


Full Taste Zero Alcohol



 **System Solutions
For Dealcoholization**

Areas of Application

With more than 30 years experience in dealcoholization, the Schmidt® SIGMATEC has become the market leader worldwide. The experience gained in supplying a large number of dealcoholizing plants, our SIGMATEC design has become highly refined.

To date, SIGMATEC systems have been manufactured for a scope of capacity ranging from 2 hl/h to 150 hl/h.

Breweries

Wheat beer, Pils, Pale Ale, Lager, Dunkel, Stout

Wineries

White/Red Wine, Sparkling Wine, Mulled Wine

Fruit/Cider Production

Perry, Cider

Other Industries

Alcoholic Liquids, Extracts



Advantages of the Procedure

- Dealcoholization under 0.05 vol-%
- Cost-Effectiveness
 - minimum volume loss
 - alcohol concentration to 75 - 80 vol-%, hence a valuable, marketable byproduct
 - fully automatic operation
 - low energy consumption
 - low maintenance cost
- Careful Handling of Product
 - low processing temperature
 - short holding time
- Environmentally Beneficial and Advantageous in the Conservation of Resources
- Optional Aroma Recovery
- Optional Dosing of Base Product
- Optional CIP System
- Optional Desulfurization of Grape Juice

Technical Versions

Materials and Specifications

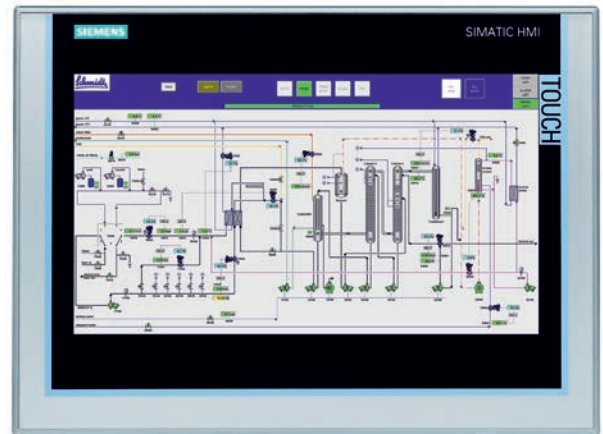
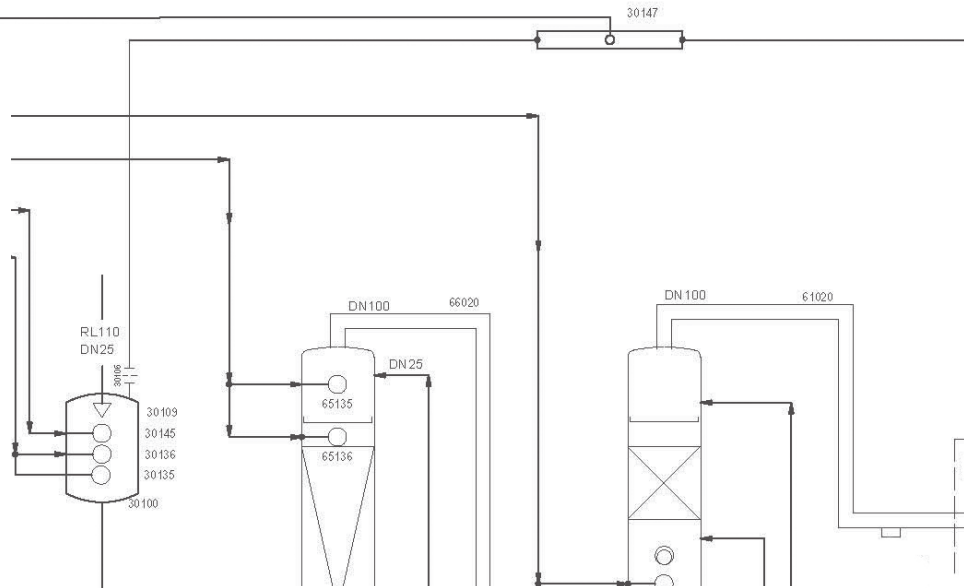
Capacity Data

Materials of Columns and Tanks:	All Current Stainless Steels	Feed Capacity:	2 hl/h - 150 hl/h (Beer)
Column Internals:	Metal Packings, Filling Material, Trays	Steam Consumption: Cooling Capacity:	15 - 18 Kg/hl 10 - 12 Kw/h
Column Diameters:	Dn 200 to Dn 2,000	Average Temperature:	40 - 80°C
Heating System:	Direct Steam or Hot Water	Alcohol Concentration at Inlet: Final Concentration of Alcohol:	0.75 - 15 Vol-% 40 - 85 Vol-%

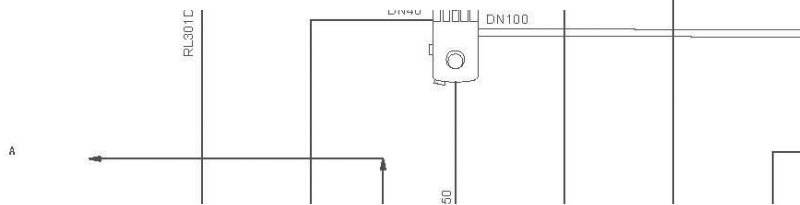
Application Examples



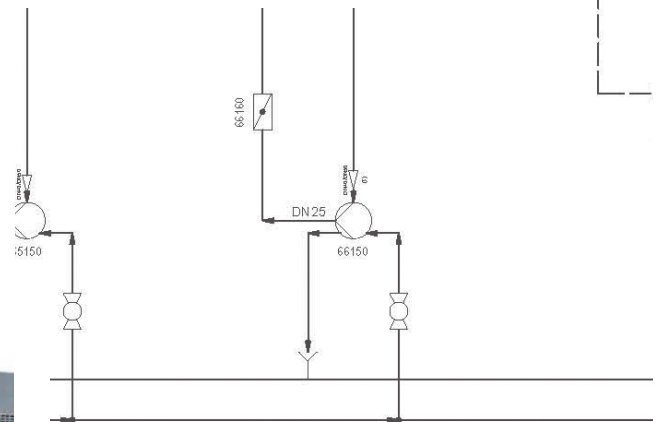
Mobile Testing Unit 4 hl/h - diverse products



Visualization of the plant on the operator panel



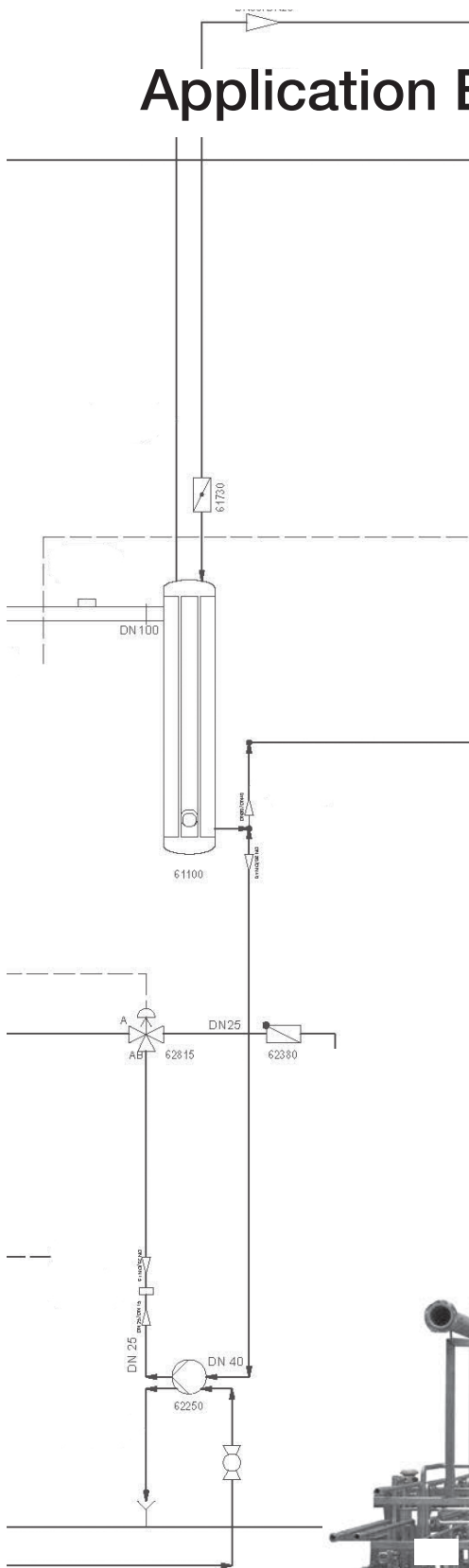
Dealcoholization plant for beer - 50 hl/h



Application Examples



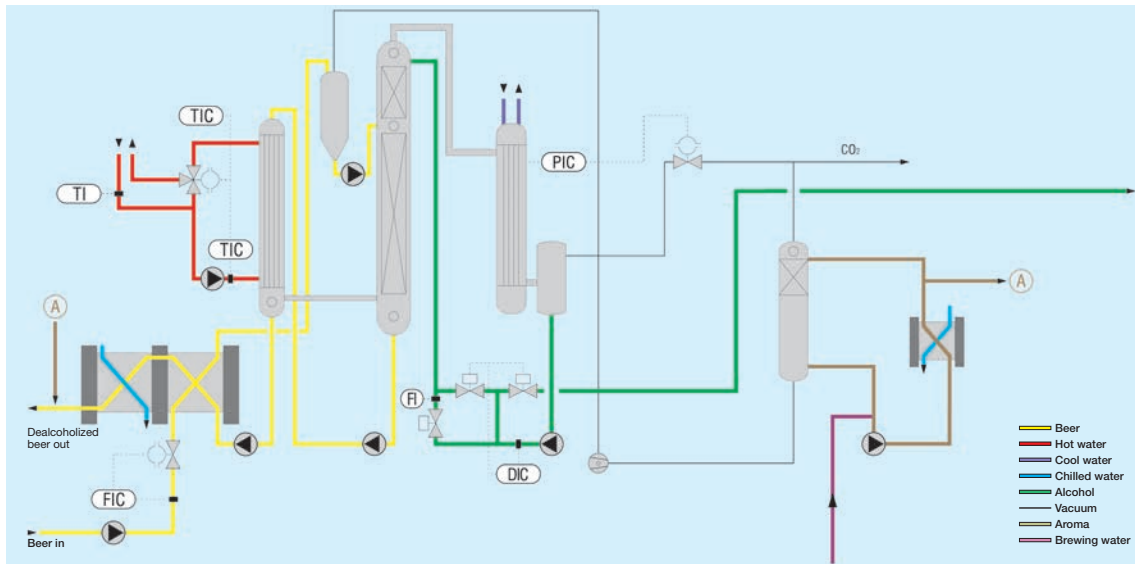
Dealcoholization plant for wine - 2,000 l/h



Dealcoholization plant for beer - 100 hl/h beer - preassembled in the workshop

Freigebe/Admiss.		API Schmidt-Bretten GmbH & Co.KG	
Erst./Drawn		Gepr./Approved	
Beneuerung/Description	SIGMATEC Entalkoholisierungsanlage		Blatt/Sheet 1 von/of 1
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Technology



Process Diagram for SIGMATEC Dealcoholization Plant

Description of Technical Procedure

With SIGMATEC technology it is possible to dealcoholize a diverse range of alcoholic products. The process varies according to the nature of the given product and is based on the following criteria:

- **Preheating**
Using a Schmidt plate heat exchanger the medium is preheated to the required degassing temperature.
- **Decarbonization**
Depending on the final product, decarbonization takes place in a special vessel for the degassing procedure which enables mobile aromatic components to be recovered in the vacuum system.
- **Vacuum Rectification**
A high-capacity distillation column carefully removes the alcohol from the product.
- **Flash Evaporation**
From the already dealcoholized product a portion is evaporated in order to create the necessary stripping steam for the distillation tower.
- **Cooling**
The medium is then cooled down by a Schmidt plate heat exchanger to approximately 2°C.
- **Carbonization**
On request it is possible to inject the product with CO₂.
- **Aroma Dosing**
The aroma covered by an optional aroma recovery unit can be returned into the product. (Alternatively the product can be blended with the base product.)

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API Heat Transfer's global presence includes manufacturing facilities, R&D locations, and sales support throughout the world, all focused on one goal – to better serve our customers.



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