



PASS™
Palmieri Advanced Splitting System



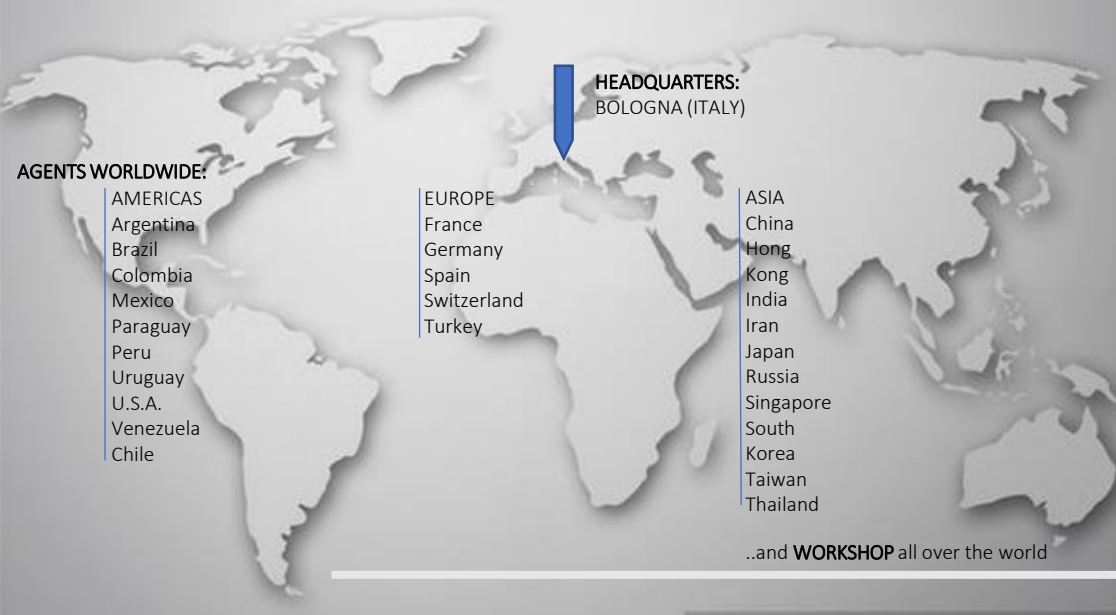
ABOUT PALMIERI GROUP

With over 40 years of experience in the manufacture of parts and consumables related to the Tunneling and Drilling activities Palmieri is nowadays one of the leading and most specialized companies worldwide.

Design and production of either rotating and fixed tools for any type of excavation, from horizontal boring (Tunnels for road, railways and water) to vertical boring and drilling has been Palmieri focus since the very beginning.


From the initial start with tools as the core business, the Company has extended its range of interest to Engineering development, manufacturing, refurbishment and rental of underground equipment such as TBMs, Raise Boring Machines, Micro tunnelling / Pipe Jacking equipment, Cutterheads, Back-Up systems, Rolling Stock, as well as innovative and non-conventional solutions for all the above mentioned business sectors.


Recycling and forestry have also become an important sector for the company offering a wide range of tools and tool holders, that are fully compatible with almost all machineries and equipment on the market.





Nowadays Palmieri Group consists of 2 companies whose respective business and know-how are strategically integrated in order to deliver the most accurate and efficient service on the market.


Palmieri's determination to achieve the diverse requirements of clients world-wide is in parallel with its advancing technological resources. The use of CAD/CAM and CNC for design and precision machining are evidence of Palmieri's commitment to extremely high quality and efficient work practices. Palmieri uses only the finest European steel, robotic material handling systems and ultra modern CNC (computer numerical controlled) machines. Thanks to its productive independence, all the Group's products are designed and manufactured in house, ensuring full control over the entire supply chain. Nowadays the Group Companies are world leaders in production capabilities and can provide all products with delivery times that are amongst the shortest in the industry, followed by first class service all over the world.



FORGING



TUNNELLING



MICROTUNNELLING


RAISE BORING


DRILLING


RECYCLING


FORESTRY


SPECIAL EQUIPMENT

PASS - Palmieri Advanced Splitting System

The PASS technology which has been entirely designed and produced by Palmieri Group, is an Organic Fraction Municipal Solid Waste (OFMSW) pre-treatment solution designed to be used in Biogas plants.

The machine, equipped with the most advanced technologies, allows for higher productivity, efficiency and versatility.

The Palmieri Group, with its PASS system, offers the solution to the demands of efficiency, optimization of spaces, resources and finally less energy consumption.

PASS is a sophisticated system comprising several modules that completely separate the OFMSW from the packaging/plastic and efficiently produces the organic puree destined for the production of Biogas, whilst automatically splitting streams of metal and plastic packaging for onward recycling.

PASS allows the process of waste treatment to be carried out in a single machine: pre-shredding /opening of bags, metal separation and the squeezing of the organic fractions.



“with PASS producing Biogas is easier and faster”

Pre-shredder Module

The pre-shredding phase is carried out by a slow shredder, loadable from the top, that allows the flow of more suitable and homogenous material to the squeezer. This module is suitable for the shredding of dirty and non-homogeneous waste from urban or industrial collection, as well as being suitable for putrescible organic fractions of agricultural origin, due to its adjustability.

Iron remover Module

The metal separator module is positioned between the pre-shredder and the squeezer modules. By means of a magnetic drum, ferromagnetic materials are separated from non-magnetic ones. The shredded and cleaned up material is carried inside the Squeezer Module, while the ferrous bodies, which could damage parts of the machine, are expelled outside through a slide.

Squeezer Module

The waste, cleaned from the iron, falls inside a hopper, which through a screw feeds a pressing group. The squeezing group separates the plastics (light overpass) from the rest of the organic waste, which is then cleaned and squeezed and transformed into a soup.

This soup can then be transported to the next step, namely in the anaerobic digestion process.

PASS - Palmieri Advanced Splitting System



- Organic Fraction Municipal Solid Waste (OFMSW)
- Supermarket waste (depackaging)
- Industrial waste (refinement process waste)



- Iron material



-Plastic and light material



ORGANIC MATERIAL SQUEEZED (SOUP)
for Biodigesters

PROCESS OPTIMISATION

Thanks to PASS, all the traditional waste handling phases between the various machines can be eliminated, removing the need for various belts and/or auxiliary transport systems.

The result is a significant saving in space, time, operation, maintenance and energy.

HOW DOES IT WORKS?

The machine is fed from above by means of special loading systems (five tine- grab, wheel loader, etc.); waste is pre-shredded (the bags opened) and by gravity it passes through a magnetic drum that collects all the ferrous parts eliminating them.

The organic, cleaned from the ferrous materials, falls into a hopper, which through a screw feeds the squeezing group.

In this phase the plastics and light material are separated from the rest of the organic waste, which cleaned and squeezed as a soup, can be pumped to the anaerobic digester.

PASS™

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The XXL solution for plants requiring high yield .

Yield	15 Ton/h
Total weight	27.700 Kg
Dimensions (mm)	9.800 x 2.800 x 4.600
Installed power	180 Kw

The PASS system consists of 3 modules and the relative control panel and can be easily integrated into existing systems through its software that allows you to remotely monitor the machine, to detect and historicize the data collected by operating in Industry 4.0.

OPTIONAL:

- Cabling from the machine to the control panel
- Squeezed material collection tank
- Iron material collection tank
- Booster pump

PASS™ - L

Palmieri Advanced Splitting System Light



The most compact version, with reduced dimensions and with less installed power.

Yield	up to 15 Ton/h
Total weight	22.600 Kg
Dimensions (mm)	9.520 x 2.240 x 4.405
Installed power	120 Kw

In PASS Light the control panel is installed directly on the machine (space optimization and cost reduction for machine-to-frame wiring).
The Light version has a lower installed power but still guarantees an excellent yield.
It is possible to configure it according to the needs of the plant: in Pass Light you can arrange the discharge of the ferrous material from either side and you can also adapt the machine with all three modules (pre-shredder, iron remover and squeezer) or, for example, remove the iron separation if not required.

OPTIONAL:

- Squeezed material collection tank
- Iron material collection tank
- Booster pump

* All measures are to be considered indicative. The manufacturer reserves the right to modify them

PASS™
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PASS™ - L
Palmieri Advanced Splitting System Light



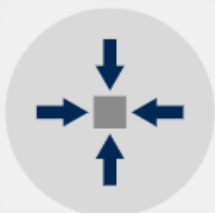
FLEXIBLE

It is three machines in one: Pre-shredder, iron remover and Squeezer.

The whole process takes place inside a single machine, from the loading of the waste to the output of the squeezed material destined for the biodigesters.

The Light model is modular: you can configure the machine by inserting the three modules or opt for a «reduced» version.

It is also possible to arrange the ejection slide of ferrous materials to the right or to the left.



COMPACT

It allows the optimization of the spaces occupied and the reduction of the loading steps from one machine to another, rationalizing the workstations of the workers and reducing the maintenance costs of the plant.

The Light model is even more compact: reduced dimensions compared to the standard model that make it suitable to be installed even in smaller plants and/or existing plants with predefined spaces.



EASY MAINTENANCE

The easy accessibility to almost all parts of the machine, through inspection doors, makes maintenance and even the possible evacuation of foreign bodies easier. It is possible to extract the feeding screw both front and rear. In addition, both rotor assemblies and special tools are characterized by simple and rapid interchangeability.

The Light model is equipped with doors that can be opened at 180° making it even easier to access the internal parts and move loading media near the machine.



RESISTANT

Drawing on Palmieri vast experience of steels for tunnelling machinery manufacture, it has a high ability to resist corrosion, thanks to the use of the best steels, including stainless steel. Only the highest quality electrical components are used for the control systems.

The Light model is equipped with the same high-quality components and stainless steel casings that give it the strength and corrosion resistance that characterized the machine.



Enduring Quality and Performance



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