

**Measuring equipment  
and process systems**  
for the production of alcoholic beverages





## one partner offering every possibility

Thanks to its comprehensive process know-how and the many years over which it has built up its competence, GEA Diessel has taken a leading position in the alcohol processing industry worldwide. GEA Diessel develops and manufactures both individual components and also complete production systems for the processing of everything from neutral alcohol to finished spirits. It goes without saying that in doing so we take full account of all national and international regulations and standards.

As a specialist in the metering processes required by customs and excise authorities, GEA Diessel is an approved manufacturer both in the EU and in many other countries. GEA Diessel's metering equipment for measuring alcohol/water mixtures has held domestic type approval both for customs and excise and for commercial purposes since 1999. This equipment can easily be installed to replace the spirit concentration meters that have been used in the past.

GEA Diessel sees itself as your partner, concerning itself with your needs and competently and professionally realising and taking care of your system from design to commissioning, not forgetting staff qualification, maintenance and the supply of spare parts.



**From alcohol reception to the finished product, GEA Diessel is your partner:**

- Modernisation or complete replacement of the equipment in your spirit starting area
- Alcohol reception with setting of the alcohol concentration
- Alcohol concentration measurement using in-line analysis
- Various blending technologies for the manufacture of the finished spirit

# Complete solutions for the starting area for alcoholic beverages

## 1. Alcohol mass metering system (spirit concentration meter)

- to determine the amount of excise duty due
- complete unit installed on a base frame
- possible for all ranges of flow rate

## 2. Reception system for alcohol/water mixtures

- reception from tankers
- determination of excise duty due
- determination of the mass of alcohol/water
- determination of the proportion of pure alcohol
- flow rate of up to 60,000 l/h possible
- use as a counterchecking device for verification purposes

## 3. Blending system for alcohol/water mixtures, type DIVA

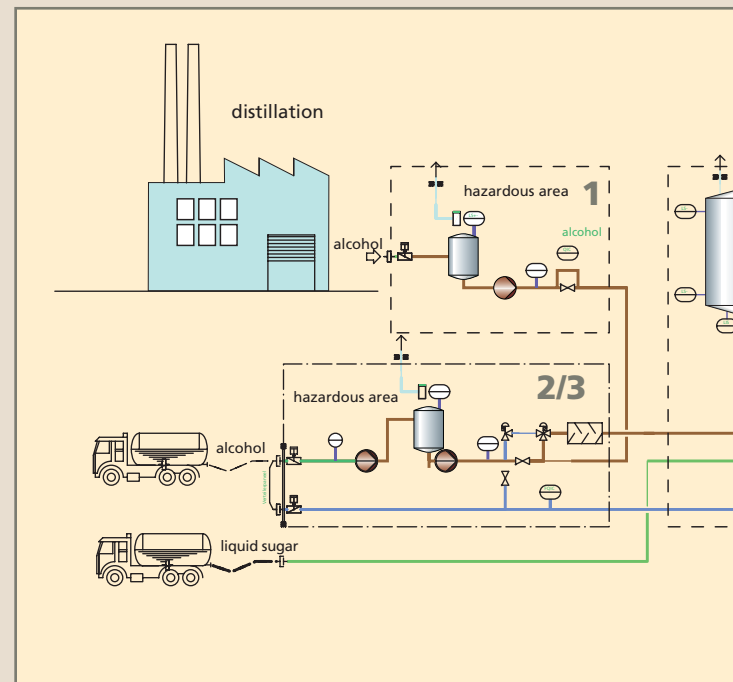
- reception of alcohol/water mixture
- automatic concentration measurement (better than 0.1% vol.)
- preselection of final concentration
- data capture and data transfer possible

## 4. Water deaeration system, type DIOX

- preparation of high-quality beverage water
- minimisation of oxidation in the beverage
- reduction of residual oxygen to under 0.05 ppm possible
- minimisation of foaming during filling

## 5. Filtration systems

- continuous filtration
- batch filtration
- particle filtration
- sterile filtration



## 6. Equipment for storage tank facilities

- storage tank for product
- sterile tank for liquid sugar
- CIP tank
- concentrate starter tank with catwalks and working platforms
- automatic valve manifolds

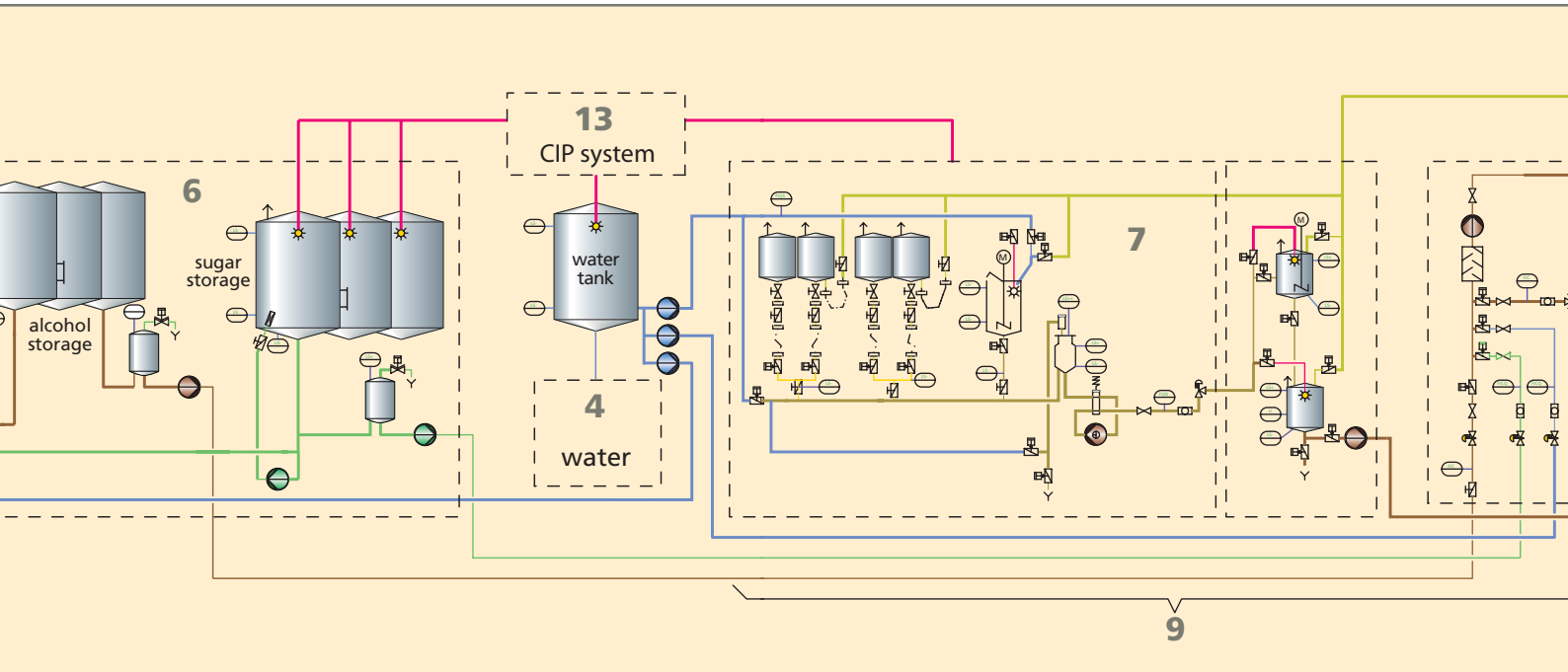


### 7. Batch mixing system, type DIMA

- batch mixing
- flow rate up to 10,000 l/h
- one measuring device for all components
- 12 components in the standard version
- high mixing precision
- recipe memory and automatic running of program sequence

### 9. Combined blending system, type DIKO

- syrup made available quickly
- uninterrupted production
- starting quantities directed towards a predetermined production volume
- small tank volumes
- quick and easy to clean (cleaning possible between batches)
- extremely low syrup losses
- high flow rate, thanks to the combination of batch and in-line processes



### 8. Continuous in-line blending system, type DICON

- in-line blending process
- no mixing tanks required
- flow rate up to 30,000 l/h; other ranges possible on application
- compact arrangement, requires little space
- automatic control with recipe memory



### 10. DICAR carbonation and beverage analysis

- CO<sub>2</sub> dosing, measurement and correction in the finished beverage
- beverage analysis before the start of production
- CO<sub>2</sub> content automatically determined through recipe memory





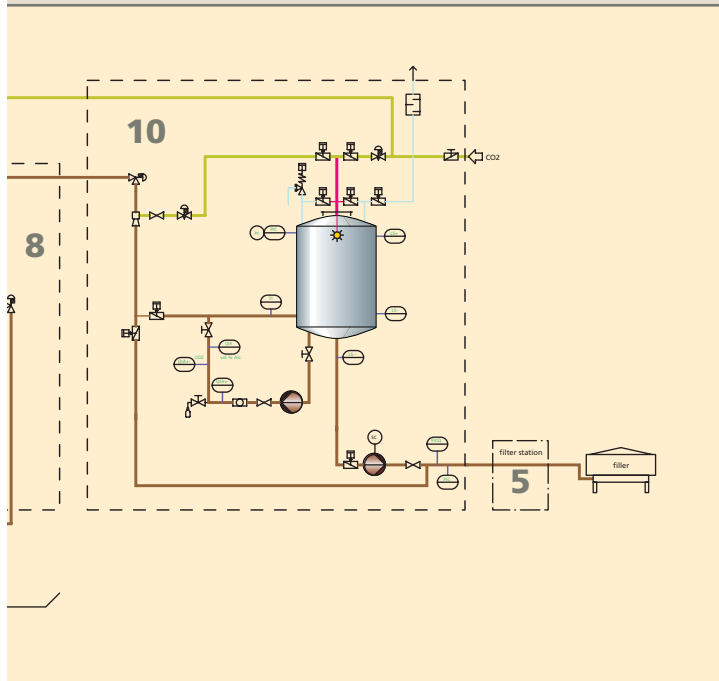
### 11. Mobile metering units

Particularly suitable for small or medium-sized production facilities. Depending on the version, different metering tasks can be carried out:

- flow metering
- volume dosing with preselection of quantities
- batch mixing using several component valves
- filling control

### 12. Product tracing for internal documentation by means of

- determination of volume in the filler line
- determination of consumption of individual basic ingredients, concentrates, syrup, beverage water and alcohol/water mixture
- documentation and storage of analysis values
- determination of storage capacities by measurement of tank contents
- storage of available basic ingredients and concentrates



### 13. Cleaning system, type DICIP

- available with one or more circuits, depending on requirements
- flexible program control allows precise adaptation of the cleaning procedures to the task in hand
- cleaning media are largely recuperated, for greater economy

## Automation and after-sales service

### GEA Diessel offers you

- electronic process control systems
- visualisation systems
- measurement and control systems
- analysis systems
- programmable controllers, training courses, execution specifications, remote diagnosis, planning, on-the-spot maintenance and consultancy. Try us!

*Metering technology for the filler lines*



# Process equipment for the food and beverage industry

All over the world, the name GEA Diessel stands for high-performance, tailor-made process equipment. Our competence derives from more than 80 years of experience: Diessel began to produce apparatus and components for industrial applications as long ago as 1924. Since then, our company has constantly developed, and has played a decisive role in the development of process technology worldwide.

Today, GEA Diessel is part of the international GEA Group, which specialises in solutions and applications in the field of process technology. We are thus able to offer our customers not only unparalleled experience in the construction of process plant, but also the know-how of the powerful GEA Group, whose technological resources are unmatched anywhere else in the world. This is the key to technical achievements on the highest level which open up greater possibilities for our customers.



**A company of GEA Group**

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