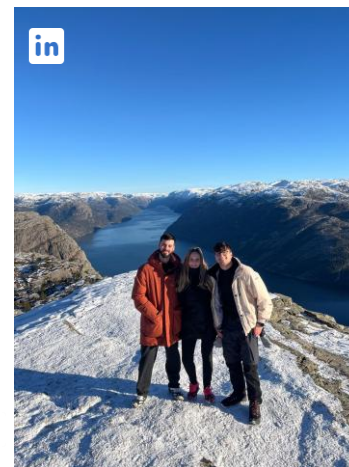




Experienced and customer-oriented engineers.



*World industrial design day



*After a successful start-up, the BPT team in the Norwegian fjords





We believe that **quality is the basis** for the success of our projects and that of our customers. We are dedicated to delivering biotechnology solutions that meet standards and exceed expectations for performance and reliability in every aspect.

With **more than 20 years of experience**, the engineering and development department has the necessary know-how for the development of engineering and re-engineering of all stages related to the biotechnological process.

We work from design to manufacturing, installing, and commissioning industrial process plants or R+D laboratories.





THANK YOU

We hope to be your partner soon on upcoming projects.



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[@bioprosesstechnology](https://www.linkedin.com/company/bioprocess-technology)