

# Compact system

## Recycling solutions

Proven MTB processing technology in a compact configuration

# COMPACT **SYSTEM**

## Making waste treatment accessible

In 2017, we set out to make the recycling of complex industrial waste accessible and efficient, regardless of the size of your business. Thus was born our range of compact BOX recycling systems, designed to integrate cutting-edge technologies into a limited number of container.

Approved by many companies around the world, our BOX solutions have become a benchmark in the industrial waste recycling sector.

MTB compact systems are pre-integrated recycling solutions designed for projects requiring limited footprint, controlled throughput and reduced on-site installation work.

## Our compact recycling systems

**MAX**
The most compact recycling system



Up to 1 T/h

**CABLEBOX**
Compact cable recycling system



Up to 3 T/h

**TIREBOX**
Compact tire recycling system



Up to 2 T/h

**COMPACTBOX** *Innovation concept*
Versatile, multi-purpose system



Up to 2 T/h

**DRYCELLEVO** *Innovation concept*
Compact battery scrap recycling system



Up to 1 T/h

- Plug & Run solution, ready for operation
- Fast commissioning and easy transportation

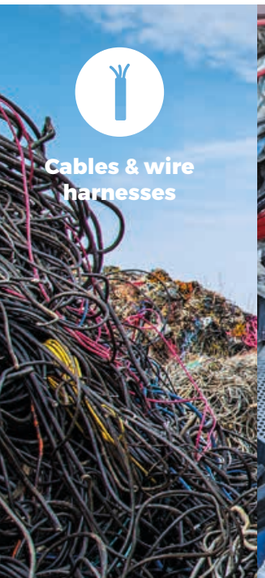
Each solution is configured according to the input material, target output quality, required capacity and local installation constraints.



| *WASTE PROCESSED* | COMPLEX CABLES | CLEAN CABLES | RADIATORS | NON-FERROUS MIX METALS | TIRE / TDF | BATTERY SCRAP |
|---|---|---|---|---|---|---|
| MAX | X | X | X | | | |
| CABLE BOX | X | X | X | | | |
| COMPACT BOX | | X | X | X | X *In option* | |
| TIRE BOX | | | | | X | |
| DRYCELLEVO | | | | | | X |

## A recycling solution for every waste stream

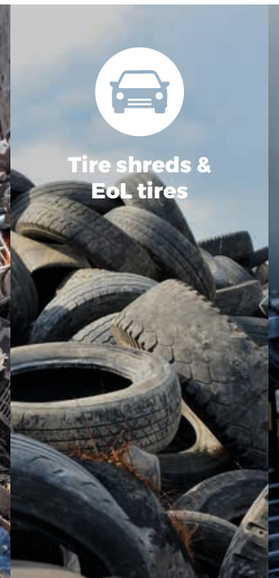
Based on the same proven processes used in our large-scale recycling plants, our compact systems combine shredding, granulation, and separation technologies to ensure efficient recovery of a wide range of waste streams while delivering high-quality output materials.















MAX

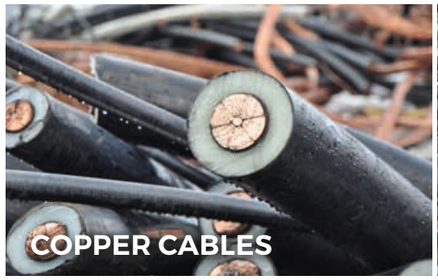
# Our most compact recycling system

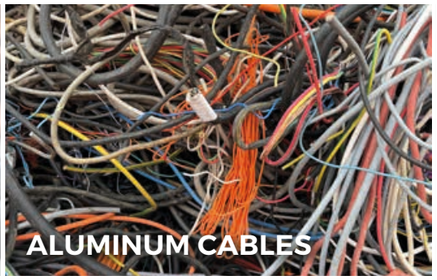
The MaX is a compact cable and metal processing line combining shredding, granulation, magnetic separation and density sorting on a pre-assembled base. It's designed for operators requiring controlled throughput and limited installation space.

While compact systems may offer comparable capacities, the MaX stands out through the quality of its output.

It processes complex waste streams beyond the reach of conventional equipment, while maintaining consistently high material quality: wire harnesses, shredder wires, radiators...

## Suitable input materials





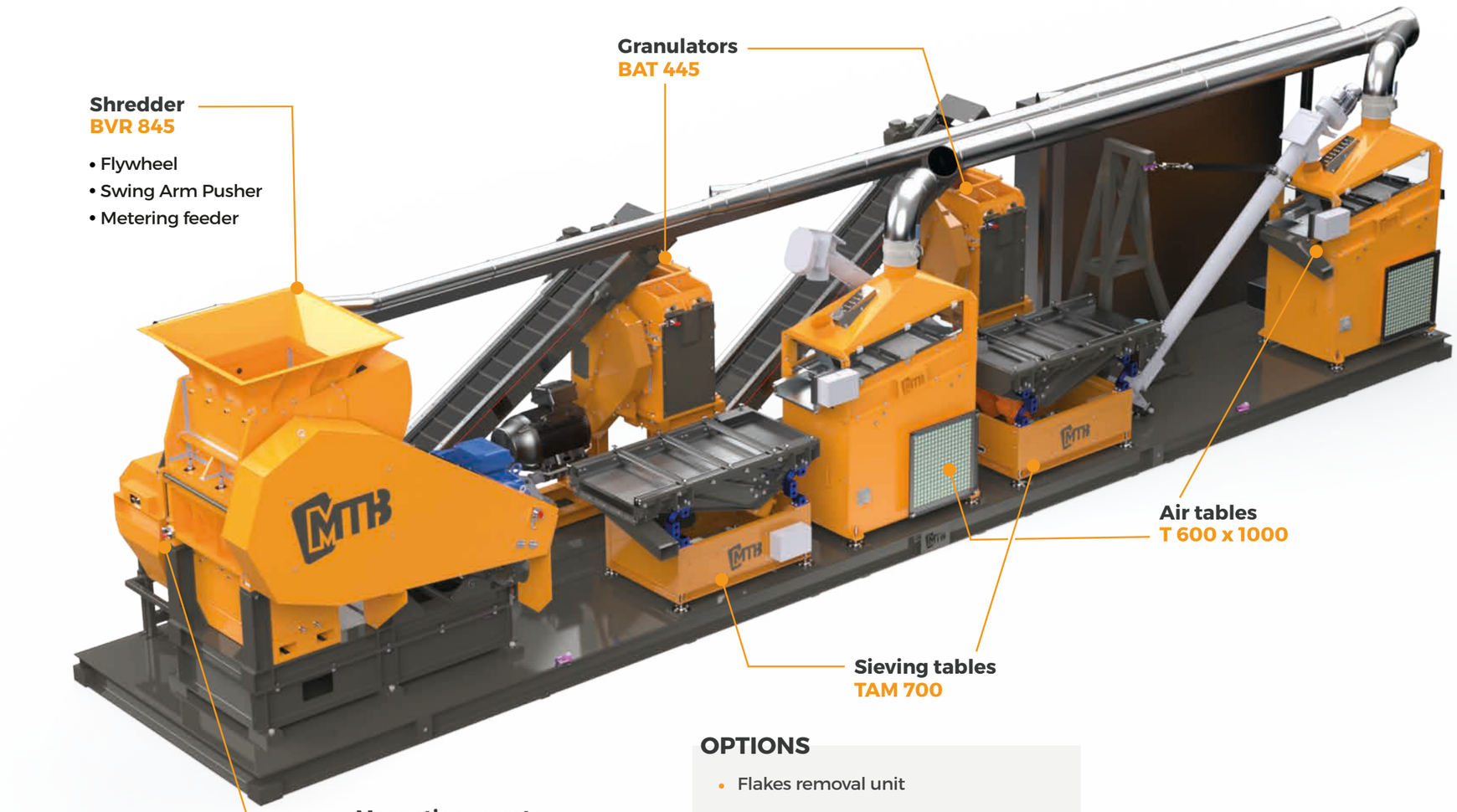











*3D visual non-contractual*

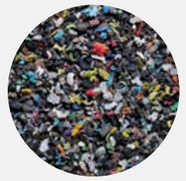
## Separated output fractions*

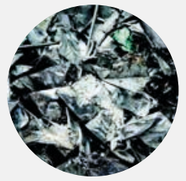

Big Copper


Fine Copper


Aluminum


Flakes (optional)


Plastics


Ferrous insert

## OPTIONS

- Flakes removal unit
- Extra plastic screening
- Turbo mill
- Set of discharge screw conveyors

## CAPACITY

up to **1 t/h***

** Capacity, final output distribution and quality depend on the input composition and selected options*

## A wide range of relevant features

### PLUG'N'RUN SOLUTION

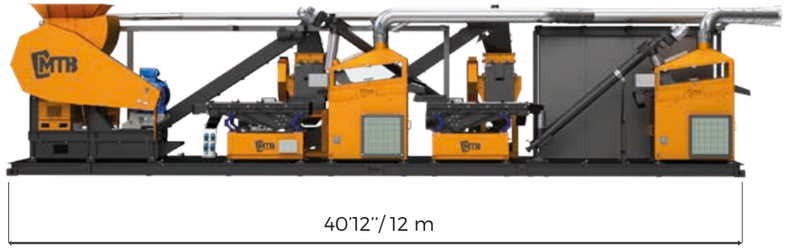
- The system is pre-assembled, pre-wired and pre-ducted to reduce on-site installation time.
- Site requirements are confirmed during project engineering and may include power supply, foundations, extraction, safety systems and material handling interfaces.

### MAINTENANCE BENEFITS

- Common blade references between shredder and granulators,
- Ceasy access to cutting chambers,
- Screen replacement,
- Wear-part accessibility,
- Maintenance clearances.




## Technical Data





Access to the cutting chamber on the BAT 445


Screen access on the BVR


Fixed and mobile blades access on the BVR


Easy screen tensioning on the sieving table TAM 700

## MaX's benefits at a glance

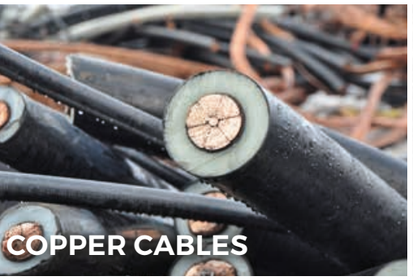
- Gradual size reduction in **3 steps** to increase **productivity**
- **One single blade model** for the entire process : the historical one at MTB
- Same robust design replicated from our larger shredders : **extended machines life**
- **Dedusting step :** hoses can be connected to existing systems (sourced by the customer) or with a filter unit supplied in option
- More flexible loading thanks to the **ram-equipped shredder**, eliminating the need of a grapple

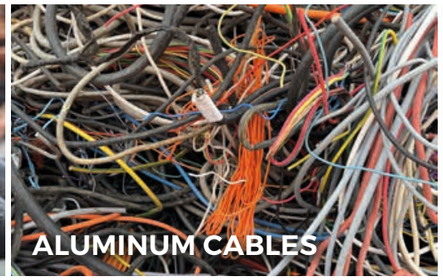
| | | *Main equipment specs.* | |
|---|---|---|---|
| **TECHNICAL DATA** | ***MaX*** | ***BVR 845*** | ***BAT 445*** |
| Length | 40'12" / 12 m | - | - |
| Width | 8' / 2.44 m | - | - |
| Height | 9'10" / 3.3 m | - | - |
| Weight | 20 t | - | - |
| Power | 200 HP - 150 kW | 60 HP - 45 kW | 50 HP - 37 kW |
| Cutting diameter | - | 14.6" / 370 mm | 20.3" / 515 mm |
| Rotor length | - | 31,5" / 800 mm | 15,8" / 400 mm |
| Blades | - | 16 | 14 |

CABLE BOX®

# Compact cable recycling system

## Suitable input materials
















## Separated output fractions*



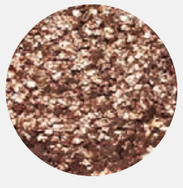
Big Copper



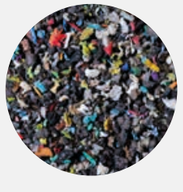
Fine Copper



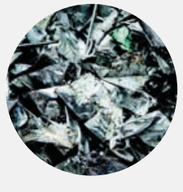
Aluminum



Non-ferrous flakes

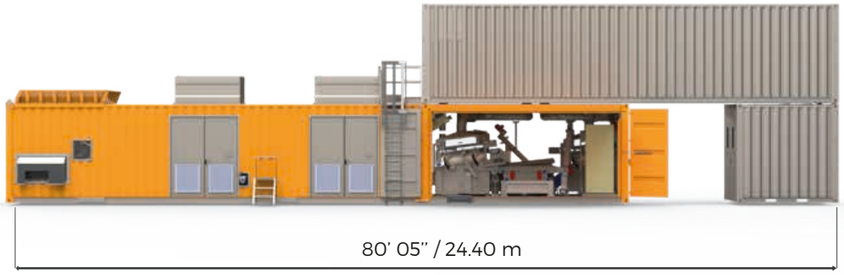


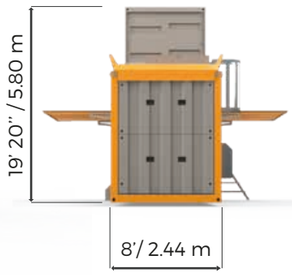
Plastics



Ferrous insert

## Technical Data







## CAPACITY

up to **3 t/h***

** Capacity, final output distribution and quality depend on the input composition and selected options*

*Main equipment specs.*

| TECHNICAL DATA | CABLEBOX | BDR 1245 | BAT 845 |
|---|---|---|---|
| Length | 80’ 05” / 24.40 m | - | - |
| Width | 8’ / 2.44 m | - | - |
| Height | 19’ 20” / 5.80 m | - | - |
| Power | 500 HP / 375 kW | 120 HP / 90 kW | 100 HP / 75 kW |
| Weight | 121 000 lb / 54 t | 16 000 lb / 7.5 t | 12 000 lb / 5.5 t |
| Cutting diameter | - | 16.5” / 415 mm | 24” / 607 mm |
| Rotor length | - | 49” / 1 200 mm | 32” / 800 mm |
| Blades | - | 24 | 28 |

## Main Advantages

### REDUCED ON-SITE INSTALLATION

- Pre-assembled and pre-wired containerized units

### CONTROLLED OPERATING ENVIRONMENT

- Enclosed process and integrated dust collection interfaces

### COMMISSIONING AND TRAINING

- On-site start-up, operator training and process setting

### OPTIONS

- Hydraulic system for BDR 1245 and swing doors
- Set of output belts conveyor or screws conveyors for easy conditioning of chops
- Plastic screening stage
- Automatic bin feeder with visual control and level sensor



CABLE BOX®

TIRE BOX

# Compact tire recycling system



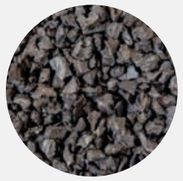
## Suitable input materials







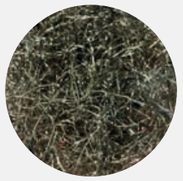
## Separated output fraction*



Big Rubber



Fine Rubber



Steel Wire



Textile fiber

## Composition

Shredding



BDR 1245

Granulation



x2 BAT 845

Sorting



x2 T 600



x2 TAM 700

Ferrous extraction



STMO

## DUST COLLECTION SYSTEM



### OPTION
RSX 1600 **- ROTARY SHEARS**

Integrated upstream of the TIREBOX, the RSX 1600, a two-rotor rotary shear combines cutting power and robustness to efficiently process the most demanding tire waste streams.

This option extends the system's processing capabilities to larger and more challenging tires, such as truck, agricultural, and industrial tires, while ensuring a consistent feed throughout the process.



COMPLEX TIRES INPUT



### SHREDDING

This part of the process includes:

A shredding unit, which consists of an extremely robust and powerful compact shredder, able to process all common tires, including truck tires and OTR tires.
A granulation module, which includes two granulators reducing the size of the material to achieve the optimum sorting size.

### SORTING

The sorting section combines density tables, sieving tables and magnetic separation to recover rubber granules, steel wires and textile fiber.

The size distribution, the capacity and purity of the output fractions depend on the tire type and selected configuration.

## CAPACITY

up to **2 t/h***

** Capacity, final output distribution and quality depend on the input composition and selected options*

## Main **Advantages**

### MINIMUM SIZE - MAXIMUM EFFICIENCY

- Feeding either by crane, belt conveyor or forklift
- MTB's Heavy Duty machines
- Power and reliability for both granulation and sorting
- Designed for capacities up to 2 t/h, depending on tire type, input preparation and required output size
- Output products: rubber granulate, steel wire and textile
- Automatic bin feeder with visual control and level sensor

### REDUCED ON-SITE INSTALLATION

- Pre-assembled and pre-wired containerized units

### CONTROLLED OPERATING ENVIRONMENT

- Enclosed process and integrated dust collection interfaces

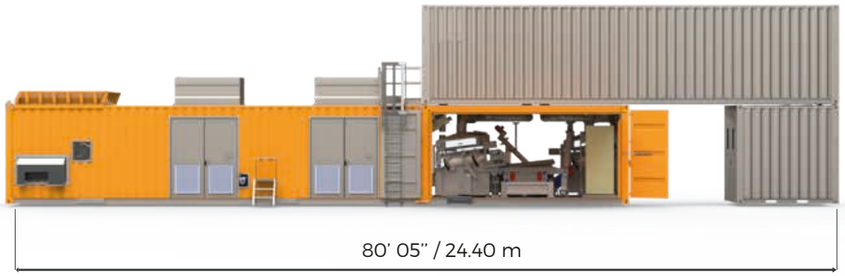
### COMMISSIONING AND TRAINING

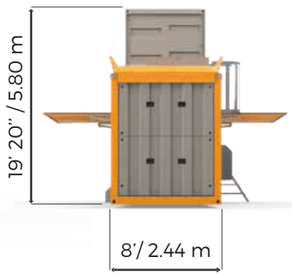
- On-site start-up, operator training and process setting

### OPTIONS

- Gator Box
- Hydraulic pusher option available on the Gator Box
- Optional hydraulic system for BDR 1245 and swing doors
- Dust collection bin
- Output containers
- Intermediate magnetic separator
- Maintenance tool assistance

## Technical **Data**




*Main equipment specs.*

| TECHNICAL DATA | TIREBOX | BDR 1245 | BAT 845 |
|---|---|---|---|
| Length | 80' 05'' / 24.40 m | - | - |
| Width | 8' / 2.44 m | - | - |
| Height | 19' 20'' / 5.80 m | - | - |
| Power | 375 kW / 500 HP | 120 HP / 90 kW* | 100 HP / 75 kW |
| Weight | 54 T / 121 000 lb | 7.5 T / 16 000 lb | 5.5 T / 12 000 lb |
| Cutting diameter | - | 415 mm / 16.5'' | 607 mm / 24'' |
| Rotor length | - | 1 245 mm / 49'' | 800 mm / 32'' |
| Blades | - | 24 | 28 |

**Option available 147 HP / 110 kW motor*





COMPACTBOX - *INNOVATION CONCEPT*

# A versatile, multi-purpose system

Designed for selected cables, radiators, non-ferrous metal mixtures and tire shreds (in option), subject to prior material testing.

The exact configuration and performance depend on the selected application.

## MINIMUM SIZE - MAXIMUM EFFICIENCY

- Feeding either by crane, belt conveyor or fork lift
- MTB's Heavy Duty machines
- Power and reliability for both granulation and sorting
- Output products: ferrous, non-ferrous and plastic
- Automatic bin feeder with visual control and level sensor

## REDUCED ON-SITE INSTALLATION

- Pre-assembled and pre-wired containerized units

## CONTROLLED OPERATING ENVIRONMENT

- Enclosed process and integrated dust collection interfaces

## COMMISSIONING AND TRAINING

- On-site start-up, operator training and process setting

## Composition

Shredding



BDR 1245

Granulation



BAT 845

Sorting



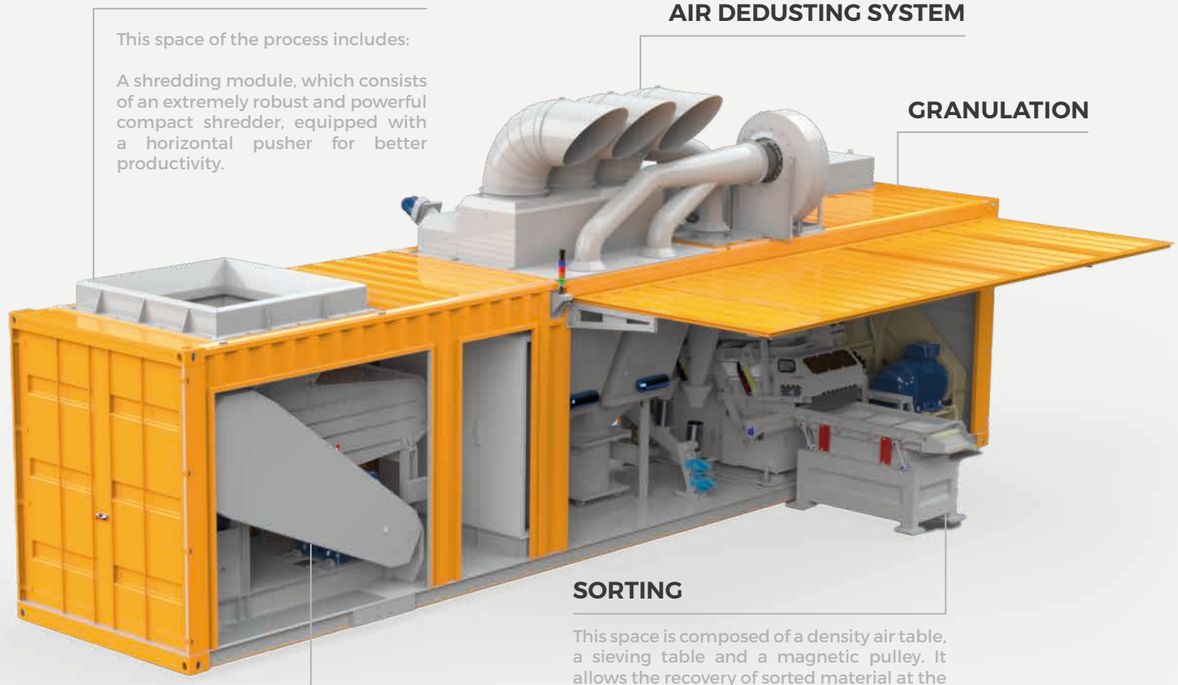
T 600

TAM 700

Ferrous extraction



STMO




This space of the process includes:

A shredding module, which consists of an extremely robust and powerful compact shredder, equipped with a horizontal pusher for better productivity.

This space is composed of a density air table, a sieving table and a magnetic pulley. It allows the recovery of sorted material at the end of the process as follows: ferrous scrap, big copper nugget, copper fine fraction, caps (aluminum, brass, tin) and plastic.

## CAPACITY

up to **2 t/h***

** Capacity depend on the input composition and selected options*

## Suitable input materials









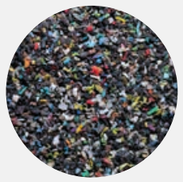




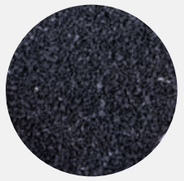
## Separated output fractions*



Big Copper



Plastics



TDF granules



Aluminum



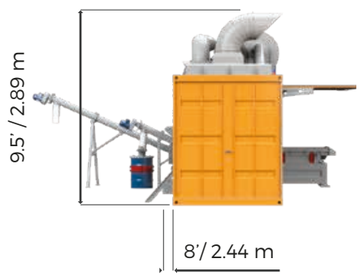
Ferrous insert

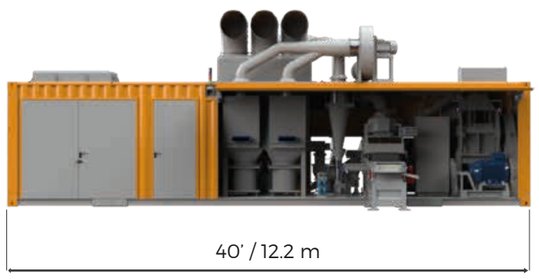


RDF granules

** Final output distribution and quality depend on the input composition and selected options*

## Technical Data




*Main equipment specs.*

| TECHNICAL DATA | COMPACTBOX | BVR 1200 | BAT 845 |
|---|---|---|---|
| Length | 40' / 12.2 m | - | - |
| Width | 8' / 2.44 m | - | - |
| Height | 9.5' / 2.89 m | - | - |
| Power | 300 HP / 220 kW | 147 HP / 110 kW | 100 HP / 75 kW |
| Weight | 64 000 lb / 30 T | 18 700 lb / 8.5 T | 12 000 lb / 5.5 T |
| Cutting diameter | - | 19" / 485 mm | 24" / 607 mm |
| Rotor length | - | 47" / 1 200 mm | 32" / 800 mm |
| Blades | - | 24 | 28 |



# DRYCELLEVO - *INNOVATION CONCEPT*

## Li-ion battery scrap recycling

### Suitable input materials

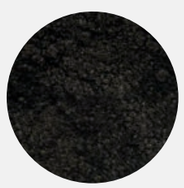








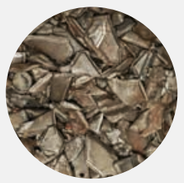

### Separated output fractions

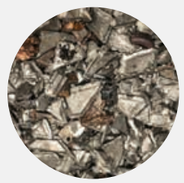

Blackmass


Copper


Aluminum


Plastics


Ferrous


Heavy non-ferrous

**BATTERY SCRAP RECYCLING**
Without electrolyte

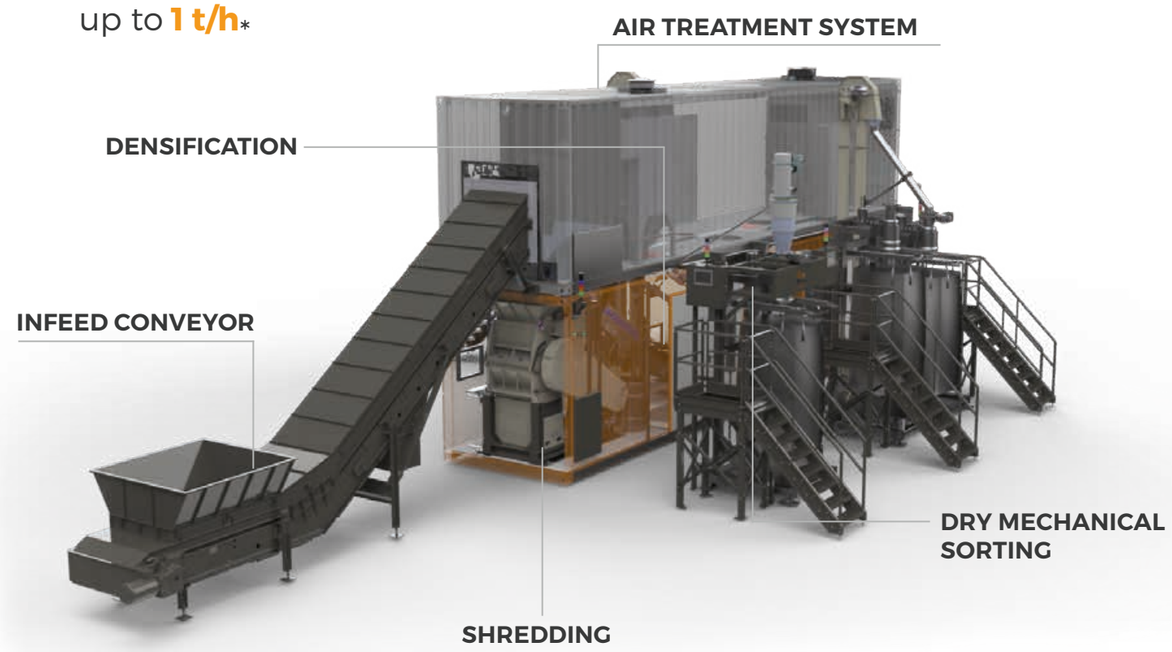
The DRYCELLEVO is an innovative solution currently under development and undergoing validation trials at MTB's recycling facility. Continuously improved through real operating conditions, the system is designed to efficiently process lithium-ion battery production scrap without electrolyte, while maximizing the recovery of high-quality material fractions.

The equipment design may evolve as development progresses. DRYCELLEVO is exclusively intended for the treatment of lithium-ion battery materials free of electrolyte.

## CAPACITY

up to **1 t/h***

** Capacity, final output distribution and quality depend on the input composition and selected options*




### Main Advantages

- Designed to meet applicable safety requirements
- Centralized control cabinet POWERBOX
- High quality of output products
- Custom-made MTB concept
- Robust design derived from MTB's larger-scale installations
- Depth sorting of cases or foils baling option available
- Training and ultra-responsive customer service



DRYCELLEVO concept unit at our MTB Recycling site, France (38) ©MTB

# OUR **SERVICES**

## **Eco-Innovation** support

Our Eco-Innovation team supports industrial companies in their eco-design and circularity initiatives:

- **Optimize resource utilization**
- **Reduce the environmental footprint of products and services**

Our resources dedicated to eco-design:

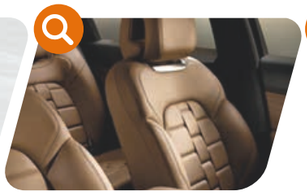
- **An industrial-scale testing center supported by a dedicated machine fleet.**
- **A scientific approach to ensure high-quality support.**







Implementation of a **ski recycling stream** enabling material reintegration and improving the recyclability rate from 6% to 77%.



**Decarbonization and recycling** of automotive cockpit components.



**Recycling of critical metals** contained in electric vehicle motors.



Development of a solution for **recycling composite materials from wind turbine blades.**

## **Customer trials**

Our recycling facility includes a dedicated area for customer trials. Before finalizing the purchase of one of our systems, **customers have the opportunity to test their own materials using our technologies.**

This step makes it possible to:

- Optimize machine processing parameters,
- Assess system performance under real operating



## **Laboratory**

A laboratory is also available at our facility. It is equipped with advanced analytical instruments that enable:

- **Quality control of recycled materials,**
- **Validation of process parameters for informed decision-making.**

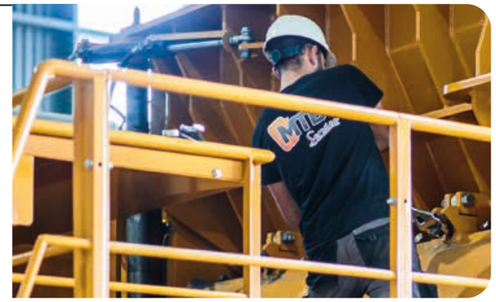
Scan to discover a raw material analysis.



## **Commissioning** - MTB Service

Our team of technicians travels worldwide to commission your installations.

Specialized in installation and repair, and able to respond quickly, they support you in your day-to-day operations.



## **Support** - Training and coaching

A team of process experts that:

- Trains your personnel to master your equipment's operating parameters for optimized performance,
- Provides refresher training programs to maintain and enhance skills,
- Delivers guidance to adapt your equipment to the evolving characteristics of your feedstock.




## **Maintain performance** - Customer support

A dedicated team that:

- Schedules predictive maintenance for your equipment based on the line's required availability rate.
- Organizes troubleshooting interventions and supplies wear parts with short lead times.
- Provides expert advice and technical guidance.



## ***MY***MTB **Plateform**

The connected dashboard for your MTB equipment, providing comprehensive monitoring and reporting:

- **Equipment inventory**
- **Document library**
- **Access to historical data**
- **Support center**
- **Notification center**
- **Production overview**



# MAIN ADVANTAGES **OF OUR EQUIPMENT**

## Reduced footprint

- Pre-integrated configurations designed to limit on-site space requirements.

## Faster project deployment

- Assembly, wiring and ducting are completed as far possible before delivery.

## Proven MTB processing stages

- Shredding, granulation and separation technologies derived from MTB industrial solutions.

## Configuration adapted to the feedstock

- Capacity and output quality are defined through characterization and testing.

## Long-term support

- Share with us your material sample, target capacity and available footprint. Our teams will identify the most suitable compact configuration.



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Visit our website

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