



B.L. Mediterranean S.r.l.
B.L. BAG LINE

COMPANY PROFILE

2012



B.L. Mediterraneo S.r.l.

B A G L I N E D Ì A



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B.L. Bag Line has always been a leader in the Form, Fill and Seal sector.

Since 1980 the Company manufactures automatic packaging machines that bag all types of products with innovative solutions. As a result - during the last 30 years - the Company has constantly grown.

Always first in its field, **B.L. Bag Line** produced the first Italian "Form, Fill and Seal" and the first scale that could really handle more than 2300 bags per hour.

B.L. Bag Line is the ideal partner for solving all your packaging problems.

B.L. Bag Line offers complete technical solutions for the packaging of solid materials, liquids and powders into industrial bags by incorporating BL manufactured FFS baggers, which use various types of roll stock film. BL FFS baggers perform two seals when using tubular roll stock film and perform either 3 or 4 seals when using flat roll stock film. **B.L. Bag Line** FFS baggers use roll stock made of polyethylene, polypropylene, flat film and laminated:

- High performance net weight scales: gravity, belt, auger or vibratory pan, fed;
- Bagging machines FFS up to 2300 bags/hour;
- Valve and open mouth bagging machine;
- Net and gross weight Big Bag filling station;
- High and low level palletizer, ROBOT and pick & place;
- Stretch wrapper;
- Stretch and Shrink Hooders;
- Accessories and conditioning conveyors;

Bagged products:

- Plastic resin: PE, PP, HDPE, LDPE, LLDPE, EVA, ABS, HIPS, PC, PBT, PS, PET, PA, PVC, PMMA, master-batch, compound, etc.
- Chemical fertilizer: UREA, NPK, ammonium nitrate (NH₄NO₃), potassium nitrate (KNO₃), potassium sulphate (K₂SO₄), potassium phosphate (K₃PO₄), etc.
- Organic fertilizer
- Chemical product: epoxy resin, caprolactame (C₆H₁₁NO), caustic soda(NaOH), oxalic acid (COOH)₂, phthalic anhydride (C₈H₄O₃), ammonium chloride (NH₄Cl), etc.
- Wooden pellet
- Industrial and alimentary salt
- Building material: premixed, sand, gravel, quartz granulate, clay for ceramic, putty lime, mortar, expanded clay, marble granules, bitumen, red clay, etc.
- Alimentary: rice, bean, etc.
- Animal feed
- Not carbonated liquids; water, milk, cream, fruit juice, scent essence



THE HISTORY

In the early 1980's, BL introduced on the market its first FFS, Form, Fill & Seal machines, the **APTA** Series. Due to the versatility of its bagging equipment, **B.L. Bag Line** soon became the number one manufacturer of FFS machinery in Italy.

A new technological improvement was realized in 1989 with the introduction of the **COMPACTA** Series, which meant a total redesign of traditional packaging concepts; the bag was created from a single tubular roll stock film. Consequently, the creation of a new weighing system suitable to keep up to these high performances was mandatory. In 1996, **B.L. Bag Line** developed a revolutionary net weigh scale called "CONCEPT" using servo technology.

The **CONCEPT** net weigh scale is able to reach accuracy of ± 15 to 20 grams on 25 to 50 kg bags at production rates over 2300 bags/hour.

With the aim to introduce a high quality product at competitive prices and to be present in every market of the packaging industry, **B.L. Bag Line** formed its palletizer division in 1997. Due to a staff of technicians with a well-proven experience in the field, **B.L. Bag Line** immediately acquired the confidence of several companies requiring palletizing equipment.

Since then, **B.L. Bag Line** has continued both to increase the performance of its machines and to reduce customer-operating costs. In 1998, the time was right to update the famous **COMPACTA** series; the new models were called **COMPACTA 700**, 1000, 1300 and 1600, four solutions to satisfy every production requirement. Power, reliability, versatility and above all simplicity are the characteristics that distinguish the **COMPACTA** models.

In 2002 BL surpassed itself with the new **COMPACTA 2000** model. Building upon its traditional strong points, this machine is able to reach extraordinary production speeds up to **2300** bags/hour, 25 kg \pm 15 grams with one reject bag out of 5000 bags. It can undoubtedly be considered one of the most powerful FFS bagging machine available worldwide. The reduction of down time and optimization of every function and movement has enabled the **COMPACTA** FFS to achieve performances that were up to now considered unattainable.



January 2006, B.L. Mediterraneo s.r.l. belonging to CAM packaging organization (<http://www.campackaging.it/>) takes over all the activities of B.L. Macchine Automatiche S.p.A. acquiring trade mark, know how, patents and employees. The new ownership focused its market activities on foreign Countries strong of 26 years experience of B.L. Macchine Automatiche S.p.A.

Few months after the acquisition, a new entry level FFS bagging machine, the **COMPACTA EASY**, has been introduced into the market getting an immediate and positive feedback: same advantages as the previous **COMPACTA** models, but with a very attractive price. **COMPACTA EASY** can run from 200 up to 1300 bags/hour at 25 kg ± 15 grams.

The enormous success of this machine, merged with the company policy, introduced a new manufacturing system allowing producing batch of 10 machines per time.

As a matter of fact BL ensures prompt response to Customers requests and allowing also OEM distribution to system integrators, palletizer manufacturer or end-users capable to finalize and personalize the machine by themselves.



Nowadays the two models **COMPACTA** and **COMPACTA EASY** represent the BL full range of tubular FFS guaranteeing from 200 up to 2300 bags/hour with various products.

In addition to being a leading manufacturer, **B.L. Bag Line** is now dedicating its efforts to the development of engineering activities designed to meet the requirements of every customer, end-user, and the most respected engineering companies. In fact, **B.L. Bag Line** is involved in the study, design, realization and selling of turnkey installations and supervision systems for complete packaging lines, suitable to meet the requirements of a wide number of end-users: chemical, petrochemical, salt, fertilizer (both chemical and organic), building, food and animal feed industries, acting directly or being the primary partner of the most respected engineering companies.



GENERAL DATA

| Company Details | |
|-----------------------------|--|
| Company Name | B.L. Mediterraneo |
| Second Name | BL Bag Line |
| Legal Form | SRL (IT) – LLC (International) |
| Company Type | Private |
| Establishment Year | 2005 |
| Address (registered office) | Galleria Cavour, 4 |
| Postal Code | 40124 |
| City | Bologna |
| Province | Bologna |
| Country | Italy |
| Telephone Number | +39 051 6606044 |
| Fax Number | +39 051 6605363 |
| e-mail Address | info@bl-bagline.it |
| Web Site | www.bl-bagline.it |

| Fiscal Data | |
|----------------------------------|-----------------|
| Fiscal Code | 02598631204 |
| VAT Number | 02598631204 |
| EEC VAT Number | IT02598631204 |
| Member of Chamber of Commerce of | Bologna (Italy) |
| Date of Membership | 11/09/2005 |
| Membership Subscription Number | 02598631204 |

| Production Plant and Headquarter | |
|---|--|
| Address | Via Ronchi Inferiore 30/b |
| Postal Code | 40061 |
| City | Minerbio |
| Province | Bologna |
| Country | Italy |
| Telephone Number | +39 051 6606044 |
| Fax Number | +39 051 6605363 |
| e-mail Address | info@bl-bagline.it |
| Web Site | www.bl-bagline.it |
| Square meter dimension | 2300 |



| Production Plant | |
|------------------------|--|
| Address | Via Galileo Galilei, 9 |
| Postal Code | 29010 |
| City | Alseno |
| Province | Piacenza |
| Country | Italy |
| Telephone Number | +39 0523 945728 |
| Fax Number | +39 0523 945738 |
| e-mail Address | info@bl-bagline.it |
| Web Site | www.bl-bagline.it |
| Square meter dimension | 1900 |



| Production Plant | |
|------------------------|--|
| Address | Via Don Milani, 21 |
| Postal Code | 43012 |
| City | Fontanellato fraz. Sanguinaro |
| Province | Parma |
| Country | Italy |
| Telephone Number | +39 0521 825210 |
| Fax Number | +39 0521 945438 |
| e-mail Address | info@bl-bagline.it |
| Web Site | www.bl-bagline.it |
| Square meter dimension | 6000 |



FINANCIAL DATA

| Company Capital | |
|----------------------------|-----------|
| Authorized Company Capital | 100.000 € |
| Paid in Company Capital | 100.000 € |

| Ownership Structure | |
|---------------------|--|
| Owner | SOFIR – Società fiduciaria e di revision srl |
| Percentage | 10 % |

| Ownership Structure | |
|---------------------|-----------------------------------|
| Owner | LUYKX Packaging International srl |
| Percentage | 90 % |

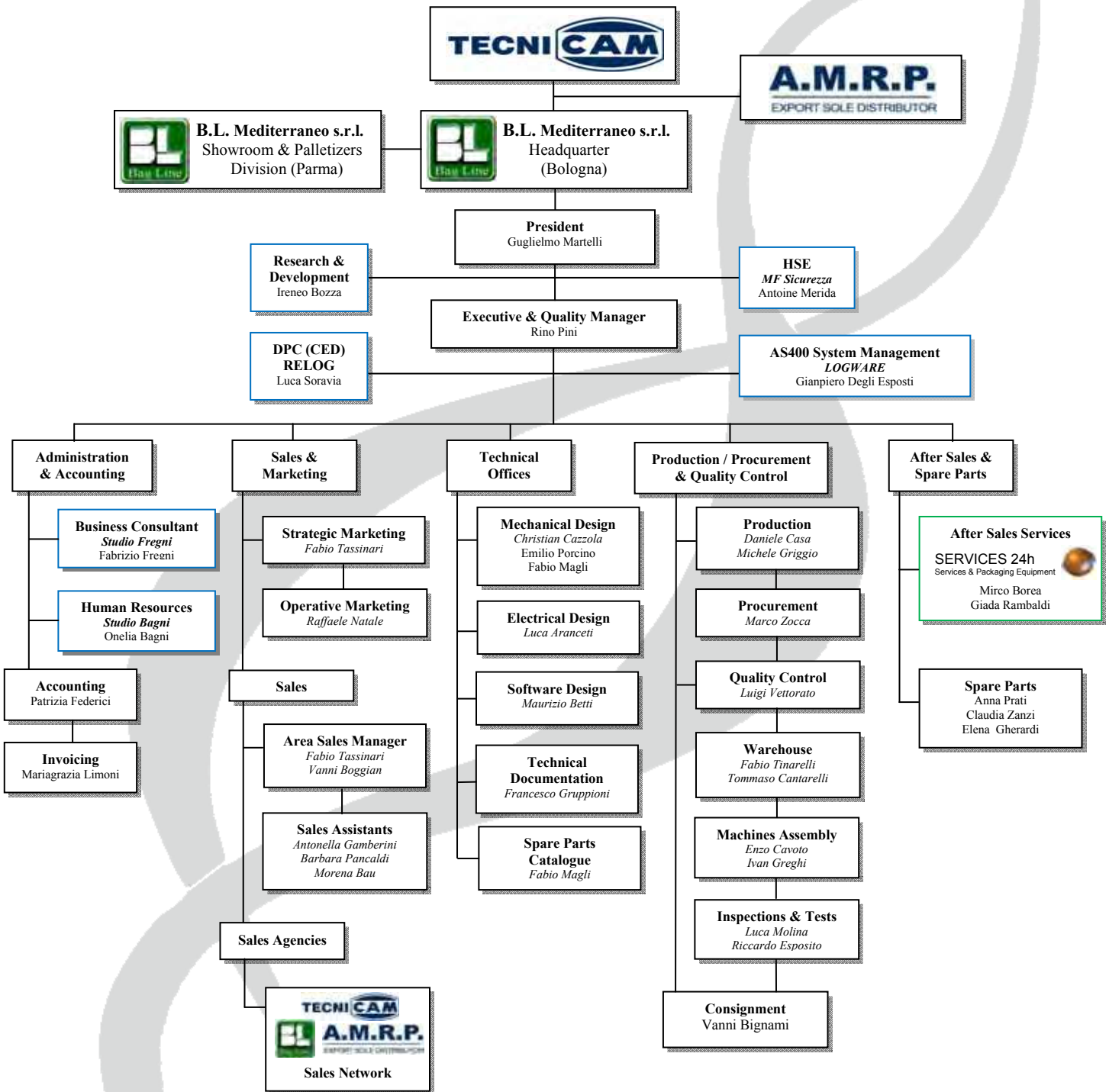
HUMAN RESOURCES

| Company Structure | Employees | Co-participated subsidiaries |
|--|-----------|------------------------------|
| Sales | 6 | 5 |
| Engineering | 7 | 6 |
| Procurement | 2 | 2 |
| Operational (management of vendors, fabrication, inspection) | 7 | 6 |
| Administrative | 2 | 4 |
| Technicians | 4 | 10 |
| Quality Control and Guarantee | 4 | 2 |
| Total Employee | 32 | 35 |

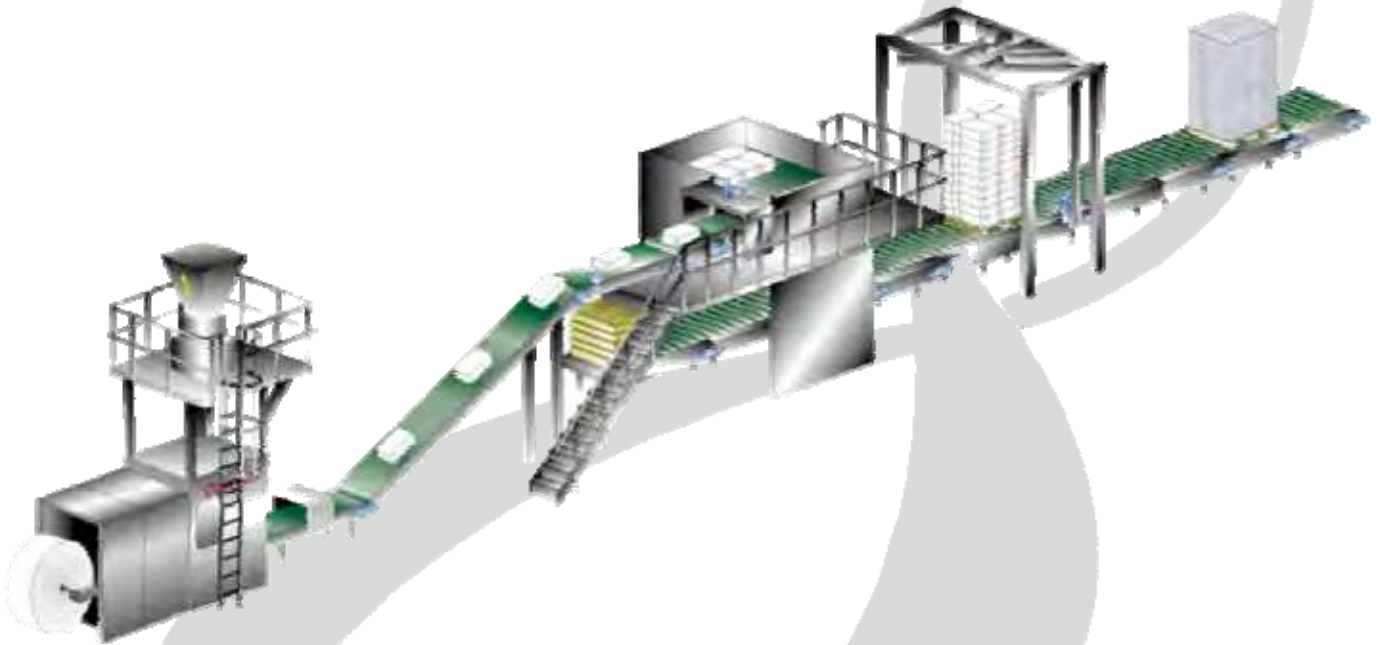




ORGANIZATION CHART



PRODUCTS



- WEIGHING SCALES
- BAGGING SYSTEMS
- Bags and Pallets conditioning conveyors
- Palletizing system
- Wrapping machines

WEIGHING SCALES



➤ **High Speed Gravity Scale CONCEPT**

The reaction speed of brush-less motor and the capacity of CONCEPT symmetric feeder are the greatest innovation after electronic weighing. The feeder opening allows the flow of more than 120 lt of product per second, and thanks to the catch-gate speed the feeder can close completely in 0.1 sec. These above performances and its dedicated electronics allow feed 25 Kg product in 0.9 sec. with an accuracy of +/- 15 grams.

CONCEPT electronics can recognize product behaviour and adapt itself promptly and continuously. Also due to this characteristic, no mechanical adjustments are necessary at product changes.

The particular shape of B.L. basket, which is rigid, light and completely in stainless steel, allows the immediate discharging of the weighed product and a perfect weight transmission.



➤ **Gravity Scale BLG**



BLG electronic scale with pneumatic catch gate, for granular products: up to 1200 weighments/hour, very high accuracy.



➤ **Belt Scale BLN**

BLN electronic belt scale, for fine and humid products: up to 1000 weighments/hour, very high accuracy.



➤ **Auger Scale BLS**



BLS electronic double screw scale for powdery product, up to 1000 weighments/hour.



➤ **Vibratory Pan Scale BLCV**

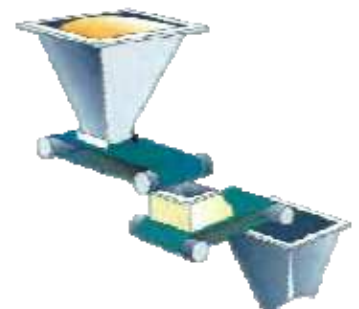
BLCV electronic vibratory pan scale for flakes product, up to 1000 weighments/hour.



➤ **Belt on Belt Scale BLNN**



BLNN electronic belt on belt scale, for fine, humid and low flowing products: up to 800 weighments/hour, very high accuracy.



BAGGING SYSTEMS



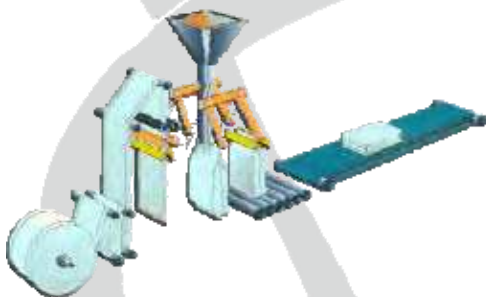
➤ **FFS COMPACTA EASY**

The **COMPACTA EASY** bagging machine is the tubular **FFS** machine that represents the entry-level model of the **COMPACTA** series. Up to 1400 Bags/hour.

It has been conceived to be basic, cost effective without giving up quality and reliability, with easy maintenance typical of the bag pendulum transport. It can be accessorised with several feeding and weighing systems, in order to be able to bag many different materials, such as: sand, gravel, salt, fertilisers animal feeds, seeds, granulated plastic, wood pellets, etc.

Each product is handled with all necessary care to grant the reliability of a constant output.

Large varieties of accessories complete the machine making it suitable to the product specifications and the client's needs.



➤ **FFS COMPACTA**

The **COMPACTA** bagging machine is the tubular FFS machine that represents the high performance model of the **COMPACTA** series. Up to 2400 Bags/hour.

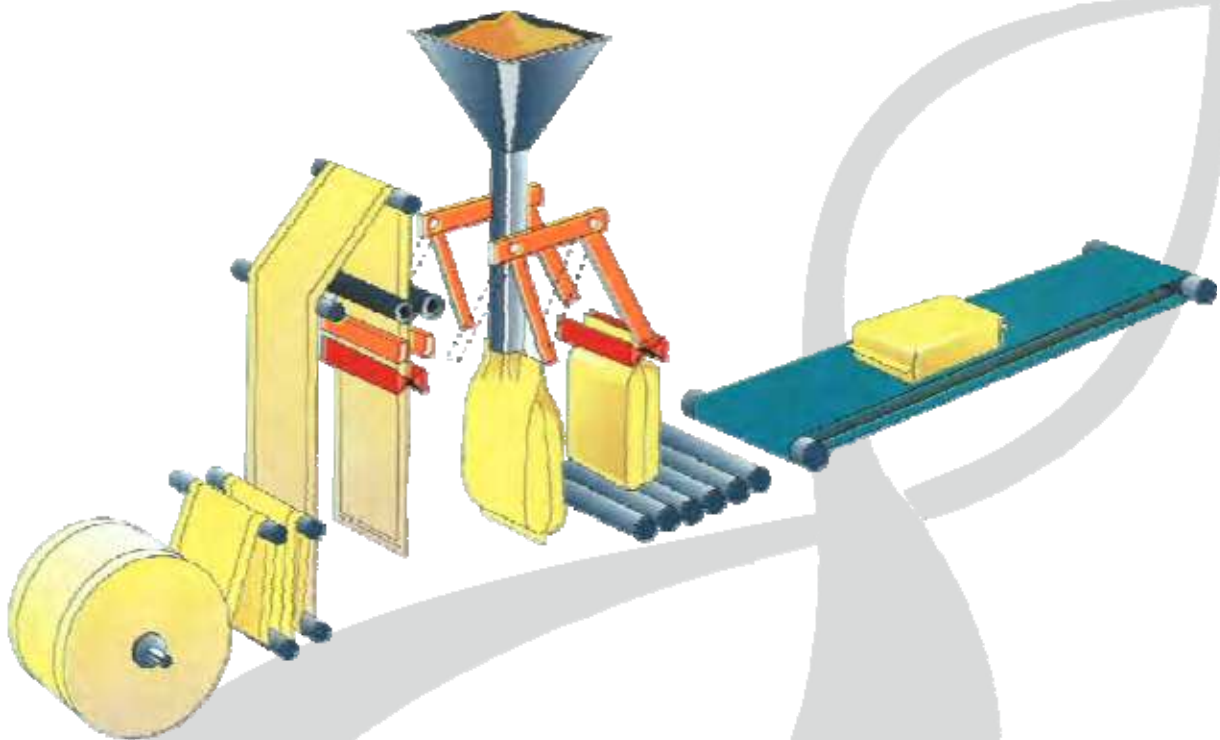


THE BAGS



The tubular bag is made by cost effective, heavy-duty and highly protective plastic film, the best ratio quality/price for the industrial packaging, usable for various products type; available in reels for an high production autonomy. Bag shape can be pillow or gusseted type for better and squared shape to allow a perfect palletization. Once formed, the bag is filled and impulse thermo-sealed.





MACHINE CYCLE

The **forming**, the **filling** and the **sealing** of the bag are performed in sequence in three different stations operating simultaneously.

The bag forming: the length of the bag is pre-settable, through the control panel and it can be stored. In alternative, a photocell can be used to read the marks on the film, which define its length, and centres any printing at the same time.

The filling station is equipped with a feeding mouth, which perfectly seal to the bag opening in order to avoid product spills.

The bag sealing station with impulse sealing can be accessorised with dust cleaning or air vacuum systems .

The bag **TRANSFERRING** is carried out by two pairs of pendulum arms, typical of the **BL** products, which support and accompany the bag, with their grippers, without ever leave it during each phases. With a continuous and fluid motion. It ensure low strain/vibrations, high duration and reliably.

THE OPTIONAL

The proposed optional for the machine are numerous, starting from the hydraulic positioning of the film reel, to facilitate its changing operations, to the film gusseting unit, to "gusset" the film in line on the machine, to the air vacuum system to vent air from the bag, to the cleaning system to remove dust from the sealing area.



➤ **FFS APTA Series**



In 1980, B.L. introduced their first ever automatic form, fill and seal machine with bag formation coming from two flat reels.

By using polyethylene material wound on two rolls rather than conventional open mouth or valve bags, B.L. achieved four important objectives:

- Optimal use of shipping and storage costs (roll stock instead of preformed bags)
- Reduction in packaging material costs by as much as 50% in some cases
- Reduction in labour requirements. Only one operator is needed to control multiple machines
- Rationalization and simplification of the packaging process

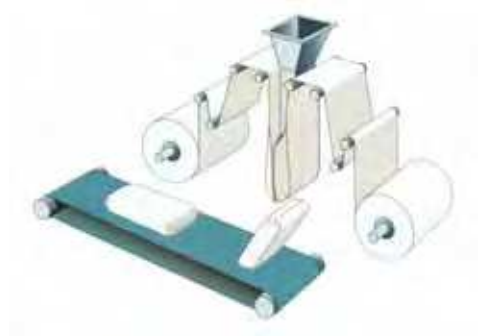
THE BAGS

Bags are shaped by aligning two sheets of heat sealable material unwound from opposite rolls. The vertical edges are sealed to form a flat tube, which enclosed the stainless steel filling chute. The horizontal sealing group closed and seals the bottom of the bag formed and the top of the filled bag simultaneously. The two are then separated.

The newly formed bag is filled with product as it advances downwards in increments of one bag-length. Gusseting the bag is obtained using two films of different widths.

The wider sheet is then gusseted prior to vertical sealing (B.L. patent number 1156700).

Gusseted bags are easier to palletize and more stable when stacked.

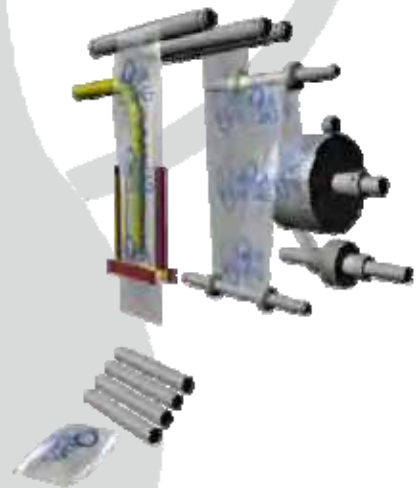


➤ **FFS APTA 10**

For any “non-sparkling” liquids



The Apta 10 is a FFS bagging machine, which uses a PE alimentary tubular film from a reel. The film is unreeled by two rubber chains. The unwinding is controlled by encoder to determine the length of the bag. Before such chain unit, a blade opens one side of the tubular film to allow the insertion of the liquid dosing filling nozzle. The quantity of the dosed liquid is time-controlled through a pneumatic valve.



The bagger can be used to bag water for human consumption, fruit juices, milk, wine, ice-cream mix, and products that need to be bagged on particular sterile conditions.

Flexibility: the volume of the bag can be changed from 1 to 10 litres. The bag size can be changed from 200 mm to 500 mm, through the change of the film reel and just little manual adjustments.

Cost saving: the polyethylene bag is probably the most economical form of packaging, e.g. 5 lt. bag of 130 µmm thickness is about 7-8 euro cent.

HOW TO TRANSPORT THE WATER PACKAGING UNIT

APTA 10 is the versatile, user friendly, highly mobile, compact solution to rapidly supplying drinking water to areas that are devastated by floods, earthquakes and hurricanes. The APTA 10 can be mounted onto a small trailer suitable for towing behind any small 4WD vehicle. The water Treatment system can also be mounted onto a similar small trailer. In the case of no electrical supply being available, a trailer-mounted generator can also be provided. An additional option is for an automatic Bag palletiser for the convenient transport and storage. A further option is to have some or all the equipment built into a 10-20- or 40ft container.



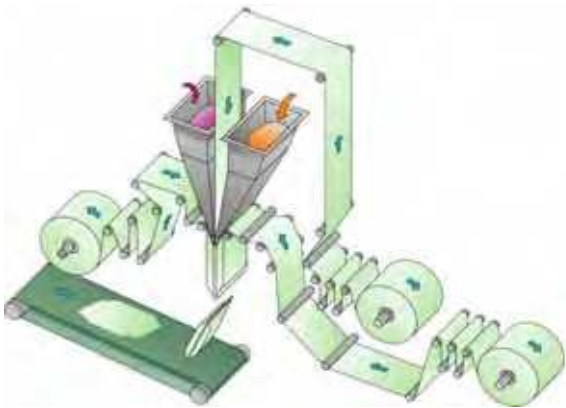
The packaging system can be integrated with compact water treatment system mainly for the types of water:

- Potable (municipal) water to be packed for storage
- Inland surface, bore-hole or flood water (with TDS below a 1500 PPM)
- Brackish/sea water or surface water (with TDS over a1500 PPM)



➤ **FFS APTA 30 DOUBLE BAG**

For Sand / Cement / Additive



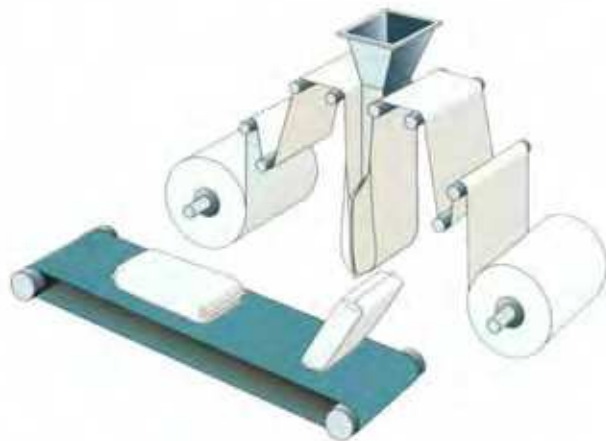
➤ **FFS APTA 30**

For Putty Lime and Mortar



➤ **FFS APTA 80**

For Powdery and Chemical products



FFS Vertical MACHINE TS series

The automatic packaging machines of the TS and ETS series are the fusion of experience and technical innovation.

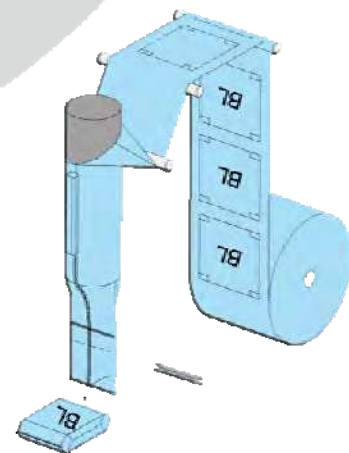
The wide range, the high speed production, the constructing simplicity and the very low working costs are just some of the strong points of these packaging machines, which can work with the most diverse types of film such as: PE, PPDE, EVA, CELLOPHANE, co-extrusion materials, coupled materials like aluminium + PE; nylon + PE; paper + PE, etc.

The packaging products are the most varied:

wood pellets, animal feeds, cereals, short pasta, flour, sand, aggregate materials, dirt, bark, dietary supplements, oxides, etc.

The structure of the machines can be in painted iron, or stainless steel to satisfy any need.

Dosers, weighers, and transport systems can complete our production line.



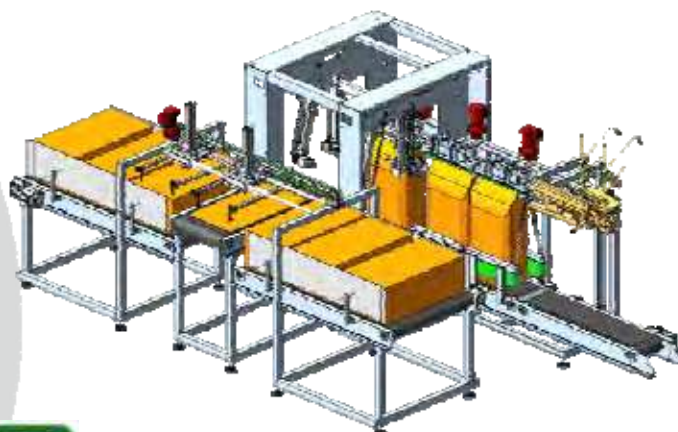
OPEN MOUTH BAGGING MACHINE BL-OM



The **BL-OM** bagging machine is a compact fully automatic packaging system. Its design allows the bagging of powders and granules into pre-formed open-mouth bags. The machine is specially studied to facilitate an easy cleaning. The bag spout is featured to allow its simple and quick change with regard to the different bag sizes.

The integrated operator panel of ultimate generation permits an easy and friendly acknowledge of the process configuration and diagnostics.

The multi-chamber magazine allows up to 4 bag piles with automatic forward feed of the full chamber in order to reduce.





Big bag (fIBC) filling machines

➤ GROSS WEIGHT BIG BAG (FIBC)

From the feeding hopper the product falls into the bag. The product is discharged through the valve, which is located at the bottom of the hopper, into the bag which was previously positioned by the operator at the filling spout. The rate and the weight is controlled by the control unit. A blower inflates air into the bag in order to have the complete extension of the bag before the filling phase.



➤ NET WEIGHT BIG BAG (FIBC)



From the feeding hopper the product falls into the weighing hopper through a feeder controlled by the control unit. The weighing done is discharged through the butterfly valve, which is located on the bottom of the hopper, into the bag, which was previously positioned by the operator in the filling area (the suspenders are hooked to the hooks and the bag mouth to the feeding mouth). The inflation device of the bag allows the complete extension of the bag before the filling phase.

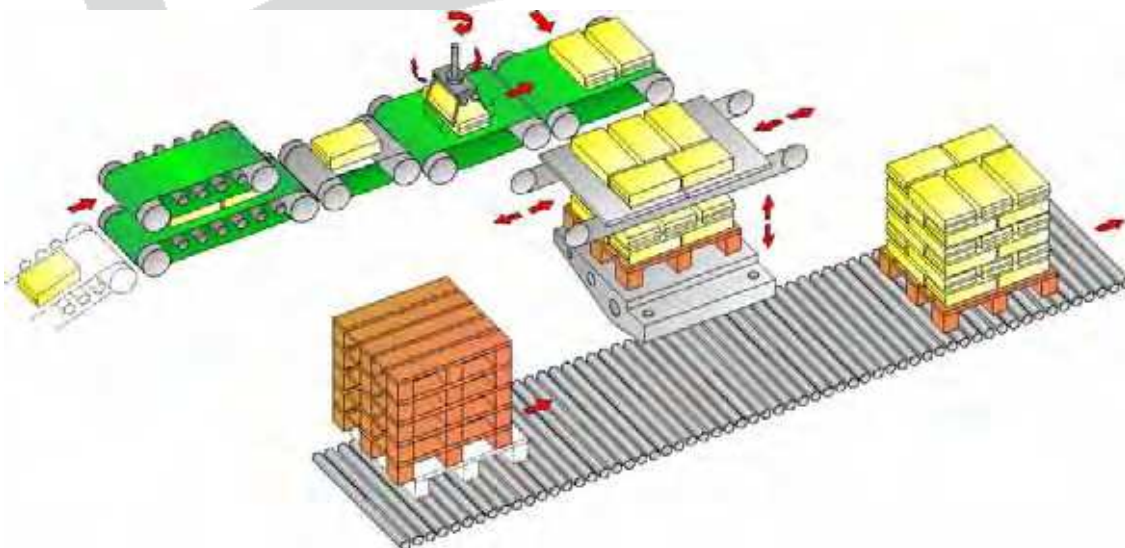


Palletizing SYSTEMS

➤ HIGH FEED PALLETIZER HF



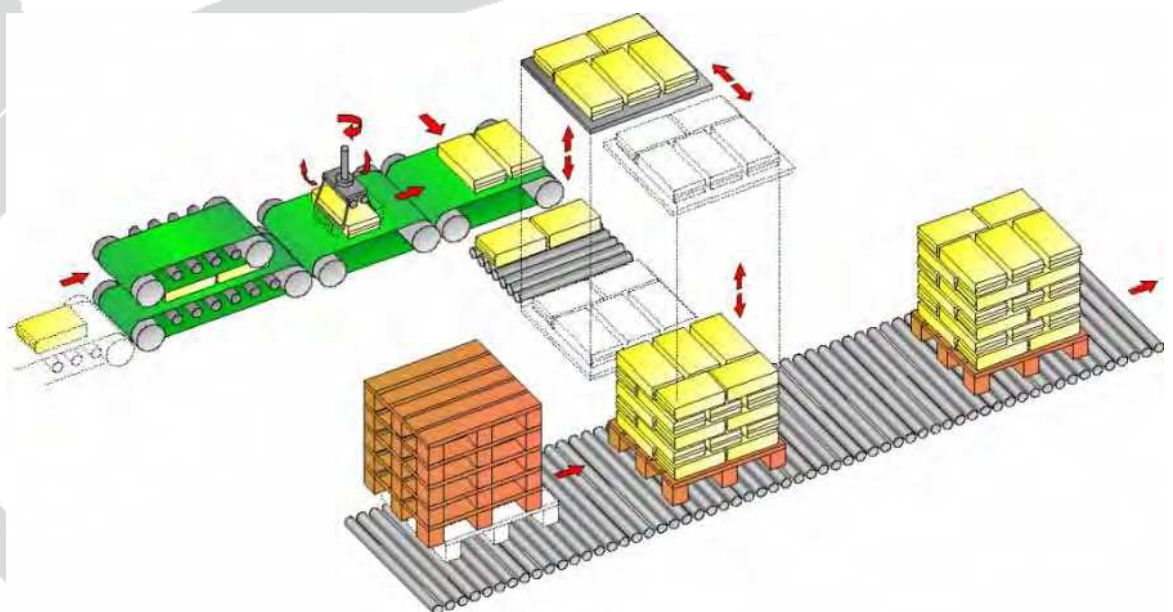
The **HF** palletizers line with mobile pallet and bag loaded from the top, is designed to ensure high production, with high working load and at heavy working conditions. The **HF** is a rapid and reliable machine with an extremely tested technology with complete preformed layers, capable of covering productions up to 2500 bags/hour.



➤ LOW FEED PALLETIZER LF



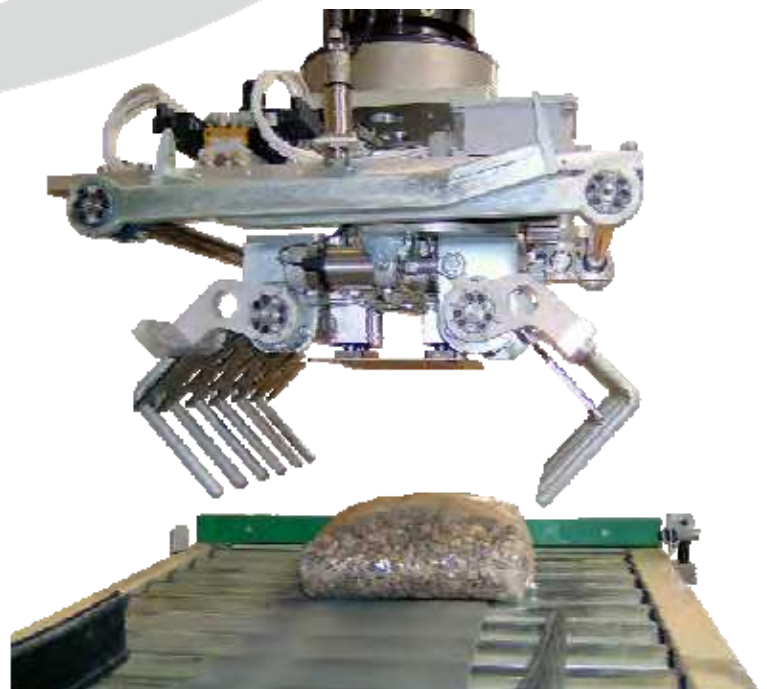
BL palletizers with fixed pallet can satisfy all requirements for low and medium production, up to 1200 bags/hour.



➤ ROBOT PALLETIZERS



Reliable, maintenance free, small footprint, up to 1200 bags/hour with 25 Kg bag.
Palletizing Robot is flexible for future use, bags patterns can be easily reconfigured.
Ability to handle multiple production lines with different products simultaneously.
Easy to use operator friendly Touch Screen controls.
Due to its compact configuration, it can be installed where a traditional level palletizer cannot fit.



WRAPPING MACHINES



High performance wrapping machine. The extremely reliable that perfectly protects the load from weather.

- High quality components
- Adjustable arm rotating speed and acceleration ramp
- Number of spire pre-settable
- Automatic pallet height scan (*)
- Reel end check
- Mechanical wrap film pre-stretch
- Hem sealer (*)
- Electronic wrap film pre-stretch with frequency driver (*)
- Special execution for aggressive products (*)

The wrapper places a film top sheet over the pallet during the wrapping in order to give hermetic protection to the pallet load.



HOODING MACHINES



Stretch and Shrink hooding machine, suitable for any kind of application and pallet type, high speed capacity up to 120 pallet/hour.



Conveyors and accessories

- CHECK WEIGHER CONVEYOR
- METAL DETECTOR
- INK-JET PRINTER
- OFF SPECS BAG REJECTING SYSTEM
- THERMAL TRANSFER PRINTER
- BELT AND ROLLER CONVEYORS
- SHUTTLE CONVEYORS
- PALLET LABELLER
- PALLET PRESS

SPECIAL APPLICATIONS

B.L. Mediterraneo supply special application for "particular" products such:

- Alimentary liquid products
 - High froth liquid products
 - Marble sphere
 - Liquid bitumen up to 80°C
 - Rubber chips
 - Putty lime
 - Animal feed
 - Sugar
 - Ice flakes
 - Caprolactame flakes
 - Epoxy resins flakes
 - Expanded clay
 - Seeds
- Installation into container of bagging machines, palletizers, wrapping machines and big bag (FIBC)
- Movable platforms on wheels, rails or air cushion to move bagging machines and big bag (FIBC)



(EPC) engineering companies



The engineering phase is considered as critical by **BL Bagline** policies, since it represents the starting point to ensure the best product for the client in terms of functionality, quality, budget and schedule. We ensure the accurate performance of the design activities in a coordinated way, supporting the work of the other departments, optimizing technical and economic decisions in accordance with contract, cost and schedule requirements, developing and protecting the company's technical know-how. We execute engineering services and use state-of-the-art software. The company provides a full range of engineering services, including basic engineering for front-end loading or Front-End Engineering Design (FEED), technical and economic feasibility studies, feasibility analyses, cost estimating and specialty consulting services, master planning, detailed engineering, and pre-commissioning, commissioning and plant start-up services for its own EPC projects.

We provide the flexibility for successful application of technology - whether provided by the customer, third parties, or partners-on any type of project and plant. The key priorities for **BL Bagline** project management, engineering and construction activities are compliance with timetables and budgets, worker's health and safety, and respect for the environment, together with guaranteed service quality. As an experienced worldwide player, **BL Bagline** executes projects in accordance with local conditions and project requirements, using its own workers or local and/or international subcontractors pre-selected with a procedure designed to ensure compliance with the company's high standards. The company begins planning its execution strategy when it draws up its offer, finalizing details on project acquisition.



TECHNICAL DOCUMENTATION

- Process Report
- Quality Control Plan
- P&ID
- Foundations Drawings
- Individual Drawings
- Field Assembly Procedure
- Noise Source Datasheet
- Motor Datasheet
- Lubricant Table
- Instruments List
- Electrical Power Requirement
- Utility requirements for Each Components
- List of Sub-Suppliers
- Ladder Diagram
- Spare Parts Catalogue

AFTER sales service

Technical assistance department is for BL Mediterraneo a key point to follow customer's interface. To enhance this important service has been created a new entity focused to supply high quality services at lower and attractive costs.

Technicians belonging to this team have from 15 to 20 years of experience in the specific field of automatic bagging equipment.

Their skilled added worth, allows to fix and troubleshooting problems in strict cooperation with the end-user, customizing the intervention with high quality and reliability. Their proved multi-skills allow them to perform technical services also to third parties manufacturers.





CONTACTS

B.L. Mediterraneo S.r.l.
B A G G I N O D N A
www.bl-bagline.it - info@bl-bagline.it



- DESIGN**
- MANUFACTURING**
- SALES**
- INSTALLATION**
- SERVICE**
- SPARE PARTS**
- TECH SUPPORT**



AUTHORIZED BL BAG-LINE SALES AND SERVICE CENTER

B.L. Mediterraneo S.r.l.

Registered Office: Galleria Cavour, 4 - 40124 Bologna ITALY
Headquarters: via Ronchi Inferiore, 30/B - 40061 Minerbio (BO) ITALY
Tel. + 39-051 660 60 44 • Fax + 39-051 660 60 34
e-mail: info@bl-bagline.it • website: //www.bl-bagline.it

