The Sink & Float for lead battery recycling plant separates the metallic lead grids of the batteries from lighter fragments as pieces of plastic.
The separation of the heavy parts from lighter ones is based on the capacity of an updraft water stream to maintain the lighter parts floating, while the heavier lead grids are not held back and fall due to gravity. The updraft water stream is obtained throughout a circulation pump that pushes the water from the bottom of the floating basin to the top by means of opportune compartments created in the same basin; a pressure relief valve at the upper edge of the basin to avoid the overflow of the basin. Regulating the intensity of the updraft stream it is possible to modify the separation capacity of material with different density.

The Sink & Float for lead battery recycling plant is fed from above throughout a conveyor screw. The heavy parts, like lead grids fall on to the bottom and are collected by an extraction screw that transports them towards the following lead battery recycling process. The floating basin and the extraction screw are realized in stainless steel and form a single machine sustained by a framework in carbon steel. The extraction screw is moved by a cylinder head with three-phase motor that can be activated via the monitoring system developed on PC in manual or automatic mode or with two buttons (LOCAL/REMOTE and ON/OFF) present on board of the machine. In particular, in manual mode start/stop is controlled by the user, while in automatic start/stop will be managed by the control software developed on PLC. In both cases the actual supply will only be present if the disconnector placed on board the machine is not in service position.