

firex

friendly innovation



PASTA
and
RICE

SOUPS
and
GRAVIES

COOK & CHILL PROCESS LINES

COOK & CHILL SYSTEM

What is it?

It is an innovative, easy-to-manage food preparation system that guarantees outstanding results.

The traditional kitchen set-up, also referred to as a hot-hot system, envisages COOKING and immediate DELIVERY of the dishes. However, with the cook and chill system, the food is still prepared in a conventional manner but it then undergoes rapid chilling, up to 10°C in the centre of the food product within about 90 minutes after cooking, to then be stored and distributed.

The Procedure

The production process is made up of several steps:

1. **Cooking (Cook):** the centre of the food product reaches a temperature of 75°C or above for at least 10 minutes
2. **Measuring out**
3. **Chilling (Chill):** the centre of the food product reaches a temperature 10°C or less within 90 minutes after the end of cooking
4. Storage
5. Transportation
6. Reheating

“What are the benefits of the C&C system?”

- Streamlining of work processes:
 - _ The process of food production no longer depends on meal times, therefore it can be spread evenly throughout the day and week, avoiding busy and quiet periods typically connected with these times.
 - _ The processing can also be done according to type of dish, by planning to cook similar products on the same day that results in maximising the productivity of each machine.
- Efficient usage of raw materials: reduced raw material wastage, optimisation of supplies and stock, and production of semi-finished products.
- Optimal usage of equipment: it is possible to make the best use of the equipment available thanks to fewer cooking cycles.
- Food products produced with the cook and chill system have greater nutritional and organoleptic qualities than those produced with the hot-hot system.
- Healthiness of the product: bacterial growth at temperatures between +10°C and +65°C is reduced to a minimum due to the rapid temperature drop.
- It extends product life without the addition of preservatives.



RAW MATERIALS

The **raw materials** come by Europe and North America.

PRODUCTION

100 employees in production plant and offices.

INNOVATION

High efficiency and innovative products design.

COOKING SYSTEMS

30.000 equipment running around the world in more than 55 countries.

SOUPS
and
GRAVIES



COOK & CHILL PROCESS LINE

To meet the growing demands for ready meals, Firex responds with a three step process. The Firex cook, fill, chill process. Perfect for soups and gravies, the Firex cook, chill, fill process is available on Fixpan, Cucimax, High-P and Baskett models.

Big restaurant chains, central kitchens, food industries, school food service... are some of our customers using Firex Process Line equipment for **soups and gravies**.

Available in gas, electric or steam heating version, our system lines are suitable **from 100 to 500 liters per hours**.

Our process has been designed to be versatile and flexible thanks to the possibility of a wide **range** of cooking equipment: stationary kettles, mixing kettles, pressure cookers...

The **high standard quality** of every item and the **friendly technologies** respect the Firex tradition in food processing equipment. Firex...efficient, reliable, advanced technology, sustainability.

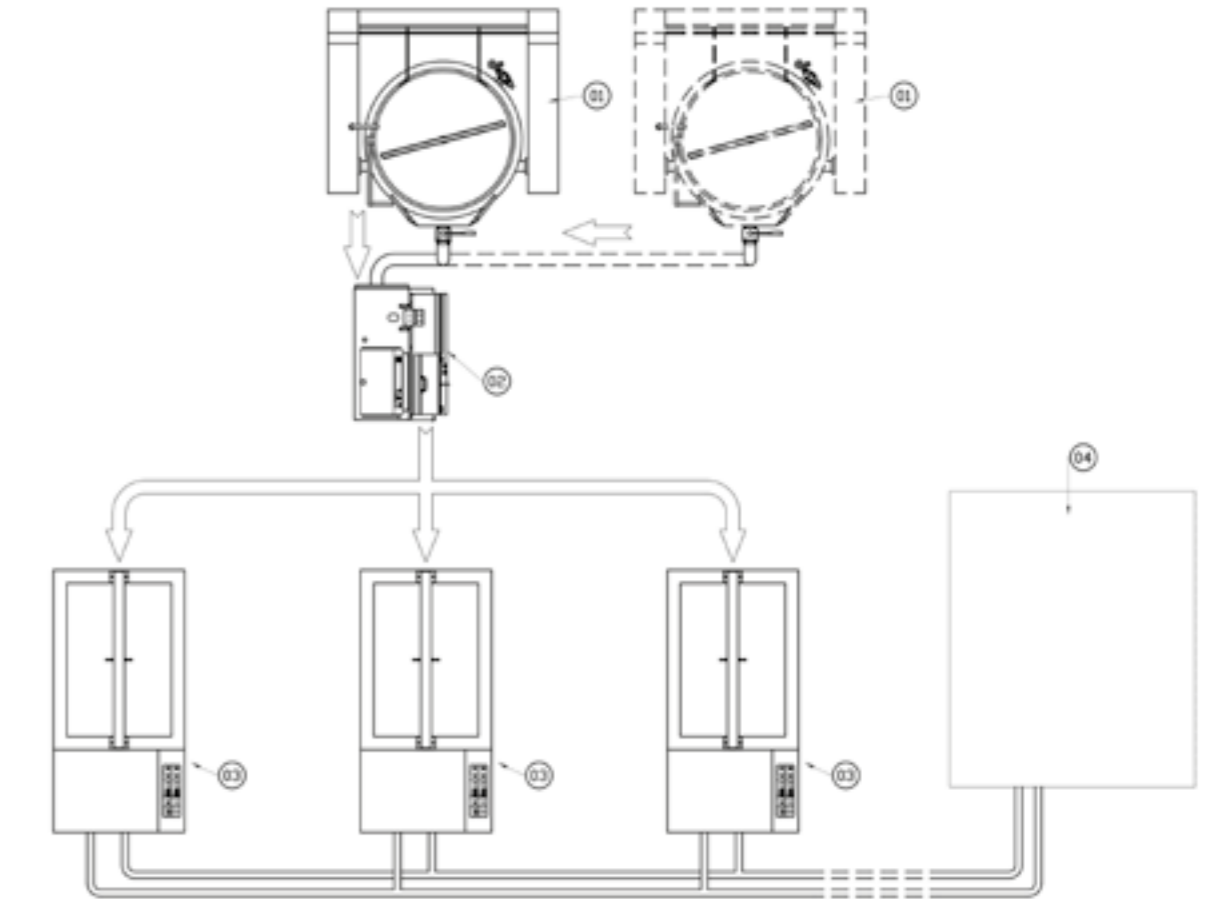
READY MEALS IN JUST 3 STEPS

How does it work?

STEP 1 – COOKING	AUTOMATIC COOKER	MAIN FEATURES
The process starts cooking the product in a cooker like Baskett mixing kettle or Cucimax pressure braising pan.		<p>Cooker available in steam, electric or gas heating. Double-jacket or direct heating. Cooking vessel in stainless steel AISI 316.</p> <p>Cooking programs settable by electronic card. Electronic control on cooking temperature, time, tilting, mixing, safety. Washout valve for pumping system connection. Capacity from 30 to 600 lt.</p>
STEP 2 – FILLING	FILLING AND SEALING STATION	MAIN FEATURES
The product is transferred hot from the cooker to the filler thanks to a dedicated pump. The soup can be put into special plastic bags or container of different capacities, depending on customer requirement, then sealed.		Trolley transfer pumps in stainless steel AISI 316. Filler in AISI 316 available in different sizes and capacities.
STEP 3 – COOLING	COOLING TANK	MAIN FEATURES
Hot soup bags go into a chilled water tank to be cooled. The bags should be laying in pull-out baskets so that their thickness remain uniform and in order to increase the cooling surface and reduce the cooling time. The baskets systems is raised and surrounded with motorized system.		Entirely made of AISI 304 stainless steel. Tubular structure in AISI 304 for housing envelopes inside baskets, with motorized lifting system on bridge structure. Connection for external chiller. Pump for water agitation to increase heating exchange and make it more uniform. Electronic control of the cooling water temperature.

Process plant example for 100-200 kg/h

- 01 External chilling unit
- 02 Mixing kettle (130 lt)
- 03 Filling station
- 04 Sealing station
- 05 Bags chiller



Process plant example for 400-800 kg/h

- 01 External chilling unit
- 02 Mixing kettle (500lt)
- 03 Filling station
- 04 Sealing station
- 05 Bags chiller

**PASTA
and
RICE**



Composed by 3 parts, Firex cook and chill **pasta and rice process** responds to the rising requests of serving pasta in **cold chain**.

Restaurant chains, central kitchens, food industries, school food service... are some of our customers using Firex process line for pasta and rice.

Available in gas, electric or steam heating version, our cook&chill lines are suitable **from 500 to 1800 portions per hours**.

Our process has been designed to be really **flexible** thanks to its **mobile** chilling vats.

The **high standard quality** of every items and the **friendly technologies** respect the Firex tradition in food processing equipment.

READY MEALS IN JUST 3 STEPS

How does it works?

STEP 1 – COOKING	AUTOMATIC COOKER	MAIN FEATURES
<p>The product in hot water is cooked with salt in around 6 minutes. After cooking time the basket lifts automatically to draining position. Now the products is ready to be cooled down.</p>		<p>Cooker available in steam, electric or gas heating. Single or double cooking vat. Cooking vessel and baskets in stainless steel AISI 316. Baskets lifting and tilting automatically (even with closed lid) stopping in dripping position and removable for cleaning operations. Automatic filling and refilling of water in the vat. Electronic control on cooking temperature, time, lifting, safety.</p>
STEP 2 – COOLING	MOBILE CHILLING VAT	MAIN FEATURES
<p>The chilling vat can be connected to net or refrigerated water. The cooling time is around 3-4 minutes and the final product temperature is 3°C higher than water temperature. During cooling time a pumping system moves the pasta in order to get the best result. Now the product is ready for step 3.</p>		<p>Mobile chilling vat. Cooling vessel and baskets in stainless steel AISI 316. Baskets lifting and tilting motorized and removable for cleaning operations. Manual tap for water filling in the vat. Overflow device.</p>
STEP 3 – STORAGE	INSULATED TROLLEY	MAIN FEATURES
<p>The chilled product can be moved with our serving trolley and portioned in GN containers or in bowls for frozen ready meals. After that it must be stored in cold room and regenerated upon request.</p>		<p>Entirely made of AISI 304 stainless steel. Insulated basins, pressed with rayed edges and with a drain equipped with ball wash-out valve. Dimensions suitable for GN 1/1 h.200 containers. 4 pivoting wheels.</p>

HOURLY PRODUCTIVITY FOR COOK & CHILL PROCESS

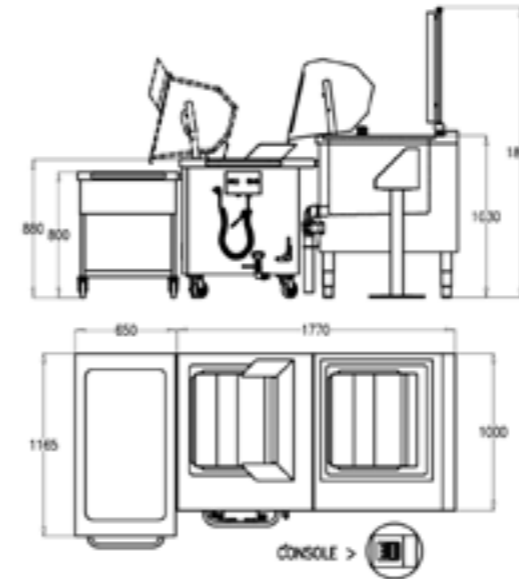
PASTA SHAPE	DRY PASTA CHARGE INTO COOKER							
	CPM 1-18		CPM 2-18		CPM 1-24		CPM 2-24	
	batch	hour	batch	hour	batch	hour	batch	hour
long-cut	18 kg	45 kg	36 kg	90 kg	24 kg	60 kg	48 kg	120
short-cut	20 kg	50 kg	40 kg	100	30 kg	120	60 kg	150

PROCESSING TIMES	
Loading time	5
Precooking time	6
Cooling time	3
Cooking water temperature reinstating	10
Total batch time	24
n. batch/hour	2,5

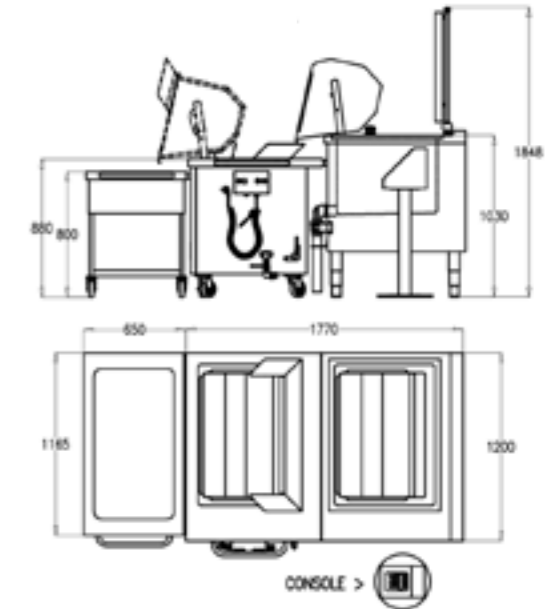


examples of PROCESS LINE SUITABLE FOR

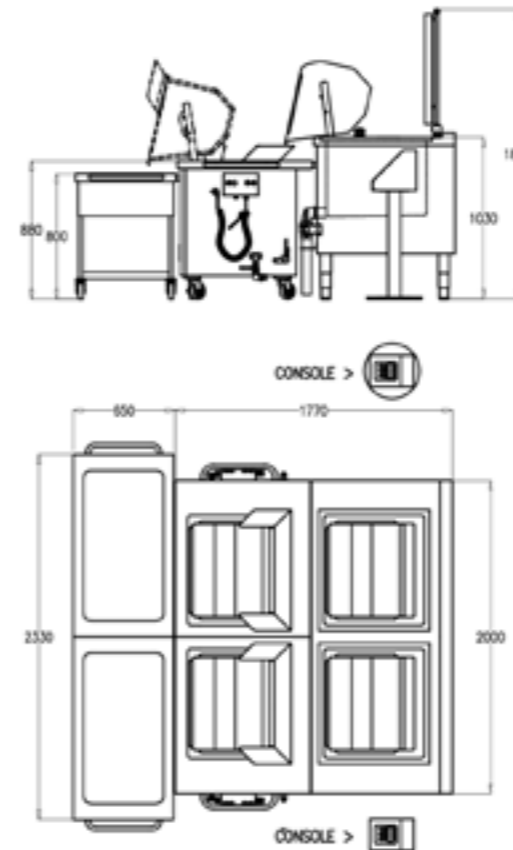
Mod. LPC...1-18 | 500 - 700 portions/hour



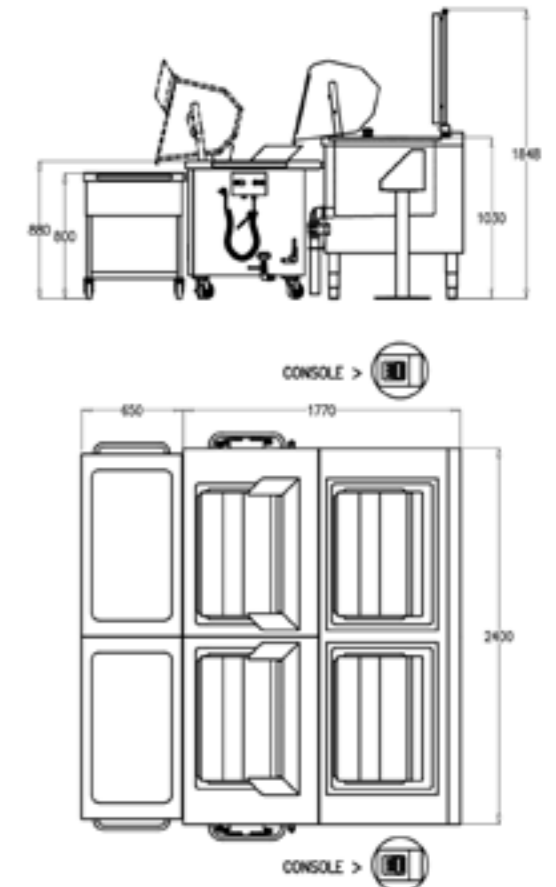
Mod. LPC...1-24 | 700 - 900 portions/hour



Mod. LPC...2-18 | 1000 - 1400 portions/hour



Mod. LPC...2-24 | 1400 - 1800 portions/hour





Firex is a manufacturer with a worldwide sales network.

We have been realized cooking systems for food industries and large kitchens for 40 years.

Firex projects and realises Energy and resources saving appliances.

Firex chooses the best raw materials and checks all production steps by quality management system.



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