GME

Company overview

2017

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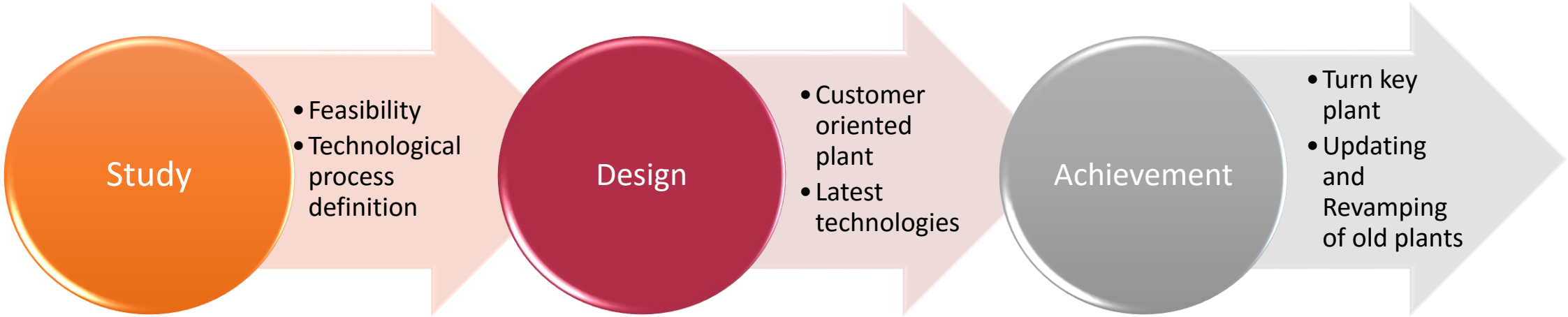
INNOVATION IS OUR BEST COMMUNICATION

Gianni Mori Engineering (GME) is an engineering company operating through years in the scraps recycling field

Thanks to the consolidated experience and an high level technical team, allows



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RECYCLING AT 360°

We operate between three of the main Recycling fields

Lead Battery Recycling

- **Exhaust battery** recycling
- **Lead smelter** machinery

Plastics Recycling

- Scraps Plastics recovery plants (**CAR FLUFF & RDF**)

Aluminum Scraps Recycling

- **Shredding line** for Aluminium profiles and sheets with plastics, papers etc separation
- **Pirolitics Decoaters** for paint, oil, grease and others organics removing from metallics scraps
- Aluminum scraps **melting plants**

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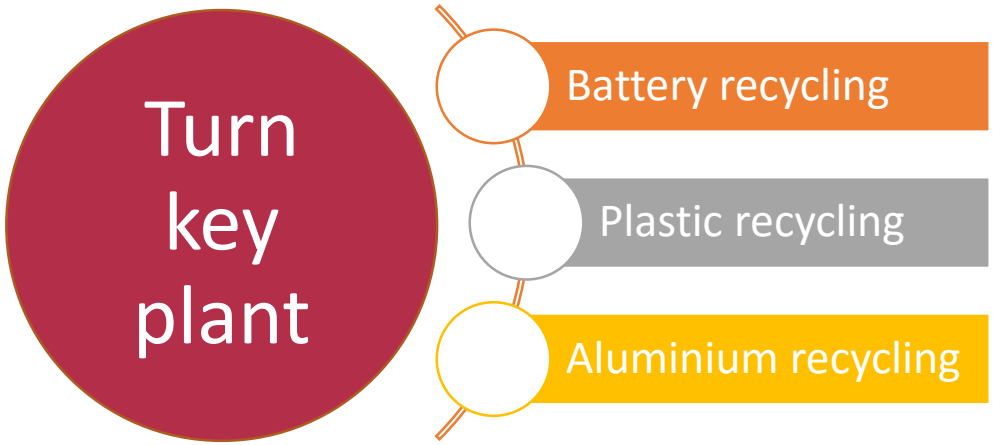
WHAT WE OFFER

Through these three main fields, we offer the full technical development of



Our consolidated know-how in these branches, guarantee a full satisfaction of the
CUSTOMER PERSONALIZATION REQUIREMENT

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Exhaust Battery Recycling Plants

Breakers for battery crushing with all components recovery - Paste de-sulfation

Main functions:

- Drained acid recovery
- Battery crushing in the hammer mill
- Lead paste screening
- De-watered lead paste by filter press
- Grids & poles high quality
- (PP) Polypropylene recovery with grinding up-grading
- (PE) Polytene recovery
- Sulphur removing from lead paste (de-sulfation)

Products quality:

- Drained acid filtered with selling scope
- Grids & poles purity up to **97%**
- Lead paste high purity, no contamination by organics, with 0,1% only contamination by grids, umidity less than **10%** after filter press, sulphur residual **< 0,4%** after de-sulphuration
- Polypropylene (chips) **purity > 95%**, size 70/100 mm or 15 mm after grinding
- Polytene (PE) to dump or to burn in the rotary furnace

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LEAD BATTERY RECYCLING

Battery Breaking with components recovery

Battery Store
(acid collection)

Breaker

Grids

Paste

PP

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Lead smelter machinery

- Grids & Paste melting units based on rotary furnaces
- Lead bullion refining unit based on Kettles
- Vibrating channel type loader for rotary furnaces
- Rotary furnaces with oxy-fuel combustion
- Process gas de-dusting based on bag filters, special execution for lead
- After burning and quenching to destroy the dioxin
- Sodium bicarbonate reactor to reduce SOx, HCl & HF

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LEAD BATTERY RECYCLING

Lead Smelter process

Rotary Furnace

Lead Casting View

Kettles

Bag Filters

Final Product - Ingots

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FLUFF & RDF Recovery

- (PP) Polypropylene from exhaust batteries
- Car Shredding FLUFF combustion with energy recovery
- RDF combustion with energy recovery

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PLASTIC RECYCLING

Car Shredding **FLUFF** recovery process

FLUFF

FLUFF Upgrading

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PLASTIC RECYCLING

FLUFF upgrading final Products

Metals

Inerts

Heavy FLUFF

Light FLUFF

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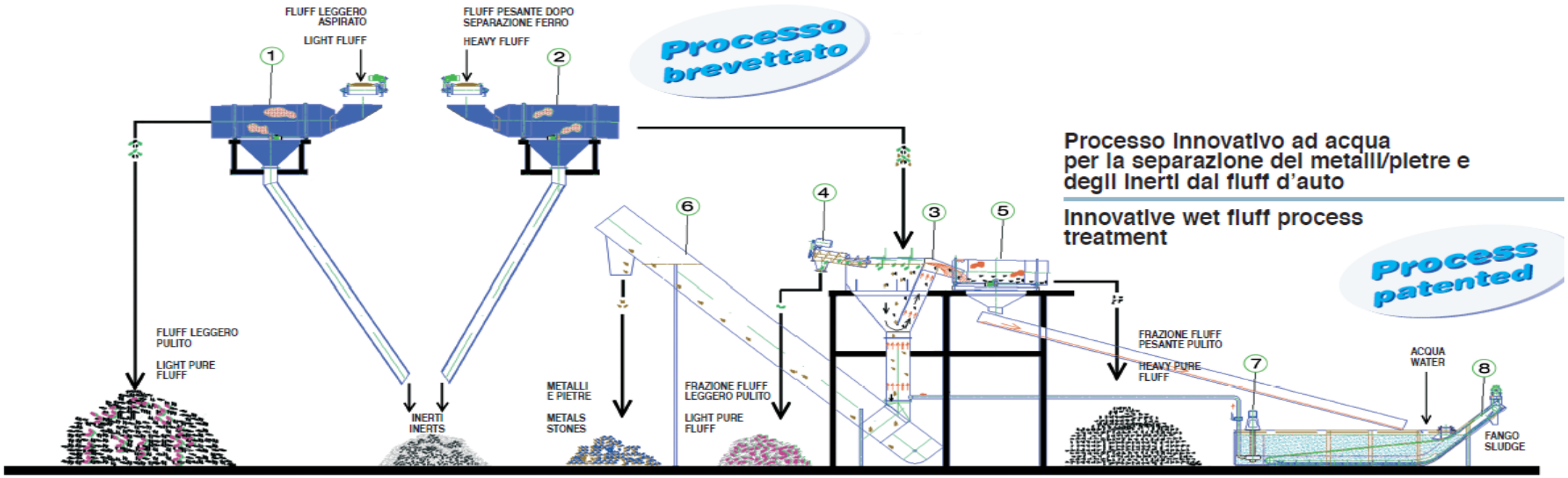
PLASTIC RECYCLING

Car Shredding FLUFF **Patented** innovative process



PRODOTTI	PRODUCTS
1- Fluff frazione leggera – fluff frazione pesante – fanghi	1- Light pure fluff – heavy pure fluff – sludge to use as fuel
2- Fine di fluff uso come inerte nella produzione di asfalti	2- Fluff inerts mix with other components to asphalt production
3- Metalli e pietre separati e recuperabili	3- Metals and stones to recovery ferrous and non ferrous metals

1	Vaglio rotante Rotary screen	4	Coclea Screw conveyor
7	Pompa acqua Water pump	3	Separatore idrodinamico Hydrodinamic separator
6	Nastro metallico Metallic belt	2	Vaglio rotante Rotary screen
5	Vaglio separazione acqua Water rotary screen	8	Vasca decantazione acqua Water settling tank
		ITEM	Descrizione Description

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PLASTIC RECYCLING

Car Shredding FLUFF Patented innovative process

Eng. Gianni Mori,
CEO of **Gianni Mori Engineering S.r.l.** with Mr. Leopoldo Del Prete, owner of **Centro Rottami S.r.l** (Italy) into 2009 patent:
Inerts and metals purification Tecnology of the non metallic fraction (FLUFF) from end life cars

Ministero dello Sviluppo Economico
Direzione Generale per la Proprietà Industriale
Ufficio Italiano Brevetti e Marchi

ATTESTATO DI BREVETTO PER INVENZIONE INDUSTRIALE

N. 0001358394

Il presente brevetto viene concesso per l'invenzione della domanda sotto specificata:

num. domanda	anno	C.C.I.A.A.	data pres. domanda	classifica
000006	2004	LATINA	07/10/2004	B09B

TITOLARE/I DEL PRETE LEOPOLDO
CISTERNA DI LATINA (LT)
MORI GIANNI
MONZA (MB)

DOM. ELETT. MORI GIANNI

INDIRIZZO VIA MOLISE 15
20052 MONZA (MB)

TITOLO TECNOLOGIA INNOVATIVA DI PURIFICAZIONE DA INERTI E METALLI DEL RESIDUO DA LAVORAZIONE CARCASSE AUTO

INVENTORE/I DEL PRETE LEOPOLDO
MORI GIANNI

MARCA DA BOLLO €14.62

PER COPIA CONFORME ALL'ORIGINALE
Latina, 05/08/2008

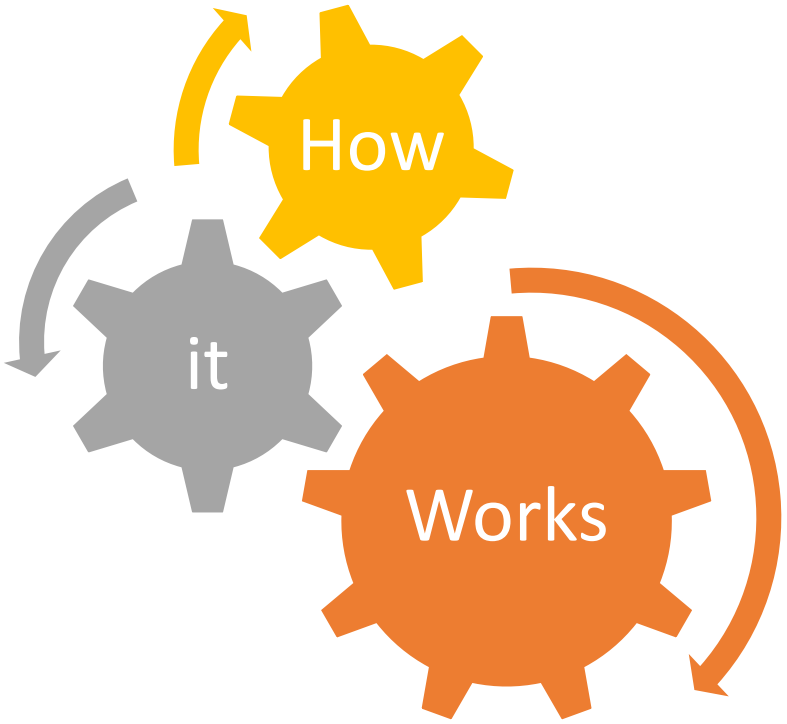
Roma, 01/04/2009

IL DIRIGENTE
Ing. GIOVANNI TETI

PLASTIC RECYCLING

FLUFF upgrading movie, Centro Rottami S.r.l, Cisterna di latina (Italy)

SEARCH IN VIDEO SECTION FOR MORE



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PLASTIC RECYCLING

Light & Heavy **FLUFF & RDF** pyrolitic gasification with heat recovery to produce electric energy

Centro Rottami S.r.l, Cisterna di latina (Italy)

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ALUMINIUM SCRAPS RECYCLING

Aluminum Shredding line with plastics, paper, rubber separation

Low speed and high cutting force shredding for Aluminum profiles up to 7 mt lenght also for sheets, with dust screening, with magnet for iron removal and with eddy-current for plastic, paper, rubber separation.

General View

Shredder

Eddy Current

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Pyrolitic decoaters to hot remove paint, oil, grease, plastics

The process remove any contaminantes from scraps surface without oxidation of metallic parts

Main Advantages

Full removing of the organics from srcaps surface.
Recovering of the heat generated from the afterburning of the organics, with following advantages:

- With organics content over 5% the process no need fuel
- With organics content around 5% the average fuel consumption is about **20** - **28 Nm3/ton** of charged scraps
- **Easy melting with metal high recovery yield of the decoated scraps**, similar to the melting of ingots.
- **No contamination of the environmental** during melting.

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ALUMINIUM SCRAPS RECYCLING

Aluminum Scraps Decoater

UBC

Drum Decoater

Decoated Discharging Belt

Decoated UBC

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Aluminum scraps melting machinery

Melting and holding furnaces for aluminum scraps, static or tilting, with or without regenerative burners with side well for continuous melting with pump & Lotuss.

- Melting furnaces double chamber with gas recycling to heat recovery and to scraps decoat.
- Rotary furnace at fixed or tilting axis, with oxy-fuel burner and metal & slag tapping system from head or from centre furnace.
- Loader machine for the above furnaces vibrating channel type moving on rails
- Homogenizing furnaces for billets (Logs), chamber type with coooling chamber annexed.
- Ingots casting belts with water cooling & automatic ingots stacking.
- Process gas de-dusting with dust removal by bag filters and with acid gas (HCl, SOx, HF) removal by sodium bicarbonate reactor.
- Process gas afterburning with quenching to prevent dioxin formation

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ALUMINIUM SCRAPS RECYCLING

Aluminum scraps melting furnaces

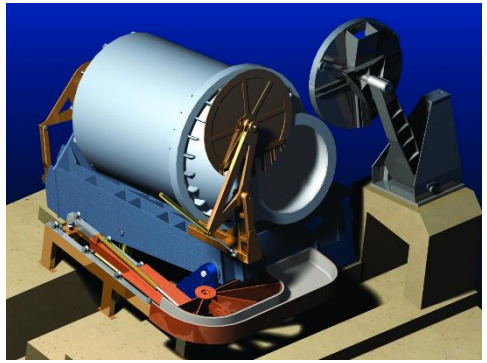
Reverberatory furnace tilting type

Single chamber

Twin chamber

Rotary furnace fixed axis

Rotary furnace Tilting type



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WHAT WE OFFER

Further to the main activity of turn key plant costruction and as natural development of our long time trusted knowledge, we also offer:

ENGINEERING & CONSULTING

- Technical consulting for several industrial process
- Engineering of cutomized process

INSTALLATION SUPERVISION

- On new plant
- On old revamped plant

COMMISSIONING

- New plant startup
- Startup service of existing or third embodiment

REVAMPING

Revamping services with Upgrading of old parts, as:

- Old Lead battery recycling plant
- Old Plastic recycling plant
- Old Aluminum scraps recycling plant

with new technology implementations

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Thanks for your attention and trust

FOR ANY FURTHER INFORMATION DO NOT HESITATE TO CONTACT US

GME Recycling STAFF

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