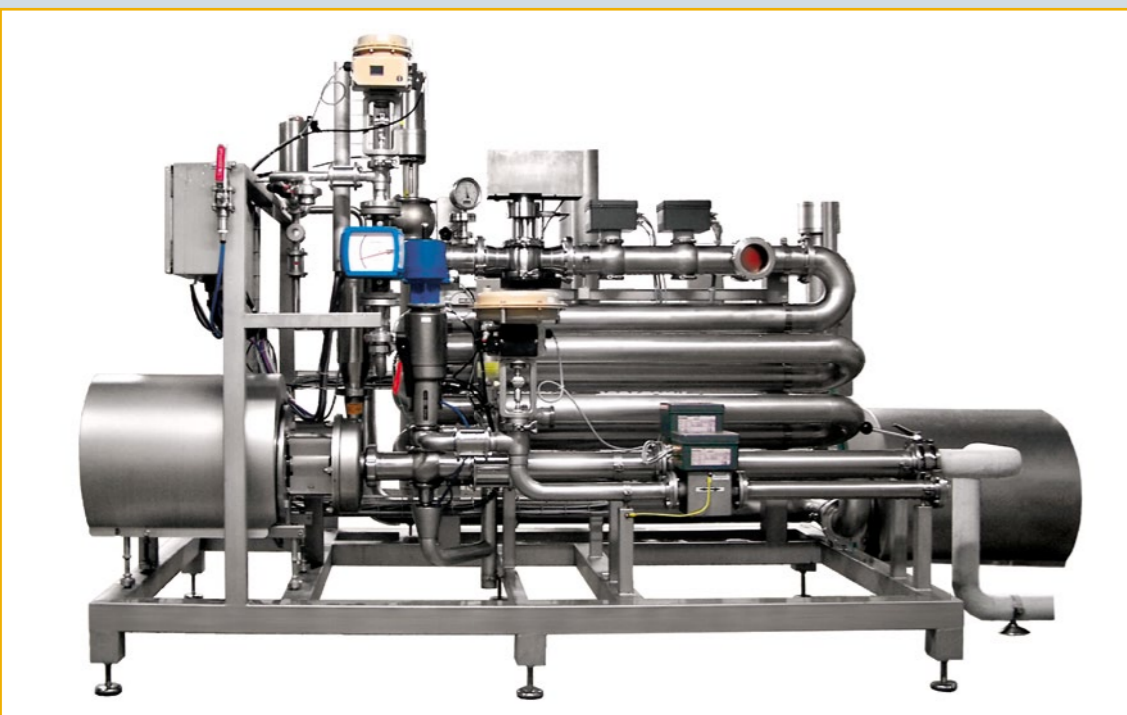


# In a nutshell: simple operation and uninterrupted production

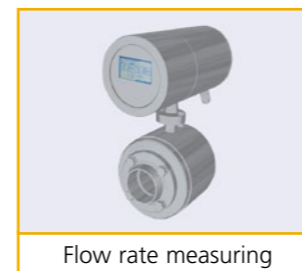
This being the case, we self-confidently recommend ourselves to you as a vendor of customised technology solutions. We have convincing arguments for breweries, as we can guarantee them the following advantages:

- Quality assurance through unremitting process monitoring
- The logging of all the relevant production data, allowing data to be administered centrally
- Flexibility in use, allowing production to be optimised
- Precise compliance with the product recipe, which economises on ingredients
- Optimization of quality control

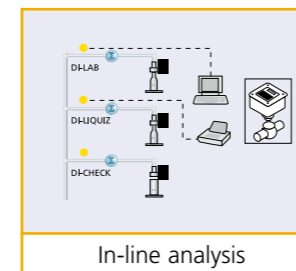


## A powerful alliance – the GEA Group Brewing technology all of our own and all from us

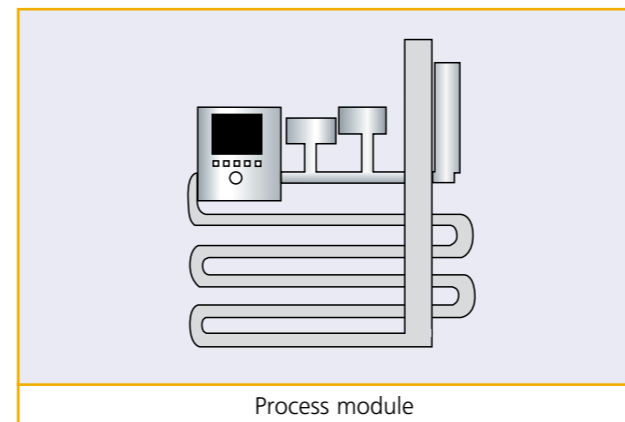
GEA Diessel is a member of the GEA Group, an international corporation specialising in process technology. We can supply you with both stand-alone solutions and complete projects. Together with GEA Brewery Systems, as experts for the brewhouse technology and the cold process area, we at GEA offer you technological solutions that meet your requirements to perfection.



Flow rate measuring



In-line analysis



Process module



GEA Process Engineering

**GEA Diessel GmbH**

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Phone +49 4155 49-2518, Fax +49 4155 49-2770  
info@gea-brewery.com · www.gea-brewery.com

## Metering systems and process plant

for the brewing industry



GEA Process Engineering  
**GEA Diessel**

# We like to be very precise about things – GEA Diessel metering and process technology

Metering – data capture – analysis – blending – deaeration – carbonation – regulation – monitoring – distribution – cleaning. Whatever we do, we do it properly!

Our core competences and our technical know-how find expression day after day in process modules that correspond precisely to our customers' requirement profiles. As international standards setting developers and manufacturers, we offer you compact, ready-to-go solutions for many areas of brewery operations. And if it is a question of determining your production quantities with particular accuracy, GEA Diessel can help you with that as well – as a market leader in weights and measures approved volumetric measuring equipment.

## 1. Measurements in the brewhouse

- control of mashing liquor
- control of lauter process
- monitoring of sparging water
- definition of copper-full-of-wort

## 2. Metering system for wort DI-LIQUIZ™

- capture of brew and type dependent quantity
- continuous detection of original gravity
- recording and documentation of all data

## 3. Aeration and yeast dosage

- quantity proportional to the wort
- dosing of the yeast by proportional in-line blending
- precise yeast cell dosing by difference-turbidity measurement and speed-controlled positive pump

## 3a. Yeast management

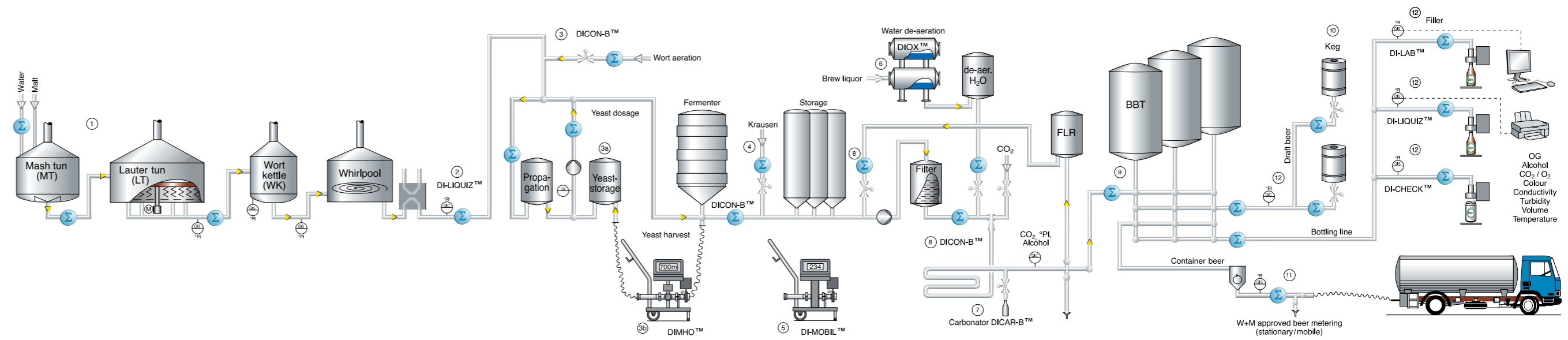
- propagation
- storage
- dosage

## 3b. Yeast harvest

- automatic differentiation of yeast and green beer
- mobile or stationary metering from fermenter to yeast storage

## 4. Continuous blending systems DICON™ for:

- beer based mixed drinks
- green beer and krausen
- malt beverage
- wheat beer and pitching yeast
- lager beer and dark beer



The system shown here in diagrammatic form illustrates the many applications for GEA Diessel metering devices in the brewing process.

## 5. Mobile metering with DI-MOBIL™

- applicable wherever required
- safe unattended operation
- mixing in batch operation
- calibration of tanks
- capacity control of pumps and gravity flow
- detection and reduction of product losses

## 6. Water deaeration system

- 2-stage system type DIOX-2™, VARIDOX™ or DIOX-M™
- low residual oxygen contents
- low operating expenses
- low CO<sub>2</sub> consumption

## 7. Carbonating system

- DICAR-B™ with a wide measuring range and high carbonating efficiency

## 8. Original wort optimization / redilution

- The DICON-B™ system is able to precisely dilute a stronger basic beer to the required preselected original gravity or alcohol content
- by means of first and last runnings and/or deaerated brewing water
- provides additional capacities
- saves primary energy
- can reduce taxes

## 9. Filling and emptying of storage tanks

- Adding and subtracting counters
- monitor the tank contents
- give information to filter room and filling system
- switch-over to the next tank

## 10. Volumetric keg filling

- reduction of loss due to saved "lost beer"
- kegs are treated carefully due to gas pads
- monitoring according to beer types and kegs
- suitable for lengthwise or round fillers

## 11. Measurement of beer for customs & excise and weights & measures purposes

- Used where transportation is subject to weights and measures regulations
- for intake and delivery of beer
- returned deliveries of non-consumed festival beer on a sale of return basis
- preparation of officially approved clearing vouchers

## 12. Quality control before filling

- product monitoring (% original gravity, % vol. alcohol) in accordance with ISO 9000 and HACCP standards
- monitoring of limit value (alarm)
- phase separation (basic beer, first and last runnings, drainage)
- documentation of volume and in-line analysis parameters

On request with:

DI-CHEK™  
DI-LIQUI™  
DI-LIQUIZ™



Carbonating system  
type DICAR-B™



Water deaeration system  
type VARIDOX-H™