

Fermentation / media supply

Complete solutions for
process plant



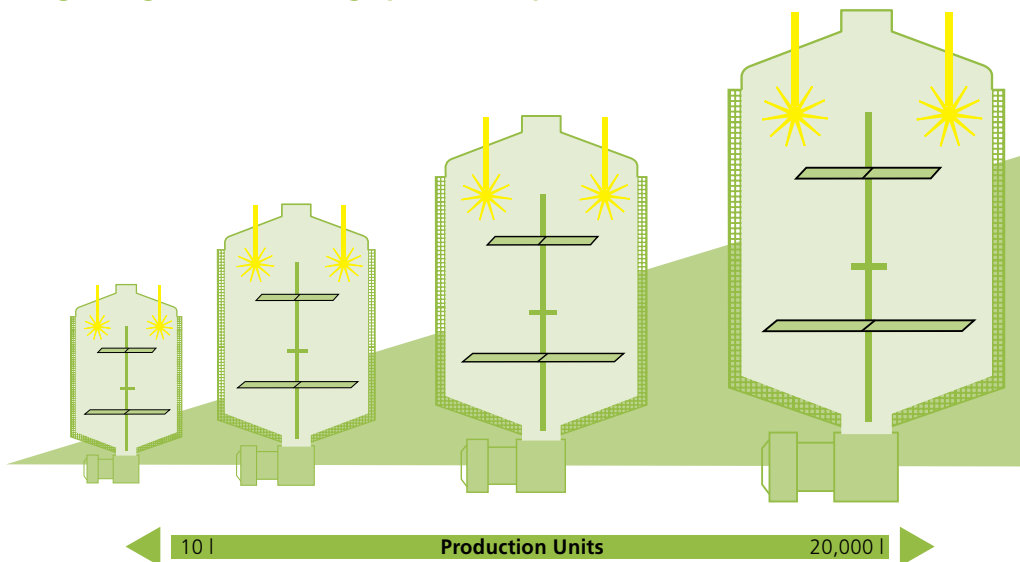
Fermenters for every application

The pharmaceutical fermentation process requires the very highest quality of all the materials and vessels used to provide the necessary long-term sterility and ensure that all the many standards, statutory provisions and regulatory requirements are met.

As a result, pharmaceutical manufacturers demand the highest standards with regard to their fermentation systems. Every function, every component and every detail has to comply 100% with the relevant quality standards. The use of a high-performance and reliable fermentation system will in itself ensure that many of these conditions, which are essential to safe and high-quality production, are fulfilled.

GEA Diessel has been developing and building fermentation systems for the cultivation of micro-organisms and human or animal cells for over 20 years. Whether for individual fermenters or multi-stage fermentation systems, manufacturers again and again put their trust in GEA Diessel's efficient, customised plant.

Single-stage and multi-stage production plant



In addition to fermentation systems, GEA Diessel also supplies apparatus and modules for:

- the production and storage of media
- product harvesting
- the storage and distribution of highly purified media / clean steam
- formulation of API's

GEA Diessel is your competent partner for the manufacture of fermentation systems and complete plants for the pharmaceutical industry. We offer you a full service to meet every requirement and specification. Our experienced process engineers will work with you to develop innovative and efficient process technologies for your own individual fermentation applications.



Production fermenter

GEA Diessel offers you:

- consultancy
- engineering
- automation
- manufacture of fermenters and process vessels
- skids / units
- installation
- qualification
- assistance with validation
- after-sales service

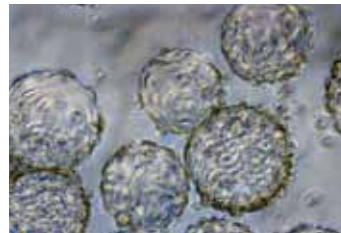
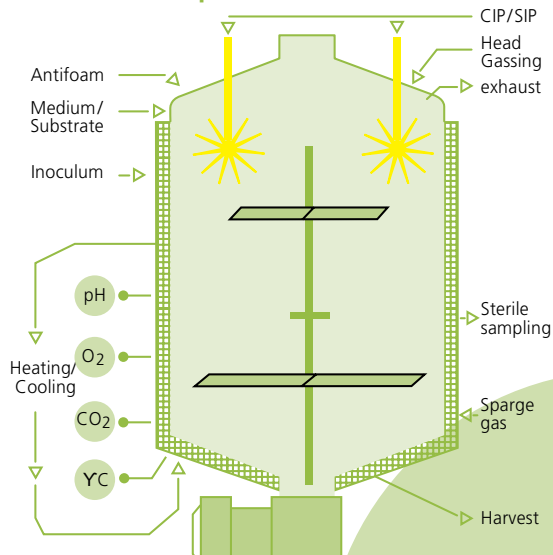


Fermentation plant (Fermentation skid)

GEA Diessel gives you the best possible start

Whatever it is you want from your fermentation plant - to manufacture recombinant genetic products for therapeutic purposes (TPA, interferon, insulin, h-Factor VII) or growth hormones and enzymes, or for diagnostic purposes (monoclonal antibodies) – our wide range of plant concepts will provide the equipment you need to meet any requirements or conditions. We use the latest components and valve technologies to produce high-performance fermenters and skids. Talk to us: Together, we will find the most appropriate solution to meet all your requirements. We are always pleased to advise you.

Fermentation process



Fermenters from GEA Diessel provide you

- long-term sterility during medium or nutrient change, aseptic sampling, aeration, venting or transfer
- highly accurate temperature control
- stirrers adapted to provide optimum oxygen transfer rates and cell densities
- a design free of dead-leg areas

Everything automated

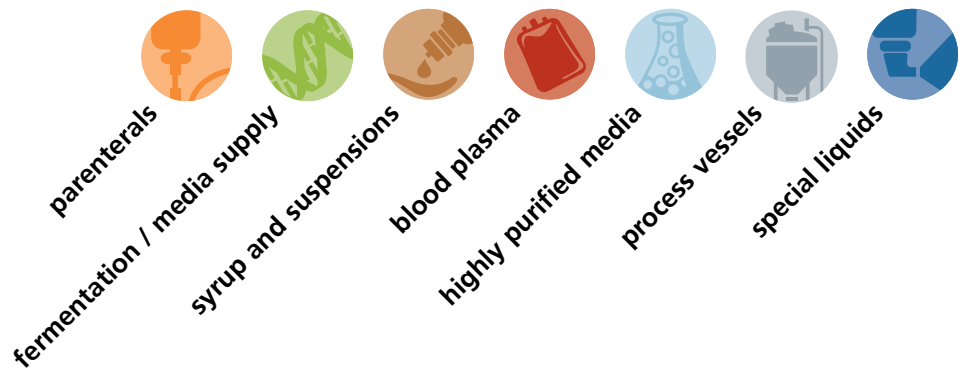
GEA Diessel provides for all important parameters to be monitored by a high-performance control system, with all processes being visualised. The control system automatically regulates all parameters and records and documents all data, steps and parameters that are important to the process.

CIP / SIP

An essential part of a high-quality fermentation processes is an integrated CIP/SIP system. GEA Diessel provides efficient cleaning and sterilisation processes to meet your individual demands and to ensure the correct cleaning media is delivered to the right place at the right time. We have a large range of cleaning options from mobile, independent cleaning systems up to diverse CIP satellites fed with conditioned cleaning solutions.

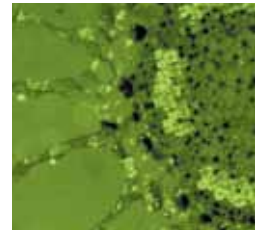
Valve ring





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GEA Diessel specializes in planning, construction and qualification of sterile process plant for liquids in pharmaceutical and biotechnology industry. Our process systems are operational within the area of parenterals, fermentation, feed media, blood plasma and special liquids as well as clean utilities.

GEA Diessel has 80 years of expertise and know-how in plant and equipment technology and holds a decisive position in development of modern process technology today.



GEA Process Engineering

GEA Diessel GmbH

Steven 1 31135 Hildesheim Germany
Phone +49 5121 742-0 Fax +49 5121 742-153
info.geadiessel.de@geagroup.com www.diessel.com