

## Scraping Systems

HYGIENIC DESIGN



# Scraping Systems for Industrial Lines

Scraping technology allows product recovery from process pipes. A projectile, commonly called a "scraper", is used to push and separate high value product from the pusher fluid.

## BENEFITS OF SCRAPING SYSTEMS:

- Improved productivity, enhanced sustainability and increased profits
- Reduced waste volume and treatment costs; chemical detergent usage; water usage; cleaning time, changeover time
- Creates higher product yields
- Reduction of product losses
- Fast payback
- Available in aseptic design

## SPX FLOW PLUGS:

- SPX FLOW Design
- Maximum product recovery, up to 99% of the line volume
- Made of 1935/2004/EC food contact compliant SILICONE or EPDM

Material batch number engraved on the scraper



allows for full material traceability

## SCRAPING SYSTEMS IN NUMBERS:

- More than 300 systems sold over a period in excess of 25 years
- Available from 1" to 4"
- References on four continents
- Over 300 scrapers sold per year
- 92 systems at one customer site alone

## SPX FLOW offers two types [A & B] of scraping systems

### SCRAPING SYSTEM - TYPE A

#### How it Works

The scraper is launched behind the product at the end of production to create a "barrier" with the pusher fluid and avoid mixing.

After cleaning in place, the scraper not only returns into the scrape launcher, but it also drains the pipeline before the next production.

The scraper moves forwards and backwards between the launcher and the receiver within the same single pipe.

ILLUSTRATION OF SCRAPING SYSTEM TYPE A



## SCRAPING SYSTEM - TYPE B (CLOSED LOOP)

### How it Works

The scraper is launched between each product interface and returns to the launcher via a secondary pipeline. The scraper always moves in the same direction in a closed loop pipeline. The scraper can be used multiple times without stopping production.

Particularly suitable for processes such as fruit injection which do not require cleaning between product changeover.

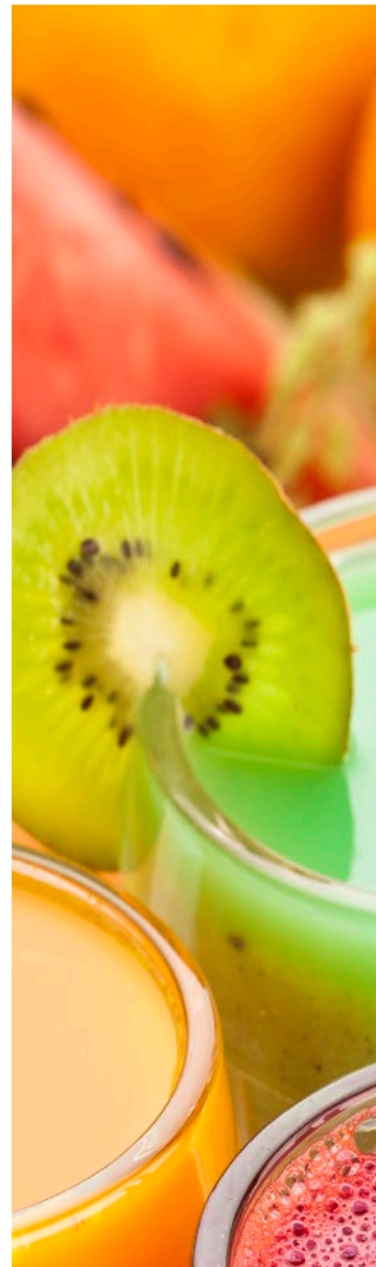
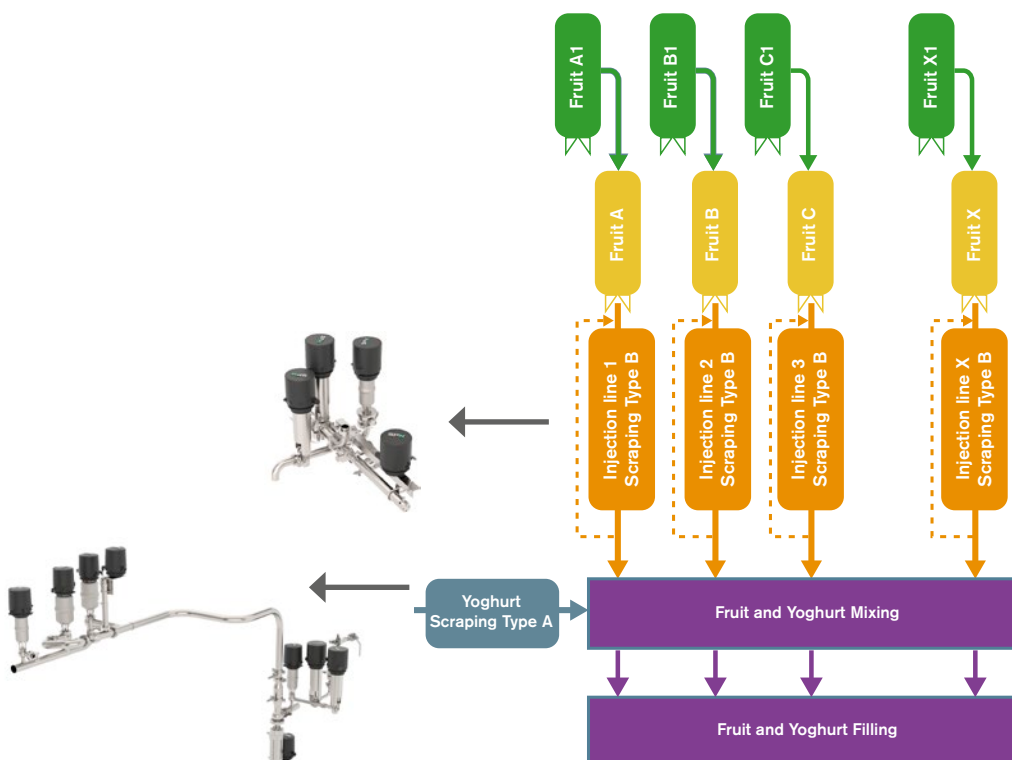


ILLUSTRATIONS OF SCRAPPING SYSTEM TYPE B

## 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





## 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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