



“Technological solutions inspired by Innovation”

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GROUP





STC is an Italian Company which designs and supplies turnkey plants, and a complete range of equipment for the recovery of Pb, PP, PE, ABS and other materials from used lead batteries as well as engineering and consultancy services to improve performances at existing recycling plants.

**YOUR ITALIAN PARTNER
FOR BATTERY RECYCLING**



We **LEAD** by Technology Innovation



SF15 - Sink & Float

The company portfolio includes:

- Complete lead recycling plants from 1 to 20 t/h of batteries
- Battery crushers and pre-crushers
- Battery component separation
- Paste & Grids desulphurization (traditional or U4Lead)
- Coarse and fine classification of paste and metal fraction
- Lead oxide regeneration unit - LEAD³ with production of nano-structured lead oxides
- Polypropylene upgrading up to PP chips or granules
- Polyethylene separators Treatment System
- Plastic separation (PP, PE and ABS separation)
- Electrolyte treatment



Heavy Duty Trommel HDT-40
Inlet crushed battery capacity: 40 t/h



DS15 - Delta Separator

Competence & Technology



- Evaporation & Crystallization systems with low energy consumption (vacuum, MVR, multi effect, etc.)
- Paste pelletizing for easy charge preparation with fluxes reduction
- Charging machine for rotary furnaces
- Automatic charge preparation unit
- Tilting & fixed axis rotary furnace and burners
- Air pollution control systems (scrubber, baghouse, after-burner)
- Water & waste water treatment plant for sulphate and heavy metals removal and recovery
- Lead pumps & agitators
- Refining kettle, oxy-lancing, dross skimmer
- Ingot Casting Line with robots for stacking and skimming

Focus on some of our **Plug&Play** solutions



Heavy Plastic Treatment System



PE briquettes



ABS

Some of our **Plug&Play** solutions, easy to install and to integrate into **existing** ULAB recycling plants as well as into **green-field** projects.



Delta Separator



Fine Lead Paste



Coarse Lead Paste



Metallic fraction separation unit



Coarse metallic fraction



Fine metallic fraction

Heavy Plastic Treatment System



SCOPE :

- A. Produce a cleaner fraction of PE separators with low residual humidity in form of compact and stable briquettes having high specific weight easy to be handled and transported, for damping or reuse
- B. Recovery of lead paste and metallic lead contained in the Heavy plastic fraction and therefore reducing the lead contamination,
- C. Recover the rigid plastic like heavy PP and ABS residues which are not normally recovered but has great value on the market
- D. Increase the overall recovery efficiency of the recycling process



Heavy Plastic Treatment System



ABS



PE briquettes

Metallic lead **classification**



The metallic fraction can be washed (possibly desulphurized to remove the sulphur content) and classified in two fractions:

- **Lead fines particles**
- **Poles and Posts (Pb/Sb)**

Due to the high quality obtained the coarse fraction can be processed directly into refining kettles or into a specially designed TRF with **fast melting cycle and low energy consumption**.



Metallic fraction separation unit



Fine metallic fraction



Coarse metallic fraction

Delta Separator for Paste Classification



Through a unique STC equipment called **DELTA SEPARATOR** is possible to achieve a separation between coarse and fine lead paste by a **simple elutriation process**.

The main advantages is that the separated fine fraction (about 75% of the total paste) is much more simple to handle and transported into the downstream equipment thus **reducing the energy consumption** required to keep in suspension the coarse part and also **reducing the maintenance costs** due to abrasion that typically occurs in pumps, agitators and filter-press handling standard paste.



Delta Separator



Coarse Lead Paste



Fine Lead Paste

WE LOVE TO **SHARE OUR INGENUITY** WITH YOU



These are just few example of **STC innovative approach**: starting from our Customer's needs, STC **designs specific tailor-made solutions** for the supply of complete new plants or single units or equipment and **provides Consultancy and Engineering services** necessary for performances improvement at existing plants.

MONBAT®
RECYCLING



PIOMBIFERA ITALIANA



SUNLIGHT
RECYCLING Pb



KOVOHUTĚ
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umicore



Campine



MP ΜΕΤΠΛΑΣΤ



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