GEA manure Decanter and your benefits

- Highest separation efficiency of N (40 %) and P_2O_5 (70 %) by the use of g-forces
- No need for chemicals
- No filtration system, therefore no blockages
- Very compact design (4 m^3/m^2)
- Easy installation and operation
- PLC controlled and therefore a completely independent operating system
- Automatic adaptation of fluctuating feed streams
- Ability to build on mobile unit, complete with pumps and other equipment
- Global service organization, 24/7 availability

engineering for a better world

We live our values.

Excellence • Passion • Integrity • Responsibility • GEA-versity

GEA is one of the largest technology suppliers for food processing and a wide range of other industries. The global group specializes in machinery, plants, as well as process technology and components. GEA provides sustainable solutions for sophisticated production processes in diverse end-user markets and offers a comprehensive service portfolio.

The company is listed on the German MDAX (G1A, WKN 660 200), the STOXX® Europe 600 Index and selected MSCI Global Sustainability Indexes.

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GEA manure Decanter for manure separation

With the highest separation efficiency of N and P_2O_5

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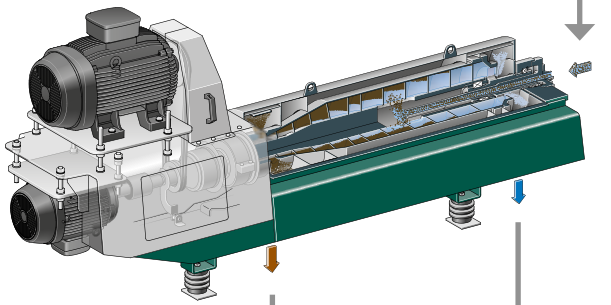
gea.com

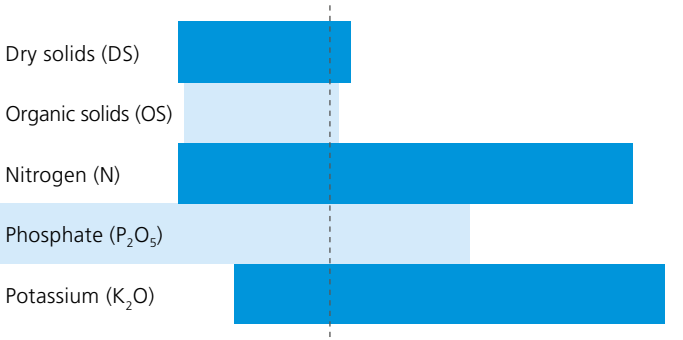
Best separation of nutrients N and P_2O_5

Liquid manure obtained from animal husbandry is a valuable fertilizer in modern agriculture. It must, however, be properly integrated into the natural nutrient cycle. GEA manure Decanter turn manure into a recyclable resource to generate energy and reusable material – with the best possible yields. The aim is to process the liquid manure, to treat the associated nutrient surpluses and to take specific advantage of the resultant products.

Decanter feed

Raw manure			
Dry solids (%)	4 – 7	6 – 10	7 – 10
Organic solids (%)	3.5 – 5.5	5.0 – 7.0	5.5 – 8.0
Nitrogen (kg/ton)	4.2	7.2	4.4
Phosphate (kg/ton)	3.0	4.2	1.6
Potassium (kg/ton)	4.3	7.2	6.2





PROPERTIES RAW MANURE

- Difference in animal species, food, maturity, etc.
- N binds partly to solid (N_{org}) and is partially soluble (N_{min})
- P_2O_5 binds mostly to solids
- K_2O is completely soluble
- Decanter removes particles down to 40 microns
- Major reduction of Chemical Oxygen Demand (COD) level in liquid fraction (>50 – 90 %)

Solid fraction

>27 %	>30 %	>30 %
>23.5 %	>23.9 %	>23.8 %
25 % 7.9 kg/ton	35 % 14.5 kg/ton	40 % 9.6 kg/ton
60 % 13.6 kg/ton	75 % 18.2 kg/ton	70 % 6.1 kg/ton
5 % 1.6 kg/ton	15 % 6.2 kg/ton	25 % 8.4 kg/ton

Liquid fraction

<2.5 %	<2.5 %	<3.5 %
<1.6 %	<2.3 %	<2.2 %
75 % 3.6 kg/ton	65 % 5.7 kg/ton	60 % 3.2 kg/ton
40 % 1.4 kg/ton	25 % 1.3 kg/ton	30 % 0.6 kg/ton
95 % 4.7 kg/ton	85 % 7.4 kg/ton	75 % 5.7 kg/ton