



Process Solutions

We keep our promises



GEA - As Your Partner

GEA Liquid Processing is part of GEA, an international technology group specializing in Life Sciences. GEA is one of the world's leading suppliers within its field and has 250 companies in 50 countries, employing approx. 21,000 people.

GEA Liquid Processing, located in Skanderborg, Denmark, is an experienced and progressive engineering company, offering process solutions in the form of complete process plants, process lines and components for Liquid Processing.

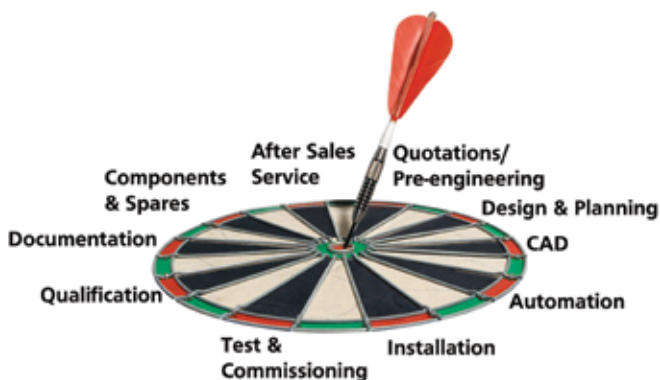
As a combined engineering and execution partner we design, supply, install, test and commission Liquid Processing Plants to

- the Dairy, Food & Juice Industry
- the Brewery & Beverage Industry
- the Pharmaceutical Industry
- the Biotech Industry
- the Personal Care Industry

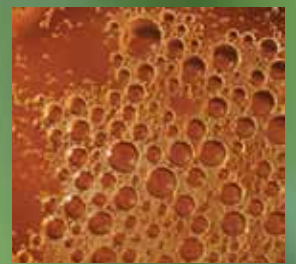
We offer the full range of services to our customers, from initial project planning to setting-up of a preventive maintenance programme:

- Conceptual/Basic Design
- Pre-engineering
- Detailed Design and Planning
- Process Integration
- Process Automation
- Installation and Supervision
- Test, Commissioning and Qualification
- Documentation
- Components and Spares
- After Sales Service

We tailor all our solutions in close dialogue with each individual customer - and we always keep our promises.



Scope of Supply





Core Competencies

GEA Liquid Processing offers a number of outstanding Core Competencies.

GEA Liquid Processing offers a number of exceptional core competencies, differentiating us from the other players in the market:

- Customized Process Solutions – designed in close dialogue with our customers to provide each customer with a tailored process solution fully fit for purpose
- Fast-Track Project Execution – based on GEA Liquid Processing's unique Super Skid Concept, minimising time to market and maximising return on investment
- Hygienic Design – ensuring that every single design detail will meet the highest standards in line with EHEDG and the European Union's Regulation (EC) 1935/2004 on the design of food-contacted materials and articles
- Pro-Active and Reliable Project Management – based on GEA Liquid Processing's well-established Project Management Concept with precise procedures covering all project phases, from the first customer contact to final Taking Over
- Traceability and Quality Assurance at All Levels – including check and documentation of all welding activities and of all goods received, at our place and on site, as well as frequent inspection visits at our sub-suppliers, with and without notice







Quotations/Feasibility Studies

We can offer to prepare proposals for systems solutions as well as feasibility studies of specific projects.

Design and Planning

GEA Liquid Processing's project managers and project engineers have long experience of the design and planning of plants for the process industry.

We assume the entire responsibility for the process components integrated in the plant; likewise, monitoring, control, and qualification are often part of our supply.

In the design and planning phase, we put much focus on plant flexibility, lifetime, and ease of cleaning – and on the fundamental plant philosophy we recommend: Plant design without any deadlegs and possibility of 100% cleaning. The same philosophy underlies the design of all GEA Tuchenhausen components.

CAD

Our CAD department prepares drawing material in AutoCad, in both 2D and 3D. CAE (Computer Aided Engineering) is part of the daily routine.

Process Automation

GEA Liquid Processing offers control systems as total concepts, meaning that we take care of all project phases: design, programming, installation, commissioning, and after sales service. Apart from a thorough knowledge of the hardware and different types of software, all our automation engineers have several years' experience in and a good understanding of the process plants involved.

Thanks to our long-standing experience in supply of control systems to the pharmaceutical industry we can supply control systems developed according to GAMP (Good Automated Manufacturing Practice). We also have an established concept for validation of control systems.

Installation and Supervision

To ensure high quality during installation GEA Liquid Processing uses its own site managers and supervisors with longstanding experience in erection of hygienic process plants. GEA Liquid Processing solely uses audited workshops for pre-installation of components and units.



Test and Commissioning

After completed installation, each plant will be tested and commissioned. Hence, we carry out a number of tests:

- General test (accordance with drawings and specifications)
- Off-site test (of sub-supplied equipment)
- Test after completed mechanical installation
- Pressure test
- Dry test
- Wet test
- Product test

After successful testing the plant can be taken over by the Customer.

Documentation

Every plant supplied by GEA Liquid Processing is accompanied by a complete set of documentation covering all plant components and the control system.

Qualification

Validation is to ensure and demonstrate that the system works as expected. GEA Liquid Processing can perform

qualification in support of the validation of the plants supplied. The qualification can include the following elements:

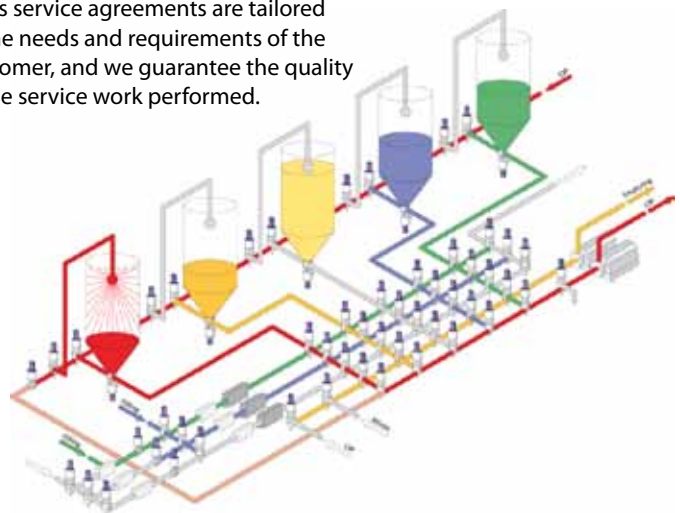
- DQ, Design Qualification
- IQ, Installation Qualification
- OQ, Operational Qualification
- Support for PQ, Performance Qualification
- Support for CQ, Cleaning Qualification

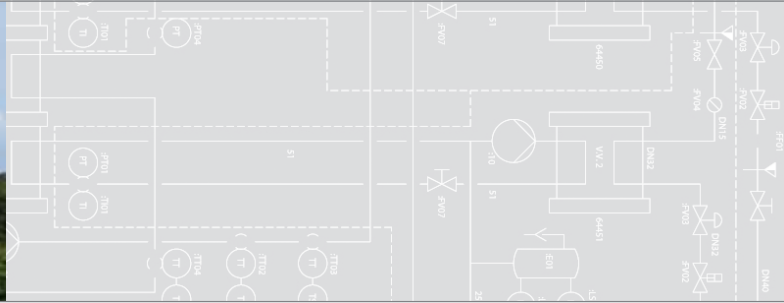
After Sales Service

We carry out service on single components, process lines, and complete plants, and in addition, we offer

- Planning and scheduling of service work
- Audit of existing plants
- Up-date of technical documentation and document management
- Expert advice on technical solutions

GEA's service agreements are tailored to the needs and requirements of the Customer, and we guarantee the quality of the service work performed.





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Process Engineering

GEA Liquid Processing

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