

# EC15

SIMPLY A DOUBLE CHAMBER

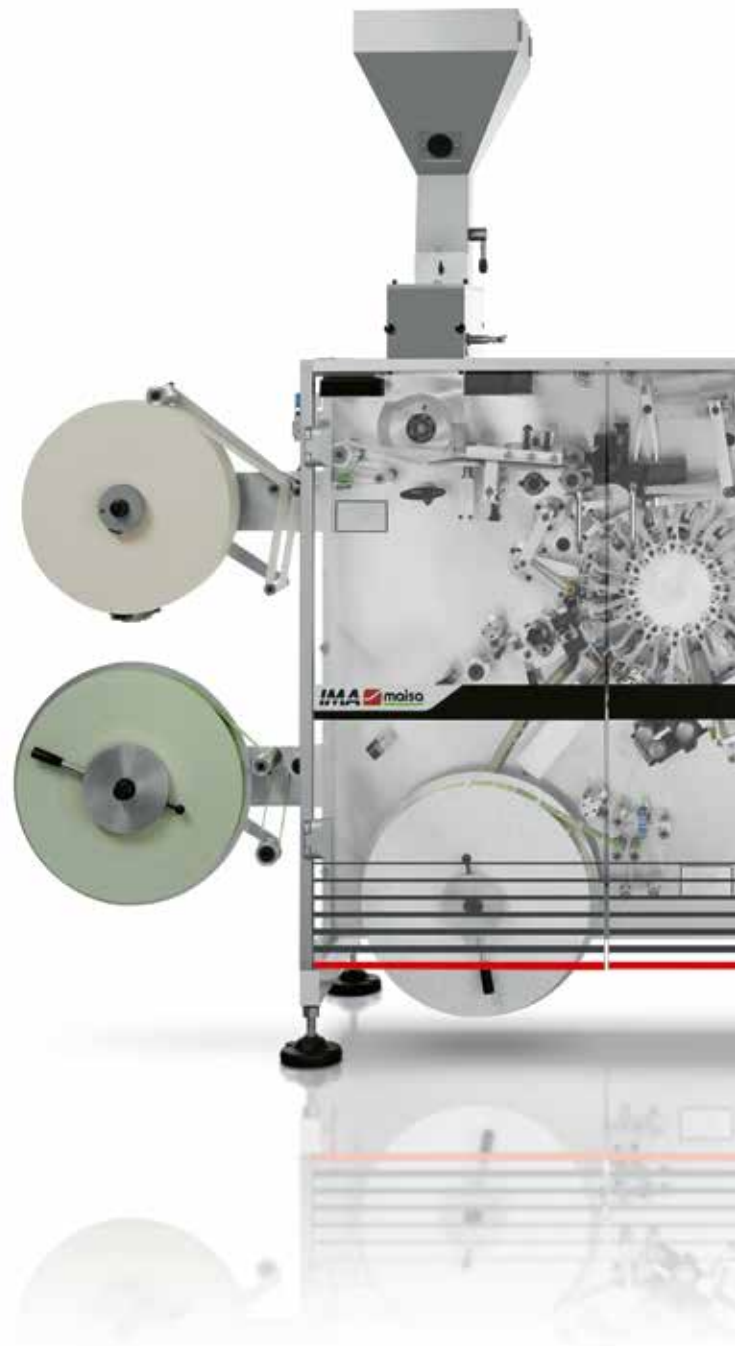


# EC15 SIMPLY A DOUBLE CHAMBER

THE NEW EC15 IS THE FIRST DOUBLE CHAMBER TEABAG PACKAGING MACHINE BY IMA MAISA.

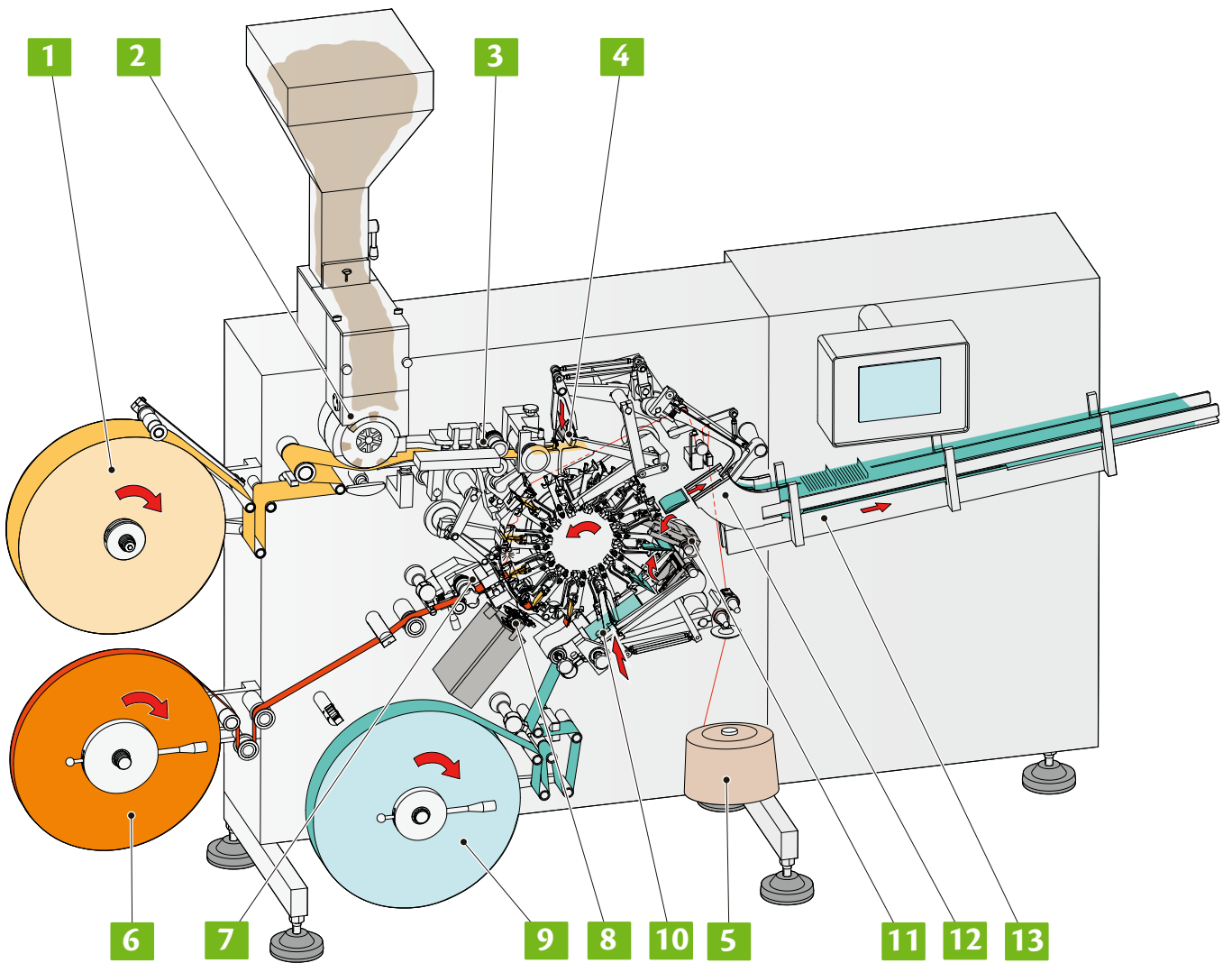
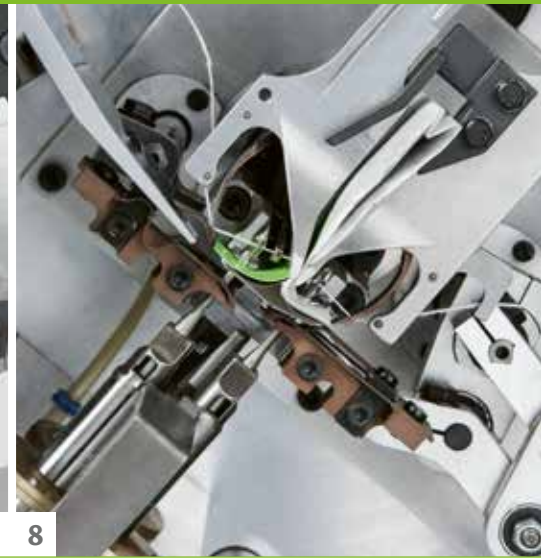
FRUIT OF A JOINT EFFORT WITH IMA TEA&HERBS R&D, IT REPRESENTS A NEW, REVOLUTIONARY FRONTIER FOR THE TEA BAG MARKET. OUTSTANDINGLY SIMPLE AND COMPACT, THE BRAND NEW EC15 IS A 150 BAGS/MINUTE PACKAGING SOLUTION FOR DOUBLE CHAMBER KNOTTED TEABAGS PROCESSING TEA AND HERBS AND ABLE TO PACK NAKED BAGS AND SEALED OUTER ENVELOPES.

- NON HEATSEALABLE FILTER PAPER
- KNOT TECHNOLOGY
- PRODUCTION SPEED: 150 BAGS PER MINUTE
- COMPACT LAY-OUT
- NO LUBRICATION
- FILTER BAG CONFORMITY CONTROL
- PC PROGRAMMABLE CONTROL
- ELECTRONIC COUNTING





# EC15 THE TEABAG STEP BY STEP





## MAIN FUNCTIONS

1. FILTER PAPER REEL
2. PRODUCT FEEDING AND DOSING
3. FILTER PAPER TUBE FORMING AND CUTTING
4. BAG FORMING AREA
5. COTTON THREAD COILS
6. TAG PAPER REEL
7. TAG PAPER UNWINDING AND CUTTING
8. KNOT GROUP
9. OUTER ENVELOPE PAPER REEL
10. OUTER ENVELOPE PAPER CUTTING AND FILTER BAG INSERTION
11. OUTER ENVELOPE HEATSEALING STATION
12. STACK FORMING
13. EXIT CHANNEL FOR COUNTED BAGS

# EC15 SIMPLY NATURAL



## KNOT TECHNOLOGY

The EC15 filter bag is based on a traditional non heatsealable double chamber bag and guarantees optimum infusion efficiency enabling the natural tea aroma to flow out.

No metal staple or additional packaging materials are required to fix the bag to the tag and the cotton thread. Fixing is achieved by two simple knots – one to fix the cotton thread to the filter bag head and the other to fix the cotton thread to the tag. This innovative feature avoids the presence of metals during infusion, whilst guaranteeing, at the same time, a discerning and functional filter bag.

The EC15 flexibility allows the production of different filter bag sizes suitable to respond to dedicated market trends.

## THE TAG

The EC15 offers the possibility to run different octagonal Hard Tag sizes.

The machine operates tag cutting but it can also run octagonal tag paper already cut by the supplier and therefore easy to find on the world-wide market.



## THE PROCESS

The simple knots that allow the fixing of cotton thread to filter bag and tag are performed by a group that has been designed and tested by the IMA Research & Development Department.

Both knots, on the filter bag and on the tag, are performed simultaneously on the same station and are achieved through synchronised movements of three mechanical elements controlled by cams. The successful knotting is controlled by a video camera.



# EC15 THE OUTER ENVELOPE

## THE HEATSEALED OUTER ENVELOPE

Despite of the simple machine structure, the E15 offers the possibility to individually wrap the double chamber filter bag in a heatsealed outer envelope resulting in an airtight and waterproof solution guaranteeing the preservation of herbs and flavoured teas.



## EASY OPENING

To facilitate the heatsealed outer envelope opening the machine performs two lateral cuts on the envelope top sealing.



## FLEXIBILITY

A variety of packaging materials can be used on the EC15 for the production of heatsealed outer envelopes, such as cellophane, oriented polypropylene (OPP), paper PE, paper Alu Foil.



# EC15 TO COMPLETE THE CYCLE



## HAND REMOVAL

The EC15 is equipped with a hand removal system for a minimum of 8 counted naked bags or heatsealed outer envelopes.

## ELECTRONIC COUNTING

The EC15 achieves the greatest versatility in the design of its counting unit. The electronic count change over is simple and fast and avoids completely the need of any part replacement.

## QUICK SIZE CHANGE OVER

To achieve top flexibility, the EC15 allows a fast and user-friendly size change over from naked bags to heatsealed outer envelopes and viceversa. Change over is performed thanks to the replacement of a minimum number of mechanical parts.



# EC15 TOP QUALITY PRODUCT



## SPECIAL PRODUCT VIBRATING FEEDING SYSTEM

The handling of delicate products such as herbs, requires particular care both in terms of protection and feeding. For this reason, the EC15 has been equipped with an innovative product vibrating feeding system allowing the packaging of non free-flowing products.

## PROGRAMMABLE CONTROL

The working cycle logic and quality control are achieved by a system with high programmable logic. All main machine stations have been provided with a specific product control device to guarantee the maximum product quality.



## HIGH PRECISION VIDEO CAMERA

The succesful filter bag and tag knotting is controlled by a video camera, whose detection also contributes to the rejection signals collection. The video camera is completed by a dedicated monitor necessary to constantly check the correct video camera positioning and to collect filter bag non conformity signals.

## OPERATOR PANEL

The EC15 is equipped with an operator panel able to display messages in many languages, including for example Arabic, Chinese, Thai, Korean and Russian.

# EC15 GENERAL TECHNICAL DATA

**Machine speed:**

- Up to 150 bags or envelopes per minute

**Teabag capacity:**

- Up to approximately 3.0 grams
- Filter bag maximum volume : 9.0 cubic centimetres

**Power required:**

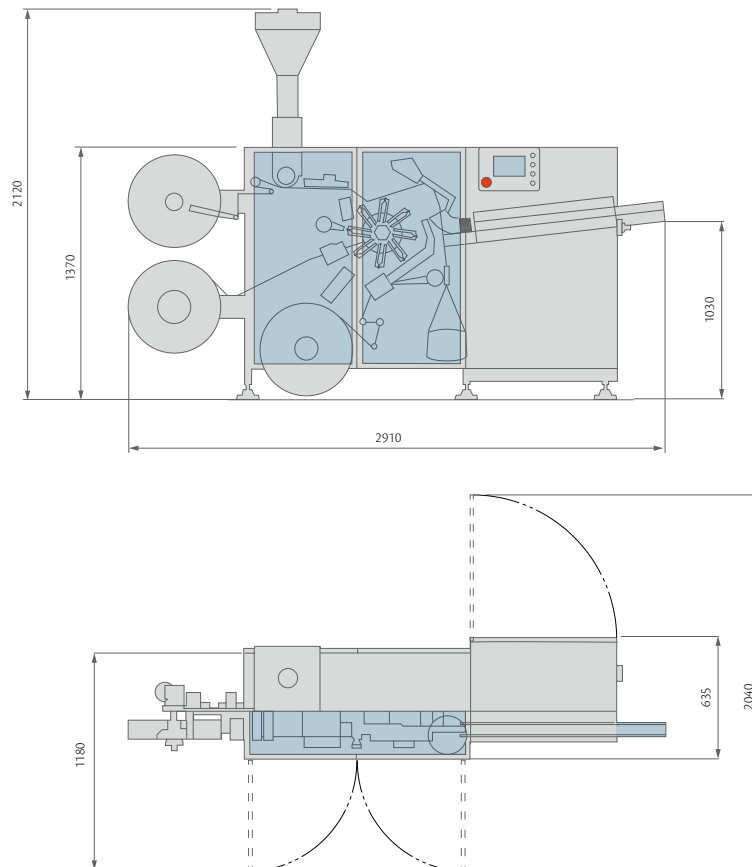
- Total installed power : 9 kw
  - Average power consumption : 2 kw
  - Maximum power consumption : 2,5 kw
- note : consumption depends on the thermic groups fitted on the machine*

**Compressed air:**

- Exercise pressure: 6 bar
- Consumption: up to max. 10 NI/min

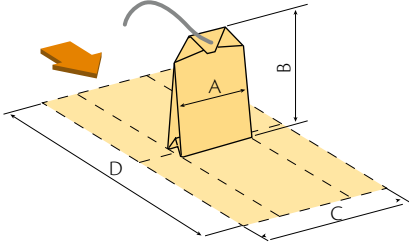
**Machine net weight:**

- Max. 2200 kg. .



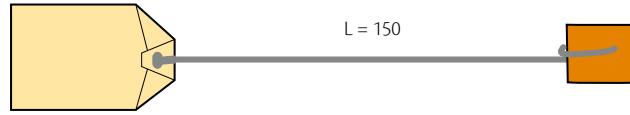
# EC15 PACKAGING MATERIAL TECHNICAL DATA

FILTER BAG SIZE

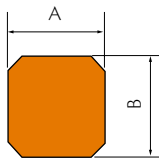


A	B	C	D
40	60	94	149
45	60	103	149

COTTON THREAD LENGTH ON EACH FILTER BAG

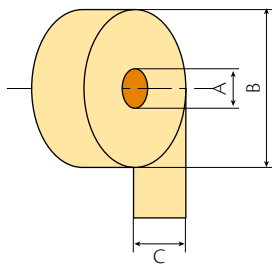


TAG SIZE



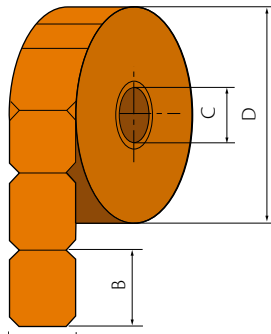
A	B
28	28
28	32

NON-HEATSEALABLE FILTER PAPER REEL



A	B	C
76	MAX 500	94
76	MAX 500	103
<b>WEIGHT 12 gr./m<sup>2</sup></b>		

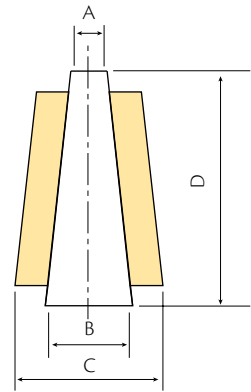
TAG PAPER REEL



A	B	C	D
A	B	152	500

WEIGHT gr./m <sup>2</sup>		THICKNESS (micron)	
MIN	MAX	MIN	MAX
180	200	190	200

COTTON THREAD COIL SIZE

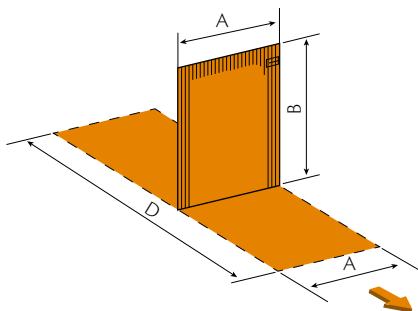


Ends' number: 3 (without knots)  
Average title: 20 Ne.

Ø			
A	B	C	D
MAX 31	MAX 64	MAX 220	140 ÷ 180

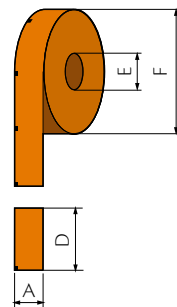
## HEATSEALED OUTER ENVELOPE SPECIFICATIONS

HEATSEALED OUTER ENVELOPE



BAG TYPE	A	B	D
40X60	66	77	154
45X60	63	72	144

HEATSEALABLE OUTER ENVELOPE PAPER REEL SIZE



A	D	E	F STANDARD
66	154	76	MAX 500
63	144	76	MAX 500
<b>WEIGHT 80 ÷ 85 gr./m<sup>2</sup></b>			

Data subject to possible technical modifications and not necessarily definitive.



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