

GYPSUM RECYCLING SYSTEM

- a solution designed to handle different waste streams,

as well as different contaminants











Your partner in Gypsum Recycling

ReTec is amongst the pioneers in the development of Gypsum Recycling. Having built and co-developed the first mobile plants in 2000, we have always been at the forefront of the industry. Our approach is simple: we listen to the customer, we analyze the material carefully, and we develop our solutions to match the needs – and nothing more.

Modular solution for different waste streams

Waste is heterogeneous. Therefore our solution is designed to handle different waste streams, as well as different contaminants.

For construction & demolition plasterboard waste, we design a pre-treatment process that crushes the plasterboards and removes as much of the contaminants as possible.

For the cleaner production waste the pretreatment is primarily size reduction for the material to enter the roller-mil.

The roller-mill is constructed with a moveable roller that will allow con-

taminants like wood, hard plastics etc. to pass through the mill. The roller-pressure is applied through a simple and reliable mechanical principle of springs.

For screening, we use a conventional single deck vibration screen with rubber balls. Capacity and screen-size according to customer needs.

For transport of gypsum powder in the plant we use closed screw-conveyors.

For onwards handling of the out-put fractions of gypsum powder and

waste (mainly paper) we offer different solutions such as a screw-press attached to a container to eliminate manual handling process, which is time consuming and dusty.

High quality separation We work with several key parameters to ensure a good quality of separation:

 Pre-treatment process removes contaminants and reduces particle size to < 50 mm, without cutting the paper into fines that are difficult



to screen afterwards and therefore will increase your unwanted TOC%

 The roller-mill while applying a lot of pressure will very efficiently "grind" the gypsum of the paper, hence reducing unwanted gypsum in your waste-fraction (cost of incineration or land-fill).

The efficiency of your separation dictates the quality of your product. With the ReTec Gypsum Recycling solution you get state-of-the-art quality outputs:

- Clean gypsum powder with very low TOC
- Waste paper fraction with very little Gypsum content

High reliability and low operating cost

We design our equipment as simple and reliable as possible, and avoid not needed complexity.

For example, the pressure force on the rollers is applied mechanically by means of springs - a strong, simple and reliable construction. Therefore our customer feed-back tells us of very high plant reliability.

Your turn-key supplier
ReTec offer our solution on turn-key
basis. We have in-house construction department, electrical engineering and project management. We
manufacture at our own facility in
Haderslev, Denmark. We offer installation and commissioning and our
own experienced service technicians.

References

Our references include a number of Gypsum Recycling Operators in Northern Europe as well as Plasterboard manufacturers. Please contact us for more information.









Screw crusher

The ReTec screwcrusher is the 3-in-one machine at the front end of the ReTec plants.

It combines a feeding hopper, dosing unit and a precrusher in one machine.

The screwcrusher can be adapted to your needs by choice of a 2, 4, 6 or 8 shaft version.

Grinder

The robust ReTec grinder gently grinds the gypsum out of the plasterboard with a very low impact on the paper.

The grinder is built to handle demolition waste and removes impurities like stones, wood, metal etc.



Roller Mill

The ReTec roller mill is specially designed for milling gypsum materials and removes any paper residue from the gypsum.

It is a simple and robust design that last for years.

Vibration sieve

The ReTec vibration screen is available in different sizes to match the needs.

It comes with a integrated cleaning system and a very strong frame setup.





ReTec Miljø ApS Fjordagervej 38 DK-6100 Haderslev Tel.: +45 7456 8106 Fax: +45 7456 8581 VAT: DK 25 86 24 22 sales@retec.dk www.retec.dk

ReTec develops, constructs and manufactures special machines for the waste and recycling industry. We offer practical solutions to our customer's needs, helping them increase profitability in their business.