SIGMATEC
DEALCOHOLIZATION SYSTEM

API Schmidt-Bretten
Another successful development by API Schmidt-Bretten is the SIGMATEC process, designed for the dealcoholization of beer and wine. This new procedure using continuous vacuum rectification, ensures a gentle removal of alcohol.

Process Description:

After degassing, the product is preheated in the SIGMA Plate Heat Exchanger and is then fed to the stripping section of a rectifying column. The fluid flows down the column at a temperature between 43 and 46°C. In counter flow the product contacts rising vapors which bring about the selective separation of the alcohol from the product. The alcohol free product is then fed from the bottom of the column into an evaporator. In the evaporator, vapors are produced, which are necessary for the rectification process. These are then redirected into the column. The completely dealcoholized product is pumped out of the plant via a cooler.

The alcohol rich vapors pass from the stripping section to the rectification section where they are concentrated to 75% alcohol. In the patented Aroma Recovery Unit aroma components are recovered and redirected into the wine/beer. The alcohol rich vapors are condensed, cooled to a low temperature and stored in a tank in the form of industrial alcohol, which is a saleable product, that can be marketed separately.
Advantages of SIGMATEC Dealcoholization-Systems

- Selective alcohol separation with minimal aroma loss
- Gentle dealcoholization using low temperature vacuum technology
- Complete dealcoholization to less than 0.05 % alcohol
- Optimum adaptability to different products and formulations
- Less than 10% loss of volume, related to the fed volume of initial product
- Performance data: 4-100 hl/h and more
- Completely continuous and automatically controlled
- SIGMATEC-systems are environment-friendly: No problems with waste water – no waste disposal
- Industrial alcohol as subsidiary end product, ready for immediate marketing
API Schmidt-Bretten is a market leader in thermal process technology since decades because of its extensive know how. Almost 100,000 SIGMA plate heat exchangers with varying constructions and a large number of thermal systems are well proven in many industry sectors for the processing of all kinds of thermal liquids. Most updated production equipment, perfected know-how and high quality levels ensure first class products.

A worldwide network of subsidiaries and representation keeps close contact to our customers to give them the best possible service. Being a part of the API Heat Transfer Group in Buffalo / USA, Schmidt-Bretten participates in the widespread engineering capabilities of the group and with the complementing products opens up a wide field for thermal process solutions.