

Markets and Applications

Feed

Process animal feed with Kelstream

Feed manufacturers count on Kelstream's Scraped Surface Heat Exchanger to stay on the pulse of their markets. Whatever the feed application, our heat exchanger enables the supply of products to cats, dogs and other animals around the world, while maintaining the highest levels of hygiene and desired taste and colour qualities of the product.

Cats and dogs are more and more an important part of our lives. Demand for quality pet food is growing with it. Kelstream's Scraped Surface Heat Exchanger can help you to process the pet food at the quality the customer demands nowadays.



Animal Feed Processing

After mixing the ingredients, animal feed is heated with Kelstream's Scraped Surface Heat Exchanger in the preconditioner phase, before it will be further processed through the extruder, drying oven, cooler and coating. Let Kelstream be the important link in your animal feed process.

Cat/Dog Food with Jelly Meat

Heating or cooling cat and dog food with jelly inline is no problem for the Kelstream. Meat up to 25 mm will not be damaged and the structure remains. The high viscosity is no issue due to the scraper- and the continuous mixing principle.



Process fresh meat for pet food

The best solution for cooling soft meat by-products from slaughtering or fish by-products is the Kelstream Scraped Surface Heat Exchanger, which is specially designed for cooling high viscous, sticky and particle containing products like pet food.



“Kelstream’s Scraped Surface Heat Exchanger cools aseptic without any air contact during the process”

Other feed related products

Do you would like to heat, cool, temper, pasteurize or sterilize another feed related product? Please [let us know](#) so we can inform you about the possibilities with Kelstream’s Scraped Surface Heat Exchanger.

Food

Process your food product of any kind

Food manufacturers count on Kelstream’s Scraped Surface Heat Exchanger to stay on the pulse of their markets. Whatever the food application, our heat exchanger enables the supply of products to consumers at competitive prices, while maintaining the highest levels of hygiene and desired taste and colour qualities of the product.

Meat products processing



[Cooling](#) mechanical deboned meat (MDM) or sausage pasteurisation is no problem for the Kelstream Scraped Surface Heat Exchanger.

Mashed Potato processing

[Cooling](#) mashed potatoes inline, so you are able to process into croquettes or potato smilies, is ideal.

The high viscosity is no issue due to the scraper- and the continuous mixing principle. Also read our business case [here](#).

Soup processing

[Cooling](#) soups before packaging or [heating](#) and [boiling](#) soup to extent shelf life? Use Kelstream for processing it in line with a high capacity.

Sauce processing



Our equipment help processing viscous, creamy or smooth sauces, with particles up to 25 mm without damaging the product whatsoever.

Dairy processing

Pasteurize, sterilize, heat or cool dairy in any form with Kelstream, whether it is milk, pudding, curd, sour cream, yogurt, butter, cream cheese or any other milk-containing product.

Spreads processing

Hummus and other spreads are hot and hip! Cool it with Kelstream and spread it under your customers. Heat it and your customers will enjoy it even longer due to a longer shelf life.

Peanut Butter processing

Cold filling your peanut butter is better, because there isn't any moist in the package left for the bacteria to grow.

Jam & Fruit Juice processing



Jams with particles? Fruit juices with a high concentrate of (natural) sugar? Of course Kelstream can handle it. We don't want the machinery to corrode, so we work with Duplex when the product demands it. Process your jam and marmalade inline with Kelstream.

Caramel and Chocolate processing

Tempering your chocolate to give it that nice shiny look? Process it inline with Kelstream. Even that sticky caramel isn't a problem. Heat it or cool it, it is up to you and your process demands.

Fatcrème processing

Fatcrème is often used in confectionary and bakery industries. Kelstream is used a lot in this field of operations. Read our proven business case [here](#).

Pharmaceutical

Where hygiene is essential!

If there is one industry where hygiene is essential, it is the pharmaceutical industry. Maximum attention to hygienic aspects can be a lifesaver. Only when the equipment is 100% hygienically justified, it can be the infallible link in your demanding production



process.

The extremely versatile Kelstream can be used for all thin, medium and high viscous pharmaceutical products. These products can be heated, cooled, sterilised and pasteurised in a controlled way. This makes the Kelstream ideal for various hygienic applications, such as creams & Vaseline.

The Kelstream stands for optimum safety. There is, for instance, no risk of outside contamination as the process is fully closed off from ambient air and takes place under overpressure. Also the accurate and stable temperature control is an essential feature of the Kelstream Scraped Surface Heat Exchanger.

Cleanability



The hygienic design of the Kelstream ensures validated CIP cycles are successfully achieved between product batching.

With our partners we've also improved our (double) mechanical seals. It has an even better design with an improved cleanability. There aren't any spaces left where the product can accumulate and the surface is smoother than before. Perfect improvements for demanding industries like the pharmaceutical industry.

Pharmaceutical applications

The Kelstream Scraped Surface Heat Exchanger can be used for several pharmaceutical products:

- Aerosols
- Creams
- Coating carriers
- Medicine
- Tonic
- Syrup
- Ointments
- Crème preparations
- Vaccines
- Intravenous fluids
- Vitamins
- Sterile operations
- Dryer systems
- Containment
- Eye, ear and nose preparations

Non-food

Robust, efficient and durable

Kelstream's Scraped Surface Heat Exchanger is ideal for processing non-food and chemical products, like personal care products.



These products can be heated and cooled in a controlled way.

The Kelstream is able to meet the most extreme requirements producers of non-food and chemical products asks for. The durability of the Kelstream, together with the highly efficient heat transfer and the continuous scraping and mixing principle, our heat exchanger is the perfect partner for you and your process.

Processes in non-food industry

Due to its design and layout Kelstream is extremely versatile when it comes to process applications. Kelstream is, among other things, used for:

- Heating
- Cooling
- Crystallisation of fat, salts, and sodium and others
- Slush freezing
- Mixing
- Cooking

Problems with Crystallisation?



You would like to crystallize your product, but with your shell-in-tube (or other) heat exchanger the crystals cling to the surface and your heat exchanger becomes clogged? You have to clean the heat exchanger and production is down. You won't have that problem with Kelstream. Both surfaces are continuously scraped, so the crystals cannot attach to it. It is not only about a low investment, it is about a low total cost of ownership. Kelstream won't disturb your process and production.

Product applications

The Kelstream Scraped Surface Heat Exchanger can be used for several non-food and chemical products:

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|-----------------|--------------|---------------|
| • Deodorants | • Hand Cream | • Toothpaste |
| • Face Creams | • Lotions | • Lipstick |
| • Shaving Cream | • Shampoo | • Shower Gels |
| • Glue | • Lubricants | • Inks |
| • Polymers | • Paints | • Polish's |