



HEATING, COOKING AND COOLING PROCESS TECHNOLOGY



www.inox.com.au

Processes





Heating













Boiling

PROCESSING SYSTEMS TO #MIX #COOK #COOL

INOX SYSTEM INTEGRATION WITH KELSTREAM SSHE

INOX is your expert processing partner and distributor for Kelstream scraped surface heat exchangers for inline cooling or heating of your product. Our territory covers Australia, New Zealand and ASEAN regions. The Kelstream SSHE is commonly utilized in the aseptic processing of foodstuffs. These heat exchangers are preferred because of their capability to process heat-sensitive, viscous, or particulate-laden products, enhance the heat transfer of viscous products, and minimize burn-on, or fouling on the heat transfer surface.

We bring together the know-how of our specialists and your specific requirements. You have then the infallible link in your demanding production process.

PRESERVES,
JAMS, SAUCES,
SOUPS, MEAT
PRODUCTS,
LIQUID
PRODUCTS,
DAIRY,
BEVERAGE &
MORE.



Гоод

From animal feed (including cat and dog food) and fish feed to (poultry) fodder



Food

From dairy and fruit to sweets and potatoes



Pharmaceutical

From creams and Vaseline. All in a controlled environment



Jon-food

From petrochemical uses to personal care



#mix #cook #cool

www.mixcookcool.com

Processing systems - step 1: #MIX

Prior to any thermal process, products usually require thorough mixing to produce a homogeneous mixture ready for further processing. INOX engineering capabilities process utilising the high speed, high shear equipment **INOX** mixing provides INSTANTISER, guarantees homogeneous initial mixing of food products prior to the cooking phase.











Processing systems – step 2: #COOK

Heating can be achieved by external heating during mixing in an INSTANTISER, or our steam jacketed contra-rotating agitator process kettles, however, for continuous heating, integration of a KELSTREAM SSHE allows for product flow rates of 50L/hr – 10,000L/hr, depending on the product and configuration.



Thermal processing remains one of the most important processes in the food industry. Cooling is one of the thermal processing techniques and can be defined as a processing technique that is used to reduce the temperature of a product from a processing temperature to a desired temperature. Cooling is used to reduce the rate of biochemical and microbiological changes in the product, like aerobes and anaerobes bacteria, to extend the shelf-life or for example to crystallize. Bringing down the temperature of your product as much as your process is asking for. Cooling can be done with several cooling mediums, like glycol and water.



INOX KELSTREAM INTEGRATION ADVANTAGES

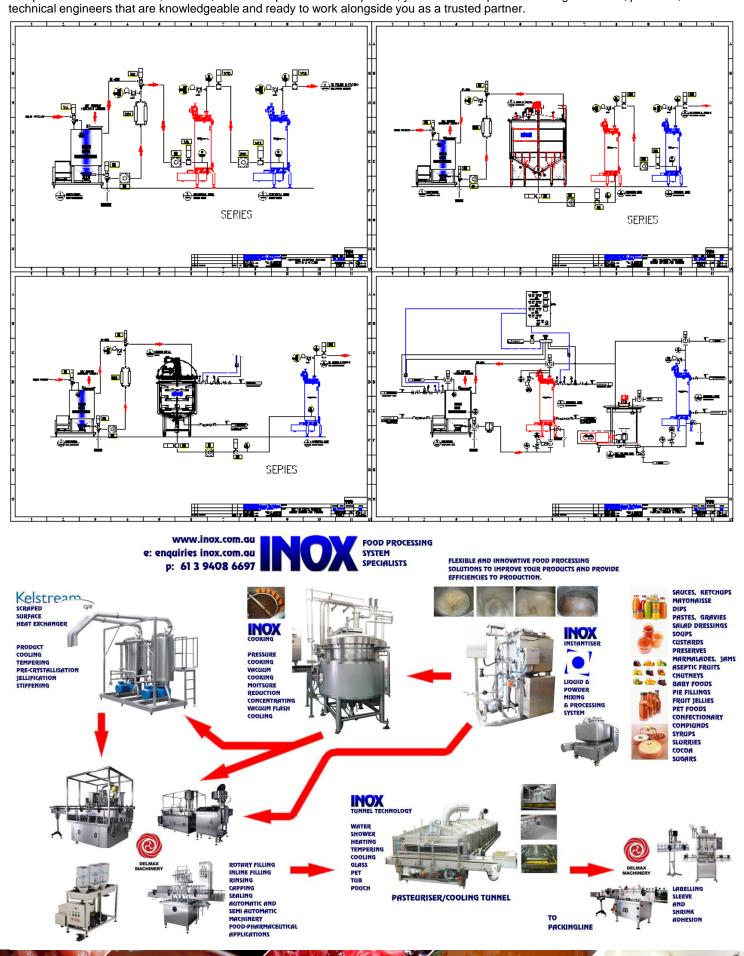
- Homogeneous, high speed mixing
- Consistent heating or cooling with maximum heat transfer (product pending)
- Controlled product heating/cooling and minimised product damage.
- Product particulates are not an issue
- Ability to incorporate particulates up to 25mm
- Easy Maintenance accessibility
- Easy monitoring of product during any heating or cooling phase without stopping line
- Heating and Cooling rate can be controlled
- Separation of mixing and heating/cooling cycle
- Overall design flexibility and adaptability.
- Turnkey systems and fully operational skid mounting systems available.





EXAMPLES

The possibilities are endless, however, with our experience and expertise, your solution is possible through our local, personal, and



SERIES or PARALLEL process options

SERIES: When your process demands heating and cooling. The Kelstream can be linked together in series to provide a continuous process that provides both heating and cooling inline or provide 2 steps of cooling to achieve a product with high Delta T (temperature difference from start to completion).

PARALLEL: This process configuration allows the product to simultaneously feed through 2 or more Kelstream units in parallel. This allows simple and substantial increases in production output rates. Perfect for the growing company.





"The inclusion of the Kelstream equipment range is an exciting development and partnership for INOX and our food processing customers."

Robert Becher Managing Director INOX Australia



"At Kelstream our goal is to bring our scraped surface heat exchanger to all corners of the world together with enthusiastic team players."

Fons Geurts CEO Kelstream

TOTAL PRODUCT RESEARCH, SYSTEM DESIGN, TESTING & SUPPLY

Improved Shelf Life and Product Appearance

Many retailers won't admit the level of food waste they have on short shelf life chilled products, despite being signed up to reduction initiatives. Gentle pasteurisation, without necessarily extra cooking, can simply extend shelf life, without compromising quality to allow an extra 10-15 days of life (example).

This means not only is the distribution and sales process optimised but the consumer has more time to eat the product when it gets home.

Mixing, cooking, heating, cooling SYSTEMS provide further improved shelf life to your products as well as further production efficiencies that result in greater company profitability.

Inox systems integrated with KELSTREAM SSHE are designed specifically after careful consideration, analysis. testing and cooling curve calculation to determine the size, speed and thermal loadings required to heat, cook and cool your product.

INOX KELSTREAM SSHE systems prepare your food products for final packaging and quick delivery to market and increased shelf life.

Tests are undertaken in our R&D Facilities and we carefully design and detail design the equipment in our engineering department which then provides the information to our dedicated stainless steel manufacturing workshop. Truly a 'one-stop-shop' facility.

Final production equipment testing is completed in our workshop, client involvement and witnessing of testing is encouraged during this process to ensure smooth transition into your food processing manufacturing facility.

Contact INOX at: enquiries@inox.com.au

