

## Fruit and Flavour Dosing Station



# What We Offer:

**Compact and ergonomic design.**

**Easy access** for service and maintenance.

**Design using SPX FLOW components** ensuring availability of spares and increased up-time.

**Cutting-edge automation** providing up-to-date MES plus traceability.

**Precise** fruit dosing (pieces up to 10x10x10mm), puree, caramel, aromas, and proportional dosing with 0.5% accuracy in yoghurt base, achieve **optimal blending** with SPX FLOW dynamic mixer.

**Sanitary design** where product circuit can be fully cleaned independently.

## **OUR PRODUCTS OFFER FLEXIBLE SOLUTIONS TO MEET YOUR EXACT NEEDS.**

### **Flavour/fruit container:**

- Available to empty from bottom or top
- Pressurised or atmospheric
- Stainless steel or plastic

### **Production:**

- Customised solution
- Continuous operation
- Optimised level of automation
- CIP / SIP
- Aseptic option

### **Product:**

- Aromas and flavour
- Caramel, fruit, etc.
- With or without pieces (pieces up to 10x10x10mm)
- Liquid or viscous
- Aseptic option



# Dosing Station Solutions

## ONE CONTAINER SOLUTION

### Advantages

- Designed for low container transition
- Suitable for batch production
- Attractive CAPEX overall
- Small footprint



## TWO CONTAINER SOLUTION

### Advantages

- Automated transfer from one container to the next without stopping production
- Standard concept, fully automatic, including:
  - » Container pressurisation with sterile air
  - » Container bottom valve sterilisation
  - » Empty container detection
- Ideal: 3 - 4 container changes per hour
- Small footprint with container above skid



## COMPONENTS IN DOSING STATIONS

### SPX FLOW dynamic mixer for stirred yoghurt or fresh cheese (fromage frais):

- Adapted for stirred yoghurt/fresh cheese
- Residence time 7s to 10s
- Wide range from 100l/h to 6,000 l/h
- Horizontal or vertical installation
- Standard SPX FLOW spare parts, same as SPX FLOW W+ centrifugal pump



### SPX FLOW dosing pump:

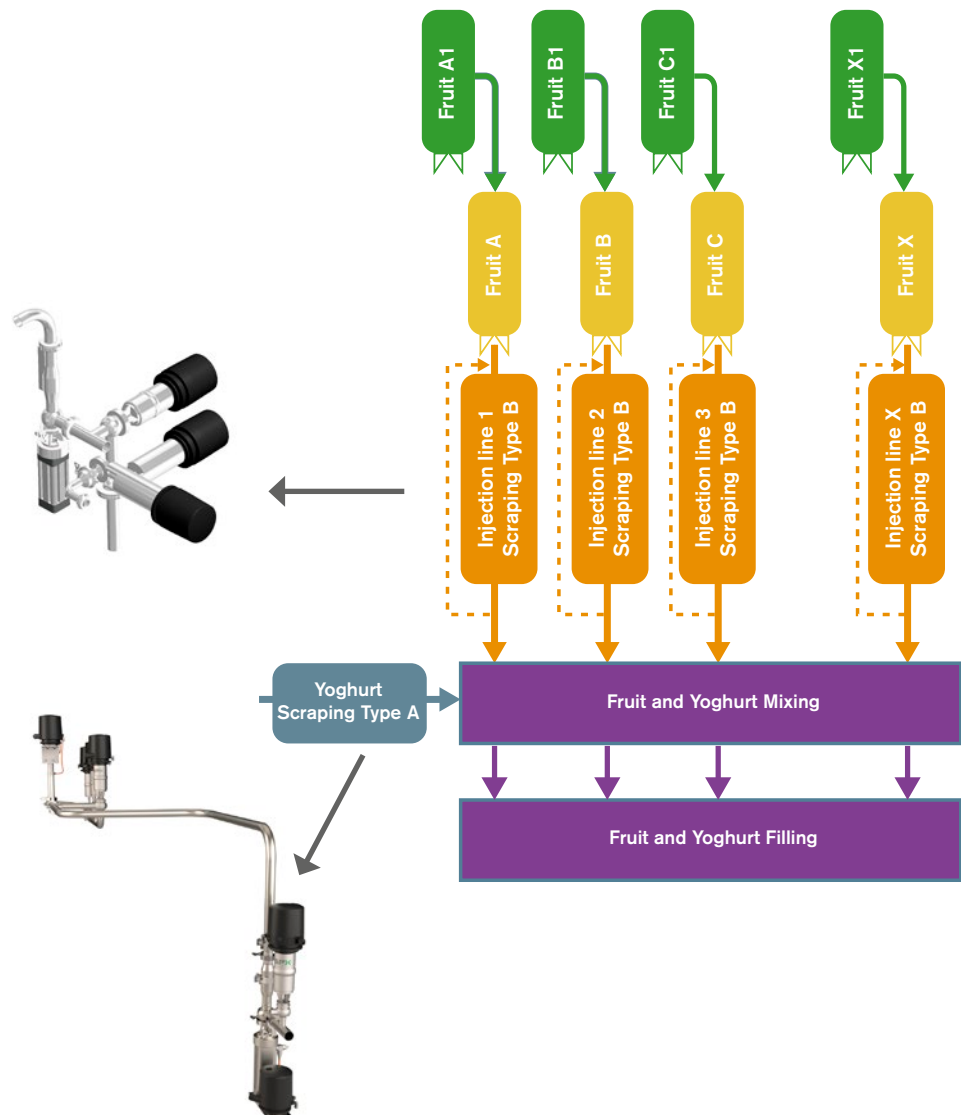
- Proportional fruit dosing in yoghurt white mass with standard accuracy 0,5%
- SPX FLOW Waukesha Cherry-Burrell Universal 2 positive displacement pump
  - » Reliable and Robust
- Associated with mono-tube mass flowmeter

# Scraping Systems in Fruit Mixed Stirred Yoghurt: type A and type B



## PROCESS DIAGRAM FOR STIRRED YOGHURT PRODUCTION

- Fruit yoghurt production can combine return scraping (type A) on yoghurt pipeline and closed loop scraping (type B) on fruit lines.
- At each flavour changeover on each injection line, scraper (type B) is launched without stopping production.
- At the end of production, maximum amount of both yoghurt and fruit is recovered thanks to the combination of both types of scraping systems



# Fruit and Flavour Dosing System: aseptic design for aseptic products

## BASED ON THE STANDARD FRUIT STATION DESIGN WITH ASEPTIC FEATURES

- Membrane valves and aseptic components
  - » Fully steam sterilisable in place
  - » Over pressurised after SIP
  - » With steam barrier at each critical point

### STERILE WATER

- Use of sterile water is recommended to improve hygiene
  - » Product pushes
  - » Lubrication of mechanical seals
- Sterile water is obtained by sterile filtration of water (1 µm prefilter + 0.2 µm filter). Sterile water unit and distribution network are sterilised by steam.

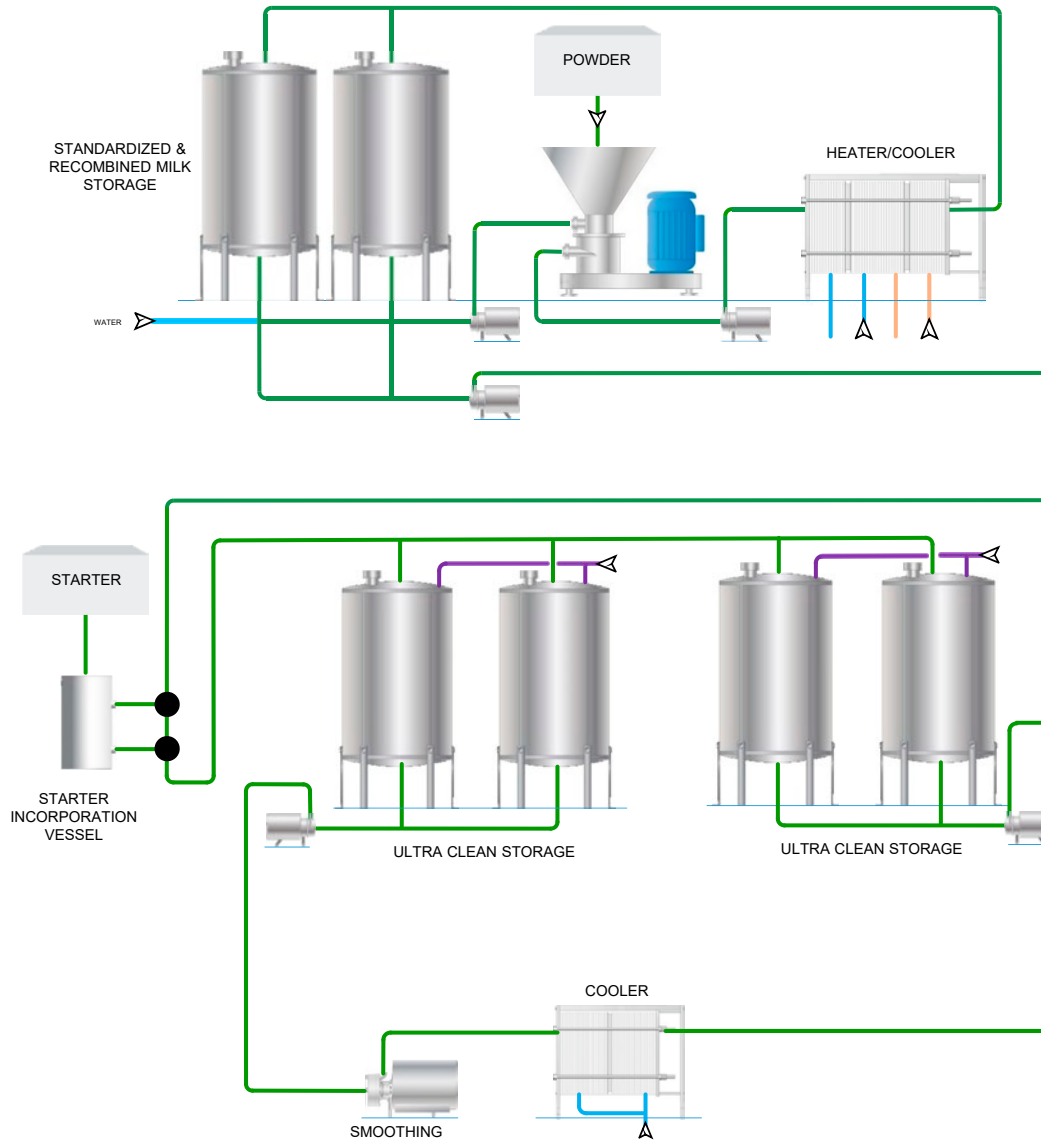
### AUTOMATION

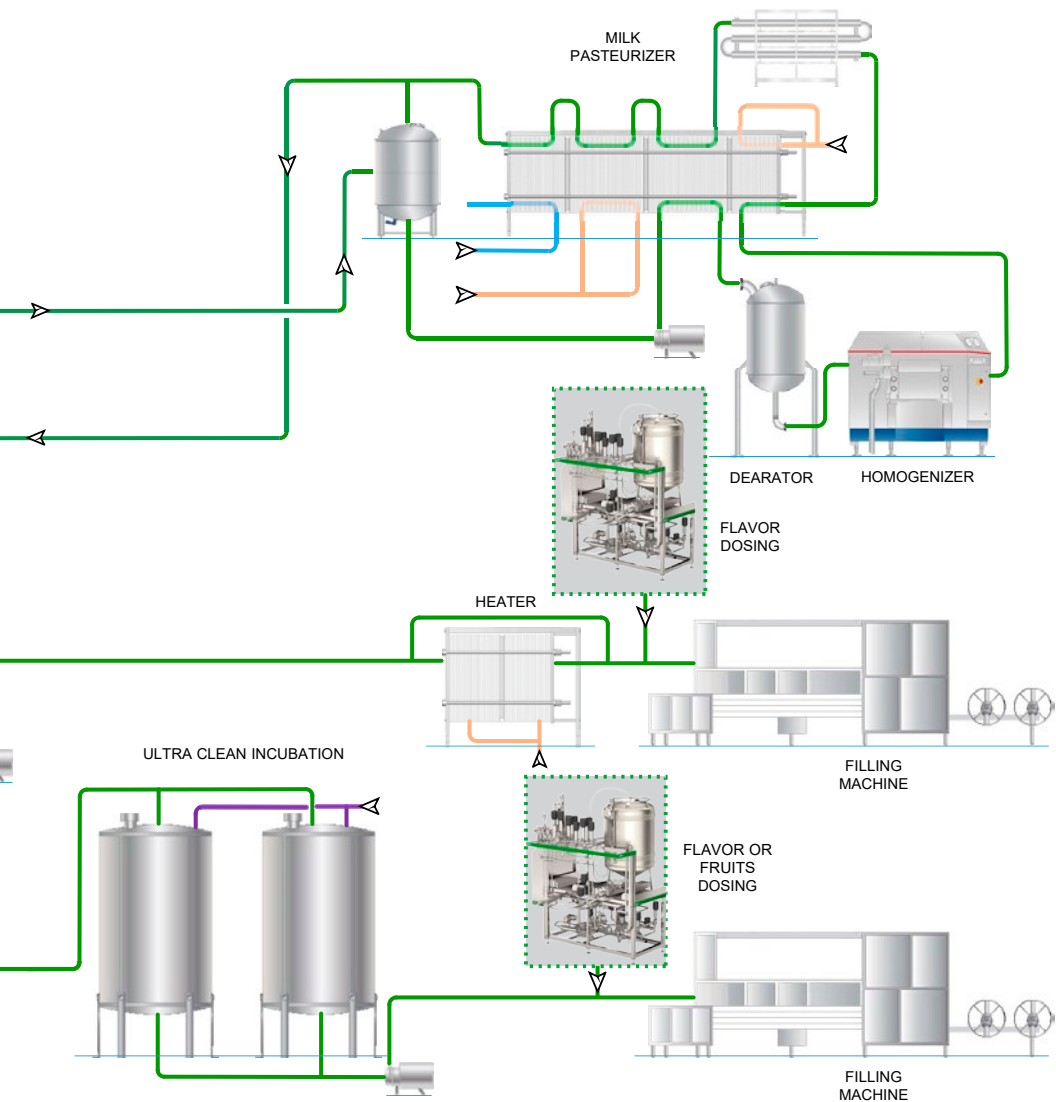
Tailored for each customer:

- Choice of PLC : Integrator, SIEMENS™
- Choice of electrical wiring: As-i, Analog or digital signals
- Choice of control system:
  - » Local push button
  - » SCADA system in control room
  - » Local touchscreen with SCADA system
- MES



# Typical Stirred Drinkable Yoghurt Process Line







## Testing Capabilities

At SPX FLOW we believe that close collaboration with our customers is key to meeting the challenges faced in today's dairy industry. We provide you with the support you need to embrace new opportunities, and optimise the value of current products. We know this works because customers return time and again to our **Innovation Centres** to work with our renowned processing experts and food scientists. Using our state-of-the-art technology we help you streamline processes and innovate new recipes and products to satisfy ever-changing consumer demand. Working together, we can help you trial different technologies and processing configurations to find ways to meet even the most ambitious business goals and, with our expert guidance, you can test and taste new products prior to full-scale, commercial production.

SPX FLOW works closely with the world-famous **French National Dairy School (ENIL)**. This vital partnership helps protect the future of the dairy industry by educating and inspiring the next generation of dairy producers as well as providing customers with valuable, expert help and support to meet their production goals.

Why not get in touch with us when you are considering conducting trials or developing your next product?

Based in Charlotte, North Carolina, SPX FLOW, Inc. (NYSE: FLOW) is a multi-industry manufacturing leader. For more information, please visit [www.spxflow.com](http://www.spxflow.com)

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