agglostec





AGGLOTEC CONTACT



Address

Marktplatz 9 | 4121 Altenfelden | Austria



Phone

+43 (0) 7282 216000



E-mail

info@agglotec.at



Home

www.agglotec.at



AGGLOTEC - Your Partner for Success in Agglomeration

AGGLOTEC provides customized solutions, tailored to your processing requirements.

Agglomeration is a process that forms powdered raw materials into round pellets with a size of approx. 1 mm to 20 mm. Whether recycling materials, iron ore or fertilizers - the process to form powders into handable pieces is necessary for many reasons.

CEMTEC - Managing Projects Throughout the World since 1990

CEMTEC is a global leader in development of machines and systems for production facilities of mineral processing. The scope of supply includes systems for grinding a wide variety of materials and mineral bulk solids, as well as rotating drums for thermal (burning, drying, cooling) and mechanical treatment (mixing, washing, conditioning) of various bulk solids.

AGGLOTEC has access to expertise from 30 years of experience and a competence center with its own laboratory. We analyse and characterize your raw materials and make your product request to our challenge. Our customers are supported from the development phase of a project up until the commissioning of the complex facilities. We guarantee future production income. Piece by piece.



Cement & Mining Technology



QUALITY AND RELIABILITY MADE IN THE EU

Pelletizing is one of the processes available for enlarging particle size by granulation. In general, the quality requirements for final agglomerates are:

- Size of the pellets
- Green pellet strength
- Moisture content of the dried pellets
- Compressive strength of the dried pellets

The physics of agglomeration is based on a three-phase system consisting of the dry feed material, air and water. The predominant forces in this system are capillary forces. Binding agents have to be used as additives, as in most cases water alone does not generate sufficient binding forces between the particles. Various organic and inorganic additives are available on the market to produce both, green and dry pellet qualities that meet the given requirements.

d and dry

Agglomeration itself takes place in the pelletizing disc. There are multiple process parameters that influence the disc product. In order of importance, these include disc inclination, disc speed, wall height, position of the water nozzles and position of the feed to the disc. Producing pellets to a certain specification can be a challenge that requires experienced operators who know how different parameters can affect the process.

AGGLOTEC provides the perfect system for your requirements



Typical Flowsheet for Mineral Granulation



Pos	Designation
1	Raw material silo
2	Dosing
3	Mixing
4	Pelletizing disc
5	Dryer
6	Cooler
7	Filter
8	Screen
9	Product

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PELLETIZING PLATE SYSTEMS customized design



FEATURES

- >> open disc systems or completly covered for dust-free operation
- >> various scraper designs
- >> inclination adjustment
- >> robust bearing via slewing ring
- >> central drive unit
- >> central lubrication unit
- >> durable and long lasting design
- >> maintenance friendly
- >> special features for special requirements



SIZE Ø 500 x 50 cm

Standard Pellet Plate Sizes

Type code	ø [mm]	Height [mm]
LAB-60x20	600	200
PPD-120x30	1.200	300
PPD-200x40	2.000	400
PPD-250x45	2.500	450
PPD-300x50	3.000	500
PPD-350x55	3.500	550
PPD-400x60	4.000	600
PPD-450x60	4.500	600
PPD-500x60	5.000	600
PPD-550x60	5.500	600
PPD-600x65	6.000	650
PPD-750x70	7.500	700

» all other sizes on request

SOLUTIONS FOR VARIOUS APPLICATIONS from the pilot plant to largescale production





Special Features for Pelletizing Discs



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WATER INJECTION SYSTEM for the perfect compound



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Special Features for Pelletizing Discs

AUTOMATIC DISC INCLINATION DEVICE via electrical spindle drive

AGGLOTEC supplies special features

for every customer requirement.



The design enables the adjustment of the pelletizing disc during operation.

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COPA | ONLINE PELLET ANALYSER

The COPA system is designed for monitoring the pellet size distribution on pelletizing disc. The obtained data is provided online in order to improve product quality and minimize over- and undersize material.

- >> Monitoring and analyzing the pellet size
- >> Control of disc speed, water and material feed quantity
- >> Guarantees a homogeneous product quality
- >> Specifically developed CEMTEC Software



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AGGLOMERATION TECHNOLOGY WORLDWIDE

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Pilot Plant

AGGLOTEC is in the privileged position of operating a state-of-theart laboratory together with CEMTEC.

We aim to adapt every stage of the process to the exact needs of our client – from the start of production to intermediate and finished products.

In order to develop custom-made systems, the required properties are defined in our laboratory and technical center. The collected data is the basis for further calculations and design parameters.



The pilot plant is equipped with all the required process steps needed to evaluate the technical feasibility of agglomeration projects. Using a sample of approximately 100 kg, continuous test trials are performed on a plough shear mixer, a 1.2 m diameter pelletizing disc and a fluidized bed dryer.

Alternatively, shell drying can also be done. Based on the individual results, up-scaling to industrial sizes can be carried out, offered and future performance can be guaranteed.

EACH PROJECT starts in our pilot plant













Dryer and Cooler

Drying and cooling are elementary processing steps in the preparation of bulk materials in all sectors of industry. Bulk goods such as sand and grit, coal, crystalline products, foodstuffs and animal feeds as well as waste products have to be dried before they can be fed into downstream processes. Dryers and hot gas generators are available in various designs and sizes to meet customer requirements in tailor-made solutions.



DRYER





Mixer



AGGLOTEC mixers are mainly used for raw material mixing and pre-humidification / pre-granulation upstream the pelletizing disc. The retention time necessary to achieve the required mixing quality depends on the properties of the raw materials and can be determined in our pilot plant. The variety of different sizes and designs is as well adapted to industrial mineral applications.

When configuring the mixer size according to product specifications, tests can be carried out in our in-house laboratory to ensure the correct process design and machine sizing.



Standard Mixer Sizes

Type code	ø [mm]	Length [mm]
PMX-30x115	300	1 150
PMX-40x150	400	1 500
PMX-60x225	600	2 250
PMX-80x300	800	3 000
PMX-100x300	1 000	3 000
PMX-100x375	1 000	3 750

Pelletizing Plant



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Pelletizing Plants

TURNKEY PROCESSING PLANTS

agglomeration tasks in the various industries

>> Fertilizers

From raw material to bagged products in small and large scale

» Iron Ore

Uniform pellet size and ease of control for pellets up to 20mm

>> Recycling

Granulation of waste materials from the steel industry, minerals industry,

de-dusting systems, sinter plants and various sludges

>> Alternative industries

A wide variety of materials from the fields of food, pet food, fibres, organic waste, soil and earth, plant and vegetable seeds, salts and much more



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Comprehensive Support from Concept to Completion

AGGLOTEC stands as your ideal partner for agglomeration tasks across various industries. Whether you need highly efficient stand-alone machines or complete processing plant solutions, we deliver. Our customized solutions are designed to meet your specific processing requirements, ensuring optimal performance and productivity.

Why Choose AGGLOTEC?

- >> Decades of Expertise: Leverage our 30 years of experience in agglomeration technology.
- >> State-of-the-Art Facilities: Benefit from our in-house laboratory and advanced competence center.
- >> Tailored Solutions: Receive customized agglomeration solutions designed to meet your specific requirements.
- >> End-to-End Support: Enjoy comprehensive support from project development to commissioning.
- >> Future-Proof Production: Secure your production income with our reliable and efficient solutions.

Join the many industries that trust AGGLOTEC for their agglomeration needs. Partner with us to transform your raw materials into manageable and valuable products.

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agglotec GmbH Marktplatz 9 4121 Altenfelden Österreich +43 (0) 7282 216000 info@agglotec.at