

# Kelstream

Scraped Surface  
Heat Exchanger

heat it  
scrape it  
cool it

enjoy it!





# Kelstream

## Scraped Surface Heat Exchanger

Inline heating or cooling of viscous products

- ✓ Complete surface is continuously scraped to prevent burn-on or product build-up
- ✓ Two heat transfer surfaces in one machine for highly efficient heat transfer
- ✓ Patented cartridge seal (lipseal of mechanical)
- ✓ Big heat transfer surface on a small footprint



## Scraped Surface Heat Exchanger

The Kelstream Scraped Surface Heat Exchanger is a vertical scraped heat exchanger with double concentric heated surfaces for an optimal heat exchange for food, feed, pharma and non-food.

This unique design in thermal processing brings all the benefits of different types heat exchangers together in one package: it can handle high viscous products like mashed potato, it has a large heated surface per unit, it takes only a small footprint and it doesn't damage your product.



## Models and options

The Kelstream is available in different sizes. In addition, there are several options to choose from. The Kelstreams are available as single units and also fully integrated.

Model	Heated surface
F50	0.5m <sup>2</sup>
F100	1.0m <sup>2</sup>
F150	1.5m <sup>2</sup>
F200	2.0m <sup>2</sup>
F450	4.5m <sup>2</sup>
F700	7.0m <sup>2</sup>

### Options

- Patented cartridge seal (lipseal of mechanical)
- Double walled inlet and outlet
- Cover scraper
- Various connection types
- Motorcover
- Various plastics (Silicone, Viton, HNBR, PTFE, EPDM)
- Various materials (Duplex, SMO254, Hastelloy)





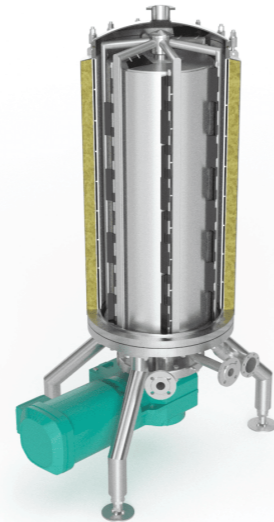
Kelstream

# heat it. scrape it. cool it!

## How a Scraped Surface Heat Exchanger works:

### Continuously scraped surface

The Kelstream continuously scrapes the whole heated or cooled surface, resulting in an extremely efficient heat transfer. This scraping principle has a major efficiency advantage compared to conventional plate or tube-shaped heat exchangers. In addition, the scrapers prevent product contamination on the wall.



### Two heat transfer surfaces

The Kelstream has two heat transfer surfaces. The heating or cooling media is fully separated from the product area.

Media which can be used are: glycol, icewater, water, liquid ammonia, steam or hot water.



### Heating or cooling products with solid components

With the Kelstream scraped surface heat exchanger you can cool and heat products that contain firm components, with a maximum size of 25mm. Product identity is preserved in this process.



### CIP cleanable

The Kelstream scraped surface heat exchanger can be fully included in the existing CIP system. You can clean the Kelstream counterflow, whereby the scraping system can rotate clockwise or anticlockwise. This results in optimum cleaning of the Kelstream.



### Patented cartridge seal

The Kelstream is equipped with a hygienic lipseal. This lipseal does not require a barrier fluid to function. When the product or process requires a different type of seal, there is also a choice of a single or double mechanical seal with various barrier fluids.







# About Gpi De Gouwe

Experts in food process equipment for heating, cooling and mixing

With over 70 years of experience, we understand the challenges in food and cosmetics manufacturing processes like no other. Our equipment and systems are therefore perfectly tailored to optimize your process. With in-house testing facilities, the personal involvement of our (process) engineers in your project and specialized partner companies, we can solve any problem with a standard product or a customized solution.

### Gpi Group

Gpi De Gouwe has become an established name in the process equipment industry. Within the Process Equipment division of the Gpi Group we connect our knowledge and experience with process equipment and offer the right solutions for your process. Gpi De Gouwe stands for involvement, innovation & quality.

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### Products

**Soups and sauces**

- Tomato sauces
- Sauces
- Dressings
- Salsa
- Hummus
- Soup
- Starch slurry
- Spreads

**Confectionary**

- Fat cream
- Chocolate
- Caramel

**Fruit**

- Fruit filling
- Cake filling
- Fruit puree
- Jam
- Marmelade
- Fruit sauce
- Apple pulp

**Dairy**

- Milk concentrate
- Cheese sauce
- Yoghurt

**Food**

- Mashed potato
- Mechanically deboned meat
- Ready-to-eat fillings
- Egg
- Jelly
- Peanut butter

**Pharma**

- Lotions
- Creams
- Wax
- Toothpaste

### Processes

- Cooling
- Heating
- Tempering
- Crystallizing
- Pasteurizing
- Sterilizing
- Cooking
- Freezing



## Any questions about the Keltream? We are happy to help!

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