M2 Injectors / Red Meat

- High level of hygiene – easy to clean
- Accurate injection – uniform quality

- Clear brine – no blocked needles
- Unique needle bridge system
- Product under full control

- Flexibility and versatility
- Reliable and user friendly

fomaco
FOOD MACHINERY COMPANY

Created with passion – designed for success

The M2 injecting technology

The equipment for injection and curing of pork and beef products is commonly used in the production of bacon and ham, pastrami, corned beef, roast beef, steaks and moisture enhanced fresh meat to name a few. Flexibility, reliability and accuracy are key words for Fomaco, enabling the customer to handle all meat cuts, both bone-in and boneless and at the same time meet the demand for low and high injection levels.

The unique needle bridge ensures an even and consistent injection level.

The unique needle bridge

Unlike the manifold system, the M2 needle bridge valves are activated individually, injecting only when the needles are in the product, reducing the quantity of return brine or marinade considerably. The high performance centrifugal pump gives a constant brine pressure, no matter the number of needles in the product, ensuring uniform distribution of brine, regardless of product size.

Sectionally-divided stripper feet prevent the product from moving when the needles are retracted.

Product under full control

The sectionally-divided stripper feet following the contours of the product will also contribute to accurate injection as these will prevent the product from moving when the needles are retracted. This provides a uniform needle pattern, and prevents the product from being injected twice – or from not being injected at all.

The self-cleaning protein filter FM 80 and high performance centrifugal pump.

Clear brine – no blocked needles

The standard M2 injector is delivered with an F-80 cartridge type filter. However, you can opt to upgrade the F-80 filter into the fully self-cleaning FM 80 protein filter. The FM 80 filter has a unique ability to remove all impurities contained in the brine. This will prevent the fine holes in the needles from being blocked – even after many hours of continuous production – which in turn ensures an even distribution of the brine/marinade and improved product quality.

High level of hygiene

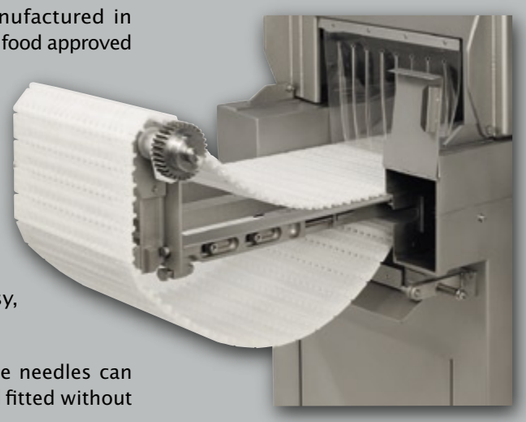
High emphasis is placed on food safety and hygiene. This has inspired Fomaco to develop a machine which is hygienic in production, easy and quick to clean.

Our brine flow system, needle heads and valves are designed to accurately match the liquid flow rate throughout the system, preventing brine residues from settling at the valve entrance, etc.

Our brine tank is available with cooling (optional), enabling accurate brine temperature control. Combined with temperature monitoring from the control screen, brines and marinades will have a germ count as low as possible.

Cleaning of the machine can be performed thoroughly and quickly because:

- Everything is manufactured in stainless steel and food approved plastic materials.
- For sanitation – the conveyor belt is easily removed without using tools. The conveyor frame has a quick-release system for easy, hygienic cleaning.
- When cleaning, the needles can be dismantled and fitted without using any tools.
- Since all electrical components are well protected special care is not needed when cleaning the machine.
- Separate washing rack for conveyor belt frame available.

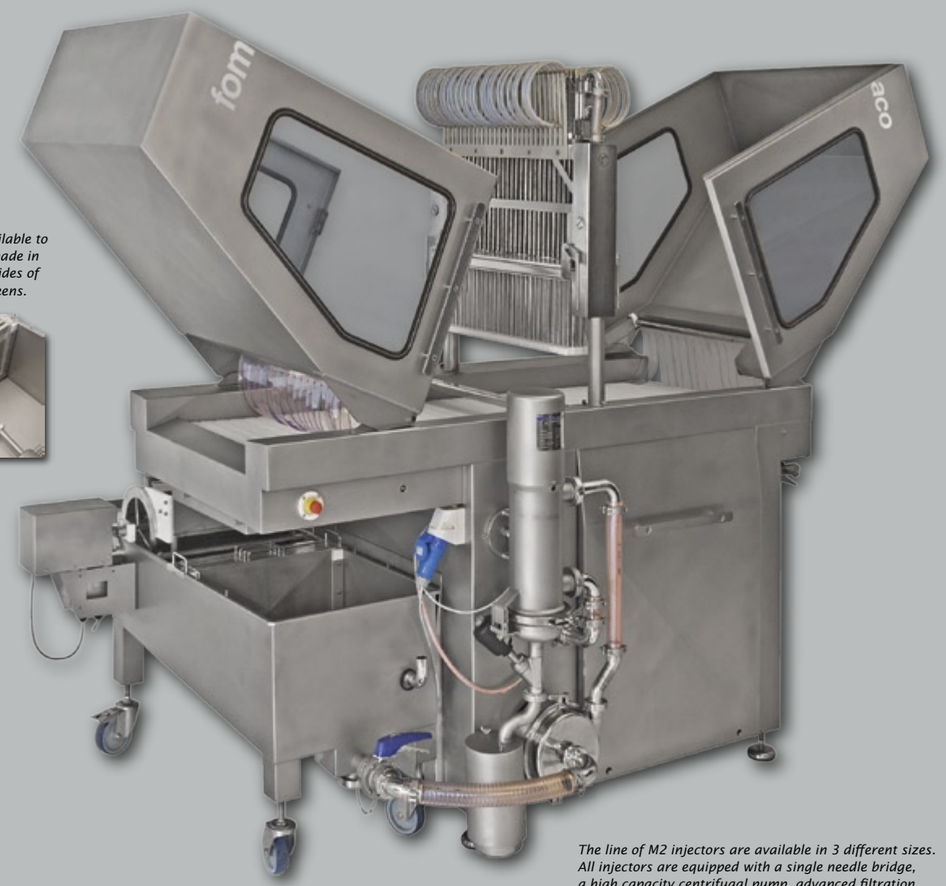


The conveyor belt frame has a quick release system for easy, hyginic cleaning of the Intralox belt.

Configuration options for red meat injectors

The various sizes of injectors in the M2 series are built on identical construction principles. The main differences between the models lie in the width of the transport systems (350 mm, 575 mm, and 700 mm). The injectors are available with 26, 44, or 54 needle heads, mounted with either single, double or quadro needles.

A hydro agitater available to keep the brine/marinade in suspension on both sides of the vertical filter screens.



The line of M2 injectors are available in 3 different sizes. All injectors are equipped with a single needle bridge, a high capacity centrifugal pump, advanced filtration options and an intuitive operator control panel.

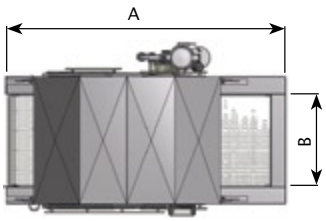
Reliable and user friendly

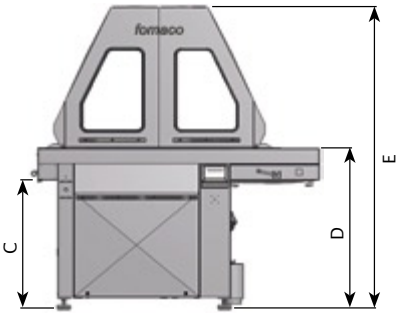
The M2 machines consist of thoroughly tested quality components, designed to work in a highly demanding and aggressive production environment. Using an M2 injector will get you a sturdy, durable, high performance production machine which can be trusted, and will require a minimum of maintenance:

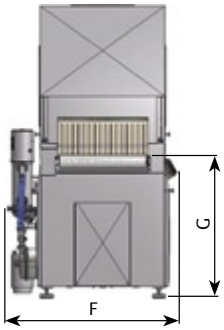
- Automatic monitoring of brine temperature.
- Intuitive settings of pump pressure and production speed.
- Self-cleaning FM 80 protein filter.

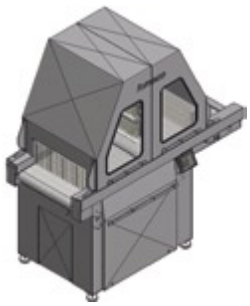
Simple operator panel with intuitive settings of pump pressure, production speed and constant read-out of brine temperature.

Specifications	FGM 26 M2	FGM 44 M2	FGM 54 M2
Drive unit for needle bridge and transport system	Lenze gear motor 2.2 kW	Lenze gear motor 2.2 kW	Lenze gear motor 2.2 kW
Pump motor	Grundfos 5.5 kW	Grundfos 5.5 kW	Grundfos 5.5 kW
Pump	Inoxpa Centrifugal Pump	Inoxpa Centrifugal Pump	Inoxpa Centrifugal Pump
Pre-filtration system	F80/FM 80 self-cleaning filter	F80/FM 80 self-cleaning filter	F80/FM 80 self-cleaning filter
Air consumption (max)	6 std. l/h	6 std. l/h	6 std. l/h
Number of needles	26 single, double or quadro	44 single, double or quadro	54 single, double or quadro
Needle bridge	20-90 stroke per min.	20-90 stroke per min.	20-90 stroke per min.
Transport system	Conveyor belt – Stainless steel or plastic (intralox)	Conveyor belt – Stainless steel or plastic (intralox)	Conveyor belt – Stainless steel or plastic (intralox)
Transport system width	350 mm	575 mm	700 mm
Product movement	30 mm and 50 mm per stroke	30 mm and 50 mm per stroke	30 mm and 50 mm per stroke
Stroke height (max)	230 mm	230 mm	230 mm
Product height (max)	200 mm	200 mm	200 mm
Capacity	Up to 2.5 tons per hour depending on product and injection level	Up to 3.5 tons per hour depending on product and injection level	Up to 4.5 tons per hour depending on product and injection level
Weight	600 kg	710 kg	800 kg



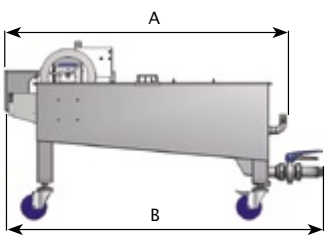


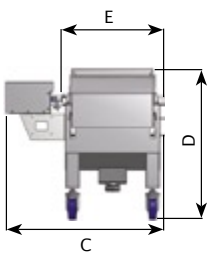


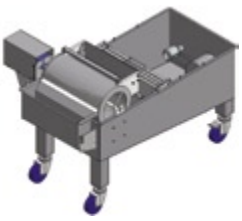


	FGM 26 M2	FGM 44 M2	FGM 54 M2
A	2135 mm	2135 mm	2135 mm
B	350 mm	575 mm	700 mm
C	850 mm	850 mm	850 mm
D	1210 mm	1210 mm	1210 mm
E	2270 mm	2270 mm	2270 mm
F	965 mm	1275 mm	1315 mm
G	1115 mm	1115 mm	1115 mm

	PFS 200 R M2
A	1410 mm
B	1580 mm
C	925 mm
D	885 mm
E	590 mm







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