High Performance Pelletizing Systems
Costruzioni Meccaniche Luigi Bandera S.p.A. is a worldwide leader in the design and manufacture of complete extrusion lines for packaging and converting.

Our history

1947
Luigi Bandera officially established the company and started the history of extrusion in Italy

1950
Costruzioni Meccaniche Luigi Bandera became a joint stock company, scaling up its activities to become an industrial concern

1960/70
Costruzioni Meccaniche Luigi Bandera experienced a remarkable industrial growth developing a wide and diversified range of extrusion products

1980/90
Costruzioni Meccaniche Luigi Bandera was acknowledged as one of the leading companies in the extrusion sector of both Blown Film and Sheet, in Italy and worldwide

2015/2016
Opening of the House of Extrusion, 3000 m² housing R&D and test-running activities on complete production lines

Today
Bandera focuses on Pelletizing plants, Blown Film and Flat Die extrusion technologies, offering customized engineering services and an after-sales global network
The way we are

Honesty, directness and respect are the main ingredients of our everyday life. Our founder, Luigi Bandera, used to say that the essential asset held by his company is the people and their value.

This powerful thought drives us in our daily approach to business and innovation.

Our mission,
Extruding Future Plastics Now®

Establishing Bandera as the most important design and manufacturing centre for extrusion in Europe and a worldwide leader in packaging and converting solutions, providing production lines featuring state-of-the-art technology for innovative thermoplastic materials.

Top numbers

Our numbers sum up concisely the real meaning of our long term expertise, our know-how and innovative approach. We are an international company but remain firmly rooted in the Made in Italy tradition. We develop and manufacture unique, customised solutions, to meet specific customer requirements, supporting them from engineering up to installation and after-sales services.

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<th>since 1947</th>
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<td>experts in extrusion</td>
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| 15,500 |
| active clients all over the world |

| 35,000 |
| extruders installed running worldwide |

| 55,000 |
| m² production sites |

| 54,000 t |
| of extruded polymers per day |

| 100% |
| In-house design and manufacturing |
The concept of Extrusion Intelligence® is the essence of Bandera’s continuous innovative ideas in extrusion technology.

As a globally recognised brand, Bandera is a synonym for extrusion technological innovation, reliable and value for money solutions and equipment, supplying engineering services, know-how and turnkey installations.

Bandera has the capability of gathering its own expertise, ideas and innovation from multiple disciplines, in order to compete in an environment of increasingly complex technology and find the best solution for each application.

Bandera created the most innovative European extrusion centre for packaging and converting. The House of Extrusion® is a peculiar sign of Bandera’s vision. Jointly with customers, industry, academia and research centres, Bandera opens the doors to create new solutions that anticipate market demand.
Complete Pelletizing lines

Thanks to our long-term experience and spurred on by the need to cater to the everchanging requirements of our customers we have improved the quality and performances of our machines, implementing them in terms of energy efficiency and versatility to process various rigid and plasticized PVC formulations.

The main pluses of our pelletizing lines

- High energy efficiency with a low kW/kg ratio
- Extreme versatility and capability of the extruder to adapt to various rigid and plasticized formulations
- Extruder with a long barrel and “28 L/D” screws

The venting stack is positioned at “20 L/D” to make it possible for the material to melt in a longer space, for a longer “residence time”, with lower initial temperatures, avoiding overheating, so to reach the degassing point with no residual dust, well melted and perfectly homogenized. This allows the use of a “softer” screw profile, avoids high mechanical stress and thermal degradation for the material, allows savings on additives such as stabilizers and process aids and reduces the initial cost of dry blend formulations. The remaining “8 L/D” after the degassing section allows melt temperature control on the outlet to the pelletizing head.

Our Pelletizing lines are the result of more than 70 years of activity in manufacturing Counter Rotating Twin-Screw Extruders within a range of ø 45 mm to 175 mm.
Pelletizing lines
main features

HORIZONTAL SCREW VOLUMETRIC DOSING UNIT
• Storage hopper with min/max levels and mixer to avoid PVC agglomeration, variable speed horizontal screw dosing unit
• Drive with A.C. motor complete with speed synchronism system with the extrusion screws

COMBINED FORCED FEEDER
• Small conical hopper with vertical screw and agitator blade driven by an A.C. motor complete with speed synchronism system with the extrusion screws

VERTICAL FORCED FEEDER
• Conical hopper with vertical screw and agitator blade driven by an A.C. motor complete with speed synchronism system with the extrusion screws
BARREL THERMOREGULATION SYSTEM
- Barrel heating through special ceramic electric heaters. Cooling of the barrel zones by electric centrifugal fans

BARREL EXTRACTION
- Barrel displacement system for easy maintenance and monitoring of the status of the barrel and screws. This is a very fast and simple system, allowing full extruder cleaning and quick production changeover operations

SCREW THERMOREGULATION
- Screw thermoregulation system with internal circulation of silicone oil, especially in the terminal part of the screws to avoid PVC overheating, composed by two rotary joints mounted on screw shafts and an oil thermoregulation control unit

DEGASSING SYSTEM
- Vacuum degassing group: composed by a water ring vacuum pump, a venting stack with inspection glass and a powder decanter provided with a filter
High Performance Pelletizing Systems
HMI panel:
- main page
- thermoregulation page
- automatic zone heating
- trends page
- recipes saving page
- maintenance clock page
PELLETIZING HEAD CENTRAL CUTTING SYSTEM
• Quick disconnection and fast release of the cutting head for cleaning
• Central cutting head, with cone distribution of the melt to prevent overheating of the material and pellet adhesion problems, high pressure fan for the pneumatic transport of the pellets to the RGT cooler

PELLETIZING GROUP
• Support trolley for the pelletizing head, 4 cutting blades driven by A.C. motor controlled by inverter for cutting speed adjustment
• Cutting chamber and pellet pressure conveyor through electric fan with external light to check the cutters during operation

PELLETIZING HEAD SIDE CUTTING SYSTEM
• Front-opening stainless steel cutting chamber and pellet conveyor, water cooled in the bottom part
• Support trolley for the pelletizing head mounted on wheels
• Removable drilled plate, rotary cutting device with 3 cutting blades driven by 90° gearbox

PELLET COOLER, RGT SERIES
• Stainless steel hopper, drilled stainless steel bedplate with 2 adjustable electric vibrators, where the pellets flow and are cooled by air through a high capacity electric fan
• Terminal screen for separation of faulty shape granules
HYDRAULIC SCREEN-CHANGER
- Stainless steel execution
- Mounted on a supporting frame with pivoting wheels. Main frame with hydraulic piston and relevant sliding plate
- This system allows filter replacement during operation. Provided with fast connection to the extruder barrel through conical jaw

SCREW DOSING UNIT FOR ADDITIVES
- Composed by storage hopper with variable speed horizontal screw dosing unit
Why choose Bandera as a technological partner?

We are a company focused on innovation, supported by After-sales technical servicing. The following characteristics make our company a trustworthy partner for consistent and innovative cooperation:

**Maximum process versatility of BANDERA extrusion lines**
- Universal screw design (latest generation)
- Screws developed with rheological data collected from new materials
- Easy integration and interface of ancillary equipment

**Complete reliability**
- Robust construction (in-house)
- Market references obtained over many years
- Chosen by certified sub-suppliers

**Energy savings as a priority in line design**
- A.C. motors and drivers (latest generation)
- Maximum extruder yield (ideal power/output ratio)

**Value of competitive investment**
- Rationalization of manufacturing process and assembly
- Strong purchasing power of specialized sub-suppliers
- Reduced engineering and manufacturing costs due to the high degree of industrialization and job repetitiveness

**A responsive and efficient Customer Service**

- 6 After-sales service centres for a worldwide assistance
- Top class on-site technicians specialised in installation and start-up of extrusion lines
- Customized training procedures for new applications
- Scheduling of technical servicing for extraordinary maintenance
- Cost effective spare parts packages
- Reclaiming of existing machines and revamping of complete extrusion lines
With your most innovative Bandera extrusion line, within the market of Pelletizing, will drastically reduce energy consumption, extensively widen the usage of innovative formulations, process challenging new applications. And now, exclusively with Bandera, the Overall Extrusion Equipment Effectiveness® (OEEE), can be sped up by the specific instruction protocol Bandera Deep Training® to the operating personnel.