

INOX

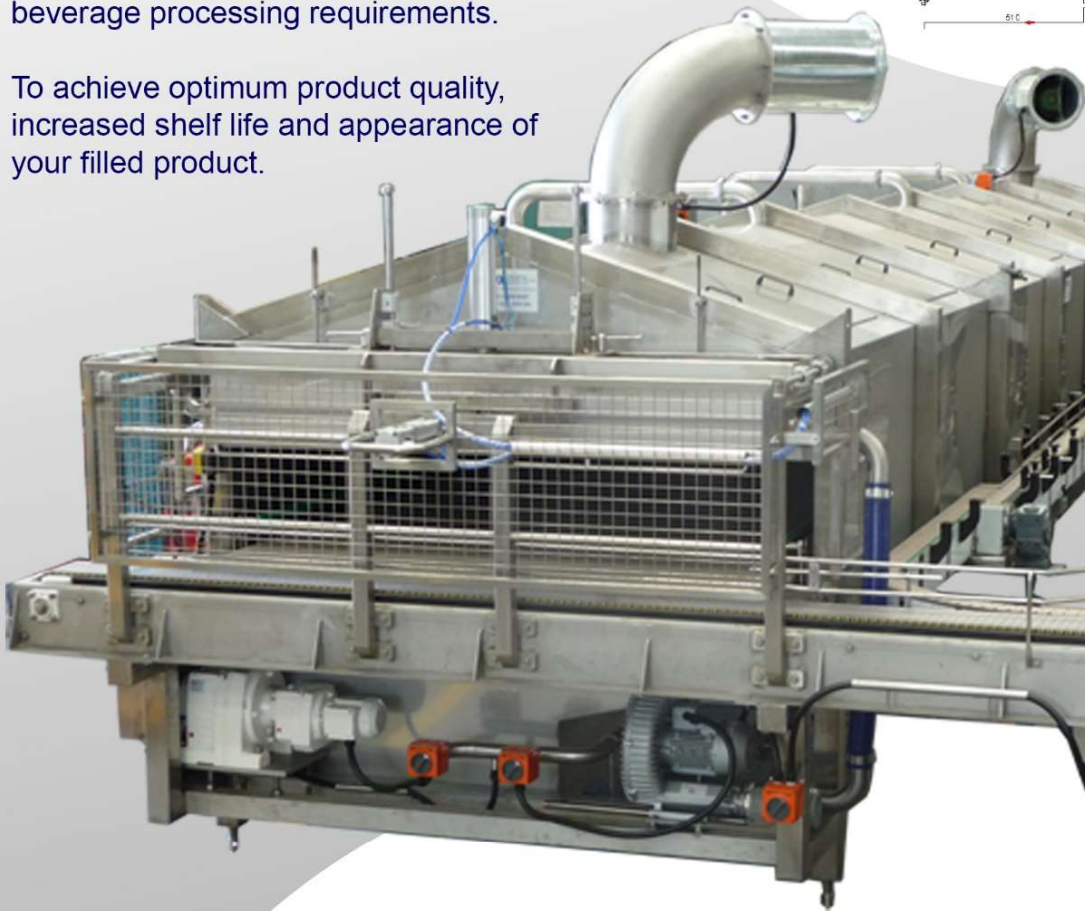
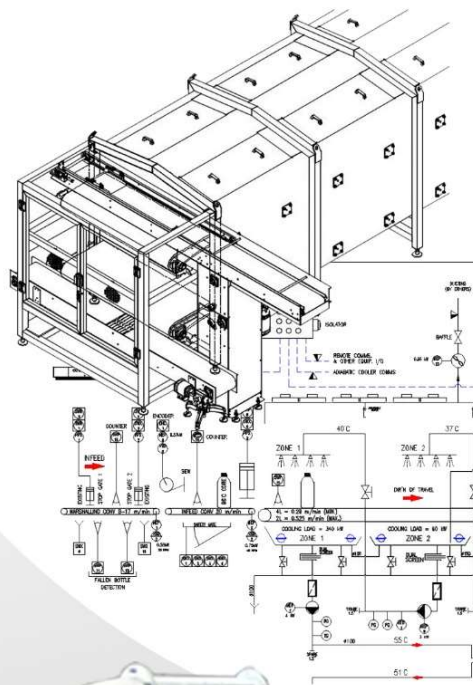
COOLING

COOLING AND PASTEURISING TUNNEL TECHNOLOGY

Our focus is:

To provide a custom designed thermal process to comply with local food and beverage processing requirements.

To achieve optimum product quality, increased shelf life and appearance of your filled product.



Cooling & Pasteurising Tunnels for Food Products

Our goal is to provide our customers a basis for cost effective food production that is perfectly customised to suit and improve product processing as well as providing systems that function efficiently whilst improving operating costs.

INOX tunnel technology is available in a combination that can provide warming, pasteurising, tempering and cooling within a single unit.

Our tunnel technology features a separate water cycle, thereby providing separate zoning for the various temperature requirements.

Our aim is to provide accurate pasteurisation and quick effective cooling to ensure that product is not under or over pasteurised, and cooled quickly to ensure the effectiveness of the process.

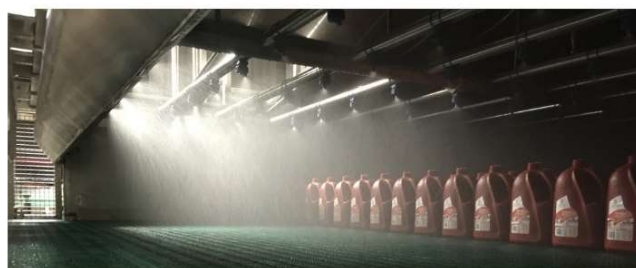
Tunnel Pasteurisation occurs after the filling process into bottles, jars, containers, pouches and almost any type of sanitary container. This method offers the ability to produce at higher output rates.

Our product research and specific product testing with your products and plant parameters is where the ability to complete a successful project is achieved.



SINGLE AND TWO TIER CONFIGURATION FOR PASTEURISING AND COOLING OF FOOD PRODUCTS CONTAINED IN:
BOTTLES
CANS
TUBS
POUCHES
TRAYS
AND MOST OTHER TYPES OF PACKAGED PRODUCT

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



**GLASS & PLASTIC
BOTTLES, JARS,
CANS, TRAYS, &
POUCHES.**

INOX

Food Processing
equipment and
system
specialists

#mix
#cook
#cool

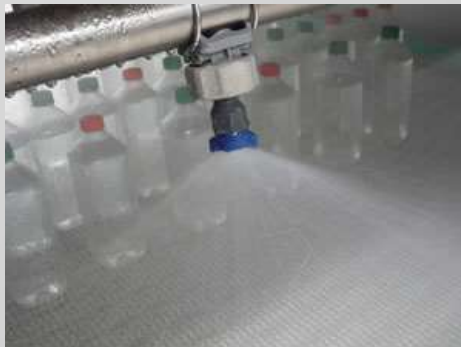
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Tuned Spray systems

Our systems have specifically zoned spraying loops giving a counter flow effect that efficiently cools your products during the single pass process.

The spray nozzles are simply mounted to the stainless steel pipework which can be easily accessed through the side water tight manway openings.

All spray nozzles are adjustable for fine tuning of spray and spray direction.



PRODUCT INFEED & OUTFEED SYSTEMS



Pouch Infeed systems control the product infeed flow with consistent and arranged product spread to ensure effective cooling of all surfaces.

Pouched products which can be difficult to handle are deposited with ease with the innovative depositing conveyor system from INOX, ensuring continuous product flow and appropriately indexed product into the tunnel.

CONTROLLED INTERFACE PLC & HMI



Combination of mechanical and pneumatic driven product marshalling infeed systems.

Reliable pusher system for **bottles, jars & cans** are mechanically driven ensuring smooth and long reliability as compared to other pneumatic systems available.

Mechanical pusher advantages include the ability to ramp up speed and ramp down speed during each cycle.

Pusher systems from INOX include front and rear capture plate of the bottle row to ensure bottles do not fall over.



PLC controlled and user friendly HMI interface and diagnostics

INOX TUNNEL TECHNOLOGY ADVANTAGES

- Consistent cooling with maximum heat transfer (product pending)
- Controlled product handling/marshalling and minimised product and container damage
- Less water usage
- Easy access to retrieve product and clean in event of stoppage
- Easy monitoring of product during cooling phase without stopping line
- Cooling rate can be controlled more easily due to zones
- Lower wet weight of machinery
- Easier to seal from water leaks as no mechanical seals
- Buoyancy of product is not an issue
- Overall machine flexibility is higher than water bath system as unit can handle different container types, pouch, bags, bottles, tubs etc.



Reduced Footprint – Two Tier Tunnels

INOX Tunnels are available in special TWO-TIER construction which reduces the overall length by HALF and incorporate additional benefits particularly with pouch products. Product agitation during transfer from upper tier to lower tier effectively assists with product cooling and gives the ability to spray both sides of the pouch throughout the duration of the residence time within the tunnel.

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.



INOX provide customised system design, Australian manufactured and Worksafe compliant equipment. Backed up by local knowledge and support.

INOX process design experience is supported by detailed mechanical engineering design. Our equipment is manufactured in our Melbourne facilities which are dedicated to the highest accredited stainless steel fabrication procedures. Our QA documentation that accompanies the supplied equipment is tailored to cover material certification, welding traceability and qualifications, production reports, ITP's, NDT reports, and a number of various equipment tests including CIP performance, hydrostatic test, and surface finish reports (pre and post electropolishing).

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INOX

Cooling Water Systems

Cooling load requirements for cooling tunnels for ANY CUSTOMER is based on the technical specifications and data collected from the questionnaire supplied to the customer.

There are three available available systems for the supply of cooling water.

These are:

Chilled water system

Cooling tower system

Adiabatic cooling system



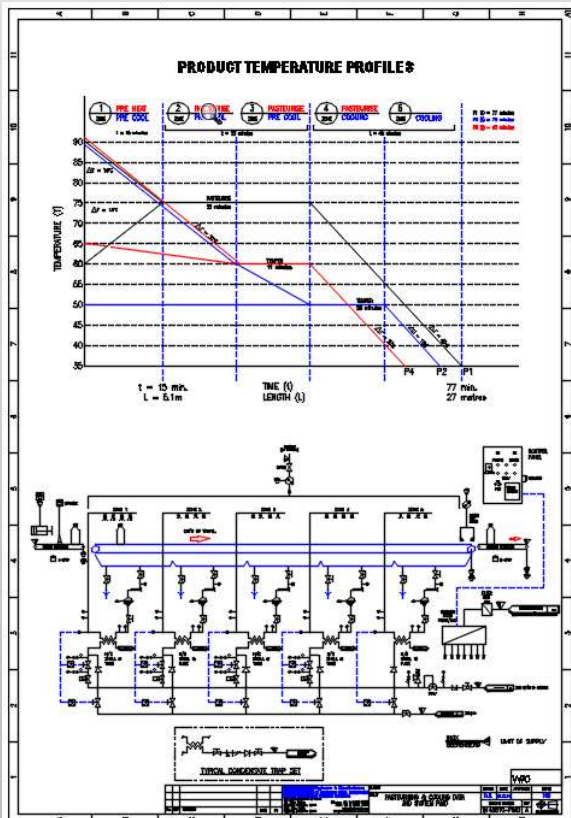
Refrigerated Cooled Air systems also available from INOX

Our systems are configured giving a counter flow effect that efficiently cools your product during the single pass process. The air baffles are simply mounted to the shell such that they can easily be accessed through the side manway openings. These units are designed for easy access to enable effective maintenance and cleaning. Depending on the product and type of belting used, dimple plate cooling on the underside of the product belt also furthermore cools the product from the underside.

Where food products are in contact with the belt, FDA approved food grade belting is used.



TOTAL PRODUCT RESEARCH, SYSTEM DESIGN, TESTING & SUPPLY



Post cooking, post filling, INOX COOLING TUNNEL SYSTEMS provide further improved shelf life to your products as well as further production efficiencies that result in greater company profitability.

Inox Cooling Tunnels are designed specifically after careful consideration, analysis, testing and cooling curve calculation to determine the size, speed and thermal loadings required to cool your product.

Inox Cooling Tunnel systems prepare your packaged 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.

Inox pasteurising/cooling tunnel systems are found throughout major food processing facilities in the Australian and Asian regions.

Contact INOX at: enquiries@inox.com.au