

## Technology for N & P recovery as liquid and solid organic fertilizer from manure and digestate with decanter centrifuge



**Keywords:** organic fertilizer • *decanter* • *centrifuge* • *manure and digestate*

### Key facts:

- **Category of the technology:** physical separation
- **Input:** liquid manure or digestate
- **Output product(s):** solid fraction and clarified liquid
- **Available capacity:** 2-140m<sup>3</sup>/h
- **Focusing geographical areas:** worldwide, no restrictions
- **Technology status:** TRL 9 – proven and mature technology
- **EC/MS Authority permits:** NA



### Summary of the technology:

Since decades, decanter centrifuges have been applied widely and successfully for the separation of manure or digestate into a solids fraction and a liquid fraction. The solids fraction typically contains 70-80% of the original phosphorous and 30-35% of the original nitrogen. The crumbly cake can be easily transported to distant fields or to a further treatment facility. The liquid fraction can be applied to local fields or can be further processed via biological or physicochemical treatment. It is even possible to further polish the liquid fraction via disc stack centrifuge.

Decanter centrifuges are recognized as the mechanical separation technology with the best separation performance per footprint when comparing systems with no addition of coagulants or flocculants, which means it is able to separate more particles compared to filtration technologies.

### Competitive position and advantages:

- Highest separation performance per footprint
- Can be operated with or without additives
- Highly automatable (operating time, flushing etc)
- Closed and compact system
- Proven technology

### Contact

**Name:** Jake Deighton

**Company:** GEA Group

**Web:** [www.gea.com](http://www.gea.com)

**e-mail:** [jake.deighton@gea.com](mailto:jake.deighton@gea.com)

