



Hamburger Recycling  
PRINZHORN GROUP

*We will.*

A PRESS'S LONG JOURNEY, OR HOW  
TO KEEP THE SEVENTH CONTINENT  
CLEAN

# Antarctica

2022

## Hamburger Recycling Bulgaria in partnership with the Bulgarian Antarctic Institute implemented an environmental project to support recycling and separate collection of waste on the territory of our base in Antarctica.

**After a series of meetings on the topic of ecology and preservation of Antarctica, pure Hamburger Recycling Bulgaria and the team of the Bulgarian Antarctic Institute identified the main problem with the metal barrels of fuels and oils that the expedition has used since its existence until now. The solution turned out to be a specialized press for compacting metal packages and barrels with a compaction factor of 7.5 times. (reduces the volume of the barrel by 87%)**

As one of the leaders in recycling and separate collection of waste in Bulgaria and Europe, "Hamburger Recycling" is committed to finance the purchase and delivery to Bulgaria of the approved press model, as well as a spare set of main parts and oils. Operation, repair and maintenance training as well.

**That's how it all started. In 2022, the press was produced in Sweden and delivered to Sofia. There, the team of Hamburger Recycling, together with representatives of the Bulgarian Antarctic Institute, made improvements to the press for the needs of the expedition and according to the climatic conditions of operation.**

In December, the press was handed over to the team of Prof. Hristo Pimpirev. Testing and staff training were carried out. That same week, the press was loaded onto the scientific research ship "St. St. Cyril and Methodius" which will arrive at the beginning of February 2023 at Livingston Island, crossing the Bosphorus, bypassing Africa and so on to South America and more precisely past the southernmost city of the land namely Ushuaia. From there begins the last and most extreme stage of the journey, the crossing of the Drake Strait.

It connects the Atlantic Ocean with the Pacific Ocean and is known for its unpredictable weather, strong and huge waves. And after all this time, over 15,000 km on land and water, the press will reach its final destination, Livingstone Island, the base of the Bulgarian Polar Expedition.

Thus, according to the colleagues from the polar expedition, "Hamburger Recycling Bulgaria" together with the team of Prof. Hristo Pimpirev will be pioneers in the preliminary treatment and compaction of packaging waste on the territory of the Seventh Continent.



Within the expedition, led by Prof. Hristo Pimpirev, the scientists will work on various projects as part of the National Program for Scientific Research.

At the South Pole, they will study the movement of the earth's crust, research of ore-bearing prospects in the vicinity of the Bulgarian base, the unique flora and fauna of Antarctica, the extent of global pollution, as well as the melting of glaciers as a result of global warming.

Antarctica is the only continent without its own population, its vast territory is governed by an international convention called the Antarctic Treaty. The treaty regards Antarctica as a scientific reserve and establishes freedom of scientific research while prohibiting military activity on the continent.

Full member countries under this treaty are 29 countries with the right to vote and the right to veto, and Bulgaria is one of them, together with the other 28 countries. As a result of life and research activities on the Ice Continent, a large amount of waste from metal barrels of fuel and oils is generated. Some of this waste is reused to build storage buildings or living quarters. But a large part of them remain unusable and are stored on the continent.

So, after discussions with the Bulgarian Antarctic Institute, we decided to invest in a baling machine for waste. The idea is that unusable barrels are pressed (baled), which fills their volume. Thus they become easy to transport to Bulgaria.



## In July 2021, the Bulgarian flag was raised on the scientific research vessel "St. St. Cyril and Methodius"

For the first time, our expedition will sail to a polar base on Livingstone Island with a Bulgarian scientific research ship of the Naval School in Varna, and thus Bulgaria will enter the World Ocean to explore it!

The ship will depart at the end of December from Varna on the route: Mediterranean Sea-Gibraltar-Atlantic Ocean-island. Tierra del Fuego-o. Livingston. Scientists will board it from Mar del Plata in Argentina. The expedition is expected to arrive on the Ice Continent in early February 2023.



# The baling machine

## ORWAK POWER 3325

Last generation vertical baling machine for compressing paper, plastic, metal waste.

The press is equipped with specialized frost-resistant hydraulic oil for operation at extremely low temperatures.

- Pressure force - 26 tons
- Cycle time - 24 seconds
- Noise level -  $\leq 65$  db (A)
- Weight of the machine - 1080 kg
- Low profile design for easy transport and successful installation in limited space
- Complies with safety requirements EN 16500:2014-standard for vertical baling machines



Reduces  
the volume  
of metal  
barrels

87%

Reduce  
Reuse  
Recycle



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