C59

BAG & PACK. INSIDE OUT

IMA TEA&HERBS

Tea Bag Packaging Solutions

C59 BAG&PACK.INSIDE OUT

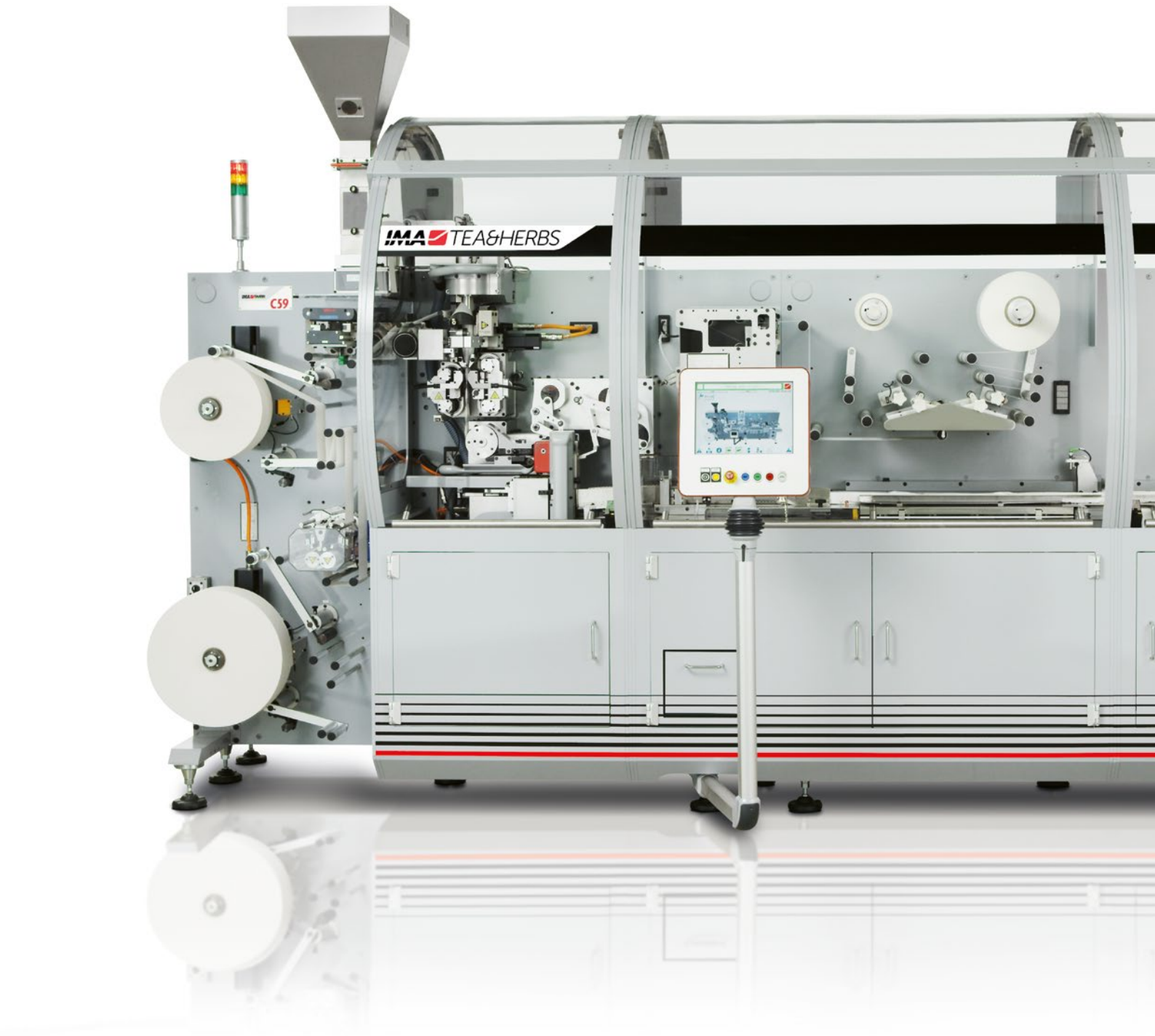
The highly compact C59 is the new packaging solution for heatsealed, single-chamber bags. For tea, and especially for herbs, it accomplishes packaging into flow packs for improved product preservation.

Conceived to enhance the look and feel of essential single-chamber bags, the C59 produces gusseted, string and tag-free, heatsealed filter bags. Reaching speeds of up to 900 bags/minute, it processes black tea and is an ideal choice for herbs.

Featuring an integrated flow pack unit as standard, the C59 completes the packaging process by inserting counted naked bags into flow packs, which can be personalised by the customer.

A unique solution as of today, full integration of this unit enables single overall process control covering each step from bag forming to flow pack sealing, as well as enabling a surprisingly limited footprint.

C59 THE IDEAS TAKE SHAPE



WHY A C59

- Integrated solution for flow-pack packaging
- Reduced footprint
- High production speed : up to 900 bags per minute
- **Gusseted single chamber teabag – more room to move**
- Automatic packaging material splicing
- Packaging material saving
- Quick product change
- Film packaging type versatility
- Long dwell sealing system
- No product – no bag
- No lubrication
- High production efficiency
- Single HMI enables overall process control

C59 STEP BY STEP

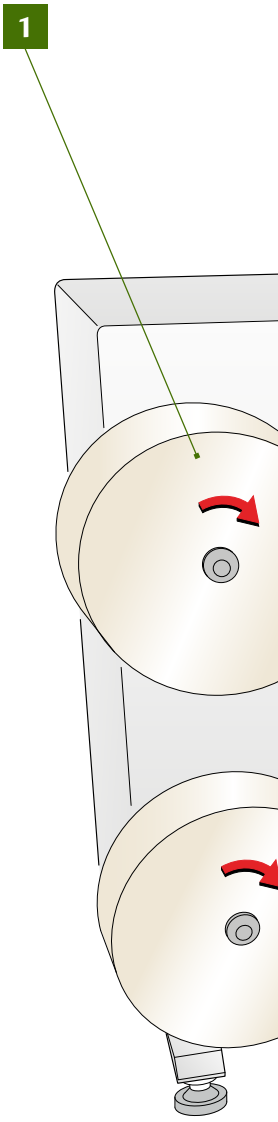

4


5


6

MAIN FUNCTIONS

1. Filter paper reel
2. Filter paper automatic splicing
3. Product feeding hopper
4. Product dosing unit
5. Filter paper tube forming unit
6. Bag sealing unit
7. Bag cutting unit
8. Stacking unit
9. Faulty stack rejection
10. Flow-pack film reels
11. Film automatic splicing
12. Flow-pack longitudinal sealing (fin seal)
13. Flow-pack transversal sealing and cutting unit

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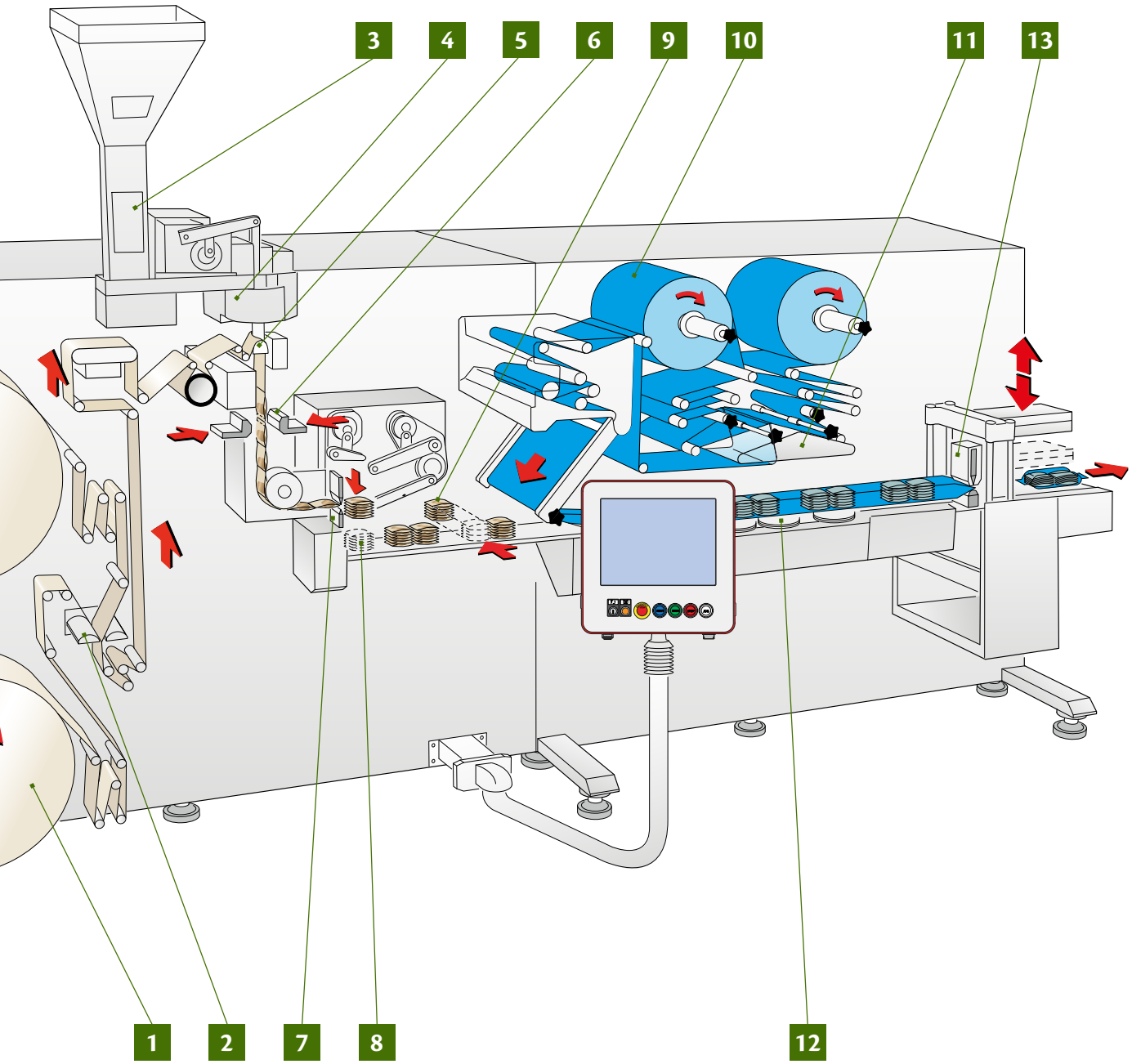
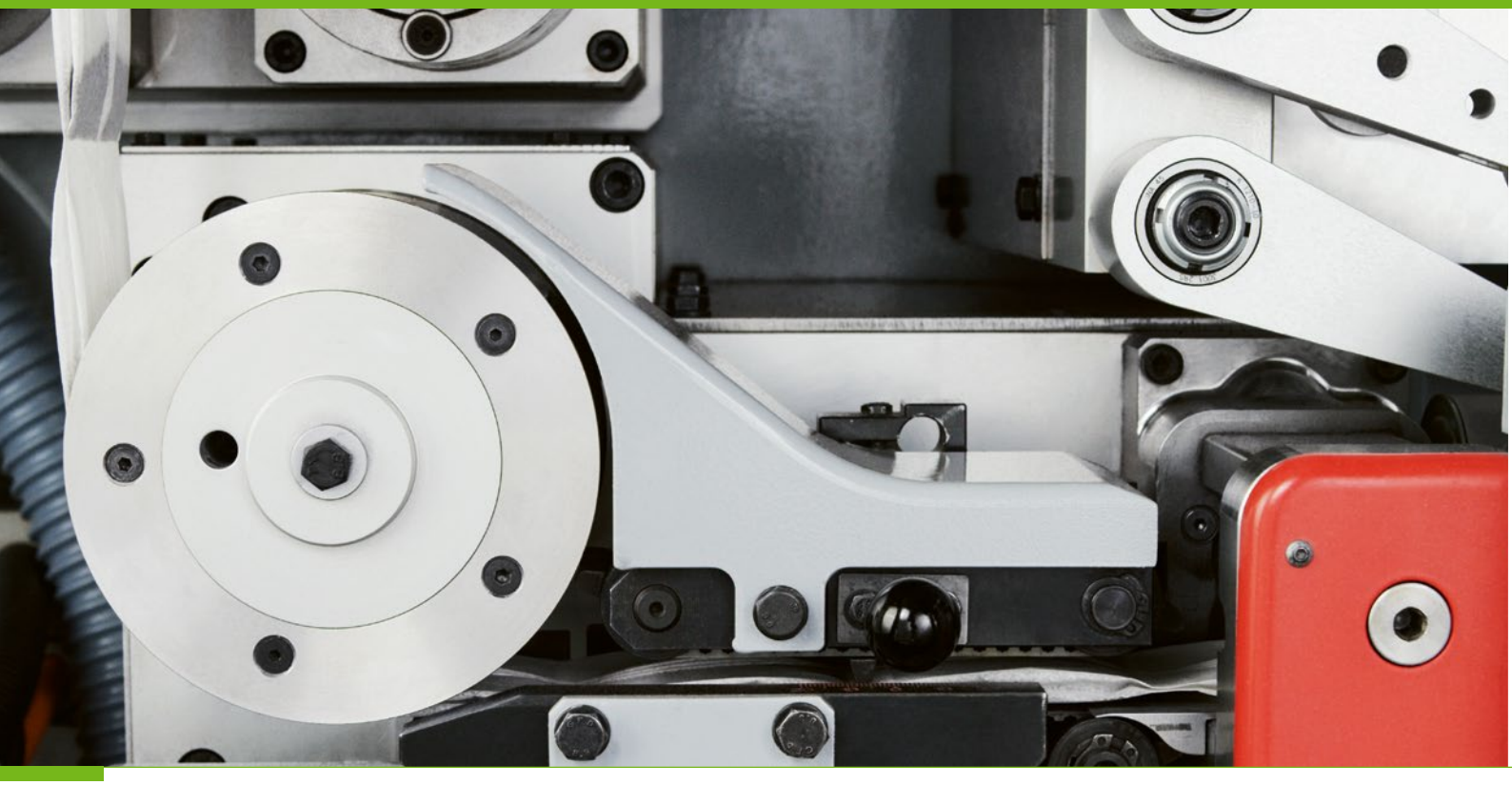
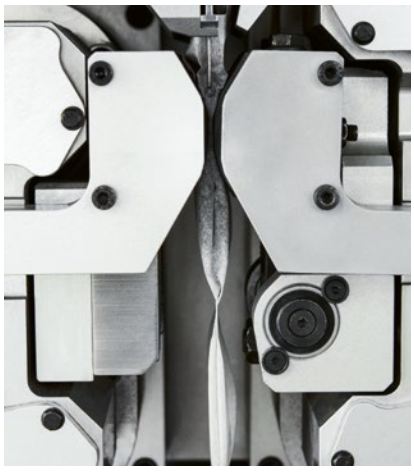


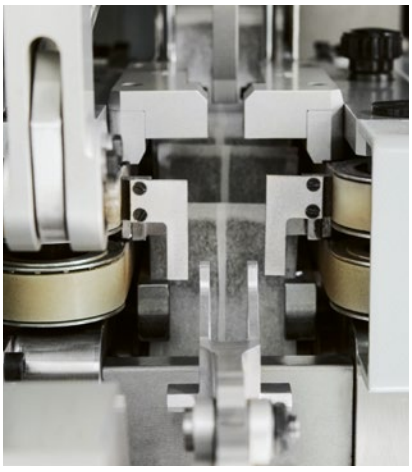
C59 FLEXIBILITY IN A SINGLE BAG



Filter paper tube forming



Filter bag sealing



Filter bag stacking

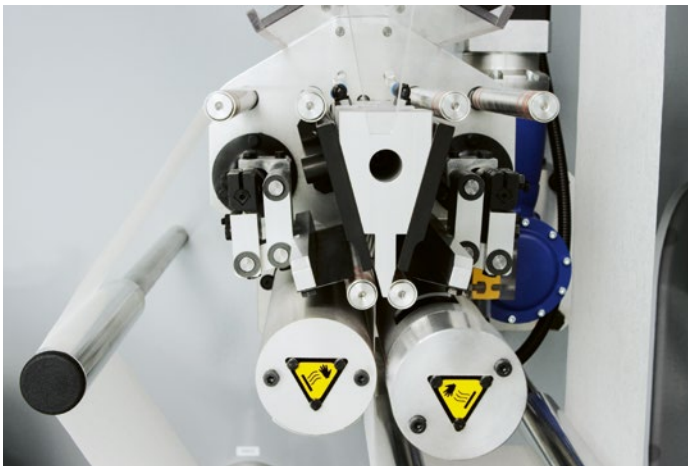
The new single chamber C59 filter bag guarantees optimum infusion efficiency thanks to a newly designed gusseted bag allowing tea or herbs more room to move and infuse for a better brew.
Bags are heatsealed on top and bottom edges. Although side gussets are performed, the absence of side sealing helps reduce teabag size resulting in consistent packaging material savings.
According to IMA's traditional concept of versatility and flexibility, the C59 offers a range of filter bag sizes to suit all product specifications and market demands.
Bag length change-over procedure is achieved easily and quickly.

Filter paper tube transfer

PLA - A NEW FRONTIER FOR FILTER MATERIAL

The new IMA C59 allows the production of tea bags with traditional heat-sealable filter paper as well as with PLA, a 100% renewable material.
PLA is made from plant-based poly-lactic acid and features a point bond pattern.
Its neutral odor, taste and high transparency make it ideal to showcase a wide variety of black and specialty teas and infusions.
It is also one of the first to be fully biodegradable and compostable.

- Delivers outstanding infusion and taste neutrality
- Excellent tea blend retention
- High transparency ideal to highlight product
- 100% renewable raw materials
- Fully Biodegradable and compostable



Filter paper automatic splicing

C59 A BAG & PACK SOLUTION

Filter bag stack transfer

Featuring an integrated flow pack unit as standard, the C59 completes the packaging process by inserting counted naked bags into flow packs. A unique solution as of today, full integration of this unit enables single overall process control covering each step from bag forming to flow pack sealing, as well as enabling a surprisingly limited footprint.

- Flow-packs guarantee product preservation
- Detached tea bag stacks
- Flow-pack with longitudinal sealing and two transversal sealings, with or without side gussets
- Horizontal production flow-chart
- Electronic adjustment for film-pull, infeed and sealing parameters

Flow-pack longitudinal sealing

Flow-pack forming

Flow-pack longitudinal sealing

A CHOICE OF WRAPPING MATERIALS

The flow pack unit allows top flexibility in the choice of suitable heat-sealable films, such as plain, or co-extruded polypropylene (PP), laminate films (e.g. OPP COEX), polythene films (PE) as well as cold sealable films of suitable quality.

- Coding Unit For Film Available

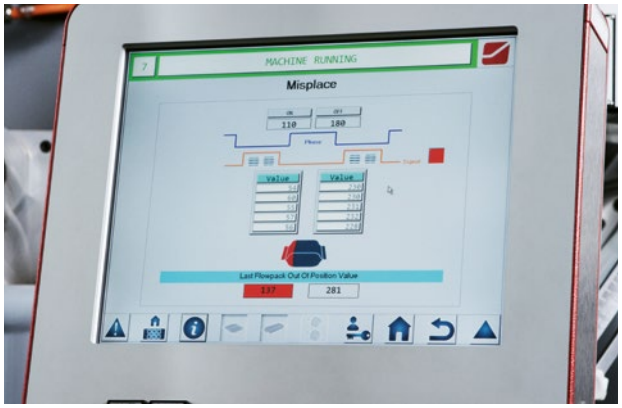
LONGITUDINAL SEALING ACHIEVED BY FOUR PAIRS OF WHEELS ENABLES SEALING ON A WIDE CHOICE OF DIFFERENT FILM TYPES, BOTH IN TERMS OF THICKNESS AND MATERIAL SPECIFICATIONS, GUARANTEEING ALWAYS OPTIMUM PRODUCT QUALITY.

HEATSEALABLE FILM AUTOMATIC SPLICING

The C59 is fitted with an advanced automatic splicing system for packaging materials such as filter paper and flow-pack film. Packaging material splicing is performed smoothly during machine production at a speed of 900 bags per minute (no reduction in speed is necessary).

C59 UTMOST EFFICIENCY

MISPLACED PRODUCT DETECTION SYSTEM



THE ADVANTAGE OF ELECTRONICS

All individual groups are controlled by Servo Motors synchronized with each other in order to guarantee maximum precision, higher flexibility and simplify mechanical design.

H.M.I. (HUMAN MACHINE INTERFACE)

Complete working cycle control is enabled via a PC with a user-friendly on-board HMI.

HMI USER-FRIENDLINESS ALLOWS MONITORING AND ADJUSTMENT OF:

- Product dosage
- Filter bag and flow-pack length
- OEE (Overall Equipment Efficiency)
- Flow-pack film print registration adjustment
- Product recipe
- Stack parameters setting (counting and bag height)
- AXIS debug

VERTICAL FLOW DOSER

IMA's tradition for accuracy in dosing methods stands out in the design of this vertical flow doser, driven by a dedicated motor and where product quantity and volume are strictly connected to the timing of the product ejector opening and closing processes (product quantity is pre-determined by the operator).
The feeding system provides a "forced" product ejection into the bag which gets particularly close to the feeding mouth. This feature ensures the highest production speed is reached – 900 bags per minute – as the feeding process is not dependent on the force of gravity.

VIBRATING PRODUCT FEEDING SYSTEM

The new C59 is equipped with a vibrating product feeding system allowing the machine to easily run products, drastically reducing product degradation and thereby preserving the best product quality.

Filter paper alignment

Faulty stack rejection

PACKAGING MATERIAL SAVING

The new C59 stands out in packaging material saving thanks to a number of solutions aimed to optimize material consumption, such as :

- Although side gussets are performed, the absence of side sealing helps reduce teabag size
- Faulty stack rejection and/or faulty flow-pack rejection caused by material splicing detection (filter paper or film)
- NO PRODUCT - NO BAG

AUTOMATIC WEIGHT CONTROL AND ADJUSTMENT

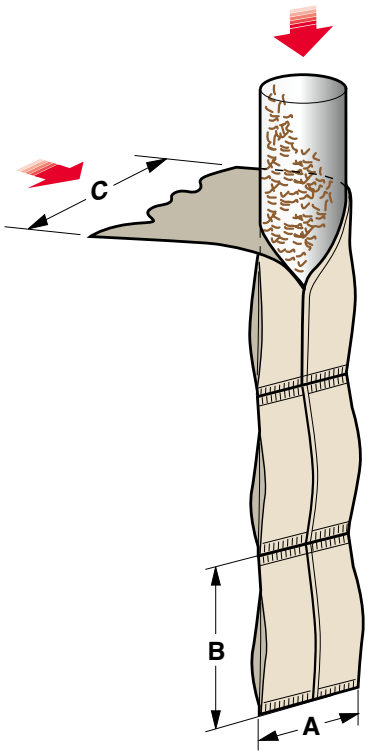
In case a checkweigher unit is provided on the C59, the automatic weight control and adjustment group can be fitted on the product feeding and dosing group. It automatically rejects flow-packs not reflecting the exact weight previously selected by the operator. The weight is controlled on the checkweigher and automatically adjusted to the required dosage.

SAFETY GUARDS – ENGINEERED FOR COMFORT

Ergonomic and newly designed safety guards guarantee utmost user-friendliness.
The new C59 has been provided with a dedicated lighting system to facilitate detection of malfunctioning machine area for a prompt and efficient intervention.

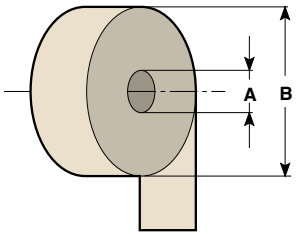
PACKAGING MATERIALS AND PRODUCT SPECIFICATIONS

FILTER BAG SIZE



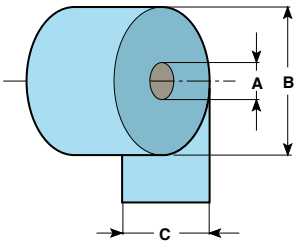
SIZES			
A	B	C	GUSSET
40	60	118	7,5
56	65	140	5

HEATSEALABLE
FILTER PAPER REEL

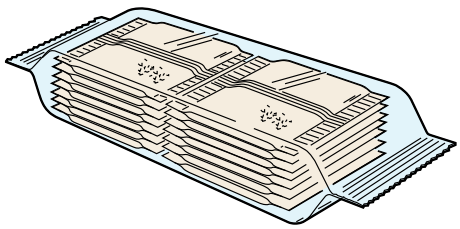


SIZES	
A	B
76	Max. 600
FILTER PAPER WEIGHT 16÷17 gr/m²	

HEATSEALABLE
FILM REEL



SIZES		
A	B	C
76	Max. 350	Max. 350



C59 TECHNICAL DATA

Machine speed:
- Up to 900 bags/minute

Teabag capacity:
- Max 3,125 grams
- Filter bag maximum volume 9.5 cubic centimeters

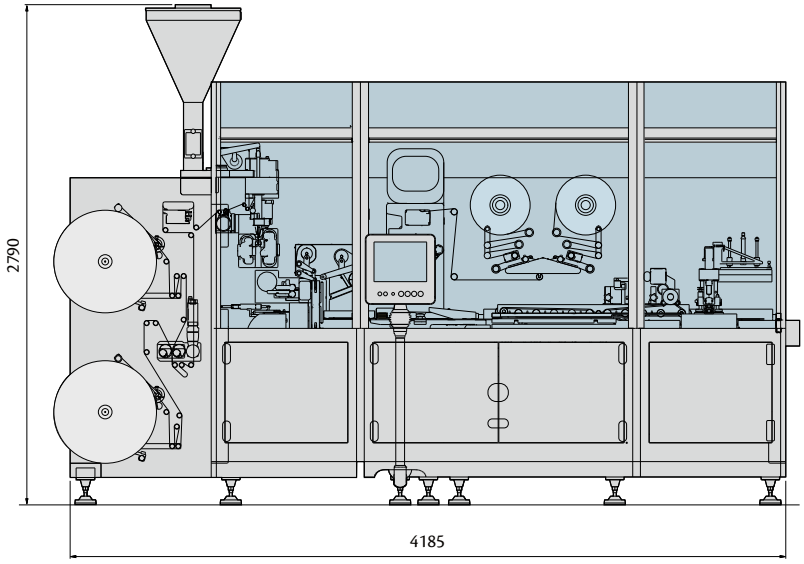
Power required:
- Total installed power: 38 kW
- Average power consumption: 4,5 kW
- Maximum power consumption: 8,6 kW

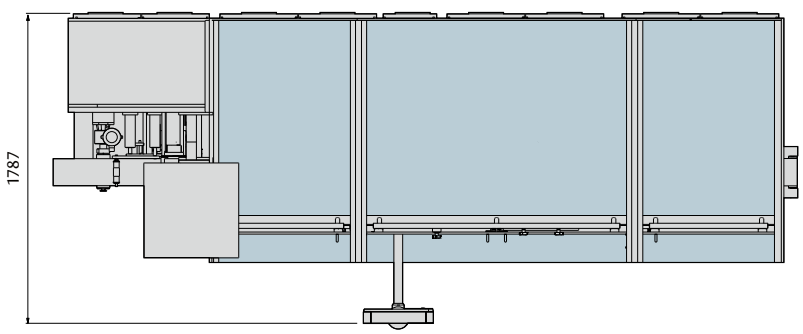
Note: consumption depends on the thermic groups fitted on the machine

Compressed air:
- Exercise pressure: 6 bar
- Consumption: up to max. 235 Nl/min.

Machine net weight:
- Maximum 4580 kg

MACHINE OVERALL DIMENSIONS





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IMA S.p.A. - **TEA & HERBS division**
mktg.tea@ima.it • ima.it/beverage/brands/tea-herbs
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