# Food Processing and Packaging Machinery

Plain and Printed Flexible
Packaging, including Pre-made,
Stand Up Pouches and Film





**Under Construction 2013** 

Our All New Purpose Built Offices and Development Centre

Live online photo feed of construction @



www.foodmc.co.uk

# **Automated Ready Meal Packaging Line**



The line featured in the above picture is a ready meal production line. It uses two special multihead weighers to portion cooked spaghetti or one to portion cooked rice or cooked pasta pieces. The line consists of a third weigher to portion the meat pieces and a volumetric filler to portion the sauces.

The multihead weighers use a special 1 into 6 sorting system to index the portions into the formed pockets on a thermoforming machine. The volumetric portioner uses a logic control to portion the sauce 2 packs at a time.



# BX 600 Vertical Form Fill & Seal

# Vertical & Horizontal Packaging Systems

FMC supply a range of VFFS systems to fill bags from a few grams in weight up to 25 kg sacks of products. The vertical range includes specialist models for making four sided bags as well as options for block base - gas flush - vacuum.

Models available with production capacities of up to 200 bags per minute.

Products packed on our systems can be found in leading supermarkets throughout the UK. Our competitively priced machines mean that packaging systems are now more affordable than ever before.



Contact us for your Printed Film requirements.

# **Multihead and Linear Weighers**

# **Vertical & Horizontal Packaging Systems**

The Food Machinery Co offer a complete range of weighers to suit most food applications. We have set up weighing systems for nuts and pulses, powders and even cooked rice and spaghetti. Contact us to discuss your requirements.

The machines can be used as a stand alone machine with a foot pedal control for manual filling of preformed bags or alternatively can be connected to any of our automatic bagging machines.

**Linear Weigher** 

We also supply custom-built mounting

platforms and feed conveyors for the systems. The framework in the picture is an example only.

The four head version has four weigh bins and a maximum weight of up to 2 kg per bucket, however it can also be programmed to deposit multiple buckets should a weight greater than 2 kg be required. The hopper can also be divided into up to four sections to allow up to four different types and weights of products to be blended into a single bag or container.

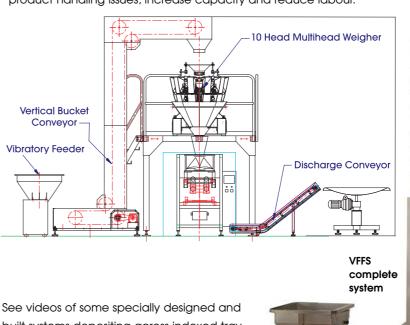


Special models available for:

- Cooked Pasta and Meats
- Stick shaped products
- Salad and Vegetables
- Potatoes
- Cooked Spaghetti and Noodles

# **Complete Packaging Lines**

The Food Machinery Company supply custom built conveyors to resolve product handling issues, increase capacity and reduce labour.



built systems depositing across indexed tray lines into multiple VFFS machines and much more at: foodmc.co.uk/conveyors

See some of the recent



#### HFFS – Horizontal Form Fill and Seal

Horizontal machines are typically used to produce 3 and 4 sided sachets. Our S series machines can produce stand up pouches from flat stock, printed or plain, saving you space time and money.

The machine also presents the bag to filling stations for automatic filling. The filled bag can be gas flushed, have a euro hole punched into the seal, nozzles inserted, even special shape bags can be cut inline.



# **Flow Wrappers**

#### In line packaging machine for solid products.

Flow wrapping is used to pack many food products. Flow wrappers take a flat film and form a tube, the product is put into the tube and the tube is closed and cut to create

the finished pack. Any solid product that fits within the parameters of the selected machine can be packed on a flow wrapper, delicate items may need to be placed into or onto a carrier.

The films and laminates used on the machine can

be selected to best suit a product. Chocolate and heat sensitive products can be used with a cold seal film. Bread products could have an inflated pack in order to protect them from impact. Individual biscuits and packs of biscuits can both be packed with a flow wrapper.

# **Pre-made Packaging Machines**

Our larger clients are accommodated with the High Speed EIAHE system, with over 30 installations in Nestlé Asia they have already proven themselves with one of the world's largest manufacturers and are now available in the UK from The Food Machinery Company.



Stand up pouches are fast becoming a requirement for many retailers. Their compact design maximises shelf space and also reduces distribution costs. Until now systems have been outside the reach of smaller producers but FMC are introducing a brand new self-contained system that can open and seal up to 20 bags per minute. This system can be hand filled or used with any of our range of weighers and fillers for both dry and wet products.





Contact us for your Pre-made Bag requirements.

Eiahe P-220 with 1 Filling Station

#### **Printers**

#### Ink Jet Printer

Diverse inks meet requirements of strong adhesive and quick drying. Our inks can print clear characters with adhesive on plastic, metal, glass, paper and



#### **Thermal Transfer**

Thermal transfer printer for printing on "intermittent and continuous" operating machines. Various models for print areas from 53 x 90 mm to 107 x 200 mm.



**MDC Combination Metal Detector** 

and Checkweigher

#### **FUNCTIONING MODE**

The SWING. ie is of the "mobile head" type for printing on film when stopped. It is mounted on the "intermittent" machines and prints while the machine is stopped. In this case, the print head can be swivelled in any position.

#### **PRINT UNIT**

Extremely rugged and reliable mechanical structure, also at high print rates. Highly simplified ribbon passage system (with automatic opening of narrow passages). The unit is also provided with a transparent protective lid.

# **Metal Detection and Checkweighing**

#### **Metal Detectors**

A range of metal detectors ideal for checking packaged products for metal contamination. These machines will detect ferrous and non ferrous metals.

Metal detection in food requires a machine capable of working at an accurate frequency. This is because the grades of stainless steel used in food production areas are harder to detect. The machine has an automatic set up facility which allows you to add new products easily and without the need to wait for a service engineer or specialist, saving time and money.

The touch screen controller is easy to operate and the menus are bright and clear. The 100 product memory makes it easy to change between standard products. With the use of an optional ethernet card the metal detector can be connected to a network, the results can be downloaded and stored for each product.

This feature makes HACCP compliance easier to manage. Checking this data (on screen or on your PC) helps identify patterns in contamination which can assist in finding their source.

# Checkweighers

Our range of CWC checkweighers ensure consistent pack weight with a choice of reject mechanism for bags, cartons, boxes or sachets that fall out of the specified range / parameters. These will be automatically rejected ensuring all the products supplied are of the correct weight.

All of our checkweighers use three belts (a chainbelt system): the infeed belt is used to change the speed of the item in preparation for weighing, allowing a consistent space between products. This is followed by the load belt or weighing section which uses a torsion load cell to detect the weight of the item.

The built-in computer takes many weight readings from the transducer over the time that the package is on the load belt to ensure an accurate weight reading. The final belt is the reject belt where the item can be rejected by one of the various reject systems.

In-line Checkweighers are sometimes referred to as conveyor checkweighers, belt weighers, in-motion scales, conveyor scales, in-line scales.

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# **Vacuum Packing**

J-V 012

# Vacuum Packing & Gas Flushing

Vacuum packing is a simple and proven method of product preservation. By removing the air within the packaging you reduce spoiling such as oxidisation, therefore extending the life of the product. Delicate products such as cakes, cooked prawns and crisps can

be damaged by the vacuum; for

products like these you need gas flush. Gas flush means that after the air has been removed it is replaced with O2, CO2, N2 or a blend of two depending on the product.

Gas flush is also often referred to as MAP or Modified Atmosphere Packaging.

We offer a range of vacuum packers from small table top machines up to large high speed conveyor models.

We have a selection of machines and gases available for trials at our factory.

Contact us for your Vacuum Bag requirements OR visit our web site to buy on line.

# **Tray Sealers**

## **FMC J-V Continuous Tray Sealer**

Fully Automatic Tray Sealer for preformed trays with vacuum and gas flush and skin pack option.

There are two different models available giving a range of different tray sizes.

Both models are fully automatic. The operator loads the filled tray onto the infeed conveyor and the tray is fed forwards into the sealer where the air is removed and replaced with a modified atmosphere as required. A further option also allows for the skin packing of the product.

The top film is neatly trimmed to the edges of the tray and the sealed tray is then ejected. The top film can be printed and a sensor ensures correct alignment

with the tray, a further option will also allow the film to be coded with the sell by date or other data as required.

Depending on the tray size the machine can seal up to four lanes of trays at a time. Their cycle time varies from 4 to 10 cycles per minute, factors such as the Modified Atmosphere Level (gas flush) or skin packing affect this time. The output can therefore be between 4 and 40 trays per minute.

Both models are all stainless steel and have a touch screen programmable controller. Busch pumps are fitted as standard.

# **Thermoformers**

#### **J-V Thermoforming Machine**

Automatic thermoformer with two different width models available. JV-9420 & JV-9320

#### JV - 9420 & JV-9320 Automatic Thermoformer

A thermoformer has a roll of film (Base Web) that the machine uses to automatically form a tray. The thickness of the tray can either be semi rigid for modified atmosphere products or can be thin to allow the final product to be vacuum sealed.

These trays / pouches are all joined together and as they index forward there is a loading area in which operators or automatic fillers fill the trays with the required products.

The filled tray passes into a sealing section where the air is removed and if required replaced with a modified atmosphere. After sealing the machine automatically separates the packs into individual trays / pouches.



- Choice of vacuum or Modified Atmosphere (Gas Flush) packaging, selectable from control panel
- All stainless steel heavy duty construction
- Colour touch screen programmable controller
  - Quick and easy mould changes
  - Simple mould depth adjustment
  - Choice of two different loading lengths (S version)
  - Busch vacuum pump

# The Food Machinery Company Ltd

FMC have a range of in-house skills and equipment. Our Kent based factory has a full fabrication set up including a mill, lathes, welding, guillotine, sheet metal folder and with over half of our staff being engineering bias we have the skills to use this equipment for modifications line integration and complete custom built equipment.

Our website allows you to buy vacuum bags and vacuum packing machines, mincer plates and knives, tabletop scales as well as letting you view brochures, videos and specifications for most of our standard machines. With the new offices and developement centre we will be able to offer our customers the chance to test equipment, Pre delivery trials will be done in a purpose built food production area and we will be making it possible to trial Vacuum cooling.









# Flexible Packaging

The Food Machinery Company have only been offering printed flexible packaging for 5 years. We are constantely increrasing our order levels with customers due to our quality, low set up and production cost and low minimum order quantities. We also offer vacuum bags from stock via our online shop.



Cold seal film

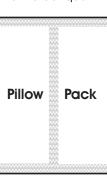
Vffs film

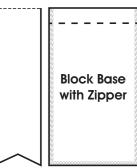
- Printed pre-made bags
- Stand up pouches
- Block base bags
- Food wrap film
- Thermoformer stock
- Plain or printed, flexo or gravure.











# **EU Projects**



www.bioboard.eu



FI C th c d d Tr

FMC have been involved in several EU funded projects under the 7th Framework. Starting with the CoolMeat project in October 2010, this 2 year project was successfully completed and further development trials are on-going. The project developed a novel method of vacuum cooling that uses immersion to maintain the meat's moisture content. For this project Lee Gapper was elected as the Dissemination Manager and has subsequently spoken about the findings at Campden BRI as part of

The MildDry project has been set up to develop an accelerated drying chamber using vacuum and

their Meat and Poultry Seminar.

microwave to allow gentle drying with accurate temperature control. We have a huge amount of interest in this project for both vegan foods and also dried meat products such as biltong and jerky. Lee Gapper has been elected Intellectual Property Manager for this project.

The BioBoard project has been set up to develop a protein based Bio sourced film layer to allow laminates to be separated for recycling or biodegradable.

The Meatpack project is looking to develop a novel method to modify the atmosphere of packed meat using Dry Ion Plasma.





www.milddry.eu











www.meat-pack.eu

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# We offer a variety of different styles of food mixers according to the product being mixed / blended.

#### **Planetary Mixers**

This style of mixer (often called a "Hobart") has been designed to be as versatile as possible and is capable of mixing doughs, beating batters and whipping creams. Ideally suited to whipping creams and preparing cake batters. For production environments we recommend a mixer designed to suit its main application. We offer planetary mixers in capacities ranging from 5 Litres up to 200 Litres and a choice of painted or all stainless steel versions. The bowls are removable on all models and optional bowl

lifters and tippers are available.

#### **Spiral Kneaders**

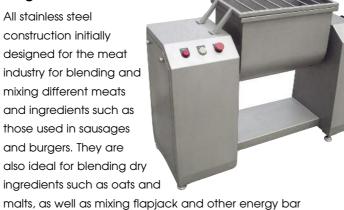


The bowls are removable on some models and optional bowl lifting and tipping equipment is available for these models Special mixers designed especially for mixing doughs such as those used in the baking industry, and can also be used for mixing other products where a dough like consistency is required such as Donor Kebab. Capacities range from 20 kg up to 240 kg.



#### **Single Paddle Mixers**

All stainless steel construction initially designed for the meat industry for blending and mixing different meats and ingredients such as those used in sausages and burgers. They are



ingredients with the syrups used without causing any damage to the particles in the mix. With a similarly gentle mixing action to the Paddle mixer these machines are ideal for pasta salads, sandwich fillings and other delicate items.

Capacities vary from 60 litre up to 300 litre and they all discharge by the main mixing chamber tilting to one side, normally directly into stainless steel tote bins. Optional auto loading lifts can be supplied.

#### Twin Paddle/Ribbon Mixers

Similar to the single paddle mixers but with twin paddles, the paddles can either be a blade paddle such as that fitted to the single paddle models or they can be supplied with a "Ribbon" paddle especially for blending dry ingredients. Discharge is by pneumatically operated end discharge doors where the direction of the mixing paddles is altered to automatically empty

Our paddle mixers are very gentle

and will not damage the product, you can select either Ribbon or Paddle blades when ordering. Suitable for prawn sandwich filling, cold pasta with sauce and potato salad, meats etc.

Capacities vary from 150 Litre up to 1250 Litres, optional auto loading equipment can be supplied.



# **Conveyor Frying Lines & Enrobers**

Since the introduction of a range of conveyor fryers and enrobing systems 5 years ago, several small coating and frying lines have been sold within the UK; the most popular being the 200mm wide models with a unique water filtration system.

With this machine the bottom of the fryer is filled with cold water and the oil floats on top, the oil is heated and you fry as normal. As pieces of breadcrumb and batter escape the conveyor, they fall through the oil and into the water; by not letting the debris sit in the oil and continue to burn, the oil lasts longer and keeps a much better colour, saving downtime and oil.

One of the UK's largest Ethnic Snack food producers has a 900mm wide 6m long fryer and coating system fitted with Teflon Infeed and Thermal Oil Heating system.









# Oil Filtration

# Multi stage vacuum filter for filtering cooking oils

The LF oil filter can be used as a stand alone filter for use with batch fryers or can be connected as part of a fully integrated system c/w oil storage tanks for continuous frying systems. By regular filtration oil life can be extended significantly.

The filter has a combination of stainless steel washable filters and disposable paper and powder filter media to remove all suspended particulates in the oil.

It uses a vacuum system to force the oil through the filters.

- Increase oil life by up to 10 times
- Huge cost savings in waste oils
- Improve product quality and consistency
- **Environmentally friendly**
- Filters down to 5 microns
- Batch and fully automatic systems
- Models for fryers from 10 to 2000 litre capacity



# Mixing Systems

The Food Machinery Company have designed and installed mixing and weighing equipment for a wide variety of

Whether you need to increase your mixing capacity or reduce the labour involved in your process, talk to us about your mixing requirements and we can advise you on the options.

# **Industrial Cookers & Steamers**

We supply a range of cooking kettles with capacities from 40 to 500 litres. All the models can be supplied with integral stirrers. The Joni range also have integral steam generators with a maximum temperature of 120 degrees C (external steam heating option available) and the De Danieli range uses electrically heated thermal oil to reach temperatures up to 185 degrees C. Brat Pans for high temperature frying are also supplied.

The range includes the Joni Optimix model for cooking and cooling down to 3 degrees C.

Use of the kettles include cooking of soups, stews, vegetables, curries, rice, pie fillings, plus specialist products such as ken kee and choux pastry as well as non-food, pharmaceutical and petrochemical applications.







# Ovens – Smoking, Roasting, Steaming and Baking

We can supply various ovens built to suit specific needs, let us know your tray size / trolley size, product, required capacity, temperature and if you want to Smoke, Roast, Steam, Bake or Pasteurise and we can advise you of the correct oven or quote to have a custom-built machine to suit your specific requirements.





# **Production Automation**

# **Specialist Food Product Machinery Solutions**

As a company we can automate the production of many products, please see the examples pictured on this page. To find out more about automating your products please contact us to discuss.







Manti





Vietnamese Spring Roll



















Rasgulla

Peda



**Piadine** 

All prices quoted are subject to change and are all plus vat. Any technical descriptions are not contractual and are given for guidance only.

# Bakery



**Biscuit Depositor** 

The Food Machinery Company can offer various standard bakery equipment as well as modified or custom made equipment. Check online for standard items such as dough dividers, mixers, ovens, cookie extruders, provers, sheeters, waterchillers automatic production machines for croissants, bagels and much more.



Pizza Machine

#### Washers

The Food Machinery Company are proud to have been offering the Unikon range for over 25 years, offering standard washers for crates, tote bins, pallets and multihead weigh pans as well as specially built washers

for almost any application.



Crate Washer

It's only when you face the everyday challenge of cleaning crates, boxes, trays, pallets, tote bins and dolavs you reliase how much time and resource it can take. Unikon have designed a range of various washers to suit the industrial washing challenges. Powerful, low maintenance machines designed to give the cleaning and hygiene you need everyday.

Contact us to discuss your requirements.



Pallet Washer

# **Butchery**

The Food Machinery Company can offer various standard butchery equipment as well as modified or custom made equipment. Check online for standard items such as tumblers, slicers, bandsaws, bowl cutters, mincers, sausage fillers, overwrappers, meat mixers and meatball and burger production machines.



Meat Mincer



Sausage Filler



Bandsaw

# **Vacuum Coolers**

Vacuum cooling is a very simple process that achieves extremely rapid cooling of the product with a minimum of weight and flavour loss and an improvement in microbial counts due to the rapid transition between 50 and 30 degrees C.

Typically 200 kg can be cooled from 100 degrees Centigrade to 5 Degrees Centigrade in as little as 20 minutes with significantly less energy than is required by conventional blast chillers. The principle uses a vacuum to lower the boiling point of the liquid in the

product to a point where the liquid actually boils, during this boiling process the evaporation of the water in the product means that latent heat is drawn from the product very quickly thus achieving rapid cooling.

The process is not new and has been in use by major Food Processors for several decades, however most systems have been very large and extremely expensive and have only been suitable for large capacities and continuous processes.

Food Machinery Co have been appointed as European distributors for a range of vacuum coolers from Asia. Their range includes trolley loading cookers with capacities from 75 litres up to 800 litres and kettle style coolers from 200 litres upwards, these can also be used for cooking and cooling in the same vessel.

During trials we recorded a cooling curve showing the cooling of 47 kg of cooked rice from 97 degrees down to 22 degrees in only 4 minutes 10 seconds.

Almost all products that are unpackaged are suitable for this process. Examples are: Soups - Sauces - Meat Stews - Rice - Roasted Meats - Vegetables etc.



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# Talk to us about. . .



Flexible packaging



**Packaging lines** 



**Line automation** 



**End of line equipment** 



**New technology** 



**Process automation** 



Vacuum cooling



**Industrial cooking** 







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