



# BEVERAGE PRODUCTION

The beverage industry is facing a lot of changes these days. These changes arise from different viewpoints, beginning with the customer who is asking for new, fancy beverages, beverages supporting health and beverages of high quality and a low degree of degradation, just to name a few.

The next important part is the producer itself, as he is working on the efficiency of the process which can be linked to several topics: requirement of space for the equipment, quality of the equipment itself, use of resources during the production process and associated maintenance cost. Finally, the regulator plays a main part, demanding specific safety requirements, compliant behavior and protection of the environment.

VAN DER MOLEN, reliable partner of the beverage producing industry for over 50 years, deals with these issues every day. Our experts develop the equipment, which serves the needs of producers. Depending on the product, VAN DER MOLEN offers the top solution for e.g. softdrinks, fruit juices and water. Our process Know-How and our process equipment will be customized to your needs and enable you to produce high quality products.

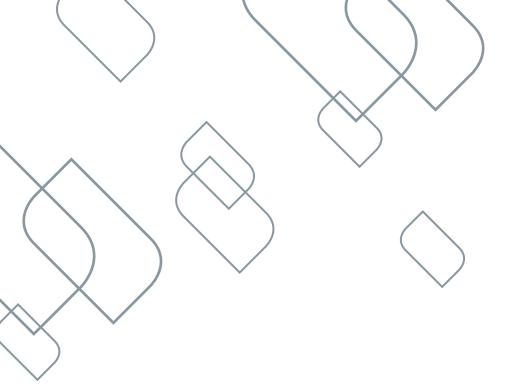
The process is usually split in several steps – VAN DER MOLEN knows how to handle every single one: from material handling up to preperation of the final product. Our process equipment is designed for efficient use of space and energy, our continuous processes reduce investment costs. Combining these with an efficient automation, production costs can be reduced significantly.

The need of efficiency, for example in the use of resources like material and energy, is an important factor in modern production processes and any producer is handling this topic very carefully. VAN DER MOLEN is not only your partner regarding efficiency, but also regarding security in your production process. Maintaining high quality production, extracting important information from the production process, which you might need to deliver to the regulator and making sure that nobody is harmed during the running process are important matters too.

We at VAN DER MOLEN will help you along those topics, be it with a recording of production data or with easy to handle applications for reduced risks of injury for the employees.

Our process systems are manufactured in the form of space saving units, which can be handled easily. This supports an efficient shipping as well as a short and efficient phase of installation and commissioning. Our experts apply the VDM software, which is customized in advance, thus reducing commissioning periods on site.

Process, Beverages Know-How, Efficiency and Security, all these topics are important ones. But, for us at VAN DER MOLEN, it is most important to see that our clients are pleased with what we are doing. That's the reason why we work every day on improving customer satisfaction through high quality products and service. We have a passion for beverages and we are looking forward to share this passion with you, having inspiring conversations with you to reach one common goal: delivering the right process for your business.



# **VAN DER MOLEN** – your reliable partner in process design for:

### **CLEANING**



Cleaning of the equipment or selected parts of the equipment is essential in the production process of liquid foods. The cleaning procedure can take place in pre-specified intervalls and/or during product changes. The highly automated process has several steps. Different substances like water and detergents are being used.



### WATER TREATMENT

Water treatment can be done in several ways: by filtration, microbiological treatment or demineralization. Finally the water quality determines, which combination of the three approaches has to be applied. For example, for demineralization, the most common process is the reverse osmosis.

### **DISSOLVING**



Dissolving characterizes the process step of converting e.g. granular sugar into liquid sugar, thus producing simple syrup. Using a pre-specified temperature and an efficient Jet-Mix-System, the simple syrup is produced in a continuous process. The result is liquid sugar at a specific and exact °Brix.



### FILTRATION/DECOLORIZATION

As the quality of sugar can differ strongly, there is a need to clean the sugar syrup. Using filtration and/or sugar decolorization, which usually is combined in several steps, the result is a clean and clear liquid sugar which can be used in the next process steps.

### THERMAL TREATMENT



Thermal treatment is used to avoid microbes and bacteria in the product. Depending on the product, different temperatures and related heat-holding periods are specified. Temperatures usually range between 85 and 150 °C.



### **MIXING**

Mixing describes the process step of adding several liquid ingredients to a base product, being usually water, simple syrup or final syrup. Depending on the product and on the process step, the mixing process differs: the mixing can involve concentrates and/or water and  $CO_2$ . Further, with high automated installations, a management of recipes is included. For fruit juices, the mixing process involves also pulp and fibres.

The **VAN DER MOLEN** program also includes a variety of appliances for material handling like sugar conveyors, tanks, silos as well as the whole range of automation software used with standard controls and combined with user friendly touch screens. The program can be complemented by a recipe management.





In addition to the design and installation of process systems, VAN DER MOLEN also provides services for monitoring operations including maintenance work and spare parts.

It is possible to create a suitable package including the provision of spare parts, support with troubleshooting by remote diagnostic and preventive maintenance work to suit the availability requirements of the system.

## **VAN DER MOLEN**

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