



**SPX** FOOD+BEVERAGE

## SPX Food and Beverage Processing Capabilities

Food and beverage processing has never been more challenging. Margins are being squeezed, food safety is paramount and consumer demands for new products make formulation changes a regular occurrence.

To meet these challenges head on, you need a partner with a deep understanding of process engineering and a broad portfolio of equipment. Look to SPX and its industry leading brands to provide unparalleled technical support, equipment versatility and food processing expertise.

Based in Charlotte, North Carolina, SPX Corporation (NYSE: SPW) is a global, multi-industry manufacturing leader with approximately \$5 billion in annual revenue, operations in more than 35 countries and over 14,000 employees. The company's highly-specialized, engineered products and technologies are concentrated in Flow Technology and energy infrastructure. Many of SPX's innovative solutions are playing a role in helping to meet rising global demand for electricity and processed foods and beverages, particularly in emerging markets. The company's products include food processing systems for the food and beverage industry, critical Flow components for oil and gas processing, power transformers for utility companies, and cooling systems for power plants. For more information, please visit [www.spx.com](http://www.spx.com).

## Drivers for Change

Through our heritage and experience of developing solutions for our Food and Beverage clients, SPX has identified that change within the majority of processing operations can be categorized into four main drivers. Each of these drivers have common as well as unique characteristics and provide processors different sets of challenges. Through SPX's identification of these drivers they have been able to develop and organize a comprehensive portfolio that can be utilized to address and reduce the stress of a user's change.

### Driver

#### Technology

Advancements, changes/  
feature upgrades

*Including Automation upgrades,  
food processing methods,  
communications and connectivity,  
monitoring and metering*

Drivers have the potential for affecting the following pain points most.

#### Pain Points related to Technology change -



RELIABILITY



FLEXIBILITY



SAFETY AND  
SECURITY

### Driver

#### Product Category

Capacity changes, batch size runs,  
consumer trends/behaviors

*Including product extensions, new  
flavors and ingredients, introduction  
and transfer of new lines, capacity  
increases, brownfield projects (New  
Processes in existing facilities)*

#### Pain Points related to Product Category change -



RELIABILITY



DURABILITY



FLEXIBILITY



EFFICIENCY

### Driver

#### Environmental, Health and Safety (EHS)

Updates and introduction of new  
requirements, risk reduction, global  
and local regulatory compliance

*Including security, food safety and  
compliance, worker safety*

#### Pain Points related to EHS change -



RELIABILITY



FLEXIBILITY



SAFETY AND  
SECURITY

### Driver

#### Operating Principles

Process and CIP working  
practices, centralized purchasing/  
equipment standards, corporate  
vision and priorities

*Including corporate overall  
equipment efficiency, productivity,  
uptime risk*

#### Pain Points related to Operating Principles change -



RELIABILITY






DURABILITY



FLEXIBILITY



EFFICIENCY

PAIN POINTS		 RELIABILITY	 DURABILITY	 FLEXIBILITY	 EFFICIENCY	 SAFETY AND SECURITY
<b>SPX</b> <b>Food and Beverage</b> <b>Process Component</b> <b>Portfolio</b>		<b>Uptime and Consistent Performance</b> <ul style="list-style-type: none"> <li>• Application consistency</li> <li>• Consistent and sustainable performance</li> </ul>	<b>Withstand Different Environments</b> <ul style="list-style-type: none"> <li>• Maintenance and CIP practices</li> <li>• Fast paced plant operation with all levels of operators</li> </ul>	<b>Manage Expected or Unexpected Changes</b> <ul style="list-style-type: none"> <li>• Quick product switch out</li> <li>• Diverse mix of applications</li> <li>• New opportunities for repurposing</li> </ul>	<b>Productivity and Energy Consumption</b> <ul style="list-style-type: none"> <li>• Managing energy usage to minimize costs</li> <li>• Maintain up time and reduce switch out time</li> </ul>	<b>Operational Safety and Protection</b> <ul style="list-style-type: none"> <li>• Security to reduce for tampering and contamination</li> <li>• Maintenance Safety</li> <li>• Regulatory and common working practice needs</li> </ul>
Module	Product Group					
<b><u>Pumps</u></b>	Positive Displacement	■	■	■	■	■
	Centrifugal	■	■		■	■
	Metering	■			■	
	Diaphragm	■		■	■	
	Spares and Parts	■	■		■	■
<b><u>Valves</u></b>	Single Seat/Mix-Proof	■	■	■	■	■
	Butterfly/Ball	■		■		
	Specialty Process	■			■	
	Aseptic	■	■	■	■	■
	Spares and Parts	■	■		■	
<b><u>Heat Exchangers</u></b>	Plate	■	■	■	■	■
	Scrape	■		■	■	■
	Tubular	■	■			
	Spares and Parts	■	■		■	■
	Maintenance Services	■		■		■
<b><u>Homogenizers</u></b>	Homogenizers	■	■		■	■
	High Pressure Pump	■	■			■
	Spares and Parts	■	■	■	■	■
	Maintenance Services	■			■	
<b><u>Separators</u></b>	Separators	■	■		■	■
	Spares and Parts	■	■		■	■
	Maintenance Services	■	■		■	■
<b><u>Mixers</u></b>	Liqui- and Multiverter	■	■	■	■	
	DTL/TPM Mixer					■
	Flex-Mix™ Instant	■	■	■	■	■
	Colloid Mill/Shear Pump	■	■	■		
	Cavitator	■	■	■	■	■
	Spares and Parts	■	■		■	■

**NOTE:** The ■ denotes that the individual offering has significant capability, opportunity or potential to address the aligned pain point.

## WHY SPX IS RIGHT FOR YOU!

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. We listen to your goals and design the best solution to help you achieve them. By testing your formulations at one of our many application centers worldwide – you'll have a proven process before you implement it in your plant.



PRODUCT GROUPS

Centrifugal Pumps:

Centrifugal pumps are designed to achieve lifetime cost savings, lower energy consumption. CIP/SIP



Positive Displacement Pumps:

Proven operation and durability, these pumps include advanced sanitation technologies, long life features, and installation flexibility. Aseptic models available.



Plate Heat Exchangers:

High quality and value added features. Wide range of frame compression technologies, connection types and sanitary accessories for increased cleanability.



Separators:

Expanded model offerings provides a duty specific design and not a "one size fits all" Separator. Manual, automatic and standardizing provide simple installation and process integration.



Homogenizers:

Designed to meet specific application requirements and optimizes both energy and water consumption for sustainable, economic production while providing consistent, reliable performance.



Flow Divert Valves/General Valves:

A modular family of divert, mix proof and manual valves that are the ultimate in easy cleaning, high pressure, low maintenance design.



Mixers:

An extensive mixer portfolio offers the flexibility to handle all types of products, quickly and efficiently. Designed to improve product quality, shelf-life and provide better consistency.



Cavitator:

This patented SPX technology offers breakthrough benefits for the heating of liquids without scaled buildup and/or the mixing of liquids with other liquids, gases or solids at the microscopic level to improve product quality and functional performance.



Metering Pumps:

The mechanically actuated diaphragm pumps offer safe and reliable operation for liquids with a plunger pump head option for high pressure, low flow duties. The pumps are suitable for single and multi-stream processes and auto-control using variable speed, electric stroke or a combination of both.



SSHE:

SPX scraped surface heat exchangers have been replacing slow, inefficient batching operations with more uniform, controllable and repeatable continuous processing for decades.



Aftermarket Parts:

Be sure to continue delivering top performance when you rely on original, factory calibrated parts and services. SPX customer service and parts experts anticipate potential requests and quickly deliver the parts you need to keep your process running at optimal levels.

SPX FOOD PROCESSING BRAND PORTFOLIO

>Anhydro®

e&e Series

>Johnson Pump®

>Waukesha  
Cherry-Burrell®

>APV®

>Gerstenberg Schröder®

>Lightnin®

>Bran+Luebbe®

>Hankison®

Seital™ Separation Technology





## Global locations

[www.spx.com](http://www.spx.com)

### USA

#### SPX GLOBAL HEADQUARTERS

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