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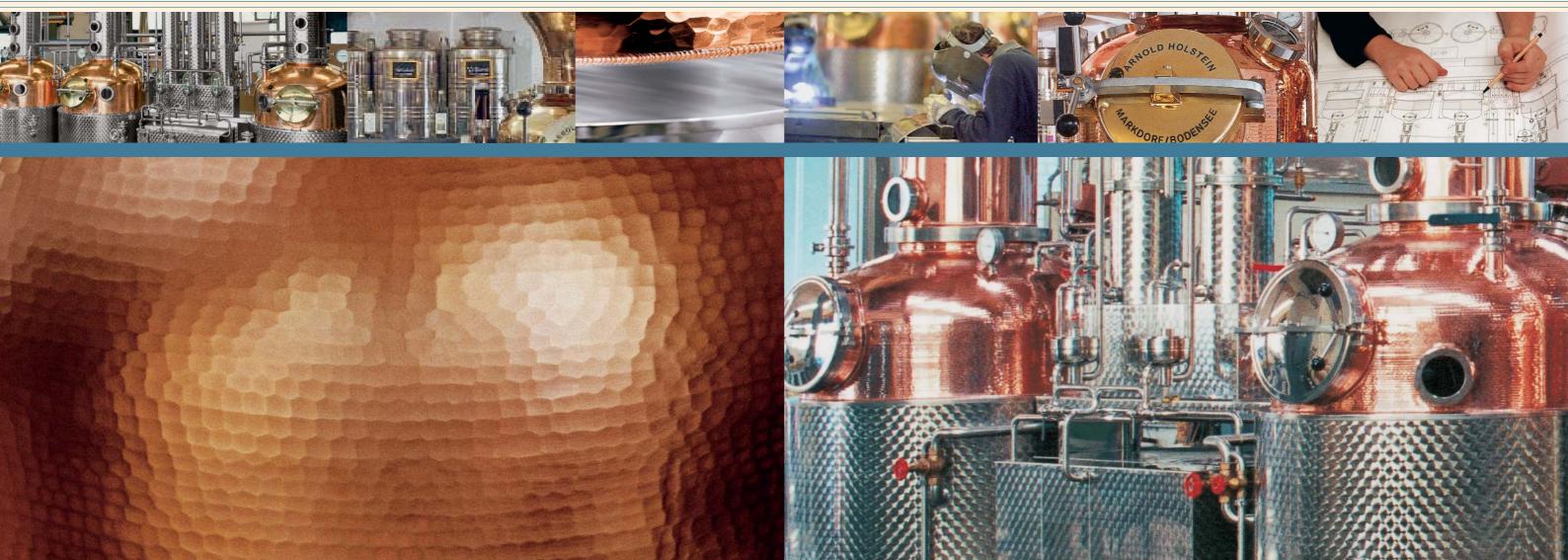
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Distillery Equipment Apparatus Manufacturing Copperworks

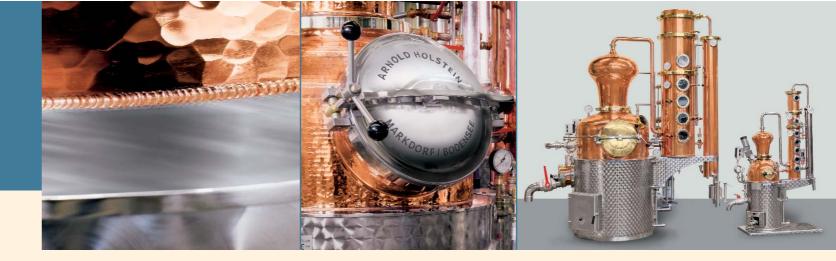
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Innovative Top-Rate
Distillation Technology

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Perfect Distillation Equipment – Professional and Individual



Excellent Ideas from Experienced Craftsmen

We always have time for our customers! Your equipment will be precisely tailored to your individual requirements and distillation tasks. Longstanding experience combined with state-of-the-art development and engineering technologies guarantee innovative and outstanding solutions. More than 40 highly qualified employees painstakingly implement the equipment designs in the spirit of proven, top-notch craftsmanship. The result: exceptional equipment specifically aligned to the requirements of our customers. Providing excellent performance and service as well as a cost-efficient structure.

German distillation technology worldwide. We supply equipment for batch processing with filling capacities of up to 6000 I as well as continuous processing equipment with capacities of up to 5000 I per hour. Our customers comprise leading producers of fine distillates and internationally renowned alcohol producers. Consulting, assembly, start-up operation and service are carried out on-site.

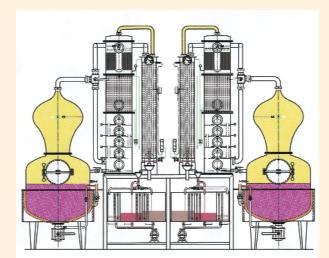
Holstein – a name that stands for the continuity and quality offered by a fourth generation family-owned business.





From Raw Material to High-Quality Distillate

Every task has different priorities, each piece of equipment has to be adapted to the individual requirements. We conceptualize and optimize the entire production flow, from the delivery of raw materials up to the final distillate. We design and manufacture the accessory components ourselves, optimally adjusted to the overall process. Quality without compromise!



High-Performance Equipment with Innovative Technology

Taste and Flavor – a Matter of Technology

State-of-the-art, innovative processing technologies, sophisticated column designs combined with our catalyzer and cleaning technology provide optimal results, even in a high-volume production environment with the highest quality demands placed on the final products. Our units produce flavor-rich premium products at high productivity rates and with easy handling.

Globally operating producers with internationally awarded brand name products rely on Holstein's proven distillation technology.

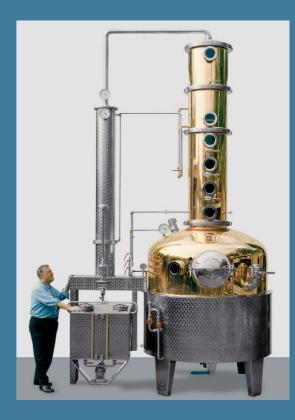
Fully Automated Control Technology

Maximum output with the most diverse recipes and highest ease of operation. No problem at all with our modular, computer-based control systems.

Conveniently, simply, safely, based on the stored parameters, all of our distillation processes achieve reliable results without flavor fluctuations. Of course, modifications can be made at any time during the distillation process by simply using the touch screen control unit.

All process data are digitally recorded by means of upto-date Profibus technology or integration into existing IT systems.





Impressive Proportions Fruit Distillation Unit 2500 I Filling Capacity Czech Republic



Herbal Distillation Unit 4 x 1500 l Capacity Norway





Product Variety Sets the Standard for Unlimited Possibilities

Tradition Meets Today

The product variety enabled by our equipment knows no limits. No matter whether our technology is used for producing premium fruit distillates, whiskey, vodka, grappa, gin, tequila or aquavit – all Holstein units share two things in common: a comprehensive, high quality standard and reliable distillation technology.

That's the payout for what we are and stand for: decades of experience in all alcohol production sectors, innovative concepts implemented with traditional craftsmanship, and global presence and expertise in regards to assembly and service. In the product development and quality assurance areas, we maintain a close cooperative partnership with our customers.





Eau de Vie Production Unit 500 l, Alsace

Specialty Distillation Unit 6 x 500 l, Austria



Large-scale Unit for Whiskey Production 3 x 4700 l, Indonesia

Systematic Modular Design

The basis of the high flexibility is a modular system with freely combinable components. This allows optimal costefficient individualized adjustments, using tried and tested components.

Optimized Second Distillation Columns for Highly Aromatic Distillates

Integrated, proven system with individually engageable, specially coordinated fine distillate bottoms with maximized copper contact surface. This continuously further developed design ensures that the desired flavors unfold and are separated from unwanted components.

High-performance Rectification Columns

Our high-performance columns for effective rectification and cleaning of the distillate easily realize alcohol concentrations of up to 96 % vol. — at any desired purity level.

Copper Catalyzer

Our proprietary and patented lamella design significantly contributes to improving the distillate. The innovative catalyzer technology guarantees a reduction of unwanted acid content as well as cyanide and ethyl carbamate levels.

Copper Tube Dephlegmator

The copper tube bundle makes it possible to install a maximum heat exchange area in the smallest space. The numerous, thin cooling pipes form an extremely large and effective cooling surface. As a result, the dephlegmator is especially efficient and water-saving. The cooling area and thus the cooling effect are infinitely adjustable with a user-friendly control system; this special design lets the dephlegmator respond instantly to changes.



Condensers

Water-saving and highly efficient! The pipe bundle design ensures the maximum possible heat exchange surface. By deploying dual and triple circuit heat exchangers, we implement optimal heat recovery concepts and facilitate cost-efficient production under a wide range of conditions.

CIP Cleaning System

Effective cleaning of the entire distillation unit by means of integrated high-pressure rinsing system. Rotating all access nozzles enable rinsing of all components, which can be cleaned with either hot water or cleaning agents. Clean copper surfaces guarantee the highest distillate quality. Using the cleaning system is as simple as can be.

Alcohol Management

Integrated alcohol reservoirs for all fractions. Manually or automatically selectable. The reservoirs are equipped with pump control systems and level switches. The digital concentration and volume data recording for the various fractions facilitates effective company-internal production planning.

Heating

Steam or water bath. Our high-performance units are equipped with devices for quick and even raw material heating. The heating control can be realized either manually or automated via pressure/temperature control systems.

Condensate or waste gas heat recovery solutions are implemented as required and tailored to the individual units.

• Certified in compliance with the European Pressure Equipment Directive (97/23/EC) • Operating Pressure: 1 bar (€

Intelligent Solutions for Special Equipment

Special Tasks Require Innovative and Flexible Concepts

The conceptualization and realization of special equipment is one of our most important production areas. Our extremely flexible production technology and logistics enable us to realize special units as well.

Mobile Units

Take Switzerland, for example: fully mobile units were realized there. The distillation unit is integrated into a trailer chassis and is thus available to be deployed at different sites — quickly and easily.

Continuous Processing Units

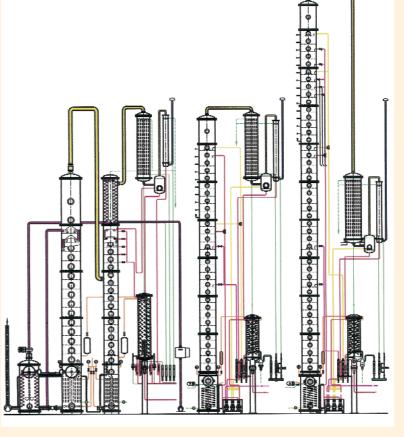
Distillation in continuous processing mode for all types of raw materials, with high-performance methanol removal and rectification columns. Automation from A to Z, from automated mash feed up to continuous distillate bottling. The distillation process is fully automated, including control and monitoring — ideally suited for large batches.

Sealed Distillation Unit

Due to national alcohol production laws in some countries, distillation units may require partial sealing. The unit operates independently in a completely sealed housing.



Herbal Distillation Unit for Pharmaceutical Industry Cologne/Germany



Schematic diagram for a continuous processing unit Fully automated operation.

