



## 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 various kinds of 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.

The individual units have an OIML certificate and are therefore suitable to be used in legal metrology.

Approvals according to the European Measuring Instruments Directive "MID 2004/22/EC" exist for the complete alcohol measuring systems to perform the required measurements with official approval.

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

*We live our values.*

Excellence • Passion • Integrity • Responsibility • GEA-versity

GEA Group is a global engineering company with multi-billion euro sales and operations in more than 50 countries. Founded in 1881, the company is one of the largest providers of innovative equipment and process technology. GEA Group is listed in the STOXX® Europe 600 Index.



## GEA Diessel metering systems and process plant for the production of alcoholic beverages

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### GEA Process Engineering

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engineering for a better world

GEA Process Engineering



# Complete solutions for the starting area for alcoholic beverages

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

- official approval from the weights and measures or customs and excise authorities
- complete unit installed on a base frame
- possible for all ranges of flow rate

## 2. Reception system for alcohol/water mixtures

- reception from tankers
- official approval from the weights and measures or customs and excise authorities
- 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™

- preselection of final concentration
- automatic concentration measurement (better than 0.1 % vol.)
- can be combined with alcohol reception system
- data capture and data transfer possible

## 4. Water deaeration system, type DIOX™

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

## 5. Equipment for storage tank facilities

- storage tank for product
- sterile tank for liquid sugar
- CIP tank
- concentrate starter tank
- automatic valve manifolds



## 6. Batch mixing system, type DIMA™ or type DI-BATCH™

- batch mixing
- flow rate up to 30,000 l/h
- available for any number of components
- high mixing precision
- recipe memory and automatic running of program sequence



## 8. Combined blending system

- 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 and flexibility thanks to the combination of batch and in-line processes

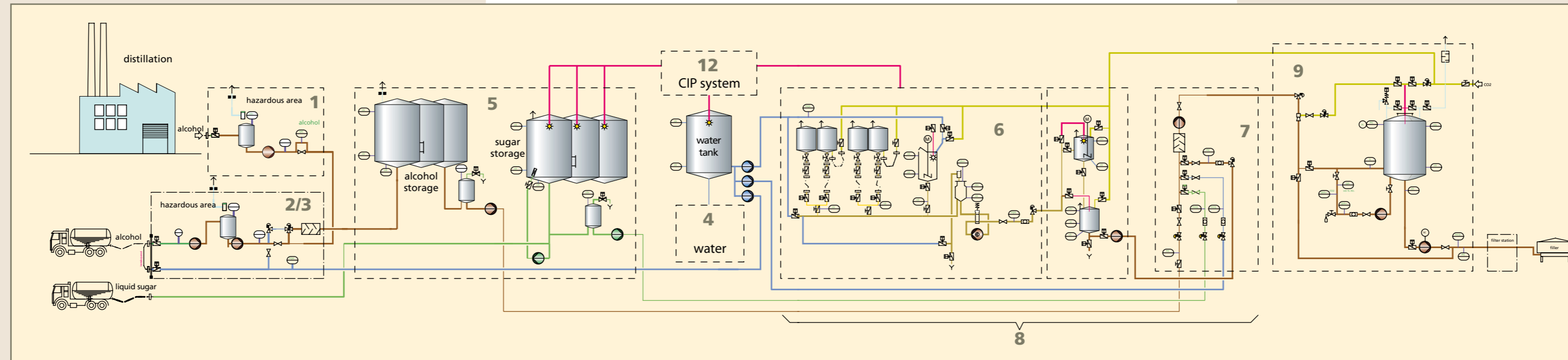


## 10. Mobile metering units

- 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

## 11. 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
- documentation of basic ingredients



## 7. Continuous in-line blending system, type DICON™

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



## 9. 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



Metering technology for the filler lines

## Automation and after-sales service

### GEA Diessel offers you

- electronic process control systems
- visualisation systems
- measurement and control systems
- analysis systems
- training courses, execution specifications, remote diagnosis, planning, on-the-spot maintenance and consultancy