# SPXFL0W

# FOOD+BEVERAGE



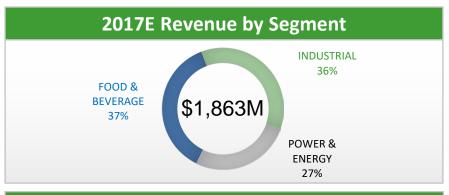
# **Company Overview**

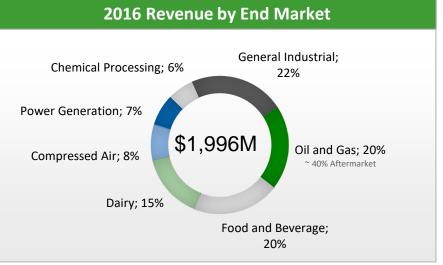


### **Strengths**

- Experienced Board of Directors and executive management
- Strong brands and high quality products
- Serve multi-national, regional and local customers
- Large installed base
- Scaleable aftermarket and service business

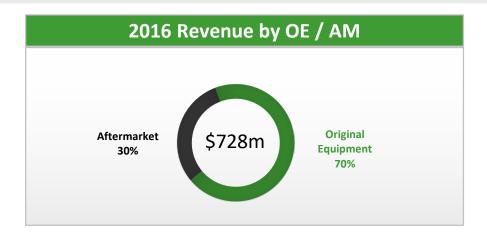
# Key Brands APV° > Lightnin° > Waukesha Cherry-Burrell° > Power Team° > Anhydro° > Copes-Vulcan° > Gerstenberg Schröder° > M&J Valve° > ClydeUnion Pumps

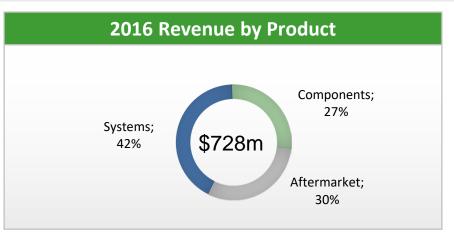


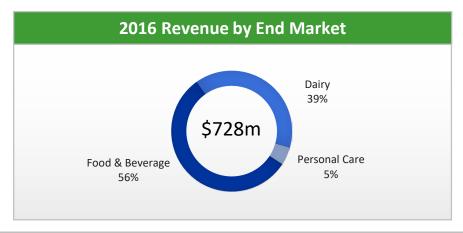


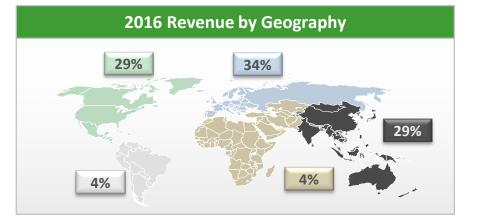
# Food & Beverage Overview







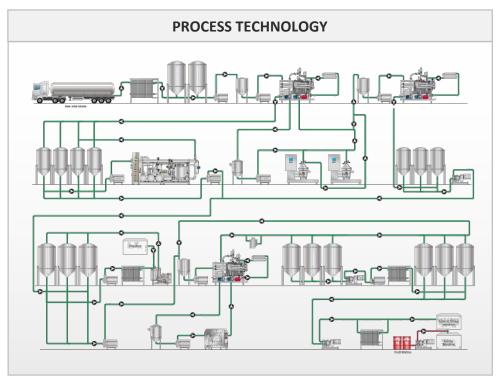




# Food and Beverage Offerings







Full Line of Components, Turn-Key Systems and Related Aftermarket Parts and Services

# **Customers and Applications**



### **CUSTOMER EXAMPLES**























### DAIRY

- Infant Formula
- Milk & Whey Powders
- Dairy Ingredients
- Recombined Milk Products
- Butter & Spreads
- Yoghurt & Fermented Products
- Fresh & UHT Milk
- Pressed Cheese

### **FOODS**

- Vegetable Fats
- Margarines
- Baby Food
- Ingredients & Flavorings
- Yeast extract
- Condiments
- Bakery & Confectionery
- Proteins

### **BEVERAGES**

- Tea & Coffee Drinks
- Instant Coffee
- Nutritional & Soy Drinks
- Soft Drinks
- Fruit Juices
- Flavored Water
- Beer
- Wine
- Spirits

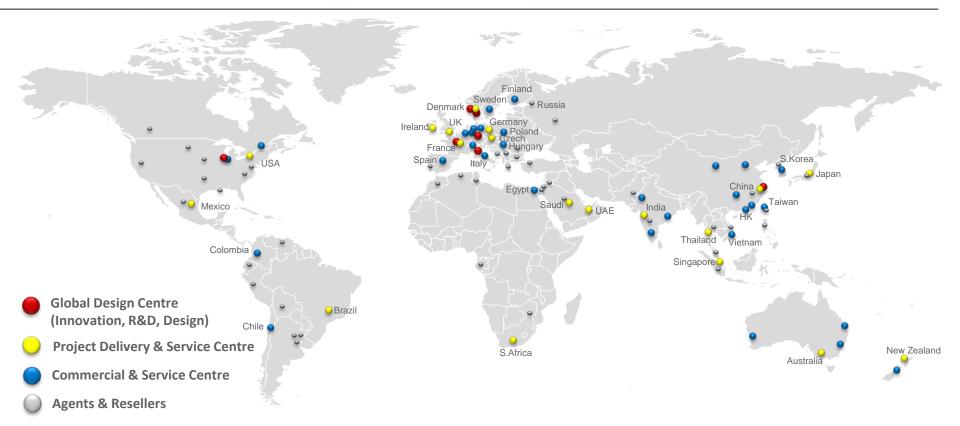
### PERSONAL CARE/OTHER

- Silica & Industrial powders
- Extraction, Recovery of Organic Substances
- Cosmetics
- Healthcare
- Detergents
- Solvent Recovery
- Biofuel, Concentration of Glycerol, Methanol

**Global Customer Base with Process Solutions Across a Number of Applications** 

# SPX FLOW's Food & Beverage Presence





Global Capabilities with Local Presence ~2,500 Staff with over 400 Engineers Supporting Installations in 70+ Countries

# Core Brands - Food & Beverage



# >Anhydro





### **Core Offerings**

- Evaporators
- Spray Dryers
- Spin Flash Dryers
- Fluid Bed Technologies
- Small Scale Plants
- Bag Filters

### **Primary Applications**

- Powder agglomeration
- Permeate processing
- API processing for spray drying
- Spray encapsulation, agglomeration and cooling

- pheacteris
- Concentration of milk and whey
- Drying milk and whey concentrates
- Lactose processing
- Dry food processing
- Extraction and freeze drying
- Coffee and tee processing



- Process Systems
- Heat Exchangers
- Fluid Handling Components
- Homogenizers
- Automated Solutions

- Pumping thin or viscous fluids Flow control and diversion
- Heating and cooling
- Particle size and viscosity control (homogenization)

- Membrane filtration processing
- Yoghurt, dessert and fermented milk processing
- Fresh milk and UHT processingJuice and beverage processing
- Process food processing
- Process food processing
- Process engineering and design

# >Gerstenberg Schröder



- Heat Exchangers
- Emulsifying Equipment
- Butter Systems
- Pilot Plants

- Edible fasts and oils productionMargarine processing
- Margarine processing
- Jams and jellies
- Peanut butter processing

- Ice cream production
- Butter processing
- Filling cream
- Dressing and Ketchup processing

Waukesha

Pumps

Pumping thin or

Heating and cooling applications

# **Innovation Center**



### **Innovation Center Information**

- Located Denmark, France and Shanghai (2016)
- > 80% utilization by our customers
- Pilot plant trials of customer recipes
- High level of customer satisfaction 4.4 on a 5pt scale

with the purpose of creating **something new** to provide **value to customers** 





The Denmark Innovation Centers are Two of Our Most Comprehensive R&D Facilities and Critical to Our Success



### **Liquid Dairy Experts**

- Global UHT, Membrane & Mixing Design Centre, Silkeborg DK
  - □ More than 60 years experience with world leading dairy brands
  - □ Innovation centre, customer focused technology development
  - □ Installed base in over 60 countries
  - Experts in thermal processing, mixing and separation for liquid dairy, liquid food and beverage application
- A market leading supplier of Liquid Dairy process:
  - Multi Nationals: Arla, Danone, Fonterra, Lactalis, Nestle....
  - □ Regionals: Almarai, Alpro, Morinaga, Nadec, Tine, Valio....
  - Locals: Colun, Lion, Soeul Dairy, Vinamilk, Woodlands....





























A Market Leading Process Equipment Supplier to Global Dairy Industry



### **Liquid Dairy Experts**

- Global Fresh & Fermented Dairy Design Centre, Evreux FR
  - □ More than 40 years experience with world leading dairy brands
  - □ Partnership with French school, <u>fresh dairy recipe development</u>
  - Installed base in over 30 countries
  - Experts with fresh fermented & ambient liquid dairy application
- A <u>market leading</u> supplier of Fermented Dairy process:
  - Multi Nationals: Danone, Lactalis, Yoplait, Nestle, Yakult....
  - □ Regionals: Almarai, Lala, Senoble, Morinaga, Valio....
  - □ Locals: Bright Dairy, Colun, Mengniu, Panagro, Sutas, Yili....
  - China: A leading Fresh Dairy supplier to Chinese Dairy industry



A Market Leading Process Equipment Supplier to Global Dairy Industry



### Margarine, Shortening and Butter Experts

- Global Fats & Oils Design Centre, <u>Soeborg/Silkeborg Denmark</u>
  - □ More than <u>100 years experience</u> with world leading fats & oils and butter brands
  - □ Innovation centre, customer focused technology development
  - □ Installed base in over 50 countries
  - Experts in traditional churn and continueous crystallation processes for butters, spreadables, margarine and shortenings
- A <u>market leading</u> supplier of Butter & Shortening processes:
  - Multi Nationals: Arla, Bunge, Cargill, Fonterra, Unilever, Wilmar....
  - □ Regionals: Glanbia, Graincorp, Tine....
  - □ Locals: Dairy Crest, Namchow, Nuttelex, Ornua....



A Market Leading Process Equipment Supplier to Global Edible Oil Industry



### **Dairy and Nutritional Powder Experts**

- Global Spray Drying Design Centre, <u>Soeborg Denmark</u>
  - □ More than 60 years experience with world leading dairy brands
  - □ Innovation centre, customer focused technology development
  - □ Installed base, more than 5,000 driers in over 40 countries
  - Experts in evaporation and spray drying for dairy, food and industrial applications
- A <u>market leading</u> supplier spray drying process:
  - Multi Nationals: Abbott, Arla, Biospringer, Danone, Givaudan....
  - □ Regionals: Bongrain, Euroserum, Kerry, Gloria, Tine....
  - □ Locals: Biokom, Embare, Panagro, Synutra, Watts....

























A Market Leading Process Equipment Supplier to Global Dairy and Food Ingredients Industry

# **SPXFLOW Technologies**



### Our Extraction, Evaporation and Drying Portfolio

- <u>Extraction</u>: for recovery and processing of plant and organic substances at a very high quality
- <u>Evaporators</u>: for reduction in liquid prior to a liquid-to-power drying process resulting in a more efficient drying process.
- Spray Dryers: for drying of heat-sensitive liquids such as milk and whey while retaining valuable nutrients, aromas and flavors
- Spin Flash Dryers: for continuous drying of cohesive and noncohesive pastes, filter cakes and high-viscosity liquids with high drying efficiency and for safe drying of flammable products
- Fluid Bed Dryers: for drying, cooling of powder and powder treatment such as mixing, agglomeration, dust binding and instantizing resulting in superior powder quality and drying economy
- <u>Vacum Belt Dryers</u>: for continuous and gentle charging of liquid and solid products while retaining the aroma, color and bulk density of the products

### **Customer Benefits**

- Food Safety
- Product Consistency and Quality
- Plant Safety
- Sustainable Environment
- Reduced Operating Costs
- CAPEX Optimized

# **Positions**



Typical positions held by dairy engineers and food technology Msc

- Sales managers
- Innovation centres
- Technology support
- Process RD

# Competencies

- Technology
- Process/product interactions
- Project management

COMPANY CONFIDENTIAL May 15, 2018

# Dairy and food candidates



Managers for innovation center in Silkeborg and in Søborg

NPD reaponsible – Innovation center

Process specialists – evaporators and membranes

Project manager

Process manager

Product category sales manager

Technology manager

Senior technologist

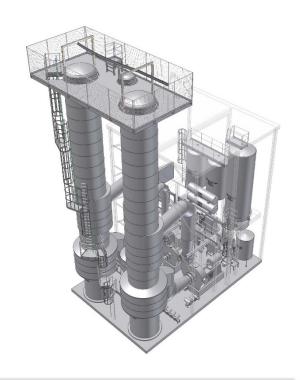
COMPANY CONFIDENTIAL May 15, 2018 15

# My role at SPXFLOW



# Gloabl design centre Søborg – evaporation

- Design of evaporation processes
  - Thermal design, product/process impact considerations
- Evaluation of process performance
  - Duties, consumption data and performance
- General tecnical support
  - Product physical properties



# Thank you, contact info



Evaporation specialist

Martin Gram Landerslev, martin.landerslev@spxflow.com

+45 5138 8118

Global technology sales manager

Berit Skindersø, berit.skindersoe@spxflow.com

+45 3954 6112

SPXFLOW technology søborg

Østmarken, 7

DK-2860, Søborg

SPXFLOW technology silkeborg

Pasteursvej, 1

DK-8600, Silkeborg

COMPANY CONFIDENTIAL May 15, 2018