

PACKAGING SOLUTIONS FOR CUPS

FFS- AND FS-MACHINES



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SOLUTIONS FOR ALL PACKAGING REQUIREMENTS

Dairy industry packaging expert and inventor of FFS technology, as well as in-mould wrap-around labelling and open mould technology, IMA ERCA has more than 50 years of experience in designing packaging solutions to ensure maximum productivity combined with the expertise necessary to provide highly customized designs to enhance customer's competitive advantage.

IMA ERCA develops FFS machines for cups and can offer an extensive variety of shapes through efficient thermoforming solutions and pioneering formats. Additionally IMA ERCA offers FS solutions for pre-formed cups with different outputs handling liquid to pasty products.



Covering all aspects of the packaging process – from consultancy and design (also the design of cups for which IMA ERCA has already got several supplier awards for the pioneering cup shapes) to production planning IMA ERCA provides equipment to fill in thermoformed cups or pre-formed cups. Our machines have been delivered to many of the world's leading dairy companies all around the globe.

The demand for fresh-tasting products with an extended shelf-life and retailers' requirements for low-cost logistic concepts can only be jointly satisfied by utilizing modern machine technology capable of meeting all hygienic, economic and high efficiency requisites.

IMA ERCA's broad range of equipment offers the appropriate machine for each product. Our customized FFS and FS machines for cups can handle all types of approved materials.



Cup with snap-on lid (FS)



Conical cups (FFS)



Embossed cups (FFS)



Open-mould cup (FFS)



Double chamber cup (FFS-FS)



Rectangular cups (FFS)

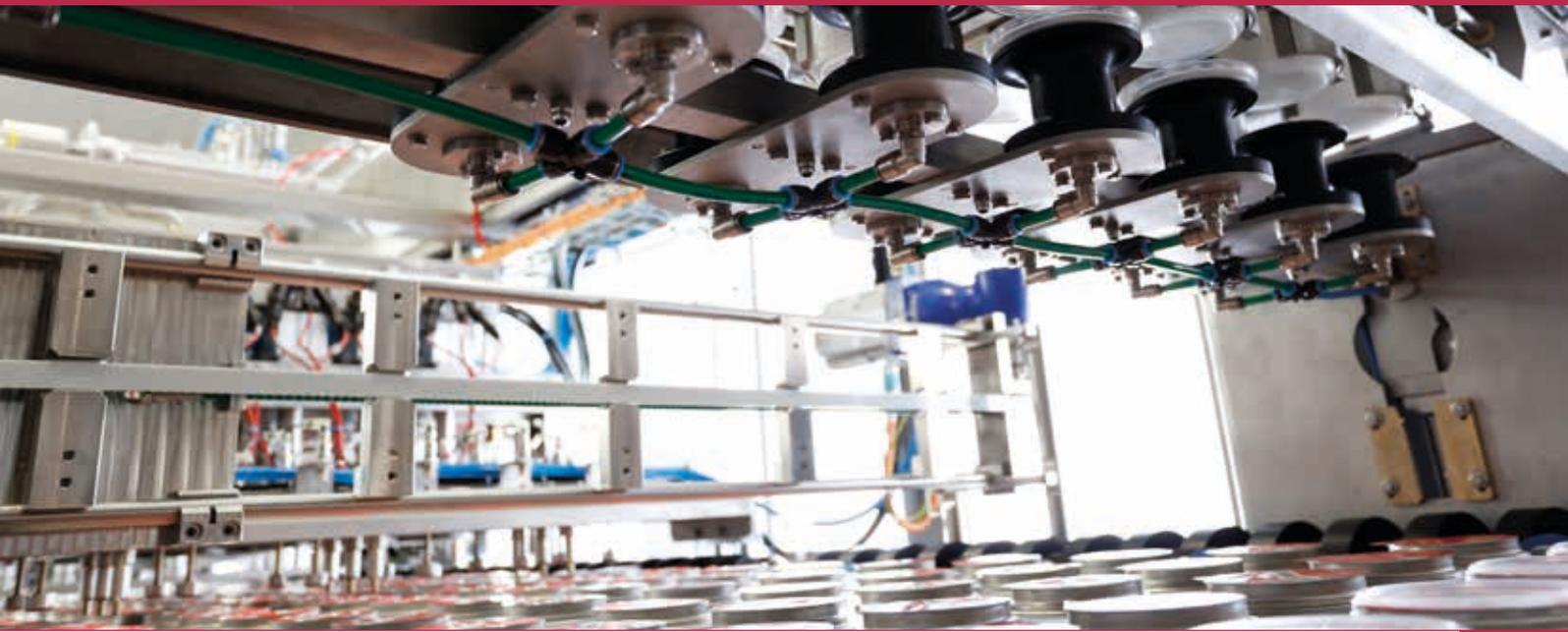


Oval cups (FFS)



Round cup (FS)

FROM LIQUID TO PASTY PRODUCTS



Built to ensure maximum flexibility, different products can be processed on the same machine, which can also handle both small and large volumes. Depending on the market and product requirements, the following hygiene levels are available: 'Clean' and 'Ultra-clean'.



Beverages in pre-formed or thermoformed cups (FFS+FS)



Purees in cups (FFS)



Yoghurts & desserts (FFS)



Pasty products (FS)



Pasty products in small cups up to large containers (FFS+FS)



Spreadable products like chocolate cream, jam, honey, bacon grease, etc. (FS)

C100 - FORM, FILL AND SEAL MACHINE

Compact form, fill and seal machines in the lower output range. With minimal space requirements and a modular structure for easy operation, these FFS machines are a simple and inexpensive solution. Thanks to an optimized machine design and a simple, intuitive HMI, operating costs as well as maintenance and downtimes are reduced to a minimum.

As an entry-level machine with an output of up to 7.000 cups per hour, the C100 can fill all types of dairy products as well as liquid to pasty foods.

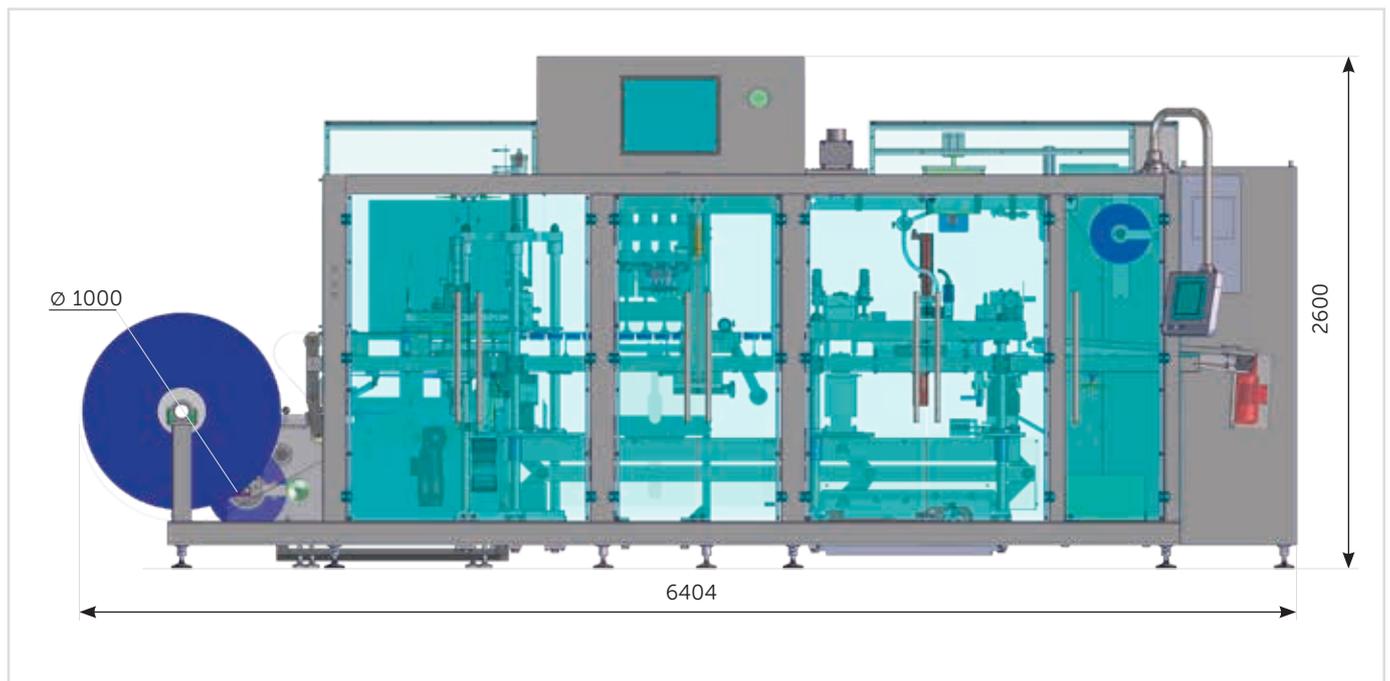


C100

- FFS machine for cups in low output range
- Simple and cost effective solution with only one press
- Large variety of cup shapes and designs



C100 TECHNICAL DATA



TECHNICAL DETAILS

Cup material width	300 mm	Draw off length	100 mm
Usable width	286 mm	Forming depth	100 mm

TYPICAL MATERIALS

All common packaging materials	
Bottom web	PS and multilayers, PS/PE, PS/EVOH, PET (single cups only)

TYPICAL OUTPUTS

Yoghurt cups 63 x 63 mm with wrap-around label 1x4	7.000 cups/h
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STANDARDS

Hygiene	Clean
Components	Controller and servo motors ELAU, Pneum. FESTO, HMI Magelis 10"
Standard configuration	Bottom web reel \varnothing 1.000 mm, lid web reel \varnothing 300 mm, label reel N/A, plastic pulling by fixed an movable grippers, heating station: 6 pitches, dosing by membrane or piston filler (up to 2 units), semi-penetrant cutting tool: waste less punch for packs, exit conveyor with belt

TYPICAL OPTIONS

Hygiene	Clean*, Ultra-clean*
Fillers	Rotary valve filler, 2 fillers possible in 1x4 configuration
Labelling	Labelling through the bottom
Cutting unit	Individual punching

* Depending on customer specification

M-F SERIES - FFS MACHINES FOR LOWER OUTPUT RANGE

FFS MACHINE WITH BEST MONEY VALUE, COMPACT DESIGN AND VERSATILE APPLICATIONS.

The machines of the M-F series are characterized by their compact design, quick implementation, simplified servicing and reduced floor space requirement.

With a high level of standardization, the M-F Series offers a better end use and optimized costs.

Yoghurt, fresh cheese, tomato sauce, fruit puree, water, etc.
– a large range of products can be filled with the M-F series.



M-F

- Output range from 14.000 to 21.000 cups/h.
- High cost efficiency.
- Easy and secured operating.
- Compact space saving design (up to 30% with regard to comparable machines).
- Standard full IMA ERCA's HMI (operating, supervision, maintenance).
- Servo-driven.
- Optimized commissioning with standard procedures.



M-F TECHNICAL DATA



TECHNICAL DETAILS

Cup material width	max. 420 mm	Draw off length	max. 150 mm
Usable width	max. 400 mm	Forming depth	max. 90 mm
Cup size range	20-500 ml		

TYPICAL MATERIALS

PET/PET, PP and multilayers such as PS/PE, PS/PETG, PS/EVOH/PE, PP/EVOH/PP

TYPICAL OUTPUTS

Cups with wrap-around label 63 x 63 mm, 2x6 - 30 cycles/min. 21.600 cups/h

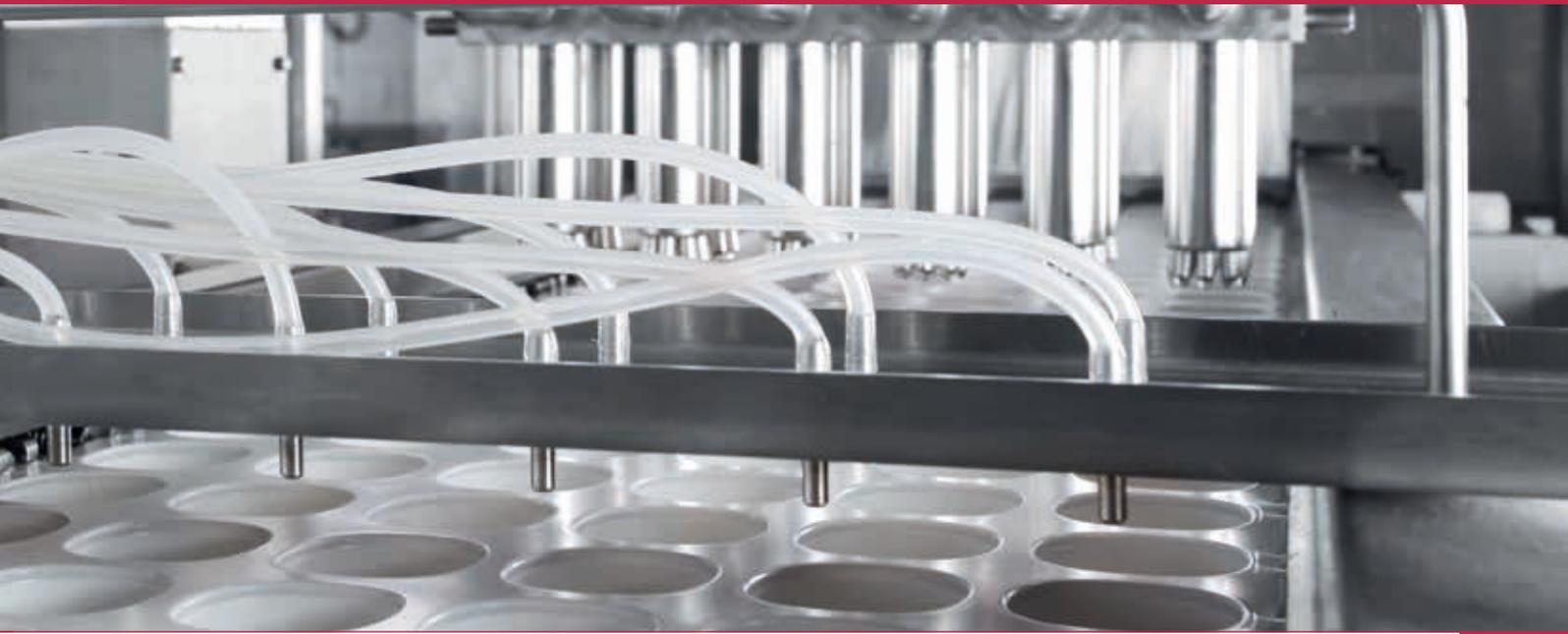
STANDARDS

Components	Controller and servo motors ELAU, Pneum. FESTO, HMI "IMA Erca"
Standard configuration	Plastic reel Ø 1.200 mm, Lid reel Ø 400 mm, Label reel Ø 600 mm, labelling with tilting mold, drive heating section on 8 pitches, exit conveyor with Intralox chains

TYPICAL OPTIONS

Hygiene	Clean*, Ultra-clean*
Labelling	Labelling with vacuum, labelling for conical cups, 2 label heights, automatic splicing
Chains	IMA ERCA chains with grippers and magnetic drive
Fillers	Up to 3 fillers

* Depending on customer specification

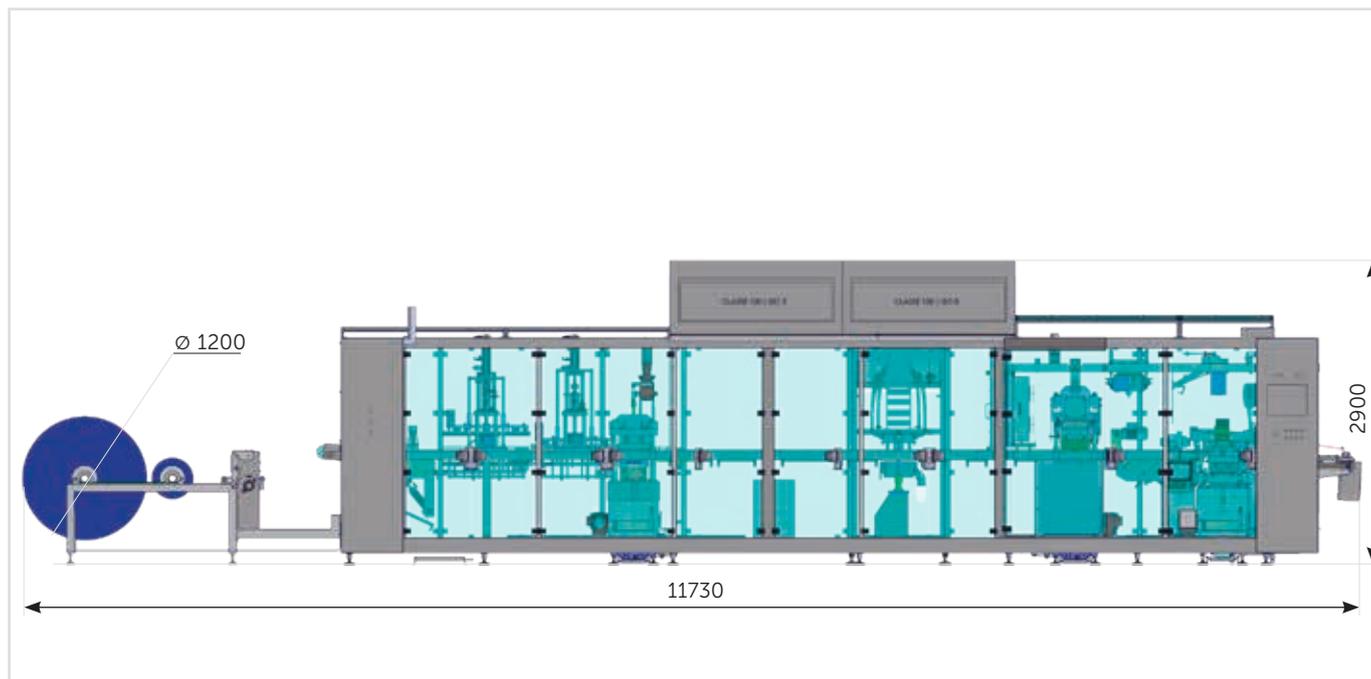


EF600 / EF825

- Very high output rates up to 90.000 cups/h.
- Simple heavy duty machine concept for reliable continuous operation and high durability.
- Reduced scrap rate due to wider bottom web.
- A wide range of possible applications, packaging shapes and materials.
- Straight or conical in-mould labelling, in-mold sticker.
- Quick product change over.



EF400 TECHNICAL DATA



TECHNICAL DETAILS

Cup material width	410 mm*	Draw off length	300 mm
Usable width	390 mm*	Forming depth	100 mm

* +60 mm with spike chains

TYPICAL MATERIALS

PS, PET, PP and multilayers such as PS/PE, PS/PETG, PS/EVOH/PE, PP/EVOH/PP

TYPICAL OUTPUTS

Yoghurt cups 63x63 mm, with wrap-around label, 4x6 - 30 cycles/min	43.200 cups/h
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STANDARDS

Components	Controller and servo motors ELAU, Pneum. FESTO, HMI 15"
Standard configuration	Plastic reel $\varnothing 1.200$ mm, Lid reel $\varnothing 400$ mm, Label reel $\varnothing 600$ mm, IMA ERCA Chains with grippers and magnetic drive, labelling with tilting mold, pneumatic heating section on 6 pitches, exit conveyor with Intralox chains

TYPICAL OPTIONS

Hygiene	Clean*, Ultra-clean*
Labelling	Any kind of labelling for conical cups, 2 label heights, automatic splicing
Chains	IMA ERCA spiked chains, TSUBAKI chains
Fillers	Up to 3 fillers

* Depending on customer specification

EF 600/EF 825 TECHNICAL DATA



TECHNICAL DETAILS	EF 600	EF 825
Cup material width	max. 618 mm	max. 858 mm
Usable width	max. 658 mm	max. 838 mm
Draw off length	max. 300 mm	max. 300 mm
Forming depth	max. 100 mm	max. 130 mm

TYPICAL MATERIALS

PS, PET, PP and multilayers such as PS/PE, PS/PETG, PS/EVOH/PE, PP/EVOH/PP

TYPICAL OUTPUTS

Yoghurt cups 63x63 mm, wrap-around label, 4x8 - 30 cycles/min	57.600 cups/h	-
Fresh cheese cups 49x49 mm, wrap-around label, 4x12 - 30 cycles/min	80.400 cups/h	-
Yoghurt cups 63x63 mm, wrap-around label, 4x12 - 30 cycles/min	-	86.400 cups/h

STANDARDS

Components	Controller and servo motors ELAU, Pneum. FESTO, HMI 15"	
Standard configuration	Plastic reel \varnothing 1.200 mm, Lid reel \varnothing 400 mm, Label reel \varnothing 600 mm, IMA ERCA Chains with grippers and magnetic drive, labelling with tilting mold, pneumatic heating section on 6 pitches, exit conveyor with Intralox chains	Plastic reel \varnothing 1.600 mm, Lid reel \varnothing 400 mm, Label reel \varnothing 600 mm, IMA ERCA Chains with grippers and magnetic drive, labelling with barrel 4 molds or tilting mold, pneumatic heating section on 6 pitches, exit conveyor with Intralox chains

TYPICAL OPTIONS

Hygiene	Clean*, Ultra-clean*
Labelling	Any kind of labelling, labelling for conical cups, 2 label heights, automatic splicing
Chains	IMA ERCA spike chains
Fillers	Up to 3 fillers

* Depending on customer specification

CUP SHAPES AND LABELLING SOLUTIONS



IMA ERCA can assist in the design of new packaging solutions.

The research and the design for an original shape are simulated in a 3D Computer Aided Design facility. In its' own laboratory test containers can be produced and, to date, more than 2000 different shapes have been prepared.

Samples are made to full size, from resin models or resin moulds. With the samples, it is easy to judge the suitability of a new shape and to discuss changes with the designers.

In parallel with the standard FFS technology, IMA ERCA has developed a technology that allows you to achieve a wide variety of innovative thermoformed shapes, with or without label, offering a wide range of cups at cost effective conditions. The economy relates primarily to the reduction of the scrap material but also on the separation of the plastic and lid scrap for easier recycling.



A WIDE RANGE OF LABELLING SOLUTIONS

Cups can be designed cost-effectively and with a huge variety of different labelling solutions also enabling great freedom in terms of cup geometry.

The label is not only a marketing instrument; it also improves the cups' sidewall stability – making it more rigid– so the bottom web thickness for the cup can be reduced.



SUSTAINABLE PACKAGING MATERIALS

The perfect processing of customer packaging materials is an essential basis for trouble-free machine operation. In order to be able to guarantee this for packaging materials such as cups, sealing lids and snap-on lids, IMA ERCA is always testing the customer material. The focus is not only on the packaging material itself, but on the final packaging material combination. No matter whether you are dealing with packaging materials that are already in use on other machines or whether you want to test new packaging materials, IMA ERCA is your reliable and innovative partner.

The following tests can be carried out under authentic conditions in the technical centre:

- Thermostability testing of cups and sealing lids
- Sealing tests of cup-sealing lid combinations
- Optimisation of sealing parameters of cup-seal-lid combinations
- Tightness testing of cup-seal-lid combinations
- Determination of the vacuum strength of cup-seal-lid combinations
- Stackability of inverted lids
- Functional test of the application of inverted lids to the corresponding cup-seal-lid combination



Processability of all common packaging materials:

- **Cups:** PP, PS, plastic cups with cardboard sleeve (e.g. K3®, Desto), glass
- **Lids:** PET, Aluminum composite, aluminum with coex layer (e.g. ComforLid)
- **Snap-on Lids:** PET, PP, PS

Cooperation with leading packaging material suppliers to support the development of new and alternative packaging materials:

- **Cups:** rPET, paper composite
- **Lids:** PP, PP with barrier, paper composite

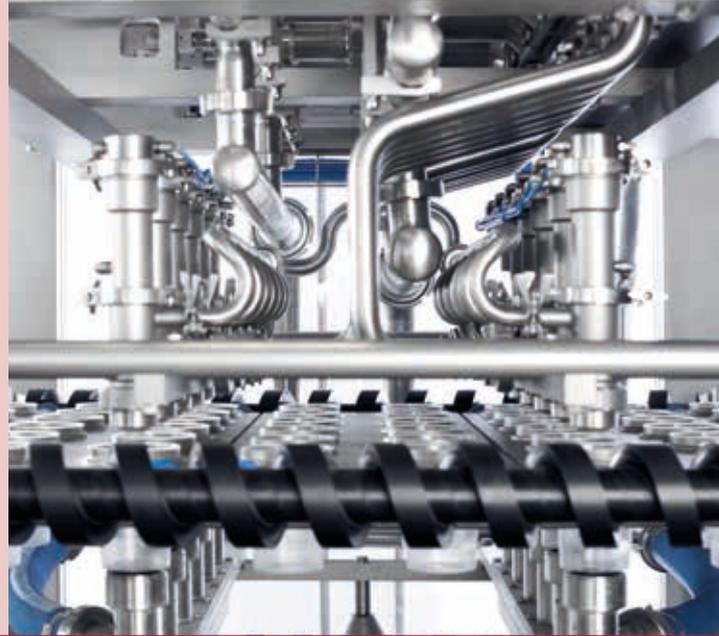
EFS-L - FORMAT FLEXIBLE FILL & SEAL MACHINE

New indexing platform for pre-formed cups offering endless flexibility for filling liquid to pasty products like yoghurt, fresh cheese, white cheese (curd), cottage cheese, single and multi-layer desserts, aerated mousse products, deli salads, dips, dressings, hot filled sauces, soups jams, fruit purees, tomato paste, sweet spread, baby food, pet food, etc.

Utilising new technology enhances the available options and ease of operation and maintenance procedures.

Modular in design with stainless steel construction and servo-operations it allows for flexibility with filling stations, pre-fill and post fill for wet or dry ingredients.

The chainless solution for the cup transportation enables format flexibility and precision index positioning throughout the machine.

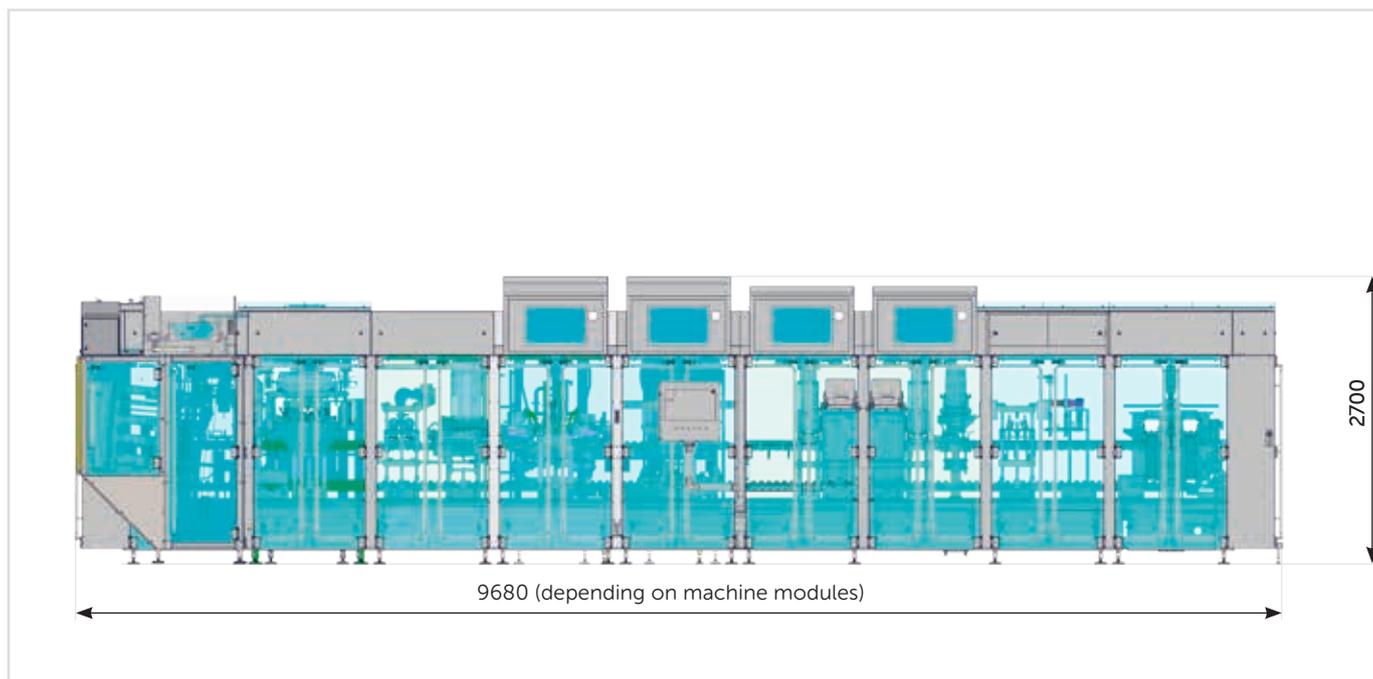


EFS-L

- Format flexible (quick release, tool free)
- Chainless drive (no chain stretch, no regular adjustment, less cup cassettes)
- Modular design and construction
- Hygienic design
- Recipe functionality
- Multifill possibilities (overtrack or remote fillers)
- Improved hygiene options (UVC, Pulse light)
- Hygiene level: Clean or Ultra-clean
- Lubrication free
- Reduced delivery time



EFS-L TECHNICAL DATA



TECHNICAL DETAILS

Configuration	Max. output	Round Cup Ø	Square Cup
EFS-L 1 x 4	9.600 cups/h	130 mm	127x104 mm
EFS-L 2 x 4	19.200 cups/h		
EFS-L 1 x 6	14.400 cups/h	130 mm	127x104 mm
EFS-L 2 x 6	28.800 cups/h		
EFS-L 1 x 8	19.200 cups/h	95 mm	95x104 mm
EFS-L 2 x 8	38.400 cups/h		

TYPICAL MATERIALS

Cups	Pre-made cups made of PET,PLA, PP or PS, carton, aluminium
Lids	Pre-cut lids made of embossed or plain aluminium foil or made of PET, PP or paper
Snap-on lids	Pre-made snap-on lids of PET or PP

STANDARDS

Basic functions	Cup destacker, cup control, lid destacker, sealing, lid control, coding station, snap-on-lid destacking
Cup discharge	On conveyor (1 or 2 lanes), with integrated case packer

TYPICAL OPTIONS

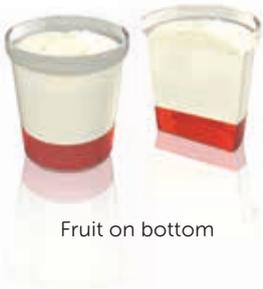
Hygiene class	Clean*, Ultra-clean*
Hygiene options	Cup decontamination (UV-C, Pulse light), lid decontamination (UV-C, Pulse Light), cup cassettes cleaning and drying
Efficiency options	Automatic cup buffer loader, lid loading sledge, automatic snap-on-lid buffer loader, seal integrity control, reject station
Fillers	Number and technology depending on need

*Depending on customer specification

ALL KINDS OF FILLING SOLUTIONS

All machines are known for their extremely high filling accuracy. They can fill all kinds of liquid-to-pasty products, with or without particulates. Covering a wide range of filling styles, countless customized and tailor-made design possibilities are available to satisfy specific requests.

Fillers benefit from automatic, fully controlled SIP/ CIP systems for maximum hygiene, and are supplied in full compliance with European regulations.



Fruit on bottom



Concentric/Stirred yoghurt



Stirred yoghurt and cereals



Spots



Crème Caramel



Dessert with cocoa



Stirred yoghurt and fruit



Multilayer



Duo



Quattro



Twist

HYGIENE LEVELS



The requirement to extend the shelf life of high-quality products outside as well as throughout the cooling chain – without a loss of quality – is becoming increasingly important.

The packaging process can be split into various hygiene classes, depending on application or product requirements. IMA ERCA's solutions comply with the following hygiene standards:

- CLEAN
- ULTRA-CLEAN



ONE PARTNER FOR ALL YOUR NEEDS

WE ACCOMPANY THE CUSTOMER AT ALL LEVELS.

STARTING WITH INTENSIVE SUPPORT DURING THE DEVELOPMENT PHASE BEFORE DEFINING THE SOLUTION UP TO THE COMPLETE TECHNICAL ASSISTANCE AT THE CUSTOMER'S SITE DURING THE ENTIRE LIFETIME OF A MACHINE.



A team of experts is available to respond to any mechanical or electrical issue and skilled engineers are on call at IMA branches worldwide.

In order to assure the highest level of technical assistance, all IMA technicians are fully trained and kept constantly up to date with the latest technical developments in their sector. Having locally based technicians brings IMA closer to the customer. This gives greater insight into real production requirements and specific market needs, and leads to more appropriate solutions that can also be achieved by customization wherever necessary.

Our remote service assistance enables instant and secure connection between the customer's equipment and our support team who can quickly view, diagnose and troubleshoot.

Investment in IMA ERCA machinery is a sound choice as existing machines are open to upgrading with new technologies.

TECHNOLOGICAL IMPROVEMENTS

- CONVERSIONS
- UPGRADES
- REFURBISHMENTS
- PRE-OWNED EQUIPMENT
- OBSOLETE TECHNOLOGY REPLACEMENT



OPERATIONS SUPPORT

- FIELD SERVICE
- SPARE PARTS
- INSPECTION AGREEMENTS
- REMOTE SERVICES
- RELOCATION

PRODUCTIVITY ASSISTANCE

- AUDITING
- TRAINING
- OPERATIVE SUPPORT
- CONSULTING

DIRECT CONTACT TO OUR LOCATIONS



Erca S.A.S.

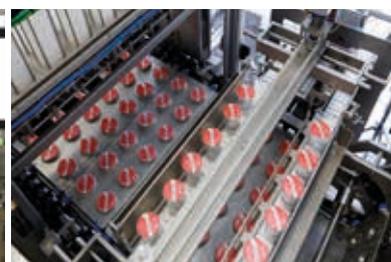
11 Avenue des Andes
Zone d'Activités de Courtaboeuf
91940 Les Ulis - France
Phone +33 169 828 000

HEADQUARTER

Erca S.A.S.

1 Rue de l'Épée Royale
14700 Falaise - France
Phone +33 169 828 000

PRODUCTION SITE





IMA FILLSHAPE

IMA S.p.A. - Fillshape Division
Via Ugo Ferrandi
43126 Parma - Italy
Phone +39 51 616-9711

IMA INTECMA

INTECMA S.A.
Paseo Can Sagrera, Nave 9
08960 Sant Just Desvern (Barcelona) - Spain
Phone +34 93 499 0184

IMA Dairy & Food Spain and Portugal S.A.
C/Llobatona, 44
08840 Viladecans (Barcelona) - Spain
Phone +34 93 662 38 00

IMA Dairy & Food LATAM
Calle 1 entre 6Y 8 Parcela 16 -
Parque Industrial General Savio
Mar del Plata, Buenos Aires - Argentina
Phone +54 223 464 17 60

IMA GASTI

GASTI Verpackungsmaschinen GmbH
Raiffeisenstrasse 8
74523 Schwaebisch Hall - Germany
Phone +49 791 402 0

IMA Dairy & Food Asia Pacific Sdn. Bhd.
Ativo Plaza B-3-12
Bandar Seri Damansara
52000 Kuala Lumpur - Malaysia
Phone +60 3 6732 1988

IMA Dairy & Food UK Ltd.
Retford Enterprise Centre - Randall Way
Retford DN22 7GR - U.K.
Phone +44 177 771 26 32

IMA HASSIA

Hassia Verpackungsmaschinen GmbH
Heegweg 19
63691 Ranstadt - Germany
Phone +49 6041 81 0

OOO IMA Dairy & Food Russia
Finlyandsky avenue, 4A
BC Petrovsky Fort, office 120
194044, Saint-Petersburg - Russia
Phone +7 981 173 88 29

IMA Dairy & Food USA, Inc.
7, New Lancaster Road
Leominster - MA 01453 - U.S.A.
Phone +1 978 227 1210

www.imadairyfood.com



ERCA S.A.S.

11 Avenue des Andes
Zone d'Activités de Courtaboeuf
91940 Les Ulis - France
Tel. +33 169 828 000
info.dairyfood@ima.it