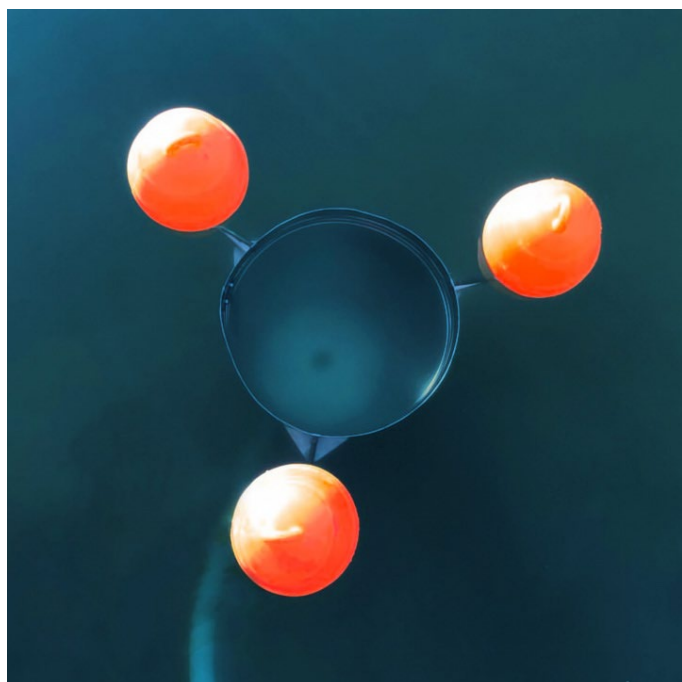




COAL DUST COLLECTION SYSTEM FROM THE WATER SURFACE



To effectively remove carbon dust from the surface of the water, it is recommended to use a **PortiBin floating head threshold skimmer**.

This innovative solution allows collecting **coal pulp** (a mixture of coal dust, organic and inorganic contaminants and water) with minimal capture of clean water, which significantly increases the efficiency of **the water area cleaning process**.

HOW THE PORTIBIN SYSTEM WORKS:

PortiBin design is connected to a **powerful motor pump** that sucks water into **the PortiBin container** and pumps it back into the pool. During the filtration process, **debris, coal and grain dust, oil film** and other contaminants are removed and remain in a **special collector filter**. The filters are replaced as they fill up.



Collected waste such as **plastic bottles, bags and other contaminants** can be sent for recycling and reuse.





COAL DUST COLLECTION SYSTEM FROM THE WATER SURFACE

Main characteristics of PortiBin	
Garbage	from 5 to 20 kg (depending on the type and form of contamination)
Power supply	works from 220 V network
Equipment	includes a motor pump for pumping out water
Ecological efficiency	collected waste can be handed over for recycling

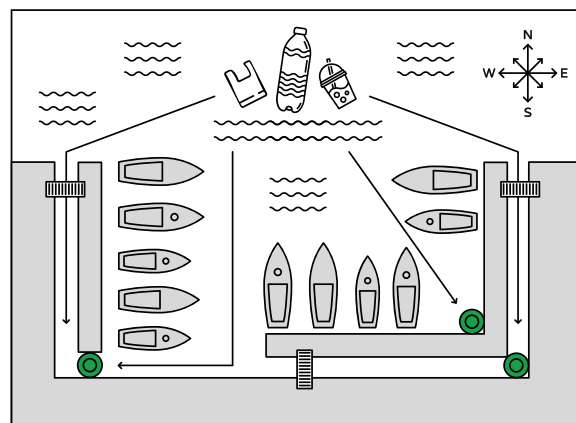
ADVANTAGES OF USING PORTIBIN:

- ✓ **High throughput** – efficient collection of contaminants.
- ✓ **Reliability and durability** – resistant to long-term use.
- ✓ **Ease of use** – easy to install and maintain.
- ✓ **Efficiency in “problem” areas** – installed in places with the greatest accumulation of garbage.

WHERE IS PORTIBIN USED?

PortiBin is widely used in various water bodies and industrial facilities:

- Marine waters
- Backwaters and reservoirs
- Pools and hydraulic structures
- Yacht clubs and mooring facilities
- Grain and coal terminals



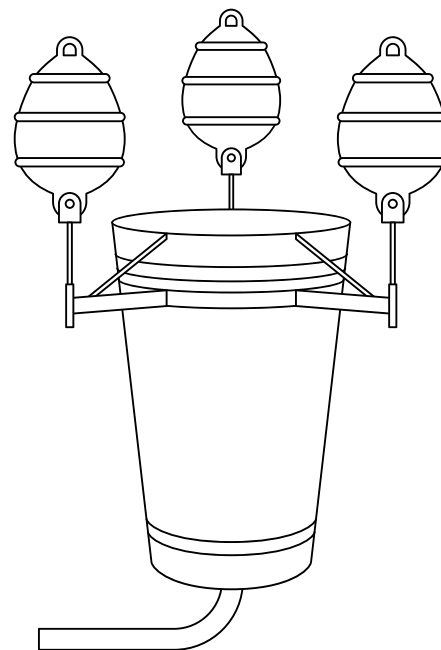


COAL DUST COLLECTION SYSTEM FROM THE WATER SURFACE

KEY ELEMENTS OF THE PORTIBIN SYSTEM:

1. Threshold skimmer with floating head

- It is installed with minimal depth below the water surface.
- Provides effective collection of surface contaminants.
- Minimizes the contaminant-to-water ratio, reducing the volume of water requiring further treatment.
- Alternative skimmers (drum, lint, etc.) are less effective due to weak adhesion of contaminants.



2. Enhanced pulp transport using an ejector

- A water-to-water ejector is used, connected to the pulp removal pipe of the skimmer.
- Increases the productivity of pumping contaminated water with low energy consumption.
- Reduces operating costs due to reduced abrasive wear of pumping equipment.
- Ensures stable transportation of pulp to the separator tank.

3. Separator tank (gradient separator- sand trap)

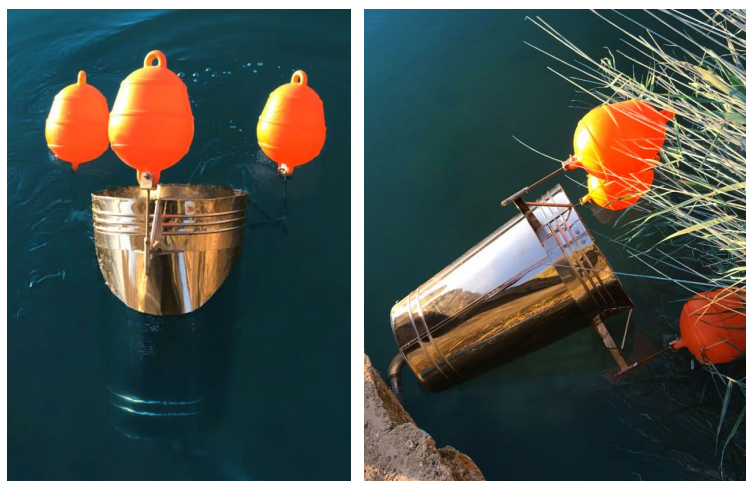
- Coarsely filters and dehydrates the water-coal dust mixture.
- Equipped with a threshold compartment, coalition or mesh filters.
- Includes a film collection of floating particles and a sand trap for settling solid impurities.
- Allows partially purified water to return back to the reservoir for additional settling.
- Includes a film separation unit for floating dust.
- Provides water recycling by feeding recycled working water to the ejector.





COAL DUST COLLECTION SYSTEM FROM THE WATER SURFACE

PortiBin + is an extended modification, additionally equipped with special **filters for collecting coal and grain dust**, as well as **rainbow oil film** from the water surface. This solution makes **ports and water areas cleaner**, improving the environmental situation and increasing the attractiveness of water bodies.



ADVANTAGES OF THE PORTIBIN SYSTEM:

- ✓ Efficient collection of coal dust with minimal water content.
- ✓ Economical pumping of pulp with low energy consumption.
- ✓ Reduced operating costs due to reduced equipment wear.
- ✓ Multi-stage purification with the possibility of water reuse.

Thanks to **its multifunctionality** and **environmental efficiency**, the **PortiBin system** allows you to effectively clean water areas from **garbage, coal and grain dust, oil pollution**, reducing water loss and operating costs.

