

FTC SERIES

VERTICAL DOSING AND FILLING SOLUTIONS

FOR CARTONS AND RIGID CONTAINERS



FTC SERIES - VERTICAL DOSING AND FILLING MACHINES

The art of feeding soft and hard solid products is one of IMA's strong points. IMA Gima offers a wide range of medium- to high-speed vertical dosing and filling machines for cartons, plastic and metal containers of various types and sizes, with dispensers or top opening, pressure or screw caps, to meet all of your requirements, in a mono-block platform.

MAIN FEATURES:

- CLEAN DESIGN, FULL ACCESSIBILITY WITH ERGONOMIC OPERATING POSITION AND COMPACT FOOTPRINT
- WIDE FORMAT RANGE AND EXTREME FLEXIBILITY IN CLOSURE STYLES
- EASY, OPERATOR-FRIENDLY FORMAT CHANGEOVER, WITH ADJUSTMENT THROUGH MECHANICAL REFERENCES



WIDE FLEXIBILITY IN TERMS OF CONTAINERS MATERIAL, SHAPE AND PRODUCT FEEDING





IMA Gima vertical dosing and filling FTC Series can manage soft and rigid containers such as cartons, bottles, tins and jars with cylindrical, square and irregular shape.

Extremely versatile machines that handle most product types, and in different formats.

The machines are designed for modular configuration, with fully accessible equipment design, which allows easy implementation of additional feeding systems, printers and quality control units.

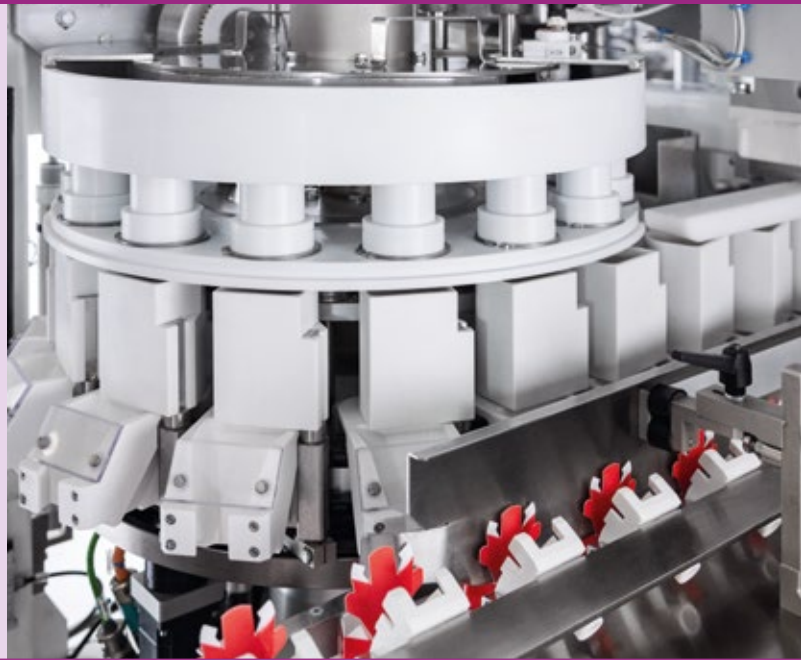


DOSING SYSTEMS

IMA GIMA DOSING SYSTEMS ARE THE RESULT OF 20 YEARS' EXPERIENCE IN THE CONFECTIONERY INDUSTRY WITH HUNDREDS OF FILLING UNITS SUPPLIED WORLDWIDE FOR HANDLING EVERY KIND OF PRODUCT SHAPE AND TYPE.

Thanks to careful design of the feeding units studied by IMA specialists, products of every shape and type are handled with extreme delicacy throughout the whole feeding process, even at high speed.

Cleaning time is reduced to a minimum and the changeover is quick and operator-friendly, supported by servo-assisted PC panel recipes.



PRODUCTS

- HARD AND SOFT CANDIES
- MINTS
- GUMS
- CHOCO DRAGÉES
- COATED SWEETS
- GUMMIES
- LIQUORICE
- NOUGAT
- WRAPPED OR FLOW PACKED PRODUCTS
- SWEETENERS
- COCOA POWDER
- NUTS AND DRIED FRUIT





FEEDING SYSTEMS

A variety of feeding systems can be integrated depending on the product handled and according to the container and the output request.

- **SLAT COUNTING SYSTEM**
Equipped with electronic or camera counting control system, verifying product presence inside the slat cavities.
- **MULTIHEAD WEIGHING SYSTEM**
The machine can be equipped with different interface systems in order to integrate single or multiple multihead weighers.
- **VOLUMETRIC FILLING SYSTEM**
Also available with dosing volume automatic check and dynamic adjustment according to average weight control (retrofit).
- **ELECTRONIC COUNTING SYSTEM**
Detection and counting of bulk product falling through an Electrostatic Field Sensor (EFS), able to work also in difficult conditions. Infrared optical sensor also available as alternative.
- **POWDER FEEDER**
Volumetric dosing unit expressly configured to handle powder products is also available.
- **SPECIAL FEEDING SYSTEMS**
i.e. desiccant, blister, booklet, etc.

NUTRACEUTICALS PRODUCTS

- CAPSULES
- TABLETS
- FUNCTIONALS GUM AND CANDIES

Advanced controls available to meet the pharmaceutical requirements:

- Product counting control
- Data Matrix Code (DMC) verification on carton
- OCV/OCR control of Variable Data printed by the coder
- DMC verification on leaflet
- Carton closure control
- Track & Trace



VERTICAL DOSING AND FILLING IN CARTON



CARTON MAGAZINE AND PICK-UP OPENING

Ergonomics in terms of magazine height guarantees easy carton loading. The carton magazine is the largest in its category (up to 3500mm in its extended version), enabling extensive autonomy. It has been designed to prevent dust from falling on the mechanical parts.

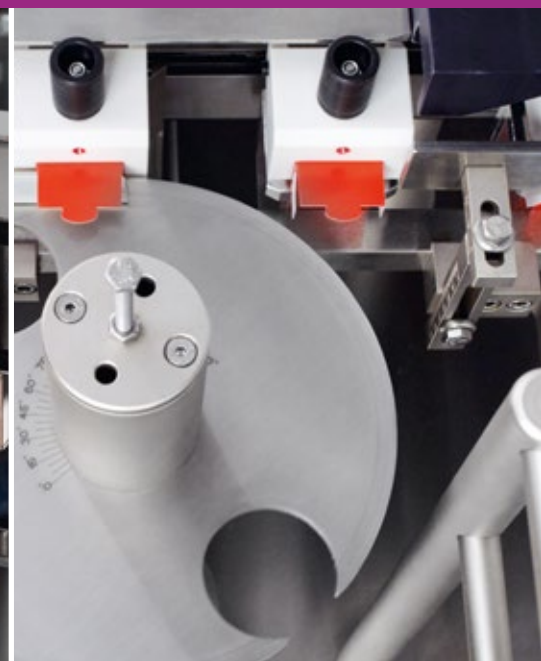
The withdrawal, opening and positioning of the carton system, also available for reverse opening, offer high performance even at the highest speed.



NEW, SMART AND SUSTAINABLE PACK

In addition to our extensive range of turnkey processing and packaging solutions for the confectionery industry, we have the know-how and experience to provide our customers with a full consultancy service helping them create a new, smart and sustainable pack.

From the design phase through to end-of-line equipment, our specialists are at your disposal to find your tailor-made solution.



PRODUCT INSERTION INTO THE CARTON

Cups and chutes for releasing the dosed product into the cartons are designed and shaped on the basis of specific product features and behaviour.

Smooth and gradual insertion into the container is achieved thanks to pivoting cups, for the most gentle and efficient product flow.

MAIN MACHINE CARTON TRANSPORT

The main transport carousel can be equipped with specific solutions like toothed belts, buckets or grippers, to ensure the best container stability and handling.

Special format parts without screws and with a quick-release feature allow for a significant reduction in overall changeover time.

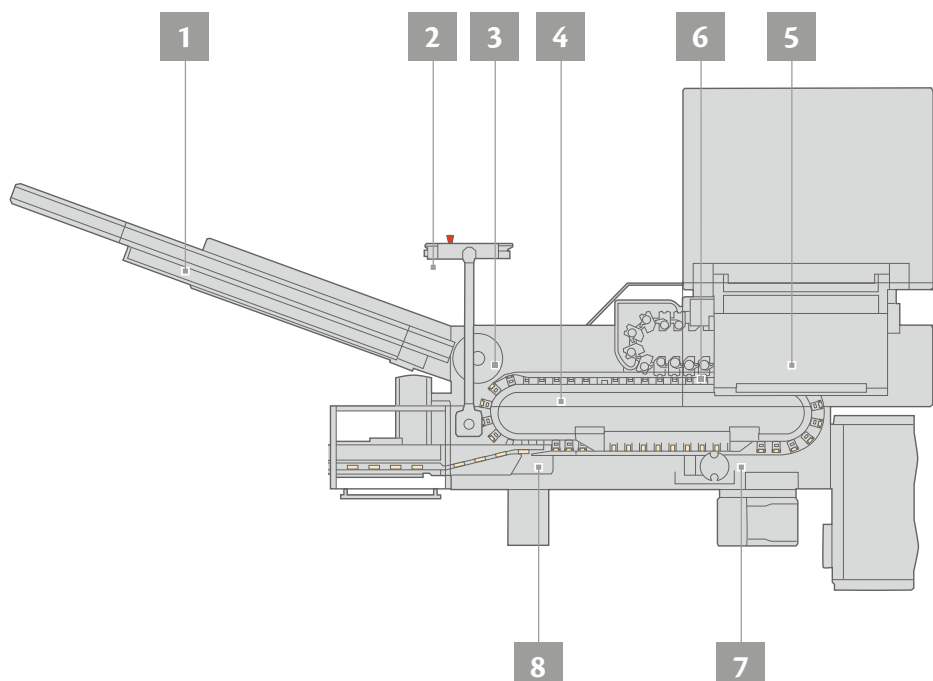
CLOSING AREA

Thanks to the versatility of our cartoners, all common closure styles can be managed on the machine, including special closures, flip-top, tuck-in, shaker box, tamper evident, side opening, etc..

Hot or cold gluing systems are also available. The machine outfeed is equipped with photocells for quality control of the carton closure and related rejection tunnel.

CARTON CONFIGURATION :

1. CARTON MAGAZINE
2. HMI
3. CARTON PICK UP, OPENING AND TRANSPORT
4. BOTTOM CODING AND CLOSING
5. PRODUCT DOSING
6. CARTON FILLING
7. TOP CARTON CLOSING
8. CARTON OUTFEED AND REJECTION



VERTICAL DOSING AND FILLING IN RIGID CONTAINERS



CONTAINER INFEED

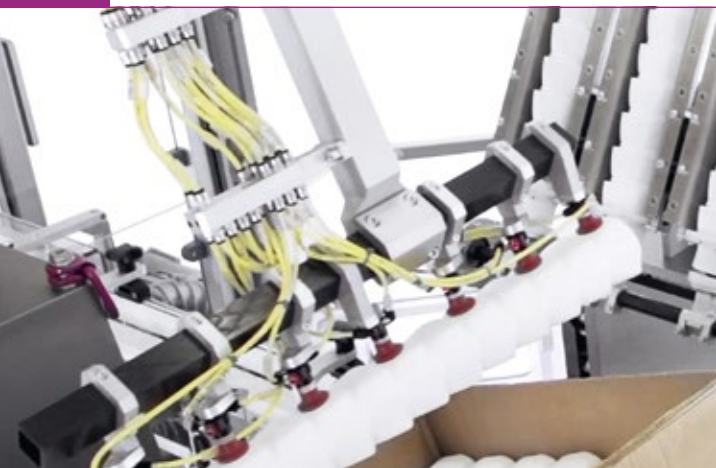
Round or square base, cylindrical or irregular shape, IMA Gima can manage rigid plastic and metal containers such as bottles, vials and jars.

The infeed indexing system is customised according to container features and required machine speed.

PRODUCT HANDLING

Extremely versatile machines handling most of product types, and in different formats.

Can be connected with all possible product feeding systems such as counting, volumetric or weighing units; these machines are designed for modular configuration as well as high-speed operation.



Additional devices and ancillaries have been developed over the years thanks to continuous collaboration between IMA R&D department, customers and packaging materials suppliers, with benefits in terms of equipment efficiency and flexibility :

- Unscramblers
- Robotic sorters
- Robotized uncasers
- Air rinsing units
- Dessicant inserters



AS FLEXIBLE AS YOU NEED

Our extensive knowledge and ability to provide customised solutions make FTC Series highly flexible, with the option of combining a wide variety of accessory feeding systems for different packaging material components and ancillary equipment.

CAPPING

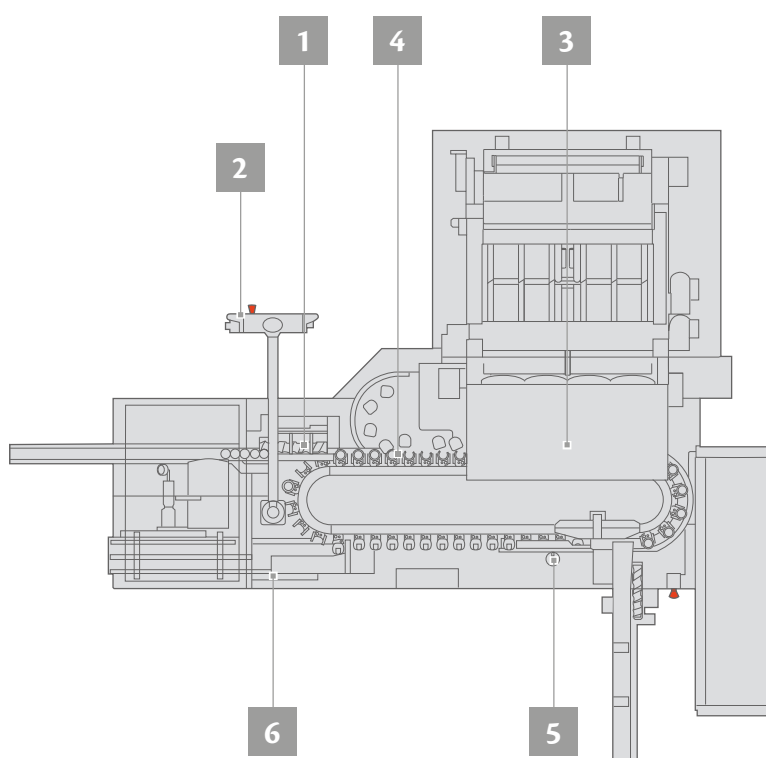
Integrated lid and separate pressure or screw caps can be handled by dedicated capping units.

Screw, star-wheel or different cap indexing systems can be designed and integrated in the machine according to cap shape and machine speed.

Infeed orientation of cap can also be managed to match specific container geometries and requirements.

RIGID CONTAINER CONFIGURATION:

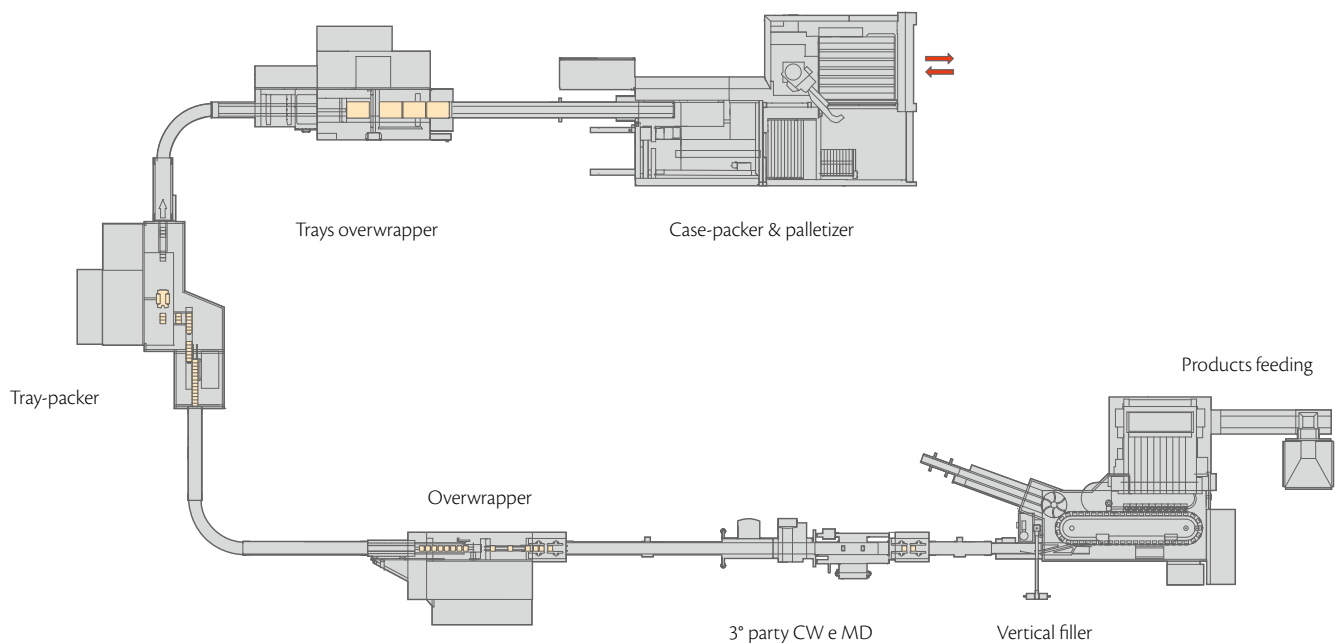
1. CONTAINER INFEEED
2. HMI
3. PRODUCT DOSING
4. CONTAINER FILLING
5. CAPPING
6. CONTAINER OUTFEED AND REJECTION



TURN-KEY SOLUTIONS

ONE SINGLE PARTNER FOR YOUR COMPLETE LINE

Flexible and versatile, our vertical fillers ensure easy connection with both upstream and downstream machines. IMA is the ideal partner for turn-key solutions, handling all stages of line integration, packaging consultancy, coordination and project management to integrate other IMA group or third-party machines, and related activities for the final fulfilment of the project (e.g. factory acceptance tests, validation service, training).

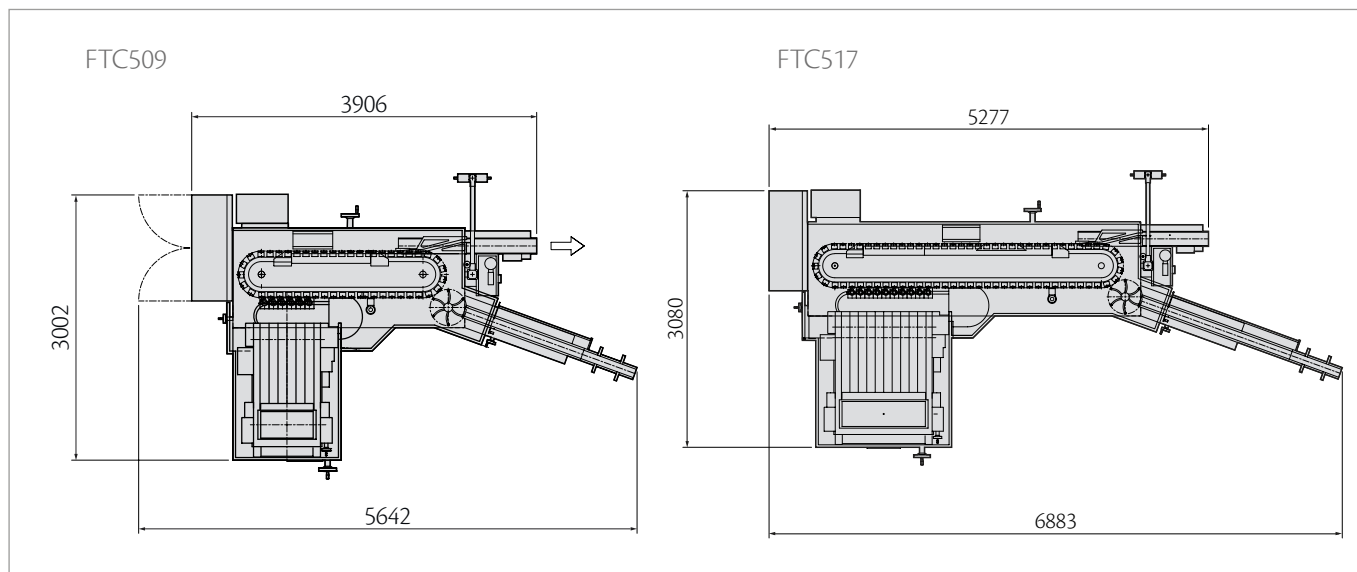


HMI

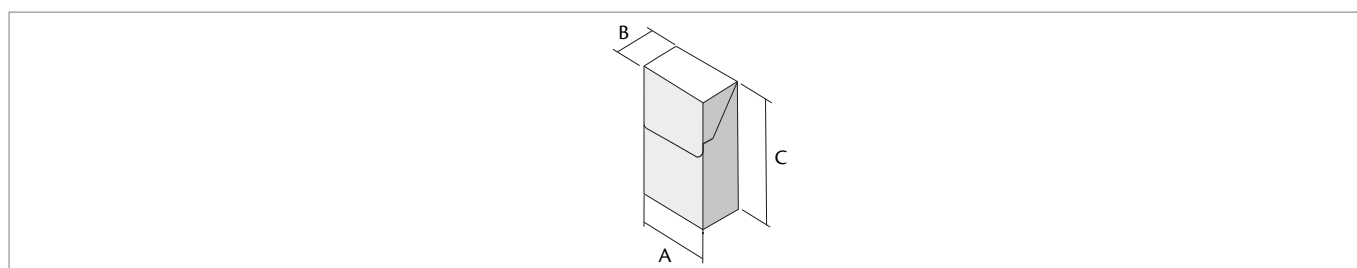
Operator interface is based on a touch-screen IPC, designed to fully manage machine operation, production, status and warnings/alarms. Additional features are available as optional for enhanced experience in terms of traceability, monitoring, statistics and equipment integration purposes:

- PackML structure
- KPI monitoring, statistics, maintenance advisor and reporting available with the optional Data Logging module
- 21 CFR part 11 compliance on request
- Communication with the customer's central supervision system (MES, SCADA, etc.) for data export and collection
- Possible integration of additional devices installed on the machine (markers, cameras, etc.)
- Suitable for communicating with plant supervisor systems

TECHNICAL DATA

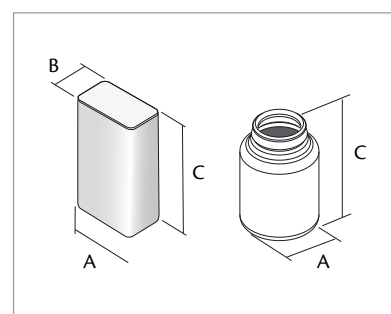


CARTONS							PRODUCTION SPEED
		Carton			Blank		(ppm)
		A (width)	B (depth)	C (height)	A+B	flap	
FTC509 / FTC517	Min	25	11	55	36	-	FTC517: up to 450 FTC509: up to 300
	Max	70	30	102	102	20	
FTC509 / FTC517 Extended height	Min	25	11	55	36	-	
	Max	70	30	102	102	20	
FTC578 Pitch 120 mm	Min	20	20	40	40	20	300
	Max	90	90	140 (240)	180	106	
FTC578 Pitch 180 mm	Min	60	30	40	90	30	200
	Max	150	120	260	240	120	



RIGID CONTAINERS (PLASTIC OR METAL)					PRODUCTION SPEED
		A (width)	B (depth)	C (height)	
FTC509	Min	25	11	55	300
	Max	70	70	105	
FTC517	Min	25	11	55	450
	Max	70	70	105	

Sizes out of range can be handled after been evaluated by IMA Gima technical department



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