

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 mechanical cartridge seal
- ✓ 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	Indicative capacity
F50	6ft ² 0.5m ²	110-330lbs/h 50-150kg/h
F100	11ft ² 1.0m ²	220-880lbs/h 100-400kg/h
F150	17ft ² 1.5m ²	440-1350lbs/h 200-600kg/h
F200	23ft ² 2.0m ²	970-3300lbs/h 400-1500kg/h
F450	49ft ² 4.5m ²	1800-10000lbs/h 800-5000kg/h
F700	75ft ² 7.0m ²	3300-22000lbs/h 1500-10000kg/h

- Options**
- Patented mechanical cartridge seal
 - Double walled inlet and outlet
 - Cover scraper
 - Various connection types
 - Motorcover
 - Various plastics (Silicone, Viton, HNBR, PTFE, EPDM)
 - Various materials (AISI31803, AISI316L (1.4404), AISI304L (1.4301))



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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 heattransfer. 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 patented cartridge seal. The seals are available as single- and double mechanical seals. Based on the process- and product parameters of the client we configure a suitable cartridge, specifically engineered for that particular process.





About Gpi Process Technology

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 Process Technology 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 Process Technology stands for involvement, innovation & quality.

enjoy it!

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



**Any questions about the Kelstream?
We are happy to help!**

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