

Lab unit for continuous processes

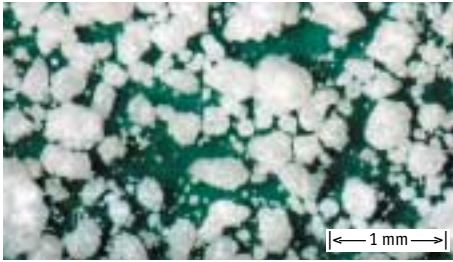
ProCell 5

- Spray granulation
- Agglomeration
- Coating
- Powder layering
- Encapsulation
- Drying/Cooling

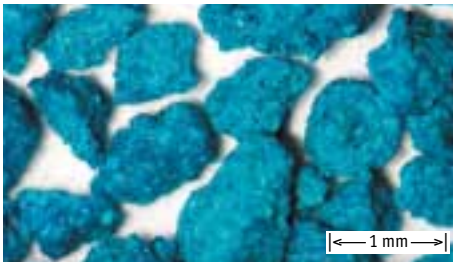


We set the standard

Processes



micro-organisms, spray granulation of a liquid, ProCell 5



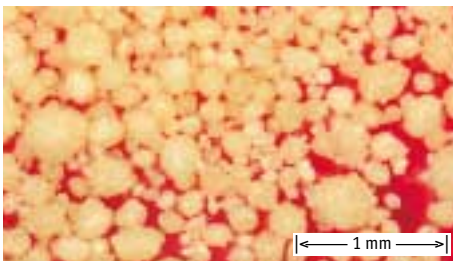
fungicide, spray granulation of a liquid, AGT 150



proteine, spray granulation of a liquid, ProCell 5



instant-tea, agglomeration of a powder, GF 3



enzyme, coating of granules, GF 3



vitamin, spray granulation of a liquid, ProCell 5

The laboratory unit ProCell 5 is designed for testing of spouted bed and fluid bed processes in the single kg-scale:

- spray granulation
production of granules from liquid raw materials
- agglomeration
production of granules from powders
- coating of granules

Spouted bed

Using the unique and patented spouted bed technology the particles within the ProCell are fluidized without a bottom screen and directed to the spraying nozzle. By this means it is possible to work with very low product temperatures and short residence times. As a result temperature sensitive materials are treated very gently. Proteins, enzymes and micro-organisms were dried in the ProCell with very little loss of activity.

The processing air velocity declines rapidly in the processing chamber of the ProCell and allows the production of very fine particles. On the other hand large particles, like catalyst carrier rings can be fluidized without using prohibitive quantities of processing air. The high air velocities in the slot ensure a very robust process, especially when processing sticky materials. Lumps that may have formed are still moved, break down again and are carried out of the processing chamber.

Fluid bed

Using different processing chambers - AGT 150 and GF 3 - allows the evaluation of fluid bed processes. Inlet air chamber and processing chamber are separated by a bottom screen and the product is homogeneously fluidized.

The cylindrical AGT 150 insert allows high fluidizing velocities.

The conical GF 3 insert is designed for the production of agglomerates and for coating processes, also with the option Wurster-process.

Flexibility

By means of the side discharge and the zig-zag sifter all processes can be run continuously. All particles below the desired particle size are returned to the processing chamber. Alternatively, the discharge can be closed and all processes can be run in batch mode.

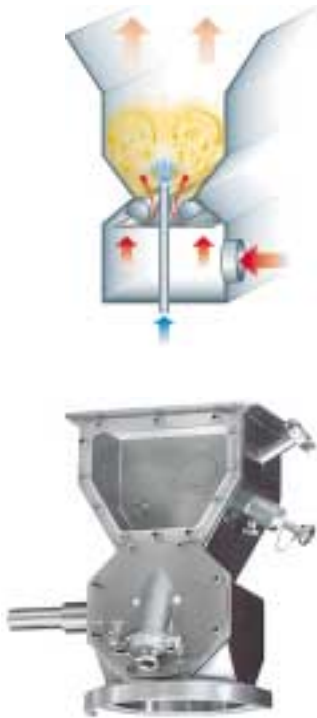
In all processing chambers, liquid can be sprayed either from top or from bottom.



Flexible unit: ProCell 5 - AGT 150 - GF 3

ProCell 5 - insert

- for spray granulation, agglomeration and coating in the spouted bed.



AGT 150 - insert

- for spray granulation in the fluid bed.

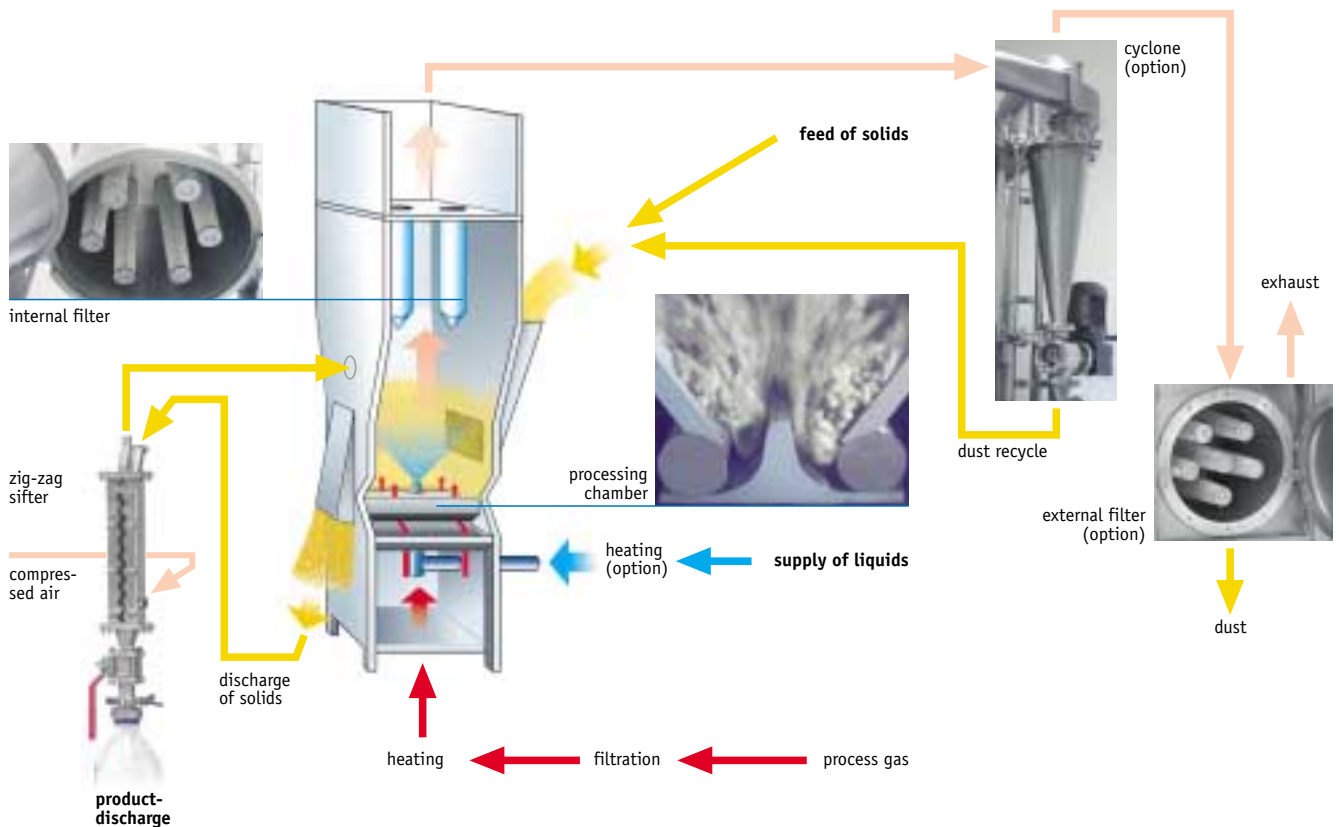


GF 3 - insert

- for agglomeration and coating in the fluid bed.

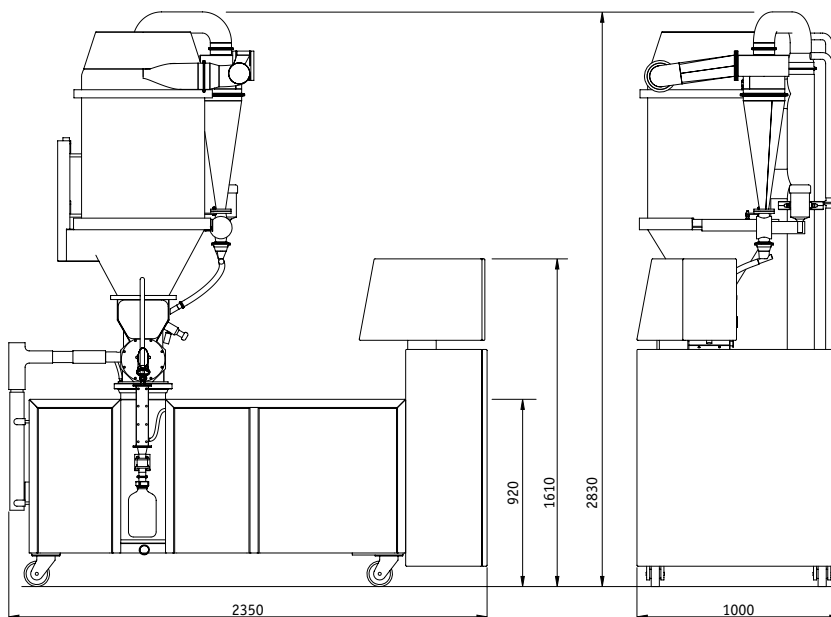


Product flow in the ProCell 5



Technical data

capacity	bed size	200-3 000 g
	spraying rate	max. 2 000 g/h
performance	standard max. 250 m ³ /h air flow at max. 200° C inlet air temperature	
	optional max. 500 m ³ /h air flow (external fan)	
	optional max. 300° C inlet air temperature	
utility requirements	compressed air	6 bar (g)
	power	31 kW
dimensions	weight	1 300 kg
	main measurements refer to drawing	



Addresses



**World wide service
to the customer.**

Glatt Ingenieurtechnik GmbH

Nordstraße 12
99427 Weimar/Germany
Phone: +49 3643 47 0
Fax: +49 3643 47 12 31
eMail: info@glatt-weimar.de

Glatt GmbH Process Technology

Werner-Glatt-Straße 1
79589 Binzen/Germany
Phone: +49 7621 6 64 0
Fax: +49 7621 6 47 23
eMail: info@glatt.com

Glatt Maschinen- & Apparatebau AG

Kraftwerkstrasse 6
4133 Pratteln 1/Switzerland
Phone: +41 61 8 26 47 47
Fax: +41 61 8 26 48 48
eMail: info@glatt.com

Glatt Systemtechnik GmbH

Grunaer Weg 26
01277 Dresden/Germany
Phone: +49 351 25 84 0
Fax: +49 351 25 84 328
eMail: info@glatt.com

Glatt Air Techniques Inc.

20 Spear Road
Ramsey, NJ 07446 USA
Phone: +1 201 8 25 87 00
Fax: +1 201 8 25 03 89
eMail: info@glattair.com

Glatt Pharmatech SASU

Parc Technologique
6, rue Louis Néel
21000 Dijon/France
Phone: +33 3 80 74 32 64
Fax: +33 3 80 74 43 95
eMail: info@glatt-pharmatech.fr

Glatt Norden ApS.

Skøjtevej 27-31
2770 Kastrup/Denmark
Phone: +45 48 14 22 44
Fax: +45 48 14 22 55
eMail: info@glattnorden.dk

Glatt Protech Ltd.

Swannington Rd.
Cottage Lane Ind. Est.
Broughton Astley
Leicester LE9 6TU/Great Britain
Phone: +44 1455 28 58 58
Fax: +44 1455 28 55 10
eMail: info@glatt-protech.co.uk

Glatt Ingenieurtechnik GmbH

Moscow/Russia
119034 Москва/Россия
Гагаринский пер., здание 3,
подъезд № 3, 4-ый этаж
Phone: +7 495 787 2408
Fax: +7 495 787 2409
eMail: info.glatt-moscow@sovintel.ru

www.glatt.com



We set the standard