

A microscopic view of plant cells, showing a network of dark, irregular cell walls forming a honeycomb-like pattern. The interior of the cells is a lighter, textured blue-green color. This image occupies the top half of the page.

GEA pathfinder GMP

Separator plant for innovative
product development in the
technical centre



Starting point for the next product success

Developing pioneering pharmaceutical products simply and flexibly in your technical centre but with all the possibilities of the “big ones”: GEA pathfinder GMP is your key to this.

The GEA separator skid in the sophisticated compact format for pharmaceutical applications requires little space in the technical centre and, thanks to its sensible design, reliably fulfils even the most demanding technical tasks. You can easily scale the results to any desired production size with no problem. As such, the full functionality of large pharmaceutical centrifuges is available to you in the simplest way, allowing you to concentrate fully on the creative development of your products.

Plug & play!

The GEA pathfinder GMP is exceptionally easy to operate. The complete preparation, use and maintenance make the smallest possible demands on your team.

The system arrives in the technical centre ready for instant use, pre-installed with all connections and control modules in one compact unit that fits even through a 900-mm door.

The plant is the first of its type to be equipped with a package of GMP basic certificates for optimal fulfilment of hygiene requirements.

From there on, there is nothing standing in the way of your next product success.

GEA pathfinder GMP at a glance

- Complete functionality of large pharmaceutical centrifuges
- Cost-effective, compact, time-saving, straightforward
- Production results that can be scaled with no problem
- Inclusive package of GMP basic certificates



Uncompromising from small to large

Highly functional GEA technology in all sizes, for reliable production and safe upscaling – all units with standard, compact design.

You have the choice of three bowl sizes at a flow rate of 15 l/h – 300 l/h. The special feature: Each design selected can be retrofitted with no problem on one of the other two bowl sizes – with no structural adaptations.

20,000 g for reliably exact results

Regardless of the bowl size selected, you can depend upon reliable results at all times with every GEA pathfinder GMP design. This is the first self-cleaning pharmaceutical centrifuge in use for you, which has centrifugal acceleration of up to 20,000 g.

Separation of the finest particles is therefore guaranteed, even with very slight density differences. With the aid of a frequency converter, the bowl speed – and thus the g-force – is infinitely adjustable.

Maximum testing accuracy for reliable upscaling and exact results, even in the case of small productions in the technical centre, therefore become a matter of course for you.



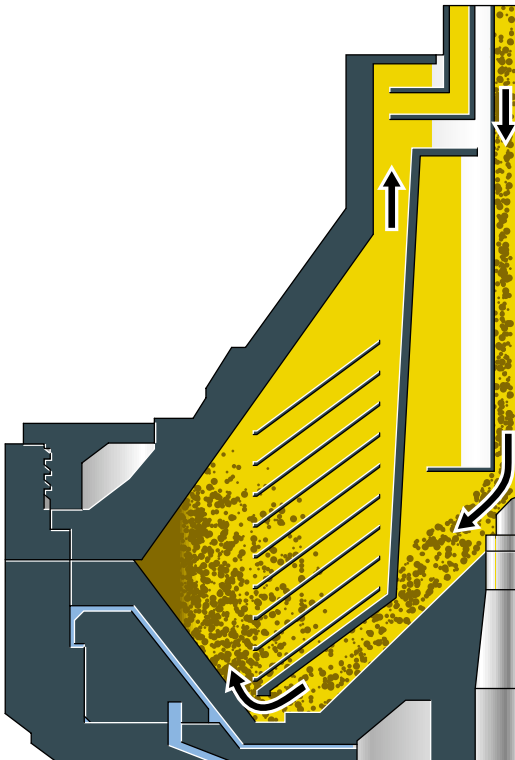
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Technical specifications	GEA pathfinder GMP 1 FSC 1-06-177	GEA pathfinder GMP 5 FSC 5-06-177	GEA pathfinder GMP 8 8-06-177
Capacity	15–20 l/h	100–200 l/h	150–300 l/h
Rotation speed	8,000 – 13,500 rpm	8,000 – 13,500 rpm	8,000 – 13,500 rpm
Total volume	approx. 1.0 l	approx. 1.4 l	approx. 1.5 l
Solids chamber	approx. 0.85 l	approx. 0.85 l	approx. 0.85 l



Even greater functionality

- Patented hydrohermetic feed: Extremely gentle for sensitive products
- GEA hydrostop ejection system for precise ejection quantities
- Self-cleaning, suitable for CIP: Ready more quickly for the next test run



GMP-CERTIFIED:

- Material certificates for components that come into contact with the product
- General welding and surface quality certificate
- GAMP5 documentation
- General test certificates (FAT)

OPTIMAL CLEANABILITY:

- All parts that come into contact with the product in high-alloy stainless steel, 316L or better
- Surface quality of 0.8 μm in contact with the product
- Seals in accordance with EPDM/FDA and USP class VI

Perfect hygiene

Safety for the reliable, hygienic execution of all processes and compliance with all relevant regulations are of central importance in pharmaceutical production.

The GEA pathfinder GMP fulfils the highest technical requirements: All materials that come into contact with the product are manufactured in high-alloy stainless steel. Thanks to the surface quality of 0.8 µm in contact with the product, which is increasingly required even in basic GMP plants, optimal cleanability is ensured.

EPDM/FDA and USP class-VI-compliant seals fulfil the highest requirements for clean production processes. To reduce bacterial load, unpressurised vapor is used up to 100 °C.

High standards from the outset

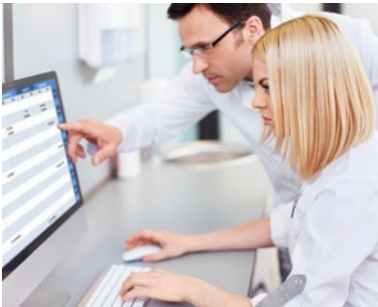
With the GEA pathfinder GMP, technical centres can establish continual hygiene standards for the first time, which were previously achievable only at considerable expense – for the safety of your production and your employees.

Individual efforts towards individual measures and the associated high additional costs are no longer required. By contrast, the high hygiene standard and the continual production as a compact plant, the three selectable bowl sizes and the high g-force contribute to the efficiency of the Pathfinder GMP.

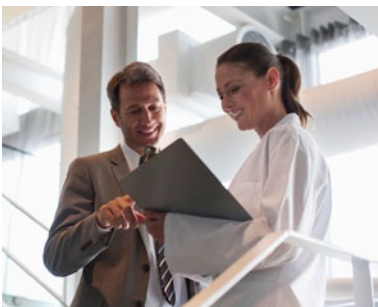
This pays off both in the technical centre and in small-volume production.



“Everything as agreed, with a GMP package tailored precisely to the technical centre requirements ...”



“Finally, one that allows us to pursue every idea ...”



“Uncompromisingly tailored to our requirements in the technical centre and in research ...”



We live our values.

Excellence • Passion • Integrity • Responsibility • GEA-versity

GEA Group is a global engineering company with multi-billion euro sales and operations in more than 50 countries. Founded in 1881, the company is one of the largest providers of innovative equipment and process technology. GEA Group is listed in the STOXX® Europe 600 Index.

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