PRE-PUBLICATION REVIEW DRAFT · NOT FOR DISTRIBUTION

MACHINE-X

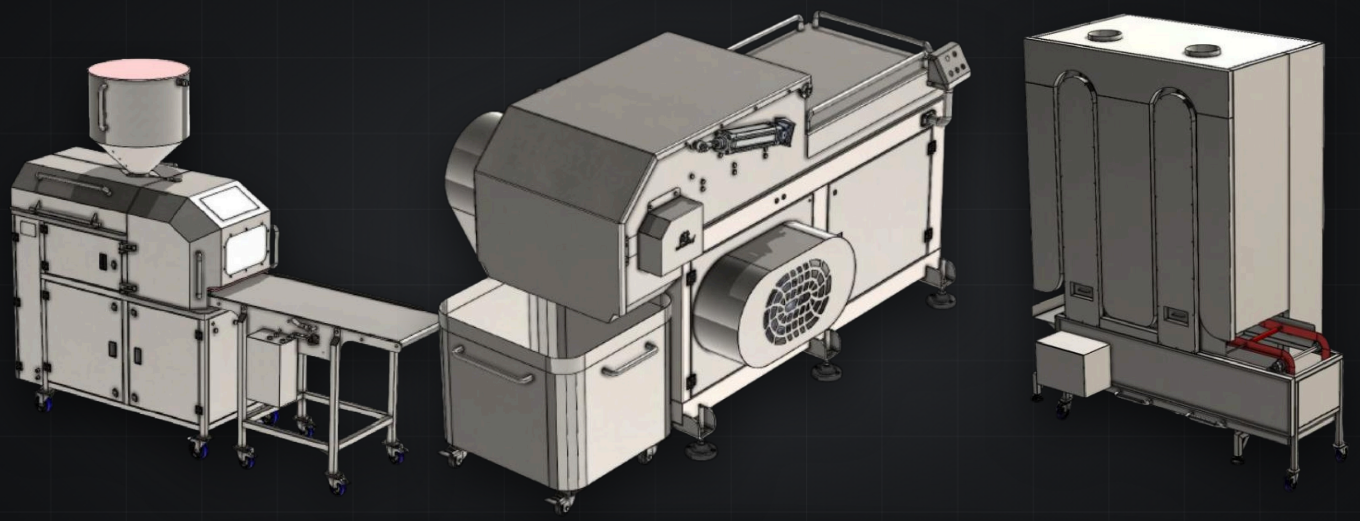
MEAT PROCESSING MACHINERY

PRODUCT & ENGINEERING CATALOGUE · EDITION 2026 · ENGLISH

Engineering the Future of Meat Processing.

Production engineering for meat and food factories, from single machines to complete lines.

○ PREPARATION — ○ FORMING — ○ COOKING — ○ FREEZING — ○ PACKING — ○ HANDLING — ○ AUTOMATION & CONTROLS



V5 CAD RENDERS · ILLUSTRATION

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An engineering company for meat and food production

MACHINE-X is an Egyptian engineering company, based in El Mansoura, that designs and builds production solutions for meat and food factories. Mechanical design, machine manufacturing and automation sit in one team, so a single machine, a complete line or an upgrade is engineered around the product it has to make.



V5 CAD RENDERS · ILLUSTRATION

WHO WE WORK WITH

Producers who need equipment that fits their product, their output and their building, and who want one engineering partner accountable from the first drawing to support after start-up.

WHAT WE WORK ACROSS

01 PRODUCTION LINES & FACTORY PLANNING

process flow, line layout, machine selection and capacity planning.

02 MACHINERY

preparation, forming, cooking, packing and handling machines, and custom forming molds.

03 AUTOMATION & CONTROLS

control panels, PLC and HMI programming, SCADA line monitoring, and Digitalization & IIoT where a project needs it.

04 FREEZING & COLD SOLUTIONS

freezing tunnels, blast freezers and cold rooms designed around the product and connected to the line.

05 SERVICE, UPGRADES & RETROFIT

installation, commissioning, maintenance, upgrades and retrofit for eligible MACHINE-X equipment and for systems MACHINE-X supplied or integrated.

How this catalogue is organized

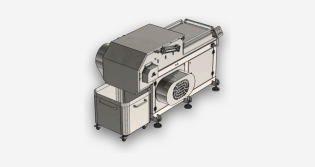
The catalogue follows a production line from raw meat to packed product. Each machine sits in the stage where it works, followed by the controls, lines and services that connect the stages.

SECTION		PAGES
01	WHO MACHINE-X IS	2–4
02	ENGINEERING APPROACH	5–7
03	PRODUCTION FLOW	8–10
04	MACHINERY BY PROCESS: PREPARATION, FORMING, COOKING, FREEZING, PACKING, HANDLING	11–31
05	AUTOMATION & CONTROLS, INCLUDING DIGITALIZATION & IIOT	32–34
06	INTEGRATED LINES	35–36
07	SERVICES & SUPPORT	37–38
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- PREPARATION
- FORMING
- COOKING
- FREEZING
- PACKING
- HANDLING
- AUTOMATION & CONTROLS

MACHINERY INDEX

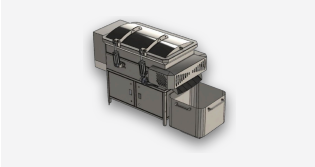
STAGE · MACHINE · MODEL · PAGE



PREPARATION 11

Meat Flaker

MMX-500



PREPARATION 13

Meat Mixer

2610-A-MMM



PREPARATION 15

Euro Bin Lifting Elevator · Hopper Lifting Elevator

2632-S-BLE · 2617-S-SPL



FORMING 17

Burger Forming Machine

BMX-500



FORMING 19

Kofta Forming Machine

KMX-500



FORMING 21

Forming molds & mold plates

Custom



FORMING 22

Dough Forming & Cutting Machine

BMC-1000



COOKING 24

Radiant Grilling Conveyor

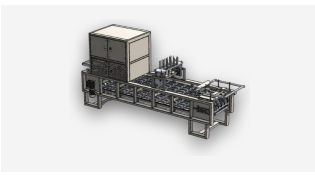
2637-RGL



FREEZING 26–28

Freezing tunnels · Blast freezers · Cold rooms

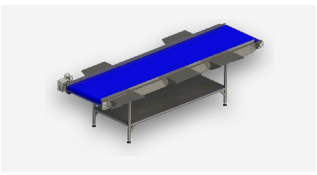
Designed per project



PACKING 29

Cup & Tray Sealing Machine

2626-PLM



HANDLING 30

Conveyors · Trolleys & stands

Custom



ALL STAGES 32–34

Control panels · PLC, HMI and SCADA · Custom electronic boards · Digitalization & IIoT

Project-specific

WHERE TO START, BY ROLE

IF YOU ARE · START WITH			
Owner or general manager	Pages 2, 5, 6, 35 and 39	Maintenance	Pages 32, 37 and 38
Plant or production manager	Pages 8, 11–31 and 39	Procurement	Pages 6, 27, 41 and 44
Engineering	Pages 9, 11–34 and 41		

The machine is the answer, not the starting point

Before recommending equipment, an engineer looks at what you produce, the output you need, how the process flows and what limits it today. Sometimes that leads to a new line. Sometimes it leads to one machine, a control upgrade or a change at a single stage.

ONE TEAM DESIGNS, BUILDS AND PROGRAMS

01

CAPABILITY

MECHANICAL DESIGN

WHAT IT COVERS

Custom machines, forming molds, dies and mechanisms engineered to a requirement

WHY IT MATTERS TO A PRODUCER

Equipment can be adapted to the product instead of the product to the equipment

02

CAPABILITY

MACHINE MANUFACTURING

WHAT IT COVERS

MACHINE-X processing machines are manufactured in-house and tested before delivery

WHY IT MATTERS TO A PRODUCER

The team that designs a machine also builds and tests it

03

CAPABILITY

AUTOMATION

WHAT IT COVERS

Control panels built and PLC and HMI programs written by the MACHINE-X team

WHY IT MATTERS TO A PRODUCER

Mechanical and control work are planned together, and programs can be changed later by the people who wrote them

WHAT WE STATE, AND WHAT WE CONFIRM

Output depends on the product, the recipe and the setup. This catalogue describes each machine's role and lists only figures that have been confirmed for the model. Values for your product are confirmed in the technical and commercial proposal.

Five stages, from requirement to support

The sequence is the same for a single machine and a complete line. What changes is the time spent in each stage: a new factory spends longer in Assess and Design than a single forming machine.

1 ASSESS
2 DESIGN
3 BUILD
4 INSTALL
5 SUPPORT

STAGE
1 ASSESS

WHAT HAPPENS
An engineer works with you to understand your product, output, process and constraints

YOU RECEIVE OR DECIDE
Agreement on what the project must achieve

STAGE
2 DESIGN

WHAT HAPPENS
Process flow, layout, machine selection, custom mechanisms or molds, and the control concept, as the scope requires

YOU RECEIVE OR DECIDE
A layout and a technical and commercial proposal to approve

STAGE
3 BUILD

WHAT HAPPENS
MACHINE-X processing machines and control panels are manufactured and tested

YOU RECEIVE OR DECIDE
Equipment ready for delivery

1 ASSESS — 2 DESIGN — 3 BUILD — 4 INSTALL — 5 SUPPORT

STAGE

4 INSTALL

WHAT HAPPENS

Installation and commissioning at your site: the equipment is started up and run with your product

YOU RECEIVE OR DECIDE

A machine or line running your product as agreed

STAGE

5 SUPPORT

WHAT HAPPENS

Preventive and corrective maintenance, troubleshooting and upgrades for eligible MACHINE-X equipment and systems MACHINE-X supplied or integrated

YOU RECEIVE OR DECIDE

Support while the equipment is in production

WHAT IS BUILT AND WHAT IS SUPPLIED

Some project equipment, such as refrigeration units, may come from specialist suppliers and is integrated by MACHINE-X. Every proposal states what MACHINE-X builds and what it supplies.

WHAT WE NEED FROM YOU

01 Products, with their sizes or forms

02 Current and target output

03 The process steps, and any machines already in use

04 Available space and utilities (power, water, compressed air)

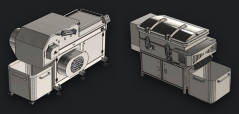
05 Your timeline

From raw meat to packed product

A line runs at the pace of its slowest stage. Seeing the whole flow first makes it easier to judge where a machine, a transfer or a control change will make a difference.

AUTOMATION & CONTROLS

Automation & Controls runs across the whole flow: machine controls, line control and monitoring, and Digitalization & IIoT where the operation needs information beyond the machine (pages 32–34).



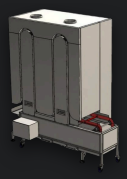
01 PREPARATION

flaking, mixing, lifting (pages 11–16)



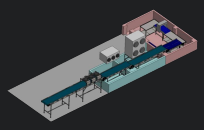
02 FORMING

burger, kofta, molds, dough (pages 17–23)



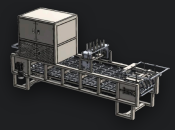
03 COOKING

continuous grilling (page 24)



04 FREEZING

tunnel, blast freezer, cold room (pages 26–28)



05 PACKING

cup and tray sealing (page 29)

HANDLING

Handling connects every stage: conveyors, lifters, trolleys and stands move product from one machine to the next (page 30).

V5 CAD RENDERS AND PHOTOGRAPHS · ILLUSTRATION

READING THE FLOW

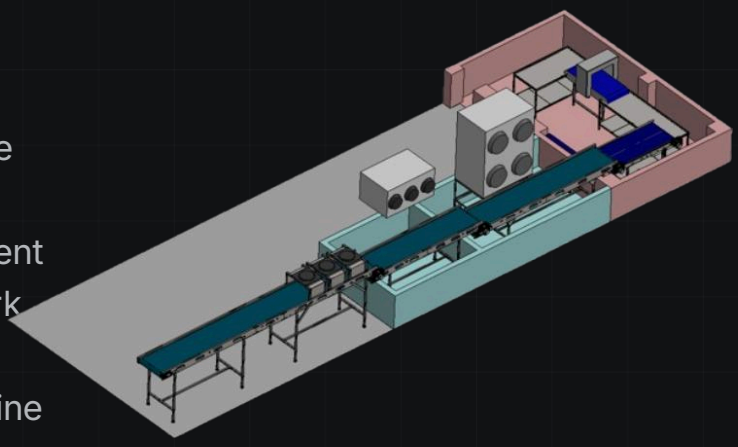
Not every product passes through every stage. A burger line may go straight from forming to freezing; a kofta line may add grilling.

The symptom is not always the cause. Low output at packing can start at forming or freezing.

Extra output at one stage only helps if the next stage can absorb it.

Hygienic operation starts at the drawing stage

Food safety in a meat plant depends on the producer's own system: procedures, cleaning, training and verification. Equipment and layout can support that system or work against it. These are the engineering questions considered when a machine or line is planned.



V5 CAD RENDER · LINE LAYOUT CONCEPT · ILLUSTRATION

01 PRODUCT FLOW AND LAYOUT

How raw material, finished product, people and packaging move through the space. Separating flows and keeping transfers short reduces the places where product waits or crosses paths.

02 ACCESS FOR CLEANING AND MAINTENANCE

Space around equipment so it can be cleaned and serviced, and how each machine opens for cleaning. Cleaning access is described on a product page only where it has been confirmed for that machine.

03 PRODUCT-CONTACT SURFACES AND GEOMETRY

In general hygienic design, product-contact surfaces are kept accessible, and corners, gaps and ledges where product can collect are avoided where the function allows. These are evaluated for each machine and line as part of design.

04 MATERIALS

Product-contact materials are specified for each machine and stated in its technical data once confirmed. ◇1 ◇2

05 TEMPERATURE-SENSITIVE STAGES

Where freezing sits relative to forming and cooking, and how long product waits between them, is part of line planning (pages 26–28 and 35).

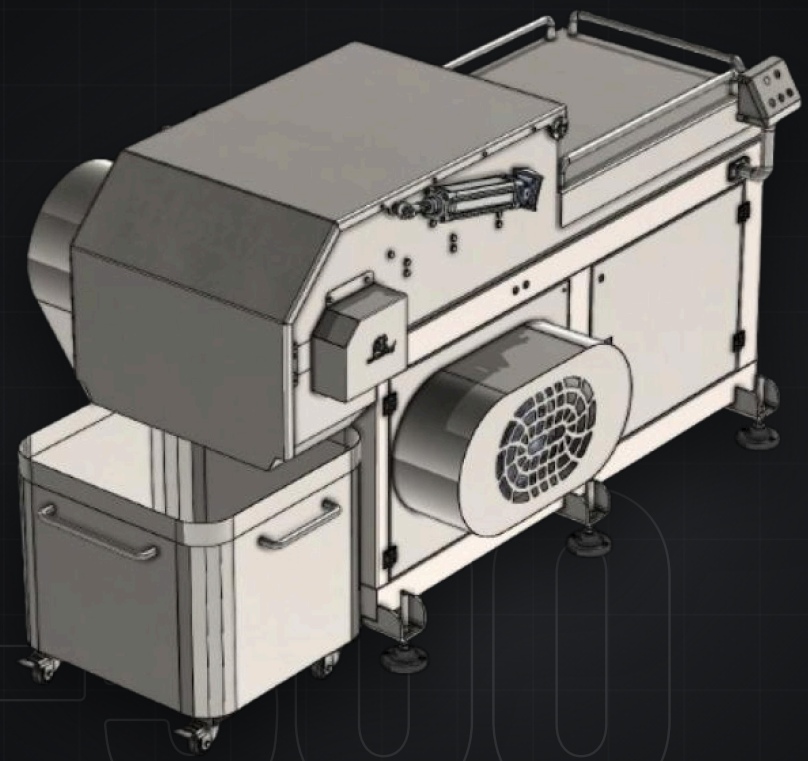
06 WHAT REMAINS WITH THE PRODUCER

MACHINE-X does not certify a producer's process. The food safety system, hygiene procedures and approvals for the products made on the line remain with the producer.

Meat Flaker

MMX-500

The first cut in meat preparation. Meat arrives in blocks; before it can be minced and mixed, the blocks are reduced to flakes. The **MMX-500** does that step.



V5 CAD RENDER · ILLUSTRATION

2,000 kg/h
LISTED OUTPUT

15 kW
INSTALLED POWER

Pneumatically actuated
BLOCK PUSHING

HOW IT WORKS

Blocks go on the infeed, where a barrier holds them in position. A pusher feeds them to the blade, and the flakes drop into a collection bin under the blade, ready to move to the next stage.

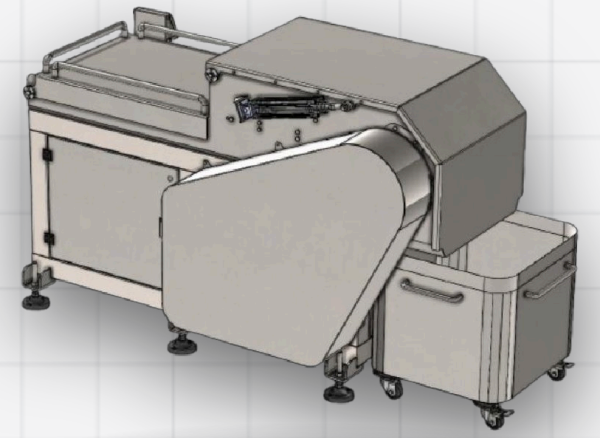
WHERE IT SITS

BEFORE IT
meat blocks from storage

→ **MMX-500** Meat Flaker →

AFTER IT
mincing, then mixing with spices and ingredients

MMX-500



V5 CAD RENDER · SECOND VIEW · ILLUSTRATION

ACCESS TO THE BLADE

- Door interlock: the machine is designed to run only with the door closed. ◇1
- Bin interlock: the blade is designed not to run without the collection bin in place. ◇2
- Block barrier: holds blocks in position while they are cut.
- Pusher: blocks are fed to the blade by the machine, not by hand.

POINTS TO CONSIDER

- The block size and condition you work with, which decide whether the machine suits your raw material. ◇3
- The output of the stages after flaking. When a line is planned, flaking, mincing, mixing and forming are sized to work together.

TECHNICAL DATA

MMX-500

ITEM

LISTED OUTPUT
2,000 kg/h

INSTALLED POWER
15 kW

BLOCK PUSHING
Pneumatically actuated

CONTROL
Conventional electrical control

PRODUCT-CONTACT MATERIALS
Stainless steel AISI 304 & 316

DIMENSIONS, WEIGHT, AIR SUPPLY
On request

Figures are for the listed model. Actual output depends on the product, recipe and setup. Technical details on request.

Discuss This Machine

SEND YOUR REQUIREMENTS →

START ON WHATSAPP →

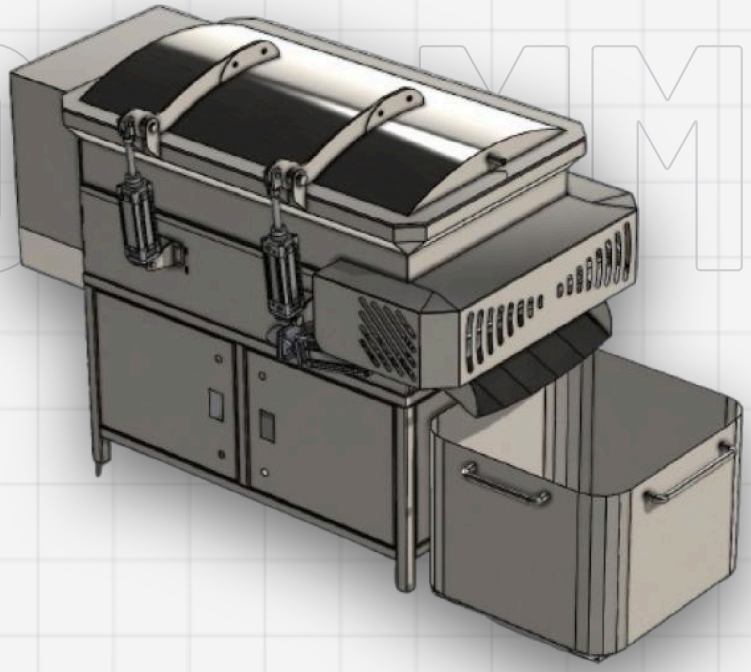
Request Technical Details

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Meat Mixer

2610-A-MMM



V5 CAD RENDER · ILLUSTRATION

Mixing is where a recipe becomes a product. The mixer blends minced meat with spices and ingredients in programmed cycles and discharges the mix straight into the collection bin.

500 L
MIXING VOLUME

7 kW
INSTALLED POWER

PLC
CONTROL

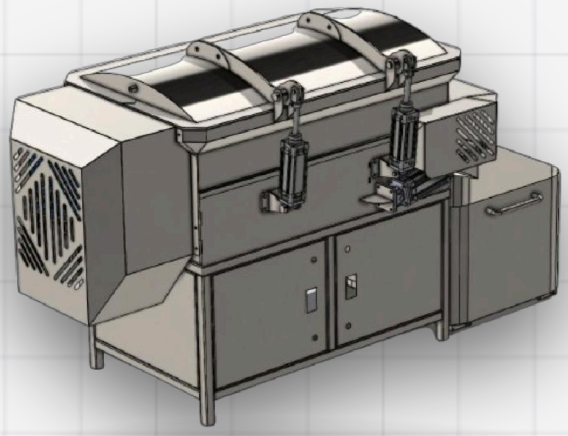
WHERE IT SITS

BEFORE IT
flaking and mincing

→ **2610-A-MMM** Meat Mixer →

AFTER IT
forming, usually fed by a bin or hopper lifter

2610-A-MMM



V5 CAD RENDER · SECOND VIEW · ILLUSTRATION

USED FOR

Burger mix · Kofta mix · Sausage mix · Marinated products ◇1

POINTS TO CONSIDER

- Batch size against the forming stage it feeds, so mixed product does not wait.
- How many recipes the line runs, and the mixing cycle each one needs.
- How the bin moves to the forming machine: by trolley, Euro bin lifter or hopper lifter (page 15).

TECHNICAL DATA

2610-A-MMM

ITEM

MIXING VOLUME
500 L

INSTALLED POWER
7 kW

CONTROL
PLC

PRODUCT-CONTACT MATERIALS
Stainless steel AISI 304 & 316

DIMENSIONS, WEIGHT, MIXING SYSTEM
On request

Figures are for the listed model. Actual output depends on the product, recipe and setup. Technical details on request.

REQUEST TECHNICAL DETAILS →

Start on WhatsApp

[QR — Machinery hub form, machine=2610-A-MMM · URL ADD DURING DEVELOPMENT]

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Lifting elevators

Feeding mixers, grinders and formers by hand means lifting heavy bins to the machine inlet. Two different lifters take that step over: one tips standard bins into the machine, the other feeds it from a discharge hopper on a mobile column lift.

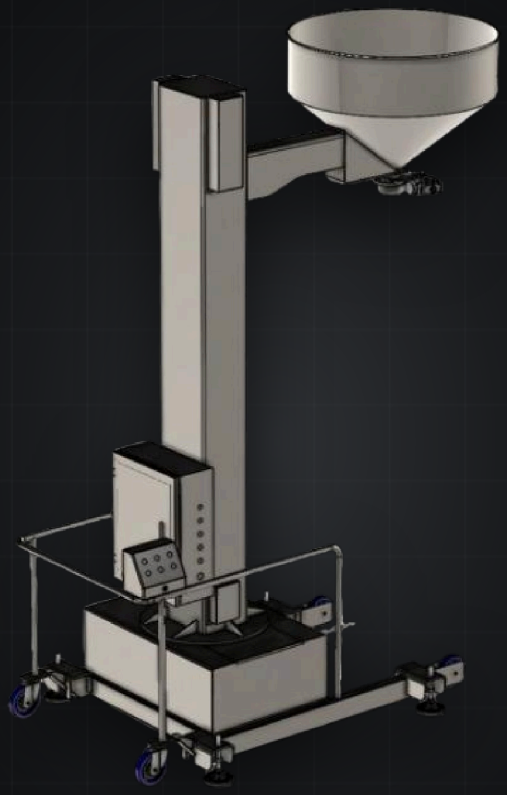


2632-S-BLE

EURO BIN LIFTING ELEVATOR

200 L
BIN OR HOPPER VOLUME

3 kW
INSTALLED POWER



2617-S-SPL

HOPPER LIFTING ELEVATOR

240 L
BIN OR HOPPER VOLUME

2 kW
INSTALLED POWER

V5 CAD RENDERS · ILLUSTRATION

EURO BIN LIFTING ELEVATOR · HOPPER LIFTING ELEVATOR

	EURO BIN LIFTING ELEVATOR **2632-S-BLE**	HOPPER LIFTING ELEVATOR **2617-S-SPL**
WHAT IT DOES	Lifts Euro bins and tips them into processing machines	A mobile column lift with a discharge hopper for feeding machines
BEST SUITED TO	Lines that already move product in Euro bins	Selected per application; suitability is confirmed for your machines and layout
BIN OR HOPPER VOLUME	**200 L**	**240 L**
INSTALLED POWER	**3 kW**	**2 kW**
CONTROL AND MATERIALS	PLC · AISI 304 & 316	PLC · AISI 304 & 316
LIFT AND DISCHARGE HEIGHT, LOAD	On request	On request

POINTS TO CONSIDER

- The discharge height of the machine being fed, which sets the lift height required. ◇1
- The bin type your plant already uses.
- Floor space and the route the lifter takes between machines.

Figures are for the listed model. Actual output depends on the product, recipe and setup. Technical details on request.

REQUEST TECHNICAL DETAILS →

Start on WhatsApp

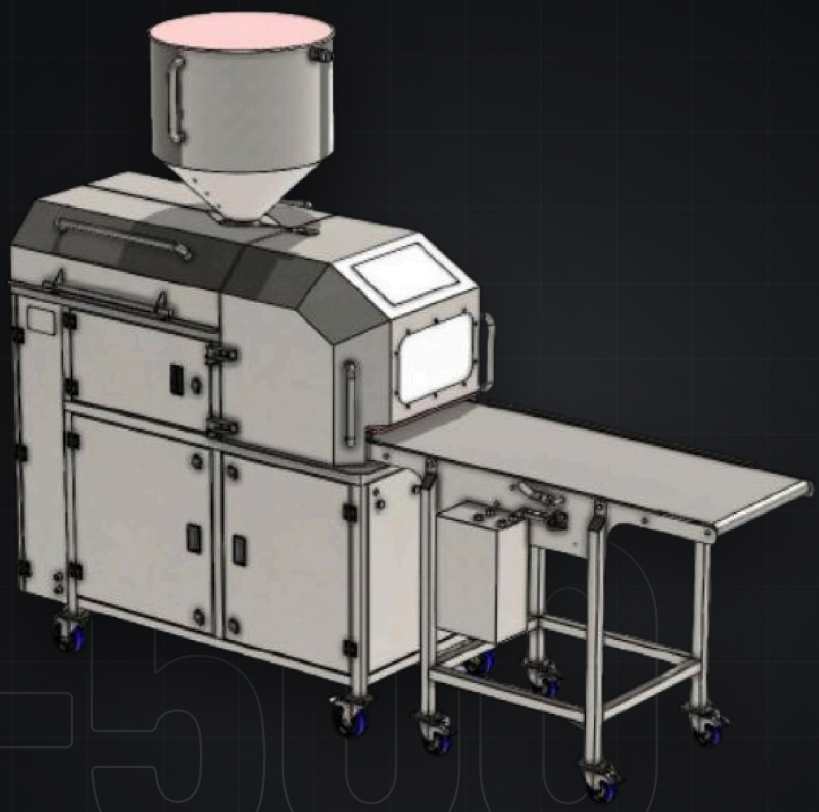
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Burger Forming Machine

BMX-500

Mold plates made for your patty. The **BMX-500** presses prepared meat into the cavities of a mold plate and releases formed patties onto an outfeed conveyor. Thickness and shape are set by the plate, so a new patty usually needs a new plate, not a new machine.



V5 CAD RENDER · ILLUSTRATION

Up to 1,000 kg/h
LISTED OUTPUT

20–30 strokes/min
MOLD PLATE STROKES

150 L
HOPPER CAPACITY

WHERE IT SITS

BEFORE IT
preparation and mixing, often fed by a bin or hopper lifter

→ **BMX-500** Burger Forming Machine →

AFTER IT
freezing, then packing, depending on the product

MOLD PLATES DESIGNED IN-HOUSE

MACHINE-X designs burger mold plates for the **BMX-500**, including multi-cavity plates. Send a sample or a drawing of your patty and the plate is designed to match.

BMX-500



V5 CAD RENDER · SECOND VIEW · ILLUSTRATION

CONFIGURATION

ELEMENT	SPECIFIED PER PROJECT
Mold plate	Shape and number of cavities designed for your patty; thickness range 5–30 mm
Mold mechanism	Drive selected when the machine is specified: Pneumatic (servo option)
Hopper	Holds the prepared meat that is pressed into the mold plate; capacity in the technical data
Outfeed	Outfeed conveyor carrying patties to the next stage
Control	PLC with touch screen

POINTS TO CONSIDER

- Patty weight, diameter and thickness, and how often the product range changes.
- How fast mixed meat reaches the hopper, and how quickly formed patties are frozen and packed. The forming machine's output is only useful if the stages around it keep pace.

TECHNICAL DATA

BMX-500

ITEM

LISTED OUTPUT

Up to 1,000 kg/h

MOLD PLATE STROKES

20–30 strokes/min

HOPPER CAPACITY

150 L

INSTALLED POWER

2 kW

MATERIALS, DIMENSIONS, WEIGHT, AIR SUPPLY

On request

Figures are for the listed model. Actual output depends on the product, recipe and setup. Technical details on request.

Discuss This Machine

SEND YOUR REQUIREMENTS →

START ON WHATSAPP →

Request Technical Details

Discuss a Custom Mold

[QR — Burger Forming Machines page, enquiry block · URL ADD DURING DEVELOPMENT]

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Kofta Forming Machine

KMX-500

Kofta and kebab portions, shaped by a mold made for your product. The **KMX-500** fills the mold with prepared mix, forms the portion and releases it. The shape comes from the mold, and changing products means changing the mold.



V5 CAD RENDER · ILLUSTRATION

100–150 kg/h	10–20 strokes/min	100 L
LISTED OUTPUT	MOLD STROKES	HOPPER CAPACITY

WHERE IT SITS

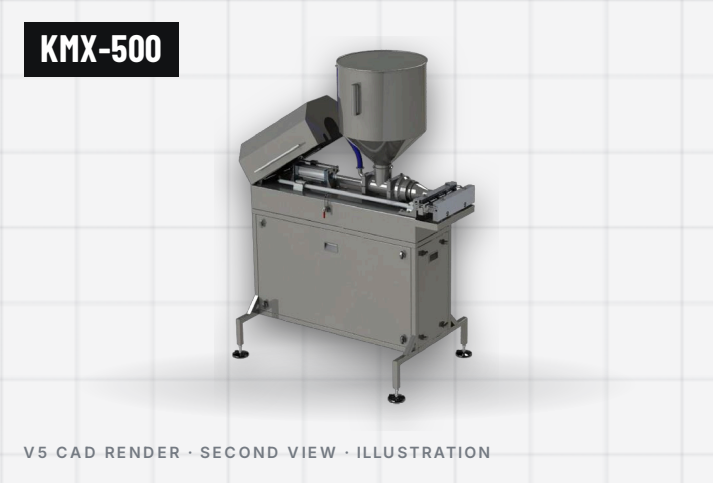
BEFORE IT
a seasoned kofta mix from the mixing stage

→ **KMX-500** Kofta Forming Machine →

AFTER IT
grilling, freezing or both, then packing, depending on the product

WHAT THE MACHINE DOES

- Interchangeable mold: one machine can run several kofta and kebab products, one mold at a time.
- Adjustable injection: the fill is set for the portion the mold forms.
- Kick-off: formed portions are released from the mold by the machine.
- Scrap collector: trimmings from forming are gathered at the machine.



V5 CAD RENDER · SECOND VIEW · ILLUSTRATION

SHAPES

Kofta and kebab profiles are set by the mold design. The shapes that can be formed are confirmed for each product during design. ◇2

POINTS TO CONSIDER

- Portion size and shape for each product, and how often products change.
- Whether kofta is grilled on skewers before freezing. If so, grilling capacity and skewer handling are planned with the forming machine (pages 24 and 30).

TECHNICAL DATA

KMX-500

ITEM

LISTED OUTPUT
100–150 kg/h

MOLD STROKES
10–20 strokes/min

HOPPER CAPACITY
100 L

MOLD, KICK-OFF AND FILLING DRIVE
Pneumatic (servo option)

CONTROL AND MATERIALS
PLC with touch screen · Stainless steel AISI 304 & 316

INSTALLED POWER
On request ◇1

DIMENSIONS, WEIGHT, AIR SUPPLY
On request

Figures are for the listed model. Actual output depends on the product, recipe and setup. Technical details on request.

Discuss This Machine

SEND YOUR REQUIREMENTS →

START ON WHATSAPP →

Request Technical Details

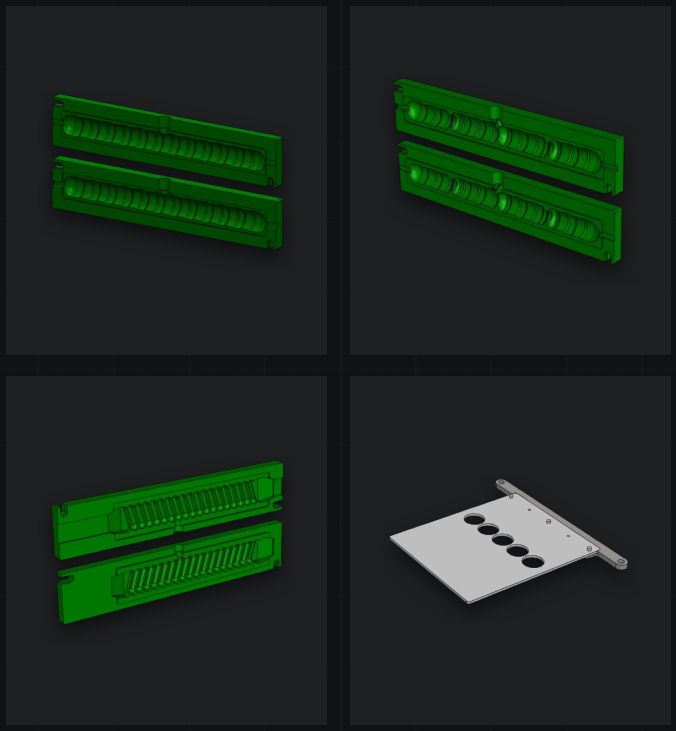
Discuss a Custom Mold

[QR — Kofta Forming Machines page, enquiry block · URL ADD DURING DEVELOPMENT]

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Forming molds, designed around your product

On a forming machine, the mold decides the product. MACHINE-X designs molds and mold plates in-house, so a new shape is usually a mold project, not a new machine.



V5 CAD RENDERS · ILLUSTRATION

MOLD FAMILY · USED FOR

KOFTA MOLDS
Classic and ridged kofta shapes in a range of lengths and diameters

KEBAB AND SPECIALTY MOLDS
Segmented and specialty profiles for kebab and signature products

MULTI-CAVITY MOLDS
More than one piece per stroke on the same machine; the effect on output depends on the product and machine ◇1

BURGER MOLD PLATES
Plates for the **BMX-500**, including multi-cavity plates; thickness range 5–30 mm

STARTING A MOLD PROJECT

01 A sample of the product, or a drawing with dimensions

02 The machine the mold is for

03 The products the mold must run

DISCUSS A CUSTOM MOLD →

Start on WhatsApp: send a sample photo or drawing

[QR — Machinery hub form, machine=mold · URL ADD DURING DEVELOPMENT]

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Dough Forming & Cutting Machine

BMC-1000



V5 CAD RENDER · ILLUSTRATION

Forming and cutting on continuous belts. Dough travels on belts from the forming section to the cutting section without manual transfer, and trimmings are collected and returned to the dough section. ◇1

4,000 pcs/h
LISTED OUTPUT

2 kW
INSTALLED POWER

PLC
CONTROL

PRODUCTS

Technical details on request. ◇2

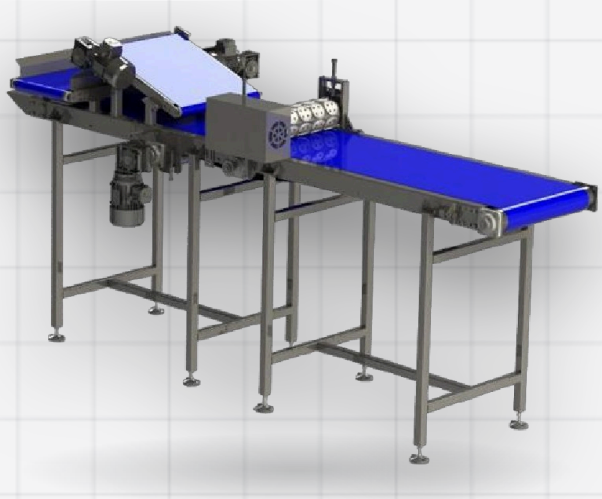
WHERE IT SITS

BEFORE IT
dough preparation

→ **BMC-1000**
Dough Forming & Cutting Machine →

AFTER IT
conveyors to freezing and packing, where the line is planned for it. ◇3

BMC-1000



V5 CAD RENDER · SECOND VIEW · ILLUSTRATION

POINTS TO CONSIDER

- Piece size and shape, which set the forming and cutting settings.
- How trimmings are handled in your process and recipe.
- Belt route and floor space between forming, cutting and the next stage.

TECHNICAL DATA

BMC-1000

ITEM

LISTED OUTPUT

4,000 pcs/h

POWER, CONTROL, MATERIALS

2 kW · PLC · Stainless steel AISI 304 & 316

BELT WIDTH, DIMENSIONS, WEIGHT

On request

Figures are for the listed model. Actual output depends on the product, recipe and setup. Technical details on request.

REQUEST TECHNICAL DETAILS →

Start on WhatsApp

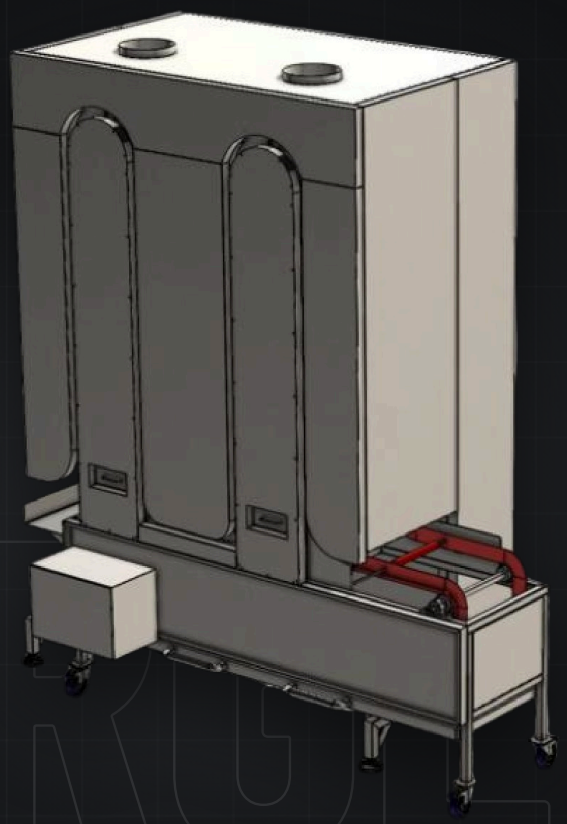
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Radiant Grilling Conveyor

2637-RGL

Continuous grilling for skewered products. Operators load kofta skewers and kebabs at the inlet, the conveyor carries them through the grilling section, and grilled product is discharged at the outlet. The machine includes a charcoal box. ◇1



V5 CAD RENDER · ILLUSTRATION

4,000 pcs/h
LISTED OUTPUT

Natural gas or LPG
HEAT SOURCE

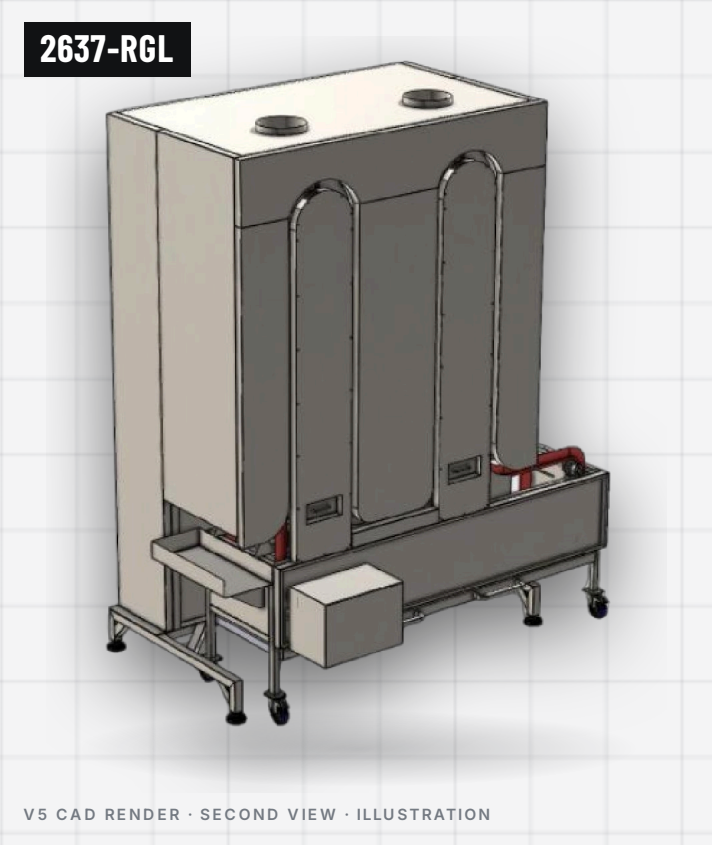
3 kW
ELECTRICAL POWER

WHERE IT SITS

After kofta or kebab forming and skewering, often with kebab skewer trolleys holding loaded skewers. After grilling: freezing, then packing.

HEAT SOURCE AND UTILITIES

The heat source, electrical supply, gas consumption, burner arrangement and site requirements for gas supply and exhaust are confirmed in the technical data for each project. ◇2



V5 CAD RENDER · SECOND VIEW · ILLUSTRATION

POINTS TO CONSIDER

- Skewer length and product size, which decide how product is loaded and spaced.
- Gas type available on site, and ventilation in the cooking area.
- Forming output upstream and freezing capacity downstream, so grilled product does not wait.

TECHNICAL DATA

2637-RGL

ITEM

LISTED OUTPUT

4,000 pcs/h

HEAT SOURCE

Natural gas or LPG

ELECTRICAL POWER, CONTROL, MATERIALS

3 kW · PLC · Stainless steel AISI 304 & 316

GAS CONSUMPTION, DIMENSIONS, WEIGHT

On request

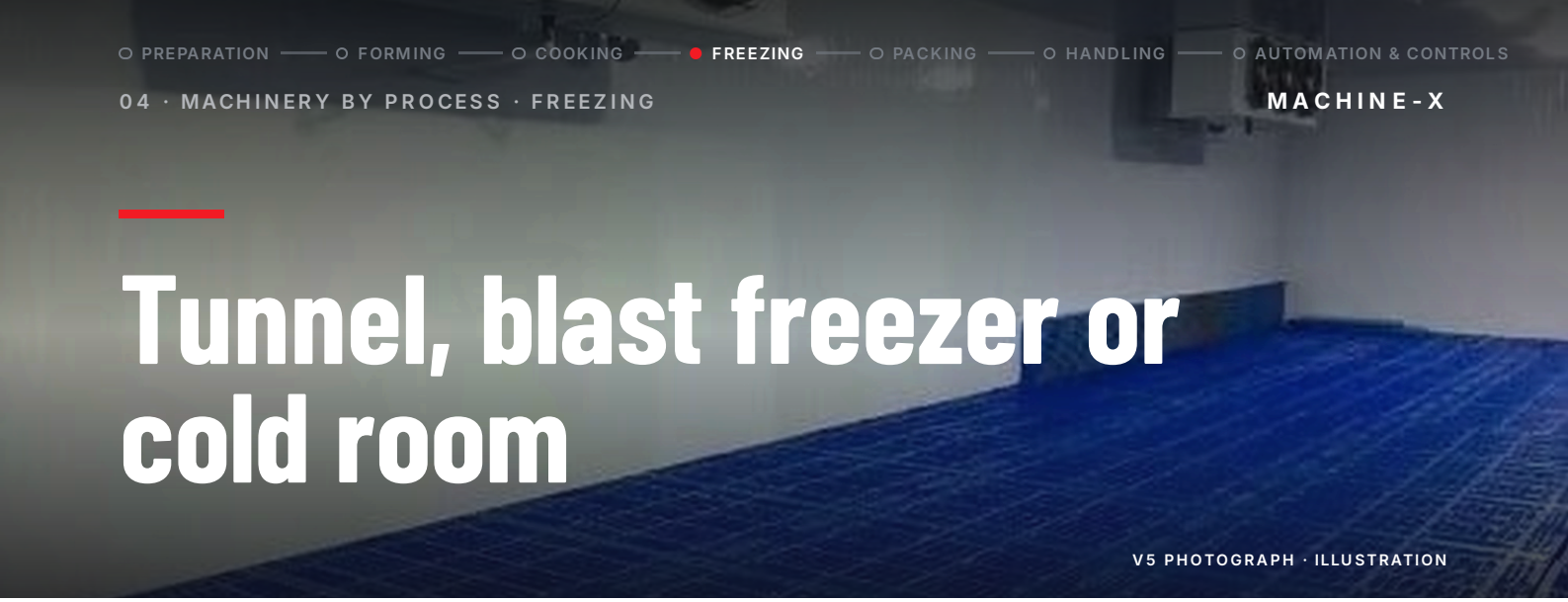
Figures are for the listed model. Actual output depends on the product, recipe and setup. Technical details on request.

REQUEST TECHNICAL DETAILS →

Start on WhatsApp

[QR — Machinery hub form, machine=2637-RGL · URL ADD DURING DEVELOPMENT]

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Tunnel, blast freezer or cold room

V5 PHOTOGRAPH · ILLUSTRATION

Freezing tunnels, blast freezers and cold rooms do different jobs. The choice depends mainly on how product arrives from the line and what happens to it after freezing. Each is designed around the product, the output and the factory layout.

	FREEZING TUNNEL	BLAST FREEZER	COLD ROOM
WHAT IT DOES	Freezes product continuously as it moves on a conveyor	Freezes product in batches	Stores product at a controlled temperature after it has been frozen or chilled
HOW PRODUCT ARRIVES	Straight from the line, without stopping	In loads, on trolleys or racks	From freezing or from packing
OFTEN CONSIDERED WHEN	Formed product leaves the line in a steady flow	Production runs in batches, or the line does not run continuously	Output needs to be held before dispatch
CONNECTS TO THE LINE BY	Infeed and outfeed conveyors	Manual or trolley loading	Handling from the packing or freezing stage

Many factories use more than one: a tunnel or blast freezer freezes the product, and a cold room stores it.

WHY NO FREEZING TIMES OR TEMPERATURES ARE SHOWN

They depend on the product, its size and its condition at entry, so they are set for each project in the proposal.

DISCUSS YOUR FREEZING REQUIREMENT →

Not sure freezing is the limit? Request a Production Review

[QR — Freezing & Cold Solutions page, form · URL ADD DURING DEVELOPMENT]

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Freezing planned as a stage of the line

A freezing stage planned apart from the line becomes the point where product waits. It is planned with the rest of production: where it sits, how product reaches it, how it leaves, and how its pace matches the stages before and after.





V5 PHOTOGRAPHS · ILLUSTRATION

01
POSITION IN THE LAYOUT
where the tunnel, blast freezer or cold room sits relative to forming, cooking and packing.

02
INFEED AND OUTFEED
conveyors that carry product into the cold stage and on to packing or storage.

03
MATCHING THE PACE
freezing sized to the output of the stages that feed it.

04
CONTROLS
control panels that work with the rest of the line (page 32).

WHAT MACHINE-X DESIGNS, BUILDS AND SUPPLIES

PART OF THE PROJECT	MACHINE-X ROLE
01 Engineering and sizing around product, output and layout	DESIGNS
02 Integration with the line and conveyors	DESIGNS AND BUILDS
03 Conveyors and product handling	BUILDS
04 Control panels	DESIGNS AND BUILDS

Every proposal states which parts of the cold system MACHINE-X designs, builds and supplies.

WHAT TO DEFINE BEFORE SIZING

01 The product: type, shape and approximate weight per piece

02 How it arrives: fresh from forming, or cooked from grilling

03 The output the freezing stage must handle

04 The condition the product must leave in, to your own specification

05 Whether it is packed before or after freezing

06 How much frozen product must be stored, and for how long

07 The space available, and any refrigeration already on site

DISCUSS YOUR FREEZING REQUIREMENT →

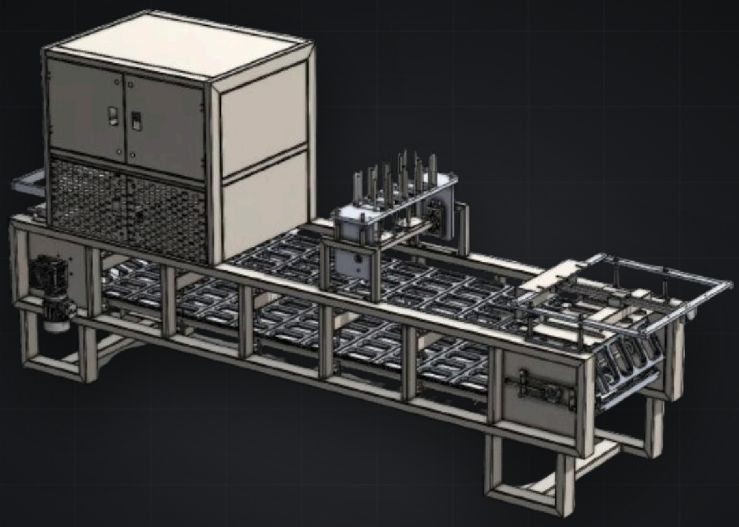
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Cup & Tray Sealing Machine

2626-PLM

Sealing at the end of the line. The **2626-PLM** seals filled cups and trays, and is planned with the conveyors and filling stage that feed it.



V5 CAD RENDER · ILLUSTRATION

WHERE IT SITS

After filling, at the end of the line. For formed products such as patties, after freezing where the product is packed in trays.

FORMAT

The machine is configured to the cup or tray size of the project.

POINTS TO CONSIDER

- The cup or tray formats and lidding material you use.
- How filled containers arrive at the sealer, and the output it must match.
- Changeover between formats, if the line packs more than one product.

TECHNICAL DATA

Technical details on request. Output, formats and sealing method are confirmed for each project. ◇1

DATA LISTED IN THE V5 CATALOGUE

MODEL
2626-PLM

MATERIAL
Stainless steel AISI 304 & 316

CONTROL
PLC

POWER
5 kW

REQUEST TECHNICAL DETAILS →

Start on WhatsApp

[QR — Machinery hub form, machine=2626-PLM · URL ADD DURING DEVELOPMENT]

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Handling that connects the stages

Product often waits between machines. Conveyors, trolleys and stands are built to the length, width and height of your line and to the bins, nets and crates you already use.

CONVEYORS

TYPE · MOVES



SCREW CONVEYOR

Ground meat, powders and granular ingredients between stages



ROLLER CONVEYOR

Boxes, crates and cartons



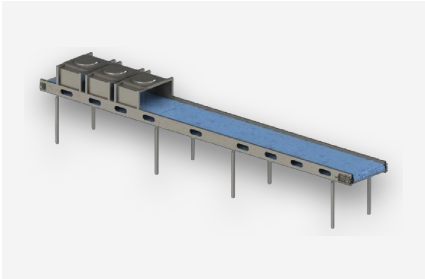
FLAT-TOP CONVEYOR

Cups, trays and packs between machines



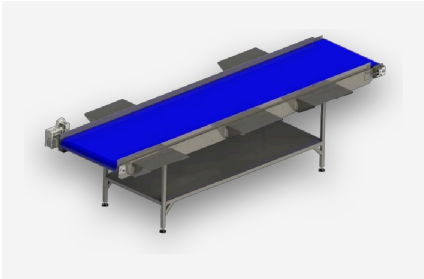
PALLET CONVEYOR

Loaded pallets through the production area



MODULAR COOLING CONVEYOR

Product between stages while it cools; cooling method confirmed per project ◇1



PVC BELT CONVEYOR

Product for inspection, sorting and packing; belt specification confirmed per project ◇2

V5 CAD RENDERS · ILLUSTRATION

TROLLEYS & STANDS

ITEM · USE



KEBAB SKEWER TROLLEY

Holds loaded skewers ready for grilling or freezing



GRILLING NET TROLLEY

Moves grilling nets between stations



MEAT BIN STAND

Organized storage for multiple meat bins



PLASTIC CRATE TROLLEY

Transport of stacked plastic crates

Materials and dimensions are specified for each project. Technical details on request.

V5 CAD RENDERS · ILLUSTRATION

DISCUSS THIS MACHINE →

[QR — Machinery hub form, machine=conveyor or trolley · URL ADD DURING DEVELOPMENT]

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Controls designed with the machine, not added after it

Control is planned with the mechanics, for a single machine or a complete line, by the team that engineers the equipment.



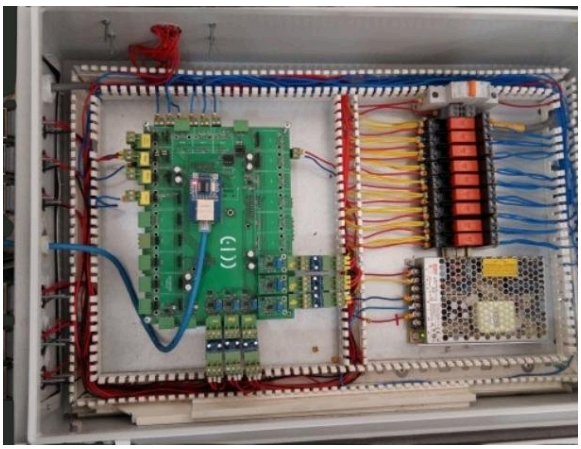
V5 PHOTOGRAPH · ILLUSTRATION

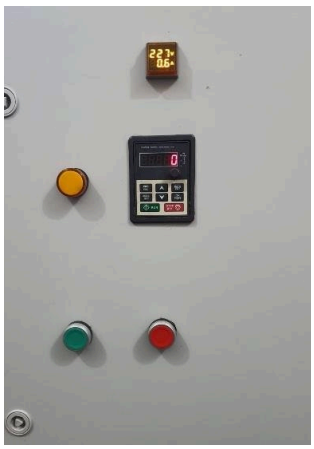
THREE LEVELS OF CONTROL

LEVEL · WHAT IT DOES

1	**MACHINE LEVEL** One machine with its own control panel, PLC program and HMI screen. Operators set and adjust it at the machine.
2	**LINE LEVEL** Several machines and conveyors controlled together: start-up and shutdown in sequence, speeds matched between stages, and interlocks so one stage reacts when another stops.
3	**MONITORING LEVEL** SCADA screens that show the status of the line in one place, so supervisors see what is running and what has stopped.

Not every project needs every level. The right level depends on how many machines are involved and what your team needs to see and change.







V5 PHOTOGRAPHS · ILLUSTRATION

WHAT MACHINE-X BUILDS AND PROGRAMS

- Control panels for single machines and full lines, designed, built and wired in-house.
- PLC and HMI programs written for your process and your operators.
- Industrial electrical work: wiring and electrical controls for machines and lines.
- Custom electronic boards, where a standard part does not fit the machine.

NEW LINES AND EXISTING MACHINE-X EQUIPMENT

On new machines and lines, the panel, program and screens are planned with the process from the start. For eligible MACHINE-X machines and for systems MACHINE-X supplied or integrated that are already in operation, new control panels and PLC programs can be designed. What can be done depends on the machine's condition and the information available about it.

> Where an operation needs production information beyond the machine and the line screen, the same controls work extends into Digitalization & IIoT, on the next page.

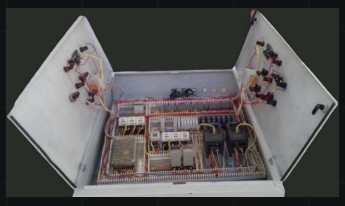
DISCUSS YOUR AUTOMATION PROJECT →

Upgrading controls on an existing MACHINE-X machine? Discuss Your Existing Line

[QR — Automation & Controls page, form · URL ADD DURING DEVELOPMENT]

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Digitalization and Industrial IoT: production information you can use



Digitalization & IIoT is part of MACHINE-X Automation & Controls and builds on the machine controls, line control and monitoring on the previous pages. In many meat and food plants, the information that shows how production is running already exists, but it stays inside individual machines, on separate screens or in paper records.

FROM CONTROL TO CONNECTED INFORMATION

LAYER · WHAT IT DOES ON A PRODUCTION LINE	
IIOT	Connects equipment and process information where the application needs a connected view of production.
DIGITALIZATION	Makes the relevant operating information accessible and usable.
PRODUCTION INFORMATION	Shows the status of machines and the line in one place, as SCADA monitoring does (page 32).
AUTOMATION	Coordinates machines and stages so less manual intervention is needed, where that makes sense.
CONTROL	Makes each machine carry out the required sequence and logic.

WHEN AN OPERATION NEEDS IT

- Important information sits in separate machines or in manual records, and nobody sees it together.
- Operators and supervisors depend on fragmented information to understand part of the process.
- New equipment has to work within an existing control environment.
- An expansion is planned, and the controls should be ready to connect what comes later.

HOW IT IS SCOPED

Digitalization starts where every controls project starts: the process, the sequence of operation, and what operators and supervisors need to see and decide. The information worth connecting is chosen from that, not from a list of technologies. Technologies are selected per project, based on the production process and any standard your site already uses. Not every project needs it; it is defined with you when the project is scoped.

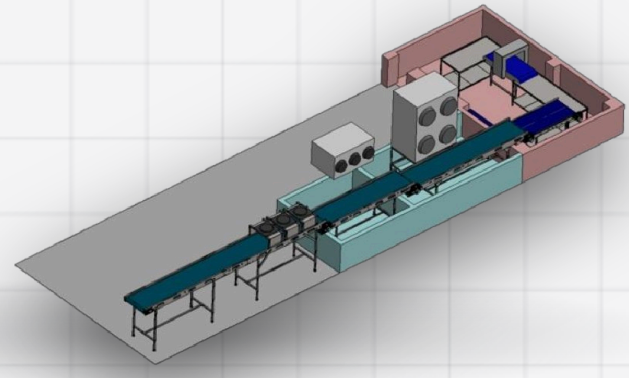
DISCUSS YOUR DIGITALIZATION / IIOT REQUIREMENT →

[QR — Automation & Controls page, form, interest=digitalization-iiot · URL ADD DURING DEVELOPMENT]

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Production lines planned as one system

A line is planned as one system. The process flow, the layout and the capacity of each stage are set first; equipment is then selected, built and connected around them.



V5 CAD RENDER · LINE LAYOUT CONCEPT · ILLUSTRATION

WHAT IS ENGINEERED FOR A LINE OR FACTORY

01 **Process flow diagram (PFD)** the full sequence of your process, stage by stage.

02 **Production line layout** line arrangement, equipment positions and product flow on your floor plan.

03 **Factory layout concept** how production areas and lines are arranged within the building.

04 **Machine selection and capacity planning** equipment for each stage, sized to the output you need.

05 **Custom engineering** machines, molds, dies and mechanisms where a standard machine does not fit the product.

06 **Installation and commissioning** machine installation, wiring, connection to site utilities and start-up.

07 **Expansion planning** space and connections reserved for later stages.

DECISIONS THAT SHAPE THE LINE

- One flexible line, or dedicated lines per product family.
- Which stages stay manual and which are automated.
- Whether grilling, freezing or cold storage is part of the line, and where it connects.
- Access for cleaning and maintenance around the equipment.

WHERE THE SCOPE ENDS

Factory planning here means the production layout inside your building. Building design, structural and civil works, permits and building services remain with your architect and contractors.

DISCUSS YOUR PRODUCTION REQUIREMENTS →

[QR — Production Lines & Factory Planning page, form · URL ADD DURING DEVELOPMENT]

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How the machines combine

Three illustrative stage sequences built only from machines in this catalogue. They show how stages connect, not what a particular factory needs: every line is planned around its own product, output and space.

01 FORMED BURGER PATTIES

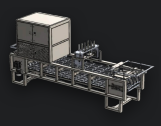

Meat Flaker →


Meat Mixer →


Bin or hopper lifter →


Burger Forming Machine →

Freezing tunnel or blast freezer →


Cup & Tray Sealing, where patties are packed in trays

02 KOFTA AND KEBAB


Meat Mixer →


Kofta Forming Machine →


Kebab skewer trolleys →

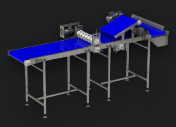

Radiant Grilling Conveyor (where grilled) →

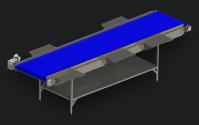
Freezing →

Packing

03 FORMED AND CUT DOUGH PRODUCTS

Dough preparation →


Dough Forming & Cutting Machine →


Conveyors →

Freezing →

Packing

Illustrative configurations, not customer projects. Capacities are not shown because they depend on the product and on how each stage is sized.

V5 CAD RENDERS · ILLUSTRATION

DISCUSS YOUR PRODUCTION REQUIREMENTS →

Service for the MACHINE-X equipment you run

The team that designed and built a machine knows how it was meant to work. MACHINE-X installs, commissions, maintains, upgrades and retrofits eligible MACHINE-X equipment and the systems it supplied or integrated.

SERVICE · WHAT IT COVERS

01

INSTALLATION AND COMMISSIONING

Installation at your site, connection and start-up, running your product until the equipment is ready for production

02

MAINTENANCE

Preventive and corrective maintenance for equipment in service

03

TROUBLESHOOTING

Finding the cause of a fault, not only replacing the failed part

04

UPGRADES AND RETROFIT

Mechanical and control upgrades and modernization of existing MACHINE-X machines

05

CONTROL UPGRADES

New control panels and PLC programs for eligible MACHINE-X equipment (page 32)

EQUIPMENT COVERED

Eligibility is confirmed for each machine when you get in touch. Machines from other manufacturers are not serviced.

REPORTING A FAULT

Send the machine model, a short description of what is happening, and photos of the machine and its nameplate. Photos help an engineer prepare; they do not replace seeing the machine.

DISCUSS YOUR EXISTING LINE →

Machine stopped? Describe a Fault on WhatsApp

[QR — Service, Upgrades & Retrofit page, form · URL ADD DURING DEVELOPMENT]

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Repair, upgrade, retrofit or replace

When a machine keeps stopping or the product has changed, the answer is not always a new machine. Four options carry different costs and different results. The right one depends on the machine's condition, what it needs to do now, and whether parts and information are still available.

REPAIR

WHAT IT MEANS

Fixing the fault and replacing worn parts

OFTEN FITS WHEN

The machine still suits the product and output, and the fault is specific

UPGRADE

WHAT IT MEANS

Improving or adding a function, mechanical or control

OFTEN FITS WHEN

The machine is sound but needs to do more, or to be operated more easily

RETROFIT

WHAT IT MEANS

Rebuilding a major part, such as the controls or a mechanism, to new requirements

OFTEN FITS WHEN

The frame and core are sound, but a key system is outdated or no longer fits the product

REPLACE

WHAT IT MEANS

A new machine

OFTEN FITS WHEN

The core is worn, the change needed is too large, or parts and information are no longer available

HOW EXISTING MACHINE-X EQUIPMENT IS ASSESSED

- Recurring failures and where they happen
- Critical components and their condition
- Operating conditions and how the machine is used
- Machine age and the parts it has needed
- How maintenance is done today: planned or reactive, and what is recorded

The result is a clear view of the current condition, the problems, their likely causes and the recommended actions. A recommendation is made only once the equipment has been seen and its history is known.

DISCUSS YOUR EXISTING LINE →

Know what you need, or find out first

If you already know the machine, line or service you need, talk to us directly. If the problem is visible but the cause is not, a Production Review can come first. It is one way to start, not a required step.

START DIRECTLY

IF YOU NEED → START WITH

A specific machine
→ **Discuss a Machine**

A new line, factory layout or custom machine
→ **Discuss Your Production Requirements**

Automation, new controls, or Digitalization & IIoT
→ **Discuss Your Automation Project**

Freezing or cold storage
→ **Discuss Your Freezing Requirement**

Repair, maintenance, an upgrade or retrofit of MACHINE-X equipment
→ **Discuss Your Existing Line**

PRODUCTION REVIEW

A MACHINE-X engineer looks at your product, your required output and the way your line runs today, with you, before any machine or project is proposed. It suits situations such as output not keeping up with orders, a suspected bottleneck, too many manual steps, freezing that may be limiting the line, recurring stoppages, or an existing line that may need upgrading.

01 You send the basics: your product, current output and what you need to achieve.

02 An engineer contacts you to understand the situation and agree what information is needed.

03 The engineer reviews your production with you, based on your process and the information you share.

04 You receive a recommendation: what should change, where and why. If a project follows, it becomes a technical and commercial proposal.

> Sometimes the answer is a smaller change than expected, at one stage only. A review does not commit you to a purchase.

REQUEST A PRODUCTION REVIEW →

Discuss a Machine · Discuss Your Production Requirements · Discuss Your Existing Line

[QR — Production Review page, form · URL ADD DURING DEVELOPMENT]

QR PLACEHOLDER NO CODE UNTIL URL APPROVED

What to send for a useful first conversation

Approximate figures are enough to start. The more of this you can share, the more specific the first reply will be.

PROJECT	WHAT HELPS
01 A MACHINE	The machine or model, the product you make, the output you need, and where the machine will sit in your process
02 A NEW LINE OR FACTORY	Products and sizes, target output, process steps, a sketch or drawing with dimensions, utilities available, timeline
03 AUTOMATION OR DIGITALIZATION & IIOT	What the process must do step by step, the machines involved, their current controls, what operators and supervisors need to see, and which information should be available beyond the machine
04 FREEZING	Product type, shape and weight, how it arrives, output to freeze, storage needed, available space, refrigeration already on site
05 EXISTING MACHINE-X EQUIPMENT	Machine model and approximate age, a short description of the problem, photos of the machine and nameplate, site location

QUESTIONS WORTH AGREEING INSIDE YOUR TEAM

OWNER OR GENERAL MANAGER
what the project must achieve, and when.

PRODUCTION
which stage limits output today.

ENGINEERING
the utilities, control standards and drawings available.

MAINTENANCE
the condition and history of the equipment involved.

PROCUREMENT
what the proposal must include for comparison.

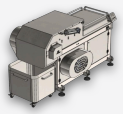
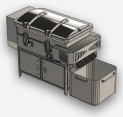
DISCUSS A MACHINE →

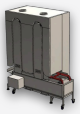
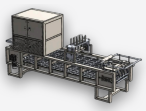
DISCUSS YOUR PRODUCTION REQUIREMENTS →

DISCUSS YOUR EXISTING LINE →

Technical data: what is specified for each model

For engineering and procurement teams preparing an enquiry or comparing proposals. Values appear here only once they are confirmed for the model; until then, they are supplied with the technical details for your enquiry and confirmed in the proposal.

MACHINE AND MODEL	DATA SPECIFIED FOR THE MODEL
 **MEAT FLAKER MMX-500** PAGE 11	Listed output · installed power · block pushing · control · product-contact materials · dimensions, weight, air supply
 **MEAT MIXER 2610-A-MMM** PAGE 13	Mixing volume · installed power · control · product-contact materials · dimensions, weight, mixing system
 **EURO BIN LIFTING ELEVATOR 2632-S-BLE** PAGE 15	Bin volume · installed power · control and materials · lift and discharge height, load
 **HOPPER LIFTING ELEVATOR 2617-S-SPL** PAGE 15	Hopper volume · installed power · control and materials · lift and discharge height, load
 **BURGER FORMING MACHINE BMX-500** PAGE 17	Listed output · mold plate strokes · hopper capacity · mold plate thickness range · installed power · control · materials, dimensions, weight, air supply

MACHINE AND MODEL	DATA SPECIFIED FOR THE MODEL
 **KOFTA FORMING MACHINE KMX-500** PAGE 19	Listed output · mold strokes · hopper capacity · mold, kick-off and filling drive · control and materials · installed power · dimensions, weight, air supply
 **DOUGH FORMING & CUTTING MACHINE BMC-1000** PAGE 22	Listed output · power, control, materials · belt width, dimensions, weight
 **RADIANT GRILLING CONVEYOR 2637-RGL** PAGE 24	Listed output · heat source · electrical power, control, materials · gas consumption, dimensions, weight
 **CUP & TRAY SEALING MACHINE 2626-PLM** PAGE 29	Output · cup and tray formats · sealing method · film type

V5 CAD RENDERS · ILLUSTRATION

Forming molds, conveyors, trolleys and stands, freezing systems and control systems are specified for each project, so their data is part of the proposal rather than this table.

SITE INFORMATION TO PREPARE

Available space and utilities (power, water, compressed air), as listed on page 6. For grilling, the gas type available and ventilation in the cooking area (page 24).

Figures are for the listed model. Actual output depends on the product, recipe and setup. Specifications may change as part of continuous improvement. Images are for illustration.

REQUEST TECHNICAL DETAILS →

[QR — Machinery hub form · URL ADD DURING DEVELOPMENT]

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Terms used in this catalogue

TERM	MEANING IN THIS CATALOGUE
PLC	Programmable logic controller: the controller that runs a machine's sequence and logic
HMI	Human-machine interface: the touch screen operators use to set and adjust a machine
SCADA	Supervisory control and data acquisition: screens that show the status of a line in one place
Digitalization	Making relevant operating information accessible and usable beyond the machine
IIoT (Industrial IoT)	Industrial Internet of Things: connecting equipment and process information where the application needs a connected view of production
PFD	Process flow diagram: the sequence of a process, stage by stage
Layout	The arrangement of lines, equipment and product flow on a floor plan
Commissioning	Starting up installed equipment and running it with the product until it is ready for production
Upgrade	Improving or adding a function on an existing machine
Retrofit	Rebuilding a major part of an existing machine, such as its controls or a mechanism, to new requirements
Freezing tunnel	Freezes product continuously as it moves on a conveyor
Blast freezer	Freezes product in batches
Production Review	An optional engineering review of a production problem before any machine or project is proposed

MEAT PROCESSING MACHINERY

Tell us what you produce and what you need to achieve

An engineer will review it with you and agree the next step.

TALK TO AN ENGINEER →

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[QR — Contact page, chooser · URL ADD DURING DEVELOPMENT]

Or start with a Production Review, or message us on WhatsApp.

WEBSITE	[WEBSITE URL — CONFIRM DURING DEVELOPMENT]
WHATSAPP	[WHATSAPP LINK — ADD DURING DEVELOPMENT]
PHONE (SALES TEAM)	[PHONE NUMBER — ADD DURING DEVELOPMENT]
EMAIL	[EMAIL REQUIRED]
LOCATION	El Mansoura, Dakahlia, Egypt

Specifications may change without notice as part of continuous improvement. Machine images are for illustration.