

Thermal efficiency to provide profitable energy



Valorisation

Main objective:
Conversion of non-recyclable waste into electrical and thermal energy.

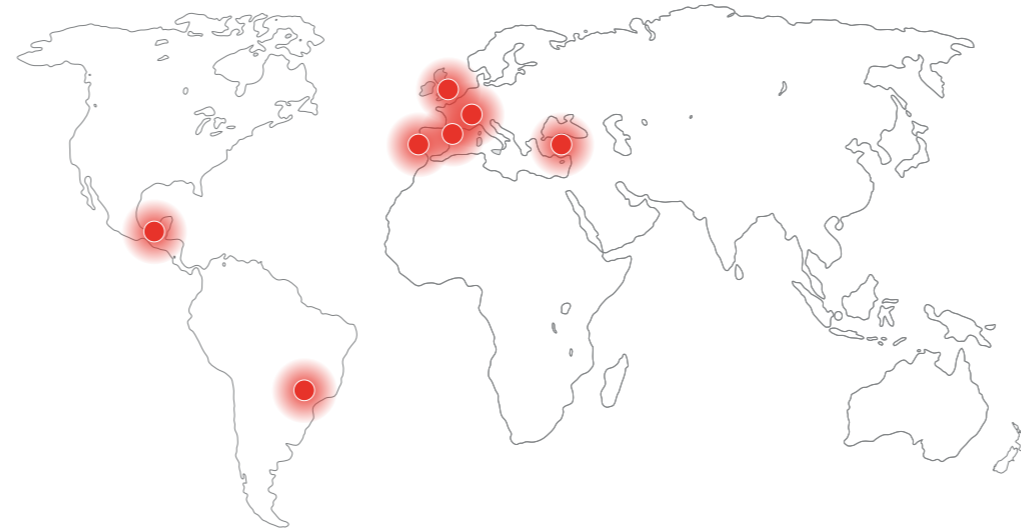
Sustainable profitability:
Generation of thermal and electrical energy, reducing dependence on fossil fuels and landfill costs.

Key sectors:
Energy-intensive industries, chemical industries, data centres and remote communities.

Bianna Ways2 represents a forward-thinking approach to waste management, focusing on the genuine and cost-effective circularity of the waste cycle.

Our philosophy centres on transforming waste from a liability into an asset, recognising it not only as a resource, but as a key raw material for the economic independence and decarbonisation of strategic sectors.

Global reach and infrastructure:
Headquartered in Girona (Spain) and with an international presence, Bianna has six sites and over 86,500 m² of in-house production capacity spread across facilities in Spain, Turkey and Brazil, and operates in more than 30 countries.



- Spain
- Portugal
- France
- UK
- Latam
- Brazil
- Turkey

At Bianna, we are a leading multinational specialising in the engineering, design, manufacture and financing of advanced technological solutions for the management, treatment and recovery of waste.

With over 40 years of experience and more than 1,100 projects and client references worldwide, we transform waste from an environmental liability into an economic asset. Our commitment is to promote the circular economy and lead the decarbonisation of strategic sectors, demonstrating that sustainable waste management will be profitable or it will not be at all.

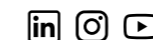
Comprehensive technology provider:
The company offers turnkey solutions that integrate 360° solutions with our key technologies:

Mechanical and Biological Treatments MBT Equipment and plants for material recovery	Thermo Value Solutions TVS Thermal processes, encompassing combustion, drying and energy recovery	Bianna Renting Services BRS Financial flexibility tied with your operations	Bianna Green Ways BGW The place where Bianna technologies come to life	Bianna Aftersales BAS Comprehensive solutions for optimal operational efficiency
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Service ecosystem:
We have designed a comprehensive service ecosystem around our technology, designed exclusively to maximise the return on your investment, facilitate the viability of your projects and ensure your peace of mind in the long term.



Our technology creates real value, reducing our environmental impact and ensuring the sustainability of the planet and its people, both within and outside Bianna.



bianna.com



TVS Thermo Value Solutions





We design and implement energy recovery plants on a turnkey basis, integrating a wide range of equipment developed and manufactured at our production facilities. Our solutions enable true circularity, ensuring that fractions which cannot be recovered as materials become a source of value for the client.

We maximise the utilisation of the calorific potential of waste to generate electrical or thermal energy, reducing dependence on external sources.

Plant engineering

Comprehensive projects that close the loop of true circularity, turning waste and biomass into energy resources.

TVE - Thermo Value Energy



A comprehensive range of solutions dedicated to the design and construction of energy recovery plants (decentralised waste-to-energy systems) using thermal oxidation processes.

Technologies that enable the utilisation of waste fractions with a high calorific value to maximise energy generation and, at the same time, minimise the amount of material that ends up in landfill.

Decentralised waste-to-energy systems. SWIP solutions for waste and biomass.

TECHNICAL VERSATILITY Scalable adaptability:

A modular and flexible configuration designed to process a variety of materials (biomass, RDF, hazardous waste) by combining combustion, heat transfer (steam/ thermal oil) and power generation equipment.

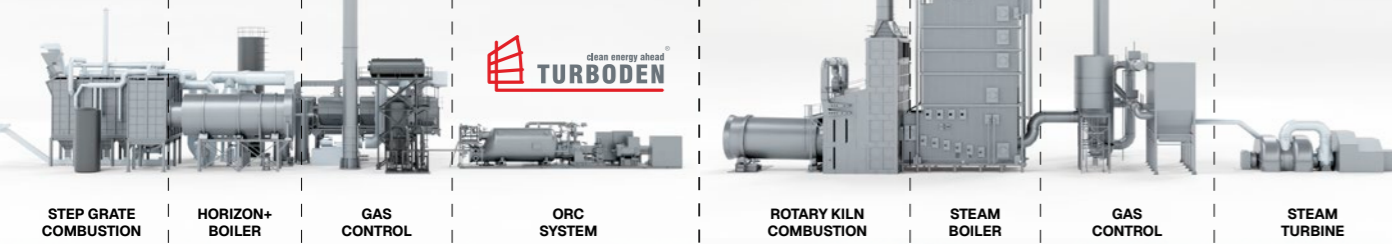
EFFICIENT ENERGY GENERATION From waste to valuable assets:

Optimised systems for the production of electrical and thermal energy, using ORC cycles or steam turbines to promote independence from fossil fuels for industrial sectors.

Thermal oil solutions



Steam solutions



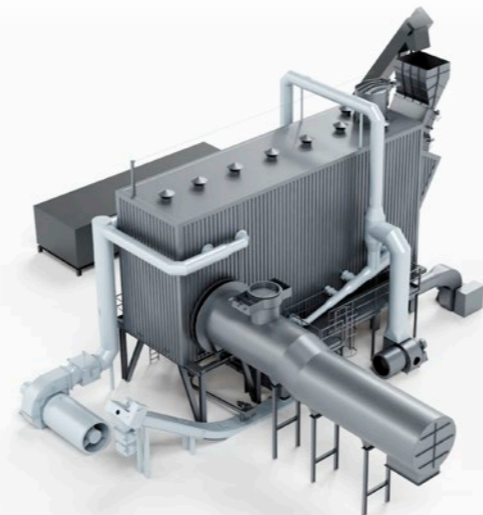
TVD - Thermo Value Drying



Thermal drying and dewatering lines in treatment plants, as well as their integration into any industrial process requiring a drying line.

Bianna's TVD line utilises automated thermal drying technologies for the treatment of a wide range of waste and materials.

The system is designed to optimise the output material, aiming for uniformity and a reduction in impurities, through regulated control of the process temperature.



Thermal oxidation

RKC - Rotary Kiln Combustion



The Rotary Kiln is a continuous-operation incinerator. Its internal design is extremely robust, featuring refractory lining with a high alumina content that ensures maximum resistance to mechanical and chemical wear, as well as excellent thermal insulation.



SGC - Step Grate Combustion



Grate Combustion System Mobile (or push grate). This is the key component of boilers for biomass and waste. The grate is mechanical, hydraulically operated with a reciprocating motion.



USC - Underfeed Stocker Combustion



The surfacing furnace is a furnace with a movable grate, featuring a monobloc design and a self-supporting structure. Its automatic feed system uses a rotary valve or triple gate to ensure airtightness, thereby optimising combustion control.



Heat transfer

HWB - Hot Water Boiler



Designed to use mains water without complex treatment, this high-efficiency fire-tube boiler reduces the power consumption of its pumps and ensures easy cleaning thanks to its vertical design, providing consistent heat at medium or low pressures.



SPB - Steam Process Boiler



Industrial boiler designed to transfer energy from the flue gases to water, converting it into steam. It is available in various designs to optimise performance according to the fuel: water-tube



HZB - Horizon+ Boiler



Industrial thermal oil boiler. Thanks to its unique rotary design, the Horizon+ offers continuous cleaning and automatic ash removal, enabling the energy recovery of gases with a high dust and ash content.



Drying

DDR - Drum Dryer



Rotary, direct and in-line drum drying system. A dryer designed for maximum thermal efficiency, dynamically adapting to the most complex and variable materials.



BDR - Belt Dryer



Low-temperature belt drying system. Precise control of the final moisture content at low temperatures, preserving the uniform composition of your product and simplifying operation with continuous belt technology and optimised performance.



High-performance thermal equipment, designed and manufactured in-house, with a focus on energy recovery.



Our TVS division's equipment is the driving force behind thermal efficiency. We supply robust and reliable machinery, specifically designed to optimise performance at every stage of the process, from combustion to industrial drying.