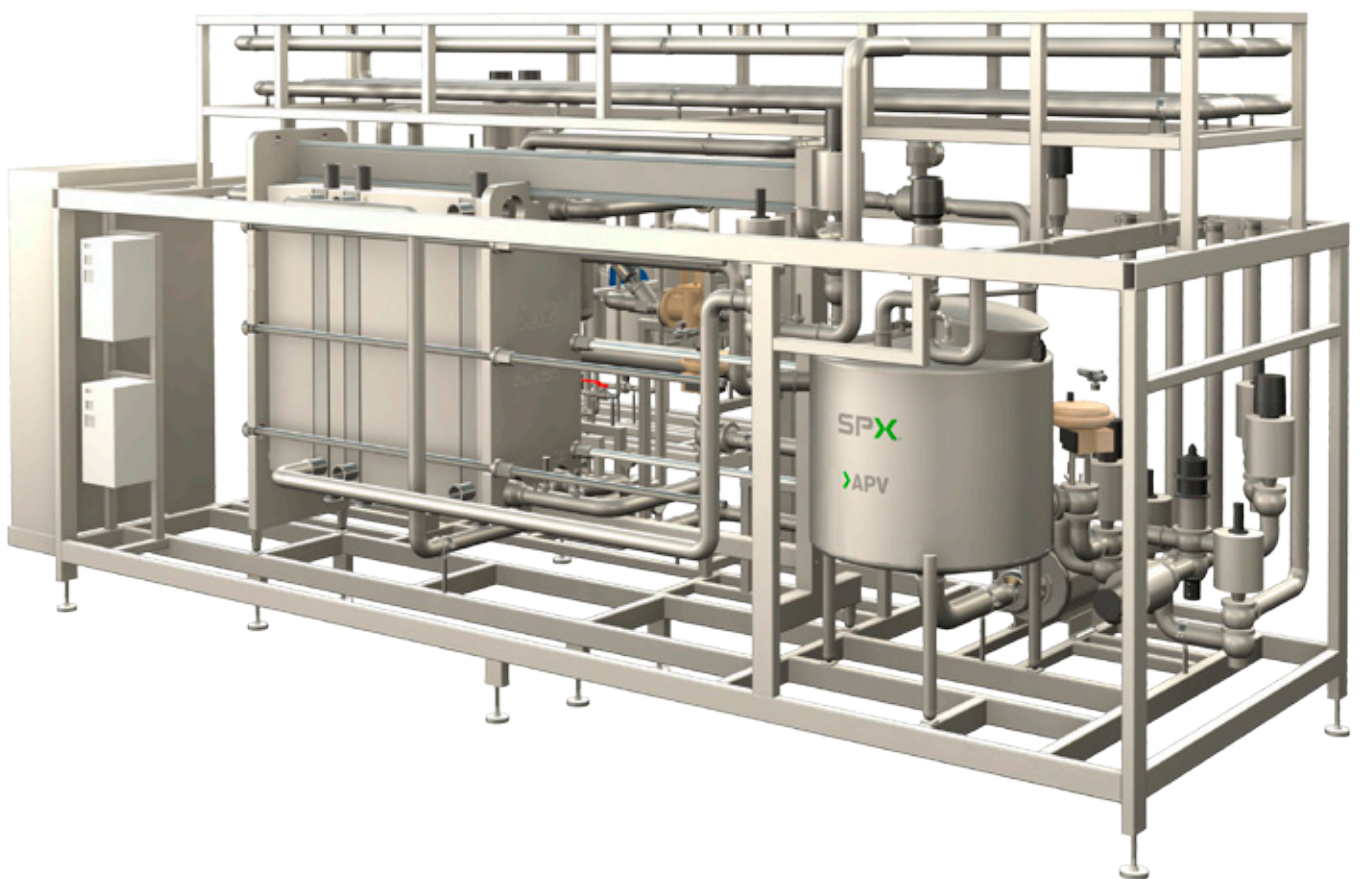


# APV FACTORY XPRESS SYSTEMS

BENEFITS FOR SMALL, MEDIUM, AND LARGE SCALE PRODUCTION

PASTEURISERS, MEMBRANE FILTRATION, SAFEWATER, CIP, UHT, FLEX-MIX<sup>™</sup>, MILK RECEPTION



SPX is highly committed to delivering sustainable solutions, which exceed customer expectations in value and return through a focus on.

- Waste prevention and loss reduction
- Reuse of resources
- Improved value of raw materials
- Water and energy reduction
- Product safety and security
- Social responsibility

It's hard to find a more comprehensive portfolio of processing equipment anywhere else. Many of our designs incorporate patented features and our research and development efforts continue to produce ground breaking technologies. When you specify our equipment you get more than a product – you get a partner.

Engineering excellence, allied to stringent quality control, ensures that SPX's unrivalled range of APV products complies with the highest international standards for hygiene. In the light of growing pressure worldwide to deliver safe, high quality food, all SPX products are designed for easy cleanability, while minimising the use of valuable resources, such as energy. The APV product portfolio includes a wide range of pumps, valves, heat exchangers, mixers and homogenisers designed for use in the food, dairy and brewing industries, as well as in chemical, healthcare, pharmaceutical processing and heavy industries.

## APV FX Systems™ deliver benefits for small, medium, and large scale production

### APV FX SYSTEMS™

APV Factory Express (FX) Systems are high-quality, skid-mounted, Plug & Produce application solutions marketed by SPX under its APV brand. They are designed for dairy, beverage, and food manufacturers all over the world who require reduced lead time for delivery of high-quality, low-risk solutions for plant upgrades or extensions. Based on standardised modules designed, built and backed by SPX, APV FX Systems™ leverage proven SPX engineering and automation, and comply with global industry standards.

### QUICKER AND MORE ECONOMIC INSTALLATION

APV FX Systems™ can be customised to a certain extent by choosing between various modules and options, depending on the application type. The standardised module design and short delivery times result in reduced time-to-market for a new product and relieve larger plants from time consuming changeovers.

Each module includes a full set of operator manuals and can be assembled quickly, thus cutting installation costs to a minimum and significantly shortening time-to-production.

### SIMPLY PLUG AND PRODUCE

APV FX Systems™ means that dairy, food and beverage processors of all sizes can now benefit from fast delivery and installation of skid-mounted systems with the same quality and reliability, the same low maintenance requirements and the same access to global service and spare parts delivery as those offered by larger SPX Flow Technology systems, and what's more, when the equipment is installed, all the customer has to do is to "plug and produce".

## BENEFITS

- Pre-assembled and factory-tested with water before delivery for easy and fast installation based on standardised design
- Small footprint for flexibility in limited space
- Reduced lead time
- Reduced pay-back time and high ROI over a long service life
- Global availability with SPX global service and support

## REDUCED INVESTMENT

Enables realisation of full production capacity to optimise efficiency and ROI with lower investment costs

## SHORT TIME TO PRODUCTION

- Each module includes a full set of operating manuals for fast assembly and connection

## PROVEN RELIABILITY

- Testing of each unit by SPX specialists prior to shipping
- Rapid installation and commissioning
- Proven functionality and performance

## STANDARDISED TURNKEY PACKAGE

- Skid-mounted system with small footprint
- Fast delivery

## SERVICE AND SUPPORT

- Customised service and maintenance agreements
- Global delivery of genuine SPX spare parts
- Application consulting
- Application testing at the SPX innovation centres

## WORLD-LEADING EXPERTISE AND SUPPORT

The SPX innovation centres offer pilot plant and application development expertise for customers, wishing to test new processes and optimise existing process parameters, with the assurance of production scalability. Plant is also available for rent, enabling customers to conduct trials on their own premises.

The SPX portfolio of aseptic and non-aseptic heat treatment systems is adapted to specific national legislations and regulations.

## Typical product applications

### Food



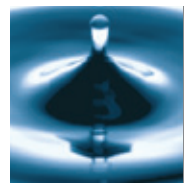
### Dairy



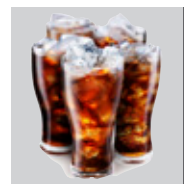
### Brewery



### Water



### Beverage



### Syrup



### Sugars



### APV FX Milk Reception

The milk reception line includes intake of milk and other liquid milk products for further processing in a milk processing plant. The primary function is to eliminate air, measure the quantity, pumping and cooling before storage and/or further processing.



### APV Delta Manifolds

APV DELTA valve manifolds and skidded systems save processors time and money and reduce lead times. The manifolds and systems are completely engineered and built by APV, and are factory-tested before shipment. Solenoid panels can be included in pre-wired manifolds.



### APV FX Tubular UHT Plant

The APV FX Tubular UHT system is a solution that can be delivered, installed and commissioned within a very short time, offering multiple advantages. The APV FX Tubular UHT system uses high-velocity tubular aseptic heat treatment to ensure smooth and efficient, continuous production of high-quality milk products.



### APV FX CIP Systems (Cleaning In Place)

CIP units for efficient cleaning of pipeline systems, tanks and processing plants with a choice of tank sizes depending on requirements. The APV FX CIP MIDI is intended for small to medium CIP applications with a choice of different capacities and sizes, up to a maximum of two CIP circuits per CIP set. Available in two standard ranges:

- APV CIP MINI
- APV CIP MIDI



### APV FX Aseptic Tank

The APV FX Aseptic Tank is a solution that can be delivered, installed and commissioned within a very short time, offering multiple advantages.



### APV FX SepStream System

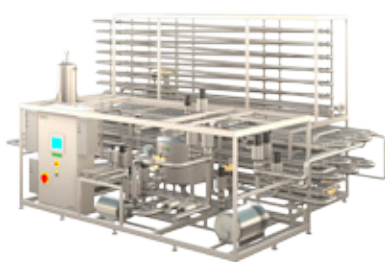
APV FX SepStream systems are pre-engineered and cost effective membrane systems for multi dairy applications. APV FX SepStream systems separate and concentrate whey or milk raw material to create new value-added main stream products or ingredients with no waste as the process also produces a high-quality water main stream.



### APV FX Tubular Juice Pasteuriser

The APV FX Tubular Juice Pasteuriser is a solution that can be delivered, installed and commissioned within a very short time, offering multiple advantages.

The APV FX Tubular Juice Pasteuriser can be used for low viscosity juices with some pulp or fibres, soft drinks, tea and coffee drinks, and water.



### APV FX GoldStream System

The APV FX GoldStream process integrates high-quality sanitary components that are designed to work together to deliver a predictable return on investment. The plant employs tried-and-tested reverse osmosis (RO) technology to separate and concentrate milk residues back to their original composition or higher.





### APV FX Flex-Mix™ Continuous Sugar Dissolver

The APV FX Flex-Mix™ Continuous Sugar Dissolver is a fully automatic sugar syrup blending system that can be readily integrated with existing or new beverage processing solutions and that offers flexibility, Brix accuracy down to  $\pm 0.1^\circ$  and significantly reduced labour costs.



### APV FX TPM Batch Mixer

Batch mixer based on circulation via a buffer tank. Powder is added to the mixer via a butterfly valve. The valve controls the flow of powder and prevents air entering the mixer.



### APV FX Flex-Mix™ Instant

Designed for batch mixing and mixing over one or more hydration tanks in closed systems with vacuum powder transport.

The APV Flex-Mix™ Instant mixer is a highly efficient vacuum processing unit, suitable for use in a wide range of applications.



### APV FX Darmix+ In-Line Mixer

In-line mixer for mixing e.g. butter and butter blends:

- Compact and highly efficient in-line mixer.
- Mixing intensity (rpm) is controlled by a frequency converter.
- Compact design
- Cleaning simultaneously with the pipeline



### APV FX Flex-Mix™ Processor

Sanitary batch process with processing and cooling in a time frame similar to that of a continuous process. Special mixing agitator design for gentle processing and protection of product integrity. Optional high shear mixing unit for emulsification. Individual process step combinations.



### APV FX Flex-Mix™ Liquiverter

Manual unit designed for batch mixing and mixing over one or more hydration tanks with optional integration in fully automated production. Available as a standard unit or with a high-shear mixing option.



### APV FX Milk Pasteuriser

The APV FX Milk Pasteuriser is a solution that can be delivered, installed and commissioned within a very short time, offering multiple advantages.

The APV FX Milk Pasteuriser can be used for pasteurisation of fresh milk. Options for separation, standardisation and homogenisation.



### APV FX Plate Juice Pasteuriser

The APV FX Plate Juice Pasteuriser is a solution that can be delivered, installed and commissioned within a very short time, offering multiple advantages. The APV FX Plate Juice Pasteuriser can be used for low viscosity juices without pulp or fibres, soft drinks, tea and coffee drinks, and water.



## APV FX SafeWater Plate Generator

The APV FX SafeWater (SWP) produces highly effective sanitising and cleaning agents, revolutionising CIP procedures and helping to reduce carbon footprint, shorten changeover time and save energy, as well as the costs of expensive, formulated chemicals

The **EAU Empowered Water™** plate electrolytic cell provides “ready to use/concentrated” anolyte/catholyte.



TRADEMARK



EAU Empowered Water™ is a trademark of EAU Technologies

## About SPX Flow Technology

SPX is an American multi-industry group with an annual turnover of approximately 5 billion USD 16,000 employees, an extensive product portfolio and a strong financial base, well-gearred for growth.

SPX Flow Technology (SPX FT) is a segment of SPX serving many industries including the dairy, food, beverage, brewery and personal care industries. SPX has brought together a number of highly recognised global leading brands which form the back bone of our food & beverage offerings and activities.

## Customer-centered Solutions

With a strong synergy between the SPX brands as well as a solid knowledge and innovation platform, SPX Flow Technology can offer our customers a broad range of products, systems and innovative solutions as well as services reflecting the industry and consumer trends such as:

- New innovative products for specific consumer groups
- Better utilisation of best from nature for healthy and natural products and enhanced functional properties.
- Increased food safety, productivity and sustainably processes whilst “return best to nature”.

## About the APV Brand

Part of SPX Corporation and operating worldwide with employees in over 35 countries, the APV brand provides manufacturing solutions and process equipment to customers in the food, dairy, beverage, brewing, healthcare, power, chemical, marine, biotechnical and petrochemical industries.

The APV brand provides a unique range of highly functional solutions and products that address key business drivers. APV bases its solutions on advanced technology products including pumps, valves, homogenisers and heat exchangers, as well as production efficiency experience, development expertise, maintenance management and regulatory compliance.

# SPX Innovation Centres

Continuous research and development based on customer needs and an ability to visualise future process requirements drives continued mutual growth.

SPX innovation Centres leverage the extensive industry experience and expertise of a staff of food technologists, process and production engineers. Knowledge gained over many years throughout the company contributes actively to all types of development, testing and application of SPX branded equipment, systems and processing lines. All facilities and services are designed to provide added value by minimising waste and energy requirements, or by converting commodity ingredients into new, competitive products.

## INNOVATION CENTRE OFFERINGS:

- Test and development of new equipment and recipes
- Process validation and concepts
- Comparison of processes
- Optimisation of existing products and processes
- Performance testing of pumps, valves and other products
- Prototype assembly and evaluation
- Customer facility on-site testing with rented pilot plant or equipment



## Fully equipped laboratories to support test needs:

- Microbiological quality
- Chemical analysis
- Water analysis
- Application and process information
- Analysis of a wide range of characteristics and properties related to evaporation and drying



## SPX Flow Technology test facilities:

- Silkeborg, Denmark
- Soeborg, Copenhagen, Denmark



## Global locations

### AMERICAS

#### SPX FLOW TECHNOLOGY

Email: [ft.americas.fxqueries@spx.com](mailto:ft.americas.fxqueries@spx.com)

### APAC

#### SPX FLOW TECHNOLOGY

Email: [ft.apac.fxqueries@spx.com](mailto:ft.apac.fxqueries@spx.com)

### EMEA

#### SPX FLOW TECHNOLOGY

Email: [ft.bydgoszcz.fxqueries@spx.com](mailto:ft.bydgoszcz.fxqueries@spx.com)

### ABOUT SPX

Based in Charlotte, North Carolina, SPX Corporation (NYSE: SPW) is a global Fortune 500 multi-industry manufacturing leader. For more information, please visit [www.spx.com](http://www.spx.com).

### SPX FLOW TECHNOLOGY

Pasteursvej,  
DK-8600 Silkeborg, Denmark  
P: +45 70 278 278  
F: +45 70 278 330

SPX reserves the right to incorporate our latest design and material changes without notice or obligation.

Design features, materials of construction and dimensional data, as described in this bulletin, are provided for your information only and should not be relied upon unless confirmed in writing. Please contact your local sales representative for product availability in your region. For more information visit [www.spx.com](http://www.spx.com).

The green ">" is a trademark of SPX Corporation, Inc..

APV-9009-GB Version 05/2013 Issued 06/2013 COPYRIGHT © 2012 SPX Corporation