

agglotec

Agglomeration

TECHNOLOGY WORLDWIDE



agglotec



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AGGLOTEC Your Partner for Success in Agglomeration

AGGLOTEC delivers tailor-made solutions to meet your specific processing needs.

Agglomeration transforms fine powders into robust, easy-to-handle pellets ranging from approximately 1 mm to 20 mm. Whether dealing with recycling materials, iron ore, or fertilizers, this process is indispensable for enhancing material usability, efficiency, and sustainability.



CEMTEC Engineering Excellence Worldwide Since 1990

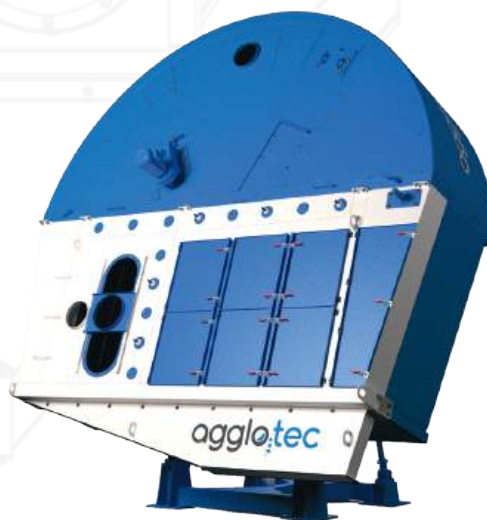
CEMTEC has been a global leader in designing and manufacturing equipment and systems for mineral processing facilities. Our product range includes advanced systems for grinding a variety of materials and bulk solids, along with rotating drums for thermal processes (burning, drying, cooling) and mechanical treatment (mixing, washing, conditioning) of bulk materials.

AGGLOTEC & CEMTEC: Expertise Combined

Through 30 years of experience and a dedicated competence center equipped with its own laboratory, AGGLOTEC leverages CEMTEC's expertise to deliver innovative solutions. We analyze and evaluate your raw materials, transforming your product requirements into tangible results.

From the initial development phase to the commissioning of complex facilities, our customers receive comprehensive support. Together, we ensure reliable production performance—pellet by pellet, piece by piece.

**AGGLOTEC provides
the perfect system for
your requirements**



What is Pelletizing?

Pelletizing is a granulation process used to increase particle size and create uniform pellets. The desired quality of the final pellets typically depends on key factors such as:

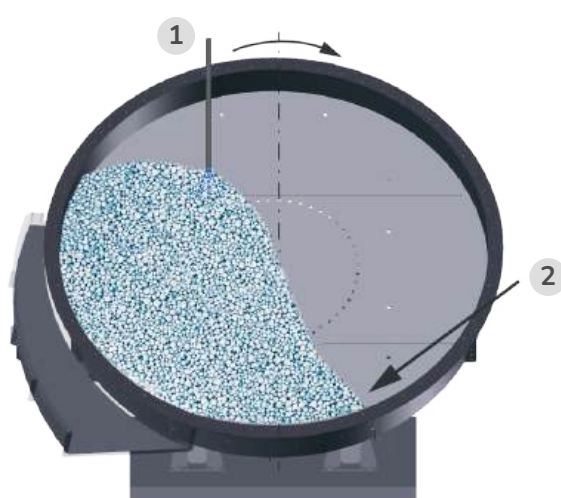
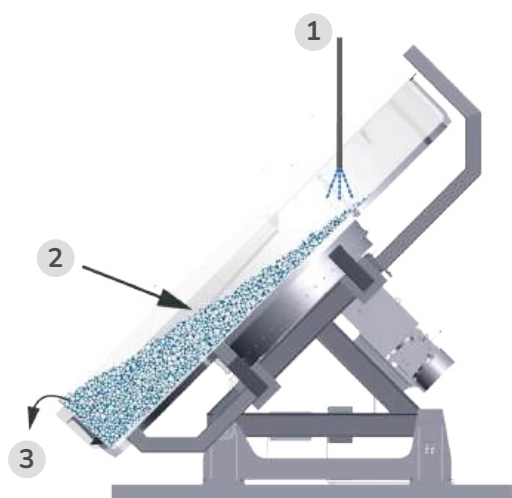
- Pellet size
- Green pellet strength
- Moisture content in dried pellets
- Compressive strength of dried pellets

The Mechanics of Pelletizing

Pelletizing combines feed material, water, and binding agents to form stable pellets. While water helps initiate bonding between particles, additional organic or inorganic binders are often necessary to achieve the required pellet strength and quality in both green and dried states.

The Process of Agglomeration

Agglomeration occurs within the pelletizing disc, where various process parameters determine the final pellet quality. Factors such as the disc's inclination, speed, wall height, and the placement of water nozzles and material feed all play a role. Successfully producing pellets to meet exact specifications requires skilled operators who can expertly adjust these parameters.



1 Water/Binder

2 Fine material feed

3 Agglomerates

Advantages of Agglomeration

+ Product Advantages

- Dust-free product handling for cleaner processing
- Prevention of material segregation
- Enhanced product quality and improved visual appearance

+ Raw Material Advantages

- Easier and more efficient transportation
- Prevention of dust loss during handling
- Enhanced porosity, density, and melting properties for improved performance

+ Process Advantages

- Elimination of dust and fine particles
- Improved process flow and operational efficiency
- Streamlined production with higher output rates

+ Economic Advantages

- Transforming waste materials into valuable, marketable products
- Lower transportation costs due to optimized material handling
- Reduced expenses related to material storage and processing

AGGLOTEC offers taylor-made solutions for every customer requirement.

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Materials Suitable for Pelletizing

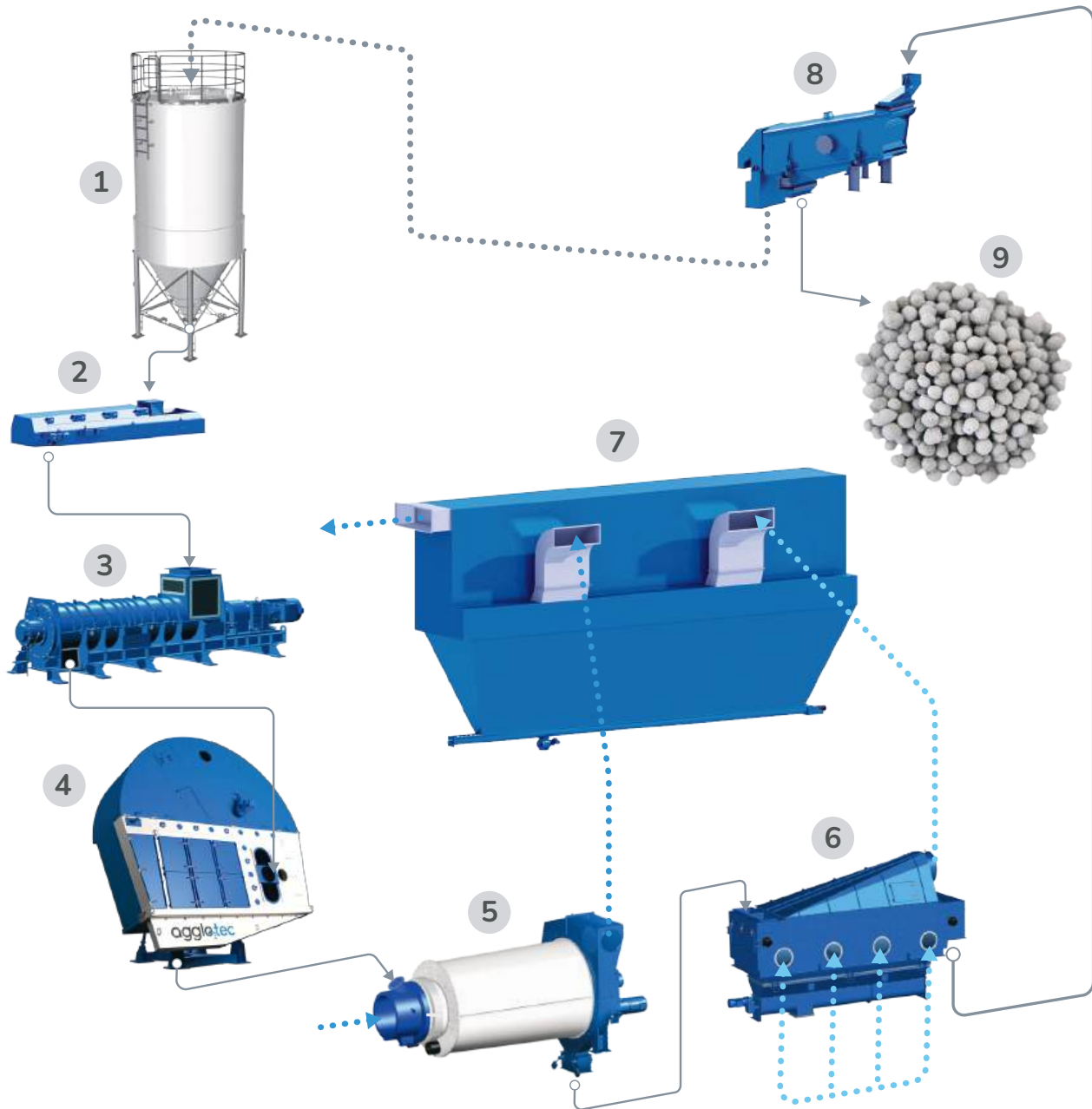
- Hygroscopic Fine-Particle Materials
- Ideal for particles smaller than 1 mm

For example

Limestone	Chalk
Ore powders	Sulphur
Fertilizer	Organic materials
Glass powder	like litter, compost...
Dolomite	



Typical Flowsheet for Mineral Granulation



1 Raw material silo

2 Dosing

3 Mixing

4 Pelletizing disc

5 Dryer

6 Cooler

7 Filter

8 Screen

9 Product

Pelletizing Disc Systems

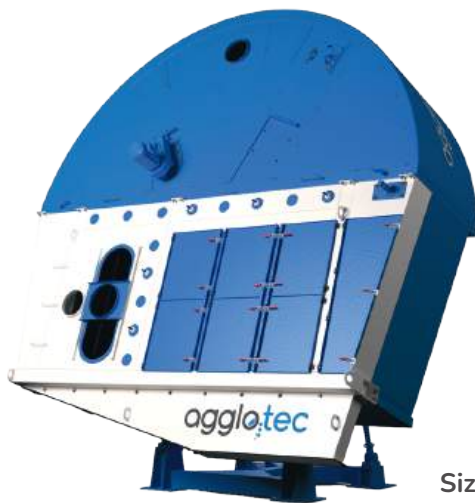


Size: Ø 600 mm

„Plug and play“ solution for pilot plant or laboratory – perfect for testing and up-scaling to industrial size.



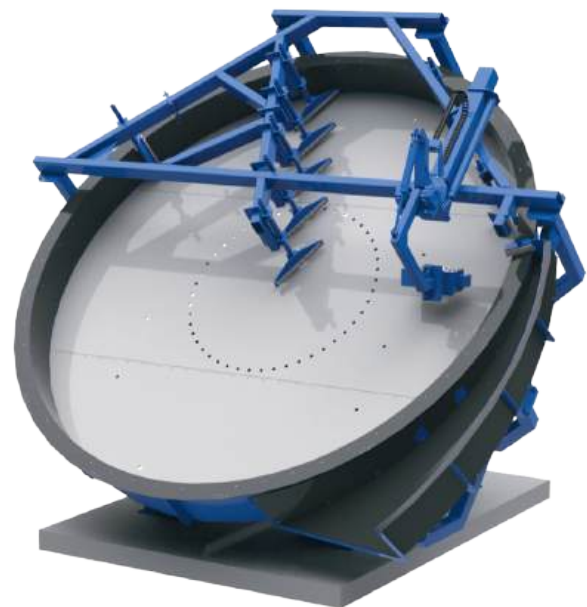
Size: Ø 1200 mm
customized design



Size: Ø 5000 mm

Standard Pellet Disc Sizes

Type code	Ø (mm)	Height (mm)
LAB-60x15	600	150
PPD-80x20	800	200
PPD-100x20	1.000	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-750x75	7.500	750



Size: Ø 7500 mm

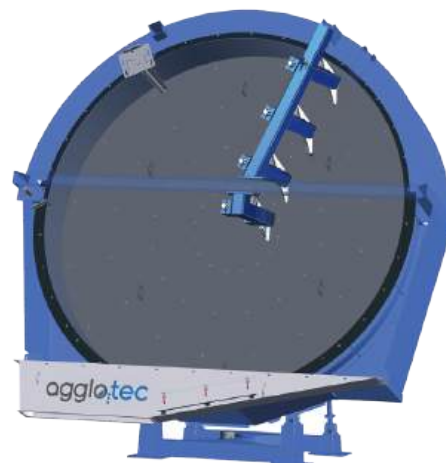
→ other sizes on request

Various Scraper Designs

... keeps the disc clean

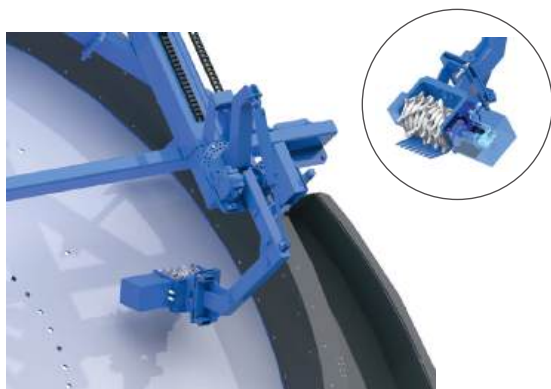


→ Rotating scraper for disc bottom cleaning



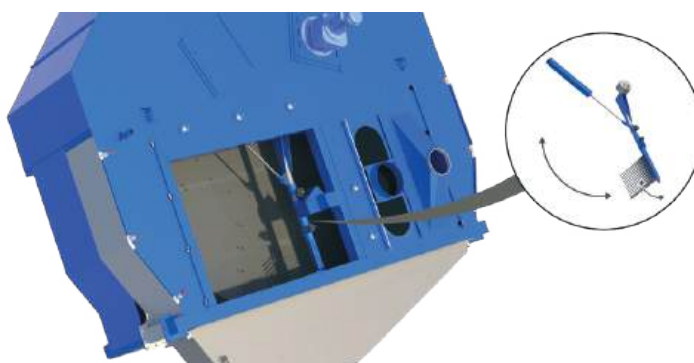
→ Static scrapers design keeps all surfaces clean

Lump Removing System



... for open disc system

- Wide variety of positioning in pelletizing area
- High torque hydraulic drive



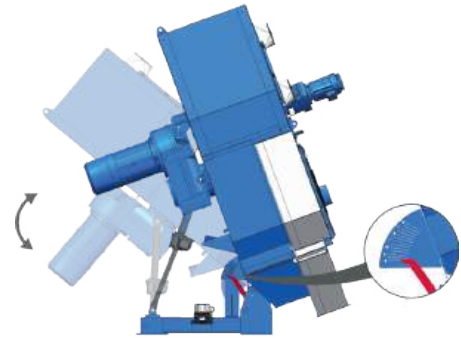
... for closed disc system

- Continuous, fully automatic lump removing system
- Pneumatic drive for heavy duty industrial operation

Automatic disc inclination

... via electrical spindle drive

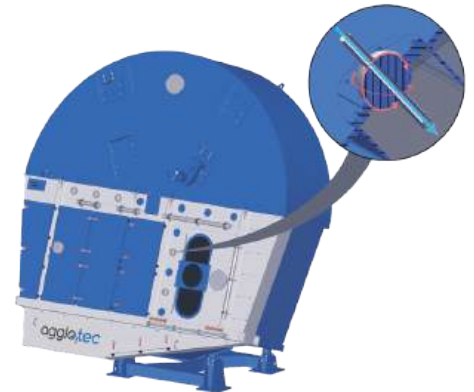
- For stepless inclination adjustment during operation



Water injection system

... for the perfect compound

- Flexible in size and position to meet highest efficiency and yields



COPA Online pellet analyzer

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



Additional Features

open or completely covered
for dust-free operation

maintenance
friendly

central
lubrication unit

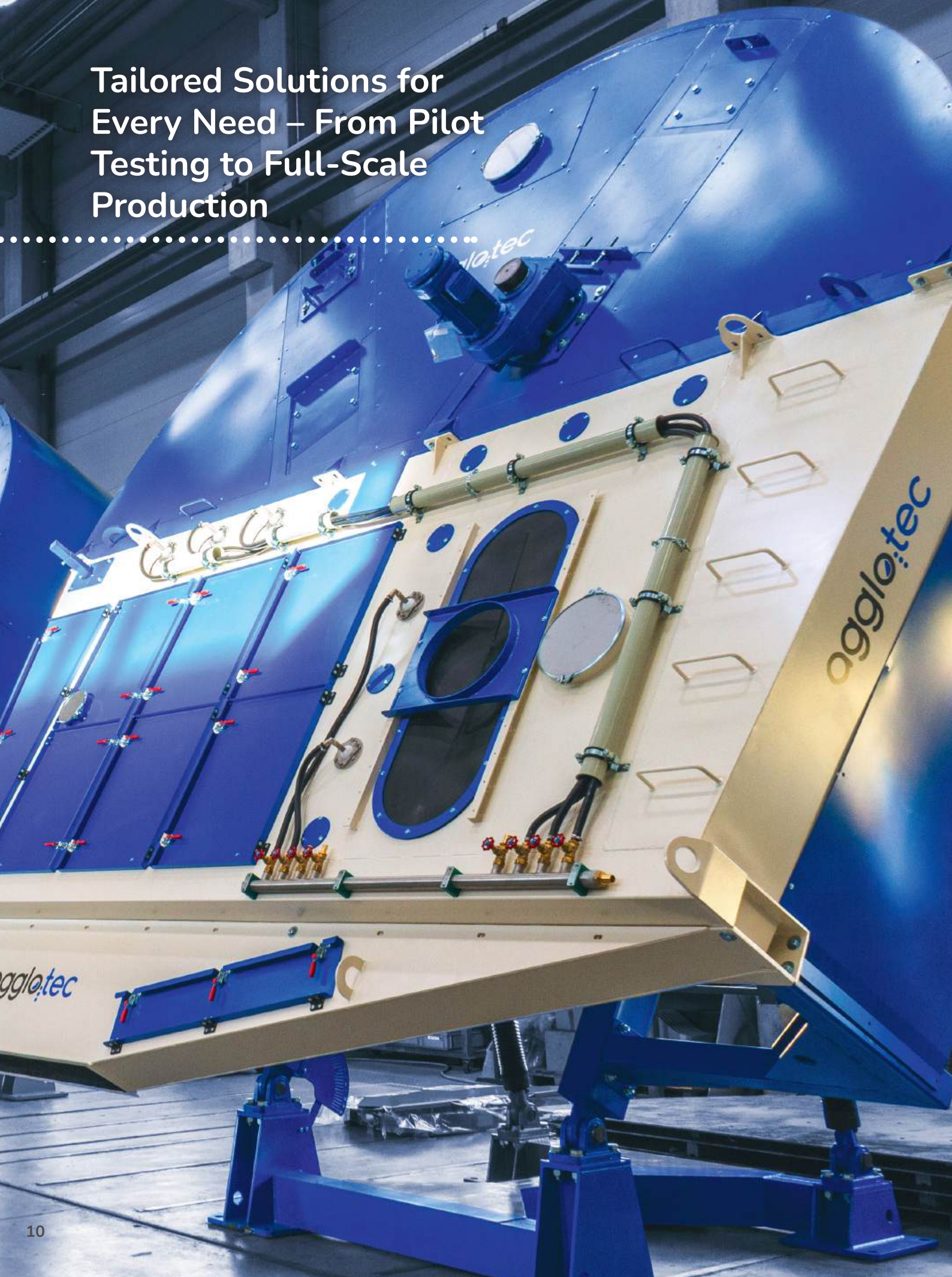
robust bearing
via slewing ring

central
drive unit

adjustable
height

Tailored Solutions for
Every Need – From Pilot
Testing to Full-Scale
Production

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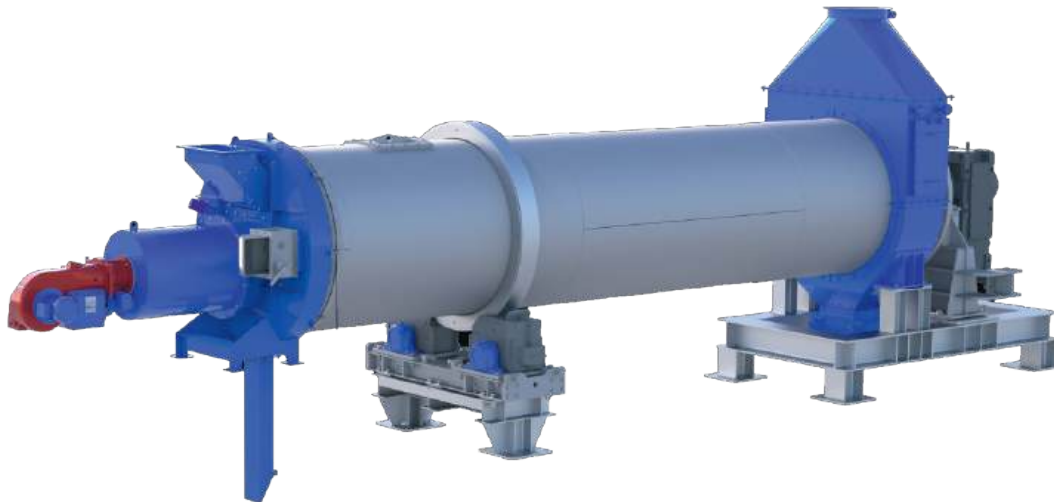
Agglotec Cooler and Dryer

Drying and cooling are critical steps in the processing of bulk materials across diverse industries. Materials such as sand, grit, coal, crystalline products, foodstuffs, animal feed, and even waste materials must be dried and cooled to ensure optimal conditions for subsequent processing.

Agglotec offers a comprehensive range of dryers, coolers, and hot gas generators, available in various designs and sizes. Each solution is tailored to meet the specific requirements of your application, ensuring efficient, reliable, and seamless integration into your production process. From compact systems to large-scale installations, Agglotec delivers customized solutions for superior performance.



Cooler

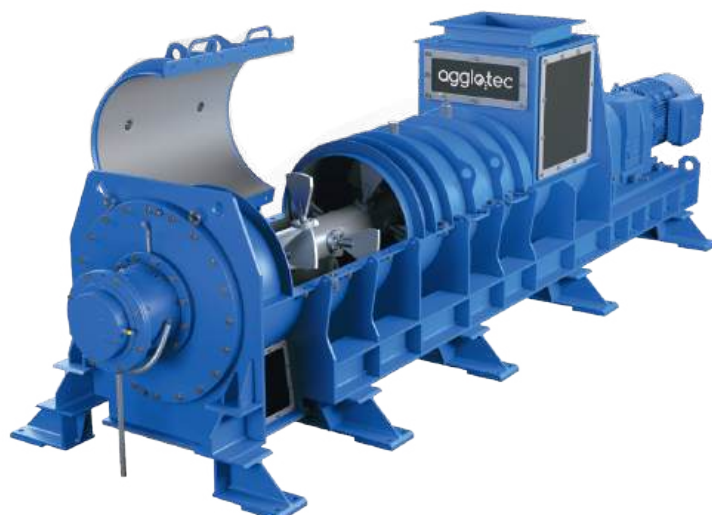


Dryer by **CEMTEC**



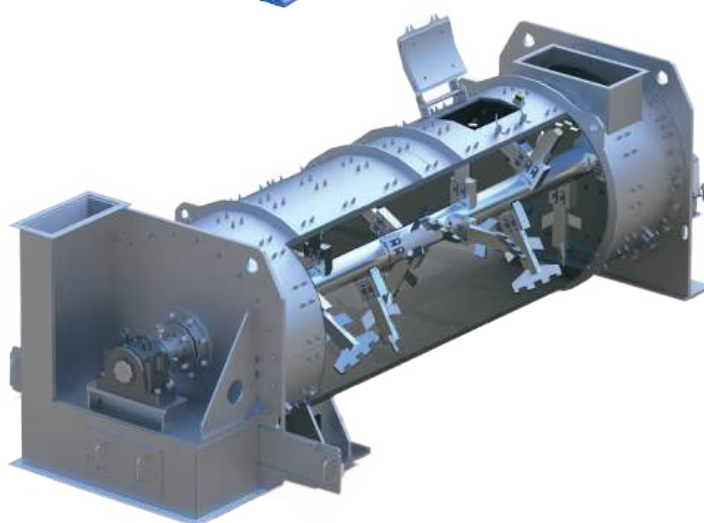
Agglotec Mixer

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. The variety of different sizes and designs is as well adapted to industrial mineral applications.



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	1.500	3.750



The appropriate mixer size and type is determined based on product specifications. Tests conducted in the in-house laboratory support accurate process design and machine dimensioning.



A Powerful Partnership for Advanced Pelletizing Solutions

Efficient preparation of raw materials, batches and masses – economical, safe and low-maintenance.

The wide range of applications for Eirich intensive mixers in industrial preparation processes in production and laboratory use.

With a shared commitment to delivering even better solutions for end customers, Maschinenfabrik Gustav Eirich GmbH & Co KG and Agglotec GmbH have formed a strategic cooperation in the field of pelletizing technology.

This partnership combines Eirich's 100+ years of expertise in industrial mixing technology with Agglotec's state-of-the-art pelletizing solutions. The result is a unified approach that leverages the strengths of both companies, offering pelletizing systems that set new standards in efficiency, product quality, durability, and user-friendliness.

Together, Eirich and Agglotec deliver unparalleled solutions for today's industrial challenges.



The Eirich mixing principle: unique!

Eirich intensive mixers have been developed for a wide variety of tasks in the preparation of raw materials, batches and masses.

The variable setting options for the machine components and the energy range ensure maximum efficiency.



Advantages for the users:

- Optimum homogenization of the mix
- Shortest mixing times
- Excellent, stable mix quality
- Low wear
- Low-maintenance design
- Working continuously or in batches



At its core, the Eirich mixer consists of three machine components that can be flexibly adapted to specific requirements.

- 1 **Eccentrically arranged mixing tool** – design, direction of rotation and speed are adapted to the respective application.
- 2 **Floor-wall scraper** – Provides additional rearrangement, prevents sticking to the wall and floor and aids emptying.
- 3 The **rotating mixing container** transports the mixing material into the mixing tool area.

In cooperation with CEMTEC, AGGLO-TEC operates a state-of-the-art laboratory and technical center. This partnership enables the adaptation of process steps to specific requirements, from initial production to intermediate and end products.

The development of customized systems is based on the definition of the required material properties through laboratory tests. The resulting data serves as the basis for accurate calculations and the definition of design parameters to ensure solutions that are precisely tailored to the needs of the application.

—→ **cooperating with**
CEMTEC

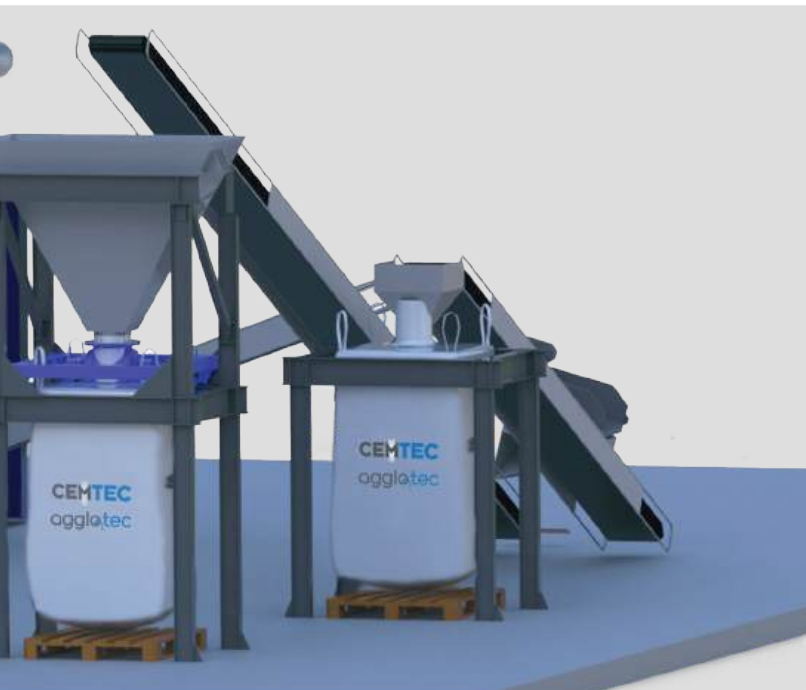


Pilot Plant Features:

- Feasibility testing for agglomeration projects
- Grinding, mixing, pelletizing, and drying and more
- Scalable results for industrial applications
- Performance-guaranteed solutions



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Each project starts in our pilot plant.



Pilot Plant for Feasibility Testing

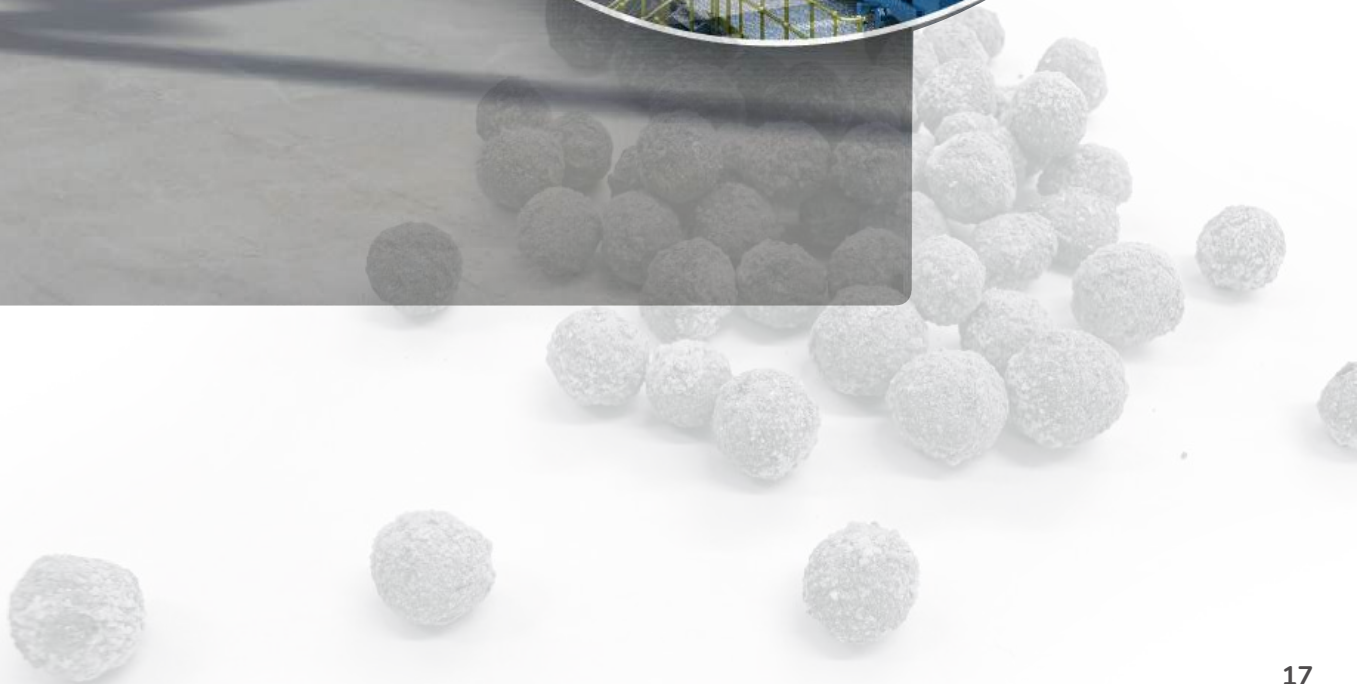
The pilot plant includes all necessary equipment to evaluate the technical feasibility of agglomeration projects. Test trials provide valuable data, which serve as the foundation for scaling up to industrial solutions with guaranteed performance.



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Your Partner for Success in Agglomeration.

Pelletizing Plant – 35 TPH

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

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 20 mm.

→ 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.



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.

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.



MADE IN
EUROPE

Quality and
reliability in the EU



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