



DISC GRANULATORS / BKDG

GRANULATION



Granulation, also known as agglomeration, pelletization, is the process of combining small particles such as dust, powders or ashes into larger aggregates (granules), with specific mechanical strength and granule size above 1 mm. The agglomeration or granulation process itself is carried out by wet granulation with the addition of liquid or alternatively by hot granulation.

Granulation is used to obtain a convenient final form of the product that is acceptable to users. Raw materials or semi-finished products are often granulated to facilitate or even enable their use in appropriate technologies.



Product granulation is used in many manufacturing technologies. Due to the volume of production, the chemical industry dominates, but granulation is often used in food processing and technologies related to environmental protection engineering. In the chemical industry, molded fertilizer granules make it possible to obtain special properties regarding the speed of their dissolution.

Disc granulators are an example of devices used for the non-pressure granulation process, which takes place in a freely flowing layer of granulated material, sometimes with the use of so-called "binder"

PRODUCTION MATERIALS:



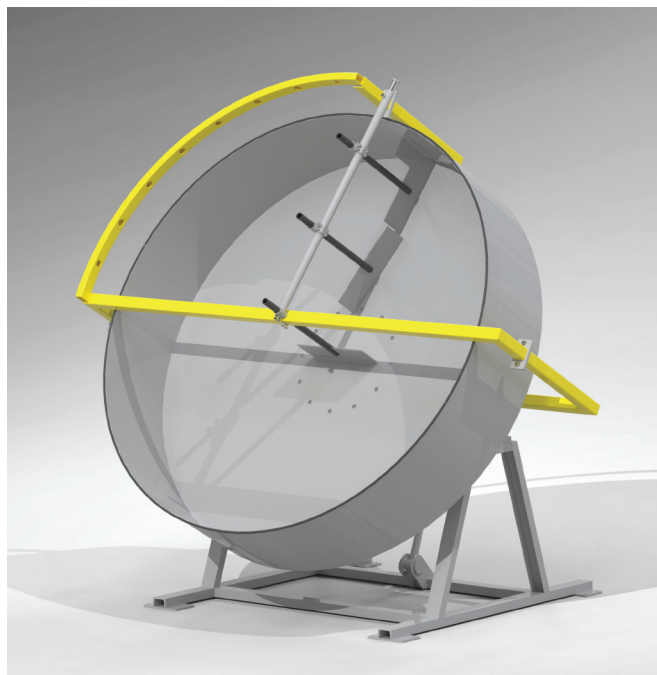
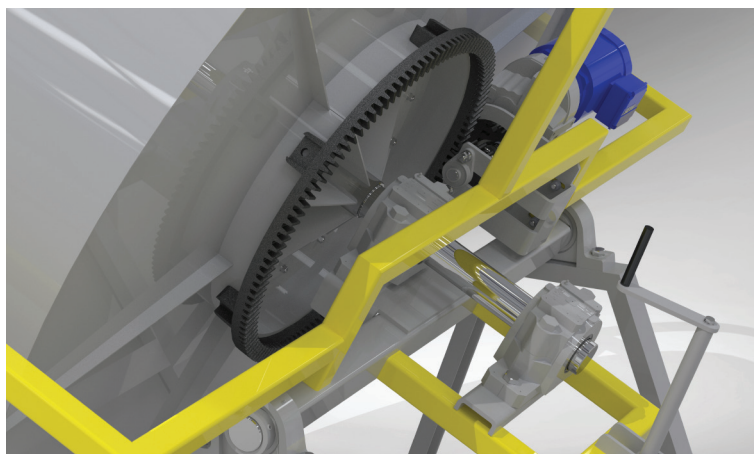
CARBON
STEEL



STAINLESS
STEEL

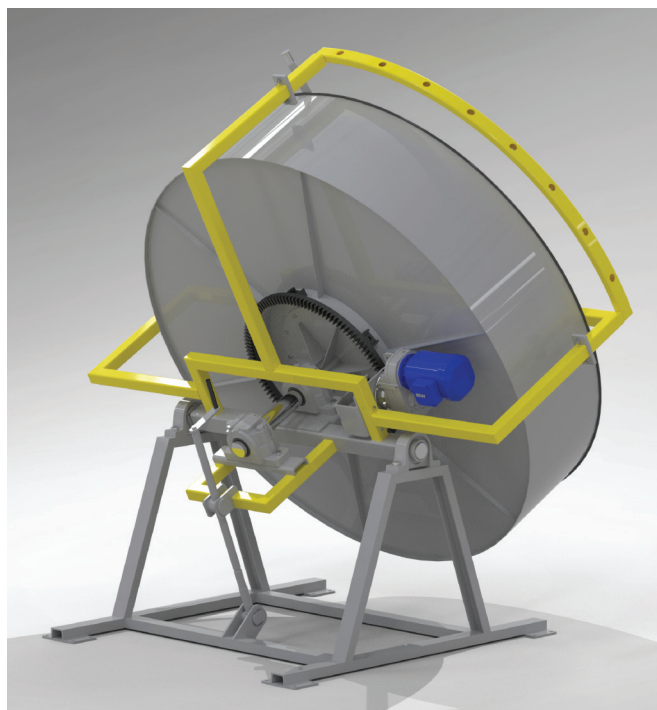


ACID-RESISTANT
STEEL



The most important advantages of pressureless granulation include:

- changing the form of fine-grained materials to granulated
- reducing dust emissions during the technological process
- improving material flowability and preventing segregation in multi-component materials
- elimination of clumping of the material, which makes it easier to transport and dose granulated materials



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Disc granulators manufactured by Biko-Serwis are used in many pressureless granulation processes. The main areas of application are: building materials, ceramics, energy, municipal waste, artificial fertilizers, foundry and environmental protection.

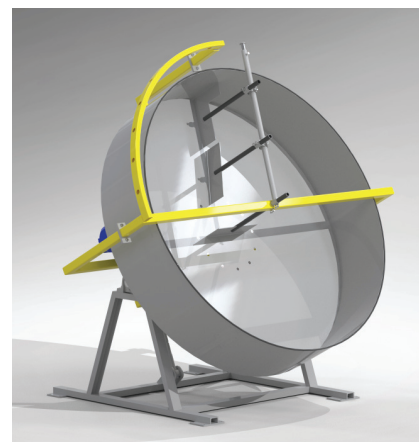
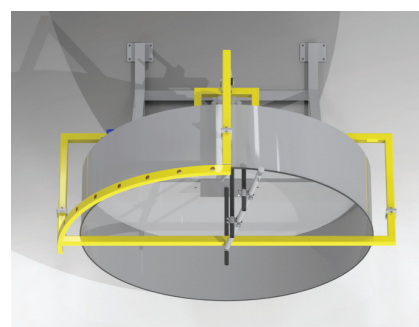
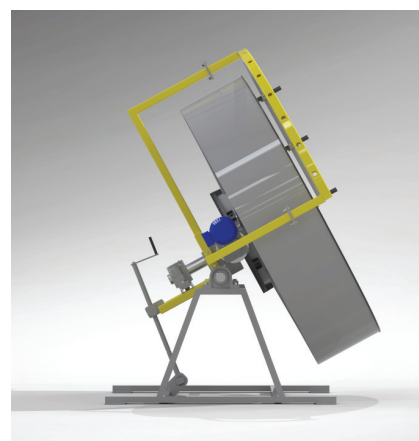
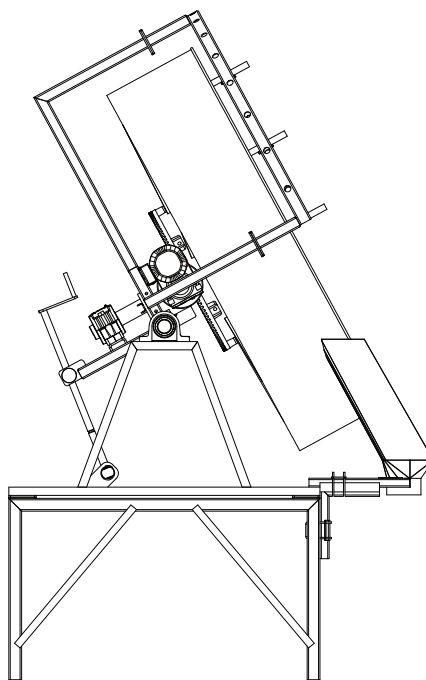
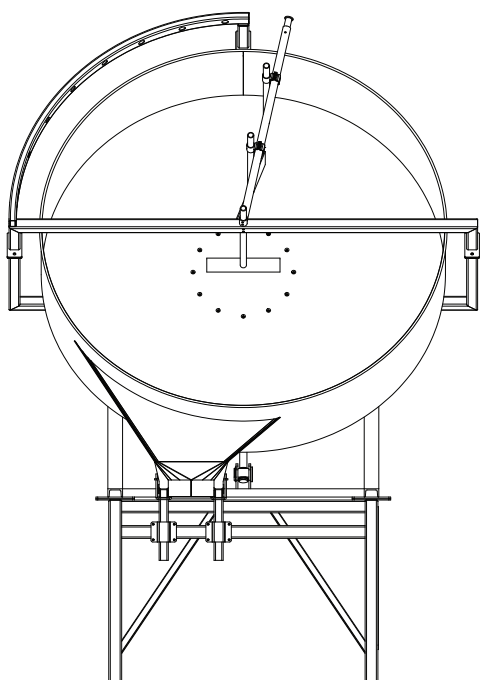
PRINCIPLE OF OPERATION OF THE BIKO-SERWIS DISC GRANULATOR:

Loose material is fed onto a rotating disc, while a binder is introduced into the mixture through nozzles. By appropriately setting the moving scrapers, the material is surrounded on part of the surface of the granulator disc and the agglomeration process takes place. The angle of operation of the granulator is variable, as is the angle of setting the nozzles and scrapers.

RECOMMENDED DEVICE OPERATING CONDITIONS:

TEMPERATURE:
- 10 to + 50 °C

MEDIUM TEMPERATURE:
- 10 to + 400 °C



MODEL:	DISC DIAMETER:	ROTATION SPEED:	APPROXIMATE PERFORMANCE:	DEVICE POWER:	EXECUTION OPTIONS:
BKDG 1500	1 500 mm	22 obr./min.	0,5 - 0,8 m3/h	5,5 kW	<ul style="list-style-type: none">adjustable height of the bowl / platematerial scrapersbinder nozzles
BKDG 2000	2 000 mm	18 obr./min.	0,8 - 1,2 m3/h	7,5 kW	
BKDG 3000	3 000 mm	16 obr./min.	2,0 - 3,0 m3/h	11,0 kW	

Note: efficiency, size of granules and the amount of binder added in the process depends on the characteristics of the material and the recipe for making granules, determining the above parameters requires laboratory tests at the headquarters of the BIKO-SERWIS.