

CT11

C-THROUGH - VISIBLY THE BEST QUALITY



CT11 VISIBLY THE BEST QUALITY

IDEALLY SUITED TO LONG-LEAF TEA AND HERBS AS WELL AS ANY PREMIUM QUALITY TEA, THE NEW CT11 ENSURES OPTIMUM PRODUCTION CAPACITY FOR BOTH SEE-THROUGH TETRAHEDRAL AND PILLOW TEA BAGS.

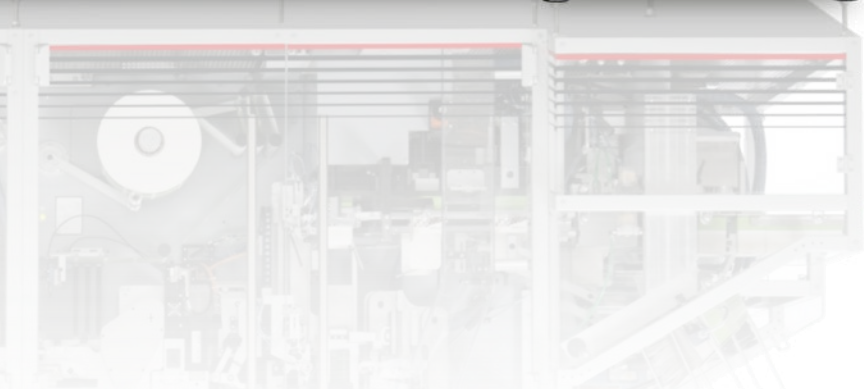
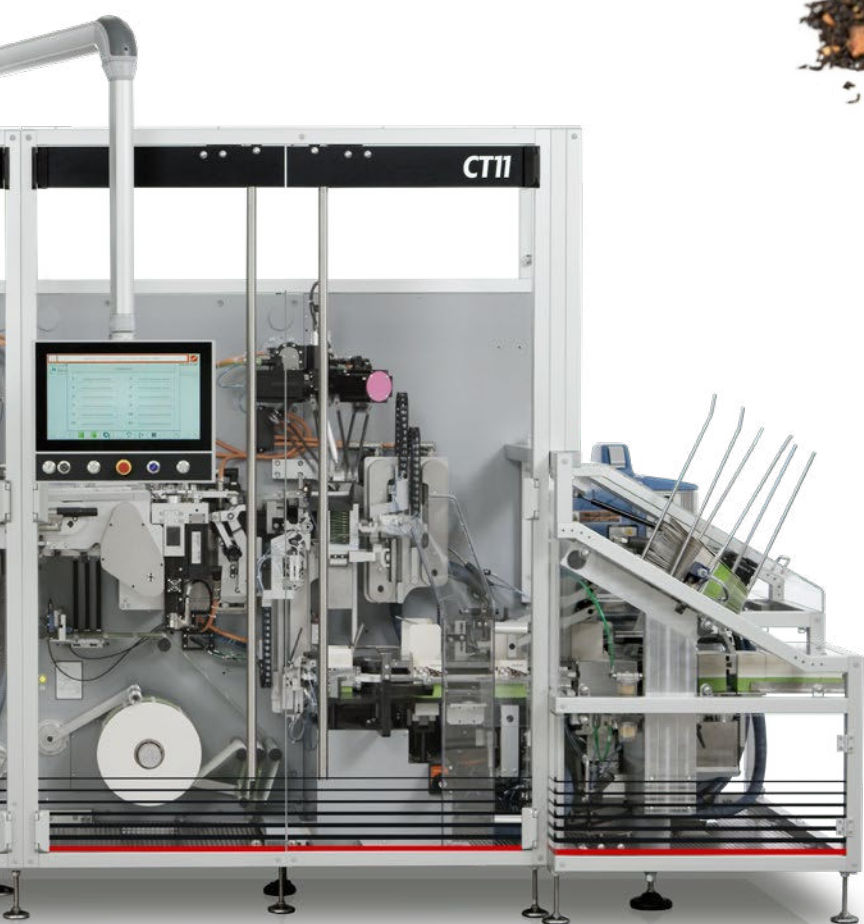
Based on a modular structure it encompasses the highest level of currently available technology in a complete line boasting an exceptionally reduced foot-print even in its complete version including sealed outer envelope and cartoning stations.

Responding to the latest no-plast market trends, the new CT11 is able to handle compostable and/or recyclable packaging materials, from filter material to paper cardboard.

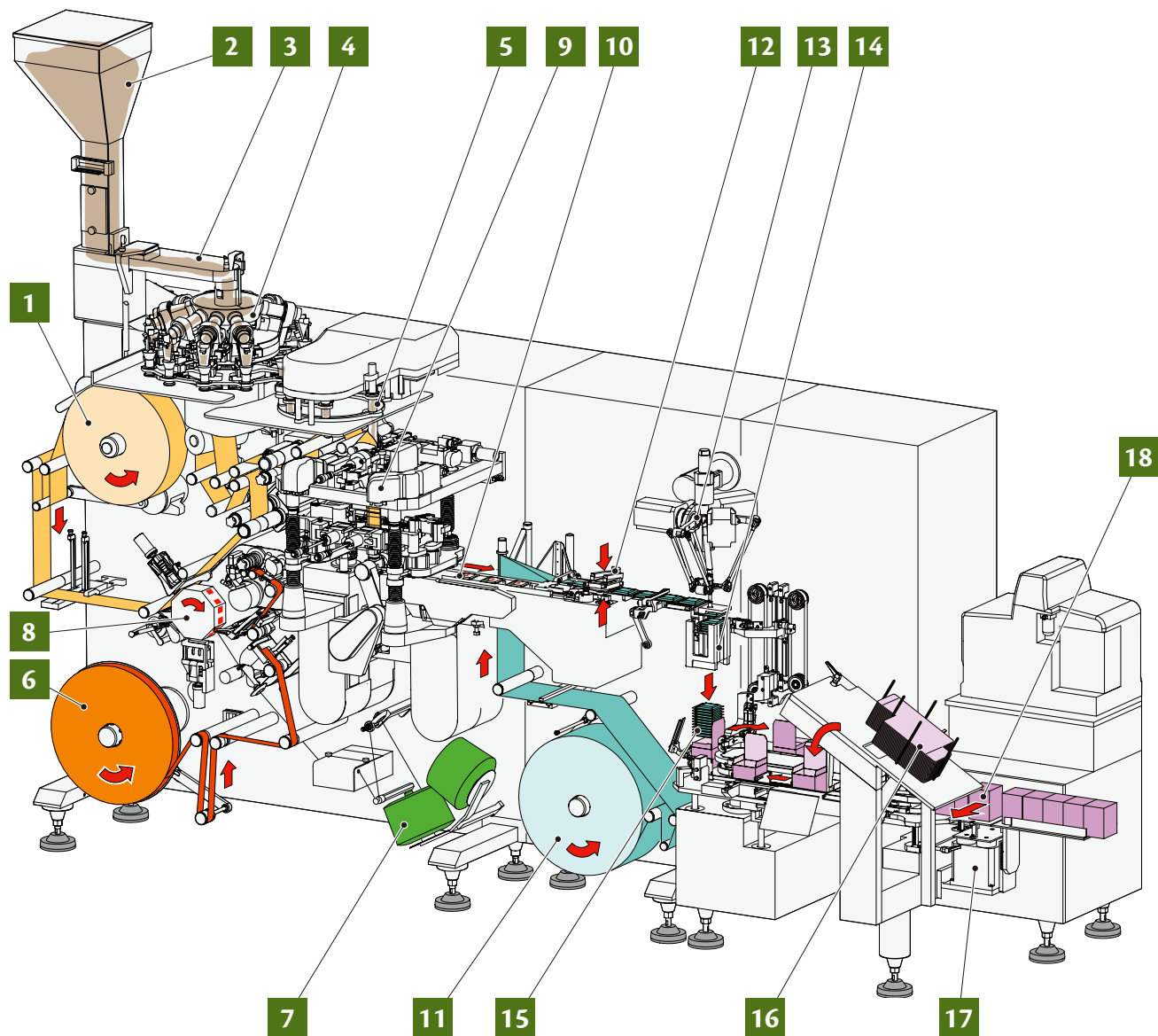
CHOOSING A CT11

- PRODUCTION SPEED: UP TO 200 TETRAHEDRAL AND PILLOW BAGS PER MINUTE
- ULTRASONIC TECHNOLOGY FOR BOTH WOVEN AND NON WOVEN MATERIALS
- MULTIHEAD WEIGHING SYSTEM FOR TOP PRECISION DOSING
- SINGLE BAG REJECTION
- MODULAR AND INTEGRATED STRUCTURE COMPLETE WITH OUTER ENVELOPE AND CARTONING UNITS
- REDUCED FOOT-PRINT
- TOP & TAIL CARTON PACKAGING SOLUTION





CT11 STEP BY STEP

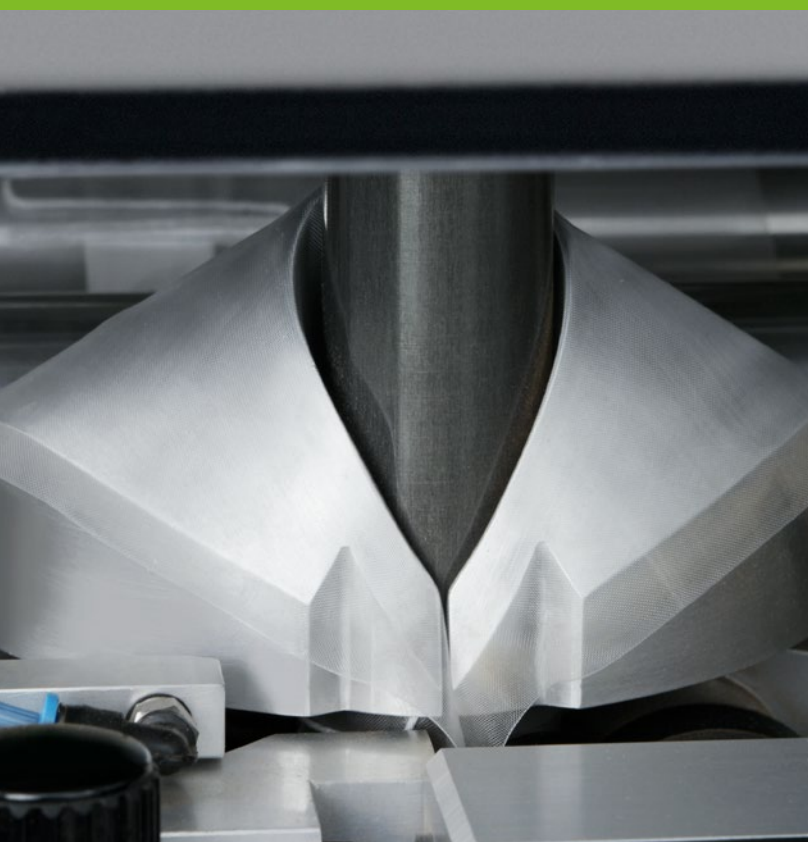


MAIN FUNCTIONS

1. FILTER BAG MATERIAL REEL
2. PRODUCT HOPPER
3. VIBRATING PRODUCT FEEDING
4. MULTIHEAD WEIGHING SYSTEM
5. PRODUCT FEEDING
6. TAG PAPER REEL
7. COTTON THREAD CONES
8. COTTON THREAD AND TAG
SEALING WHEEL
9. BAG FORMING, SEALING AND
CUTTING
10. BAG CONVEYOR
11. ENVELOPE MATERIAL REEL
12. ENVELOPE SEALING STATION
13. DELTA ROBOT FOR TOP AND TAIL,
COUNTING AND REJECTING
14. ENVELOPE STACKING CONTAINERS
15. STACKING INTRODUCTION INSIDE
THE CARTON
16. PRE-GLUED CARTON MAGAZINE
17. CARTON WEIGHING
18. FAULTY CARTON REJECTION



CT11 TRANSPARENCY MEETS PROTECTION



THE “C-THROUGH” BAG STYLE

Ensuring optimum production capacity and ideally suited to long-leaf tea and herbs as well as any premium quality tea, the new CT11 processes see-through tetrahedral or pillow tea bags with string and tag at a speed of up to 200 bags/minute. The CT11 offers the possibility to run both woven and non-woven filter bag materials enhancing their transparency features and resulting in a see-through filter bag able to highlight the natural form of tea and herbs.

IMA's tradition for flexibility in machine design is particularly focused on the choice of highly sophisticated packaging materials for the production of a perfect tetrahedral or pillow bag.

A STEP BY STEP PROCESS

The production cycle of the CT11 filter bag has been specifically designed with the precise aim of following the forming of each single bag, phase by phase, beginning with the use of individual packaging material reels such as tag, filter material and cotton thread, resulting in a very linear structure for easy accessibility. Starting from the forming of the filter bag material tube complete with tag and cotton thread and passing through a first transversal sealing&cutting station, a subsequent filling one and to end with, through a second sealing&cutting operation, each filter bag takes shape step by step and is ready to be processed in the next packaging station.





A UNIQUE PROTECTIVE OUTER ENVELOPE

The unique modular structure of the CT11 allows the integration of a compact outer envelope sealing unit available for either tetrahedral or pillow bags and guaranteeing maximum protection against oxidation.

The envelope sealing profile is continuous and performed on a single station.



SINGLE FLOW-PACK SOLUTION

Available for pillow bags only, the CT11 can be equipped with a single flow-pack unit for a unique and discerning packaging solution without affecting the machine production speed.



CT11 COMPLETING THE CYCLE

Respecting IMA's traditional standards, the CT11 has been designed as a complete packaging line producing a high quality complete with the final packaging into cartons.

The cartoning attachment fitted on the CT11 machine allows the packaging of cartons from a minimum of 10 to a maximum of 25 bags. The cartoning attachment automatically forms the cartons, fills them with a pre-determined quantity of bags and finally closes them.

Its versatility allows the packaging of enveloped bags stacked either vertically or horizontally according to the marketing needs.

When dealing with naked bags, cartoning is achieved on a random basis.

The cartoning attachment is equipped with the following additional groups:

- Stacking unit with programmable electronic counting
- Checkweighing unit (optional)
- Carton rejection station

A variety of carton styles can be handled: tamper-evident, tuck-in, caddy style for example.



ELECTRONIC COUNTING

The CT11 achieves its greatest versatility in the design of its counting and stacking units. Stacking is controlled by independent motors which allow a swift electronic count change-over avoiding completely the need for any part replacement and always guaranteeing the correct number of bags in the stacking unit.

TOP&TAIL STACKING OPTION

When dealing with the outer envelope version, the stacking unit is driven by a dedicated delta robot to handle envelope transfer from the cutting to the stacking station or, in alternative, from the cutting to the rejection station for faulty products.

A Top&Tail enveloped bags rotation can be activated directly through the HMI (Human Machine Interface) guaranteeing space optimization inside the carton and a sensible reduction in final pack size.

CT11 FOCUSING ON PRODUCT

INTEGRATED MULTIHEAD WEIGHING SYSTEM

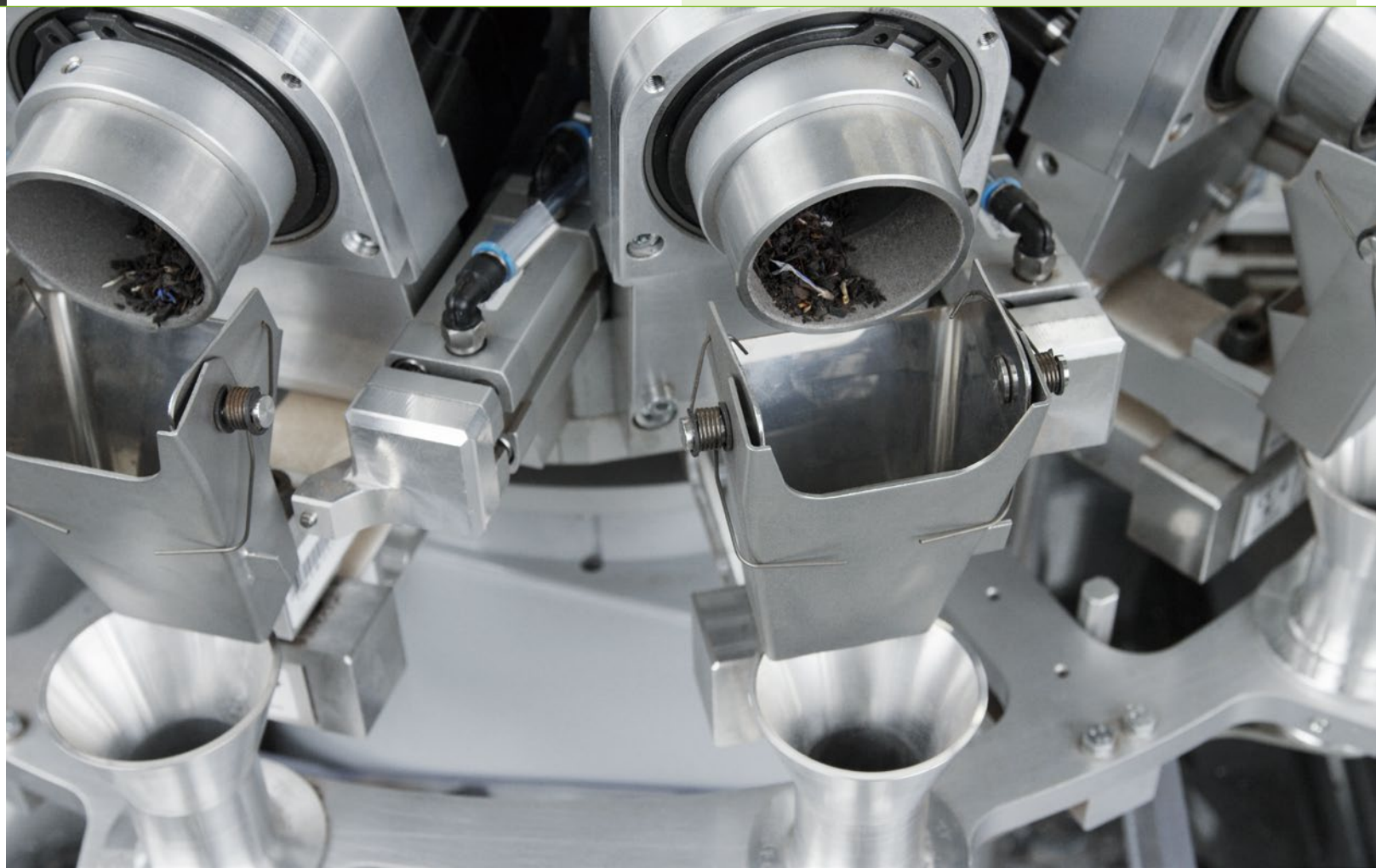
Specifically designed with the precise aim to limit the CT11 footprint, the multihead weighing system is fitted and integrated on the machine and boasts a readily accessible position.

Able to pack long leaf tea and herbs having fragments up to 15-20 mm. in length, including blossoms and integral particles of flowers, this weighing system results in the most accurate solution to guarantee highly precised dosing while preserving the original properties of the product.

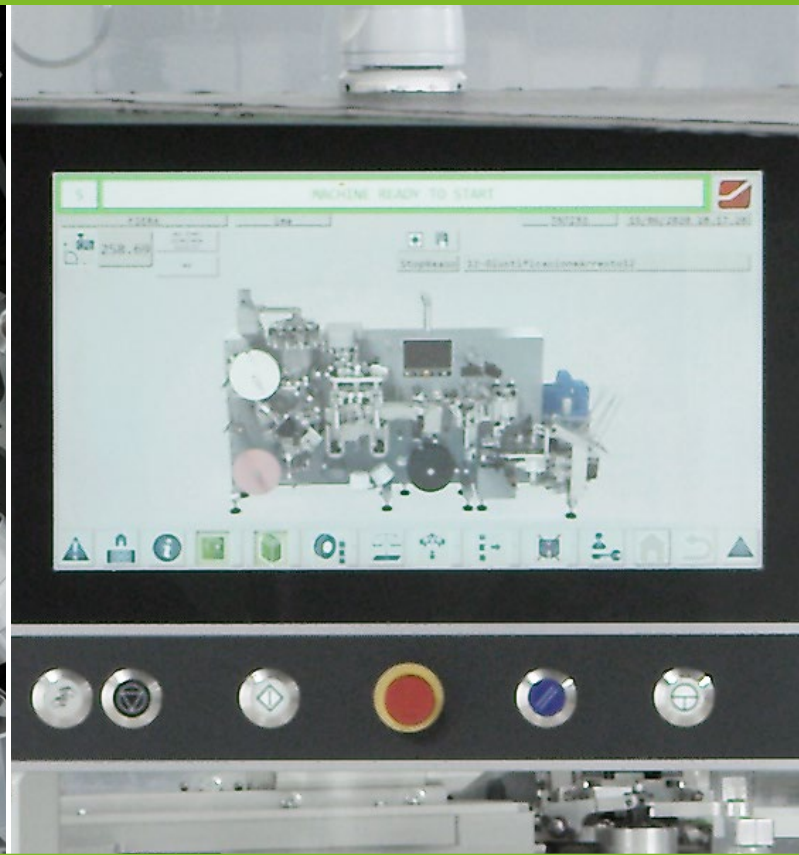
PRODUCT CHANGE OVER

As market trends constantly impose flexibility to respond to product diversification, change over operations represent a major issue and deserve specific and dedicated solutions to guarantee the highest efficiency:

- **Product and packaging materials waste reduction** – the multihead weighing system boasts a self-learning function that allows the machine to run without product and materials at any product change-over until the new product dosage specifications have been adjusted and aligned accordingly. Product is recovered through a dedicated chute.
- **Easy cleaning operations** – at any product change over, cleaning operations are facilitated by the easy and fast removal of all parts in contact with the product.



CT11 FOCUSING ON PRODUCT



VIBRATING PRODUCT FEEDING SYSTEM

The CT11 is equipped with a vibrating product feeding system allowing the machine to easily run long leaf products drastically reducing product degradation and thereby preserving the best product quality.

This system, which is particularly easy to shield with safety guards, also helps protect the feeding area from risk of cross contamination during product changeover.

SINGLE BAG REJECTION

The CT11 is equipped with dedicated single bag rejection systems, either for naked bags (tetrahedral or pillow bags) and outer envelopes, ensuring the highest product quality whilst at the same time contributing to savings in packaging materials and an increase in machine efficiency.

H.M.I. (HUMAN MACHINE INTERFACE)

The new CT11 responds to the demand for production monitoring with an improved functionality PC based H.M.I. to supply the following data:

- MACHINE ALARMS WITH HISTORICAL AND STATISTICAL DATA
- FULL CONTROL AND STATISTICAL DATA COLLECTION ON MULTIHEAD WEIGHING SYSTEM
- CONSTANTLY UPDATED EFFICIENCY DATA FOR THE OPERATOR
- EFFICIENCY CALCULATION SHIFT/BATCH WITH HISTORICAL DATA
- DAILY PRODUCTION AND EFFICIENCY REPORTS IN EXCEL WITH SHIFTS/BATCHES

CT11 TECHNICAL DATA

**Machine speed:**

- Up to 200 bags or envelopes per minute

**Teabag capacity:**

- From 2.2 to a maximum of 16 cc. according to bag size

**Power required:**

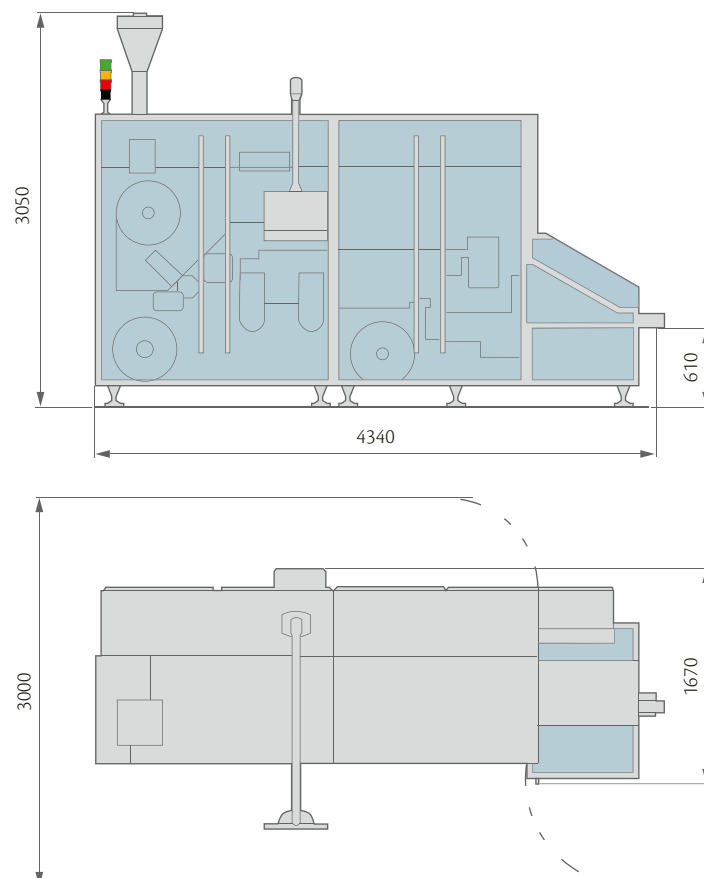
- Total installed power : 50 kw
- Average power consumption : 12 kw
- Maximum power consumption : 16 kw

**Compressed air:**

- Exercise pressure: 6 bar
- Consumption: up to max. 880 NI/min.

**Machine net weight:**

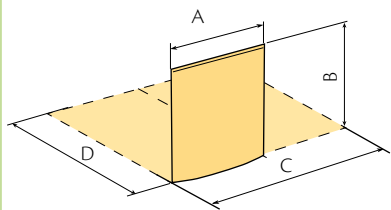
- Max. 5850 Kg.



CT11 TECHNICAL DATA

PACKAGING MATERIALS AND PRODUCT SPECIFICATIONS

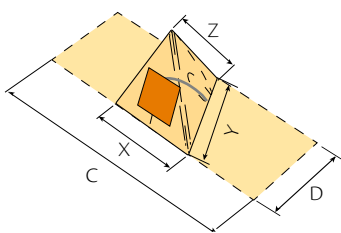
FILTER BAG
(PILLOW BAG)



Dimensions: mm

| A | B | C | D |
|----|----|-----|----|
| 55 | 60 | 130 | 60 |
| 55 | 65 | 130 | 65 |
| 60 | 75 | 140 | 75 |

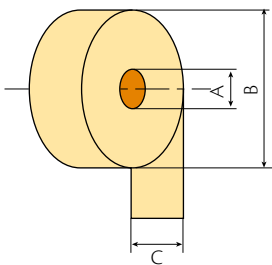
FILTER BAG
(TETRAHEDRAL BAG)



Dimensions: mm

| X | Y | Z | C | D |
|----|----|----|-----|----|
| 55 | 55 | 55 | 130 | 51 |
| 60 | 60 | 60 | 140 | 55 |

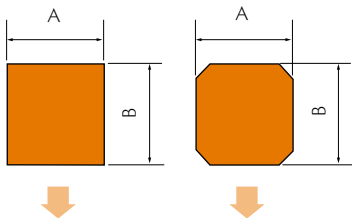
FILTER MATERIAL REEL



Dimensions: mm

| A | B | FILTER WEIGHT |
|----|---------|----------------------|
| 76 | MAX 500 | 18 gr/m ² |

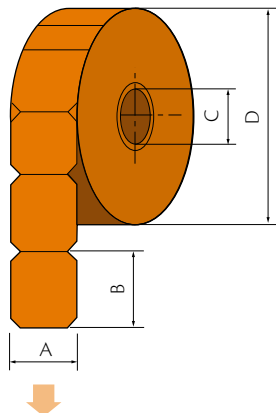
TAG



Dimensions: mm

| A | B |
|----|----|
| 20 | 20 |
| 22 | 22 |
| 25 | 25 |

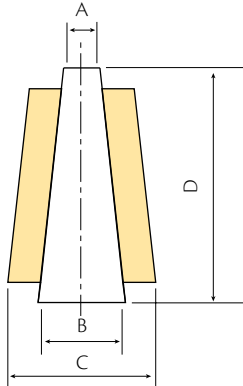
TAG PAPER REEL



Dimensions: mm

| C | D |
|-----|---------|
| 152 | MAX 500 |

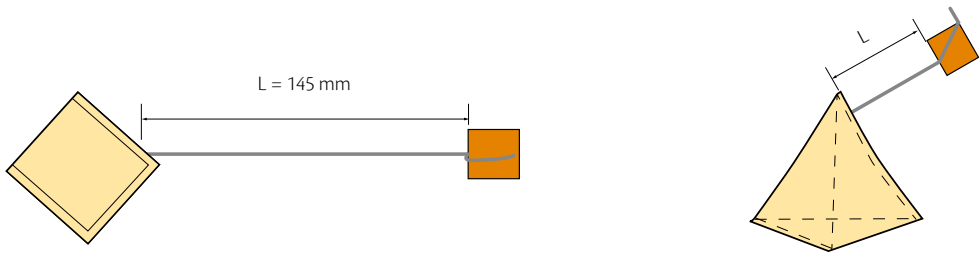
COTTON THREAD COIL SIZE



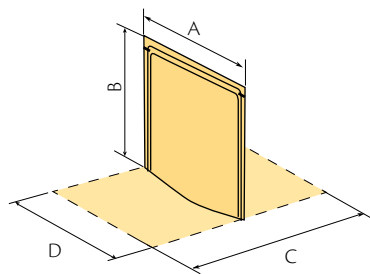
Number of ends: 8 - Material type: PLA/PP
Dimensions: mm

| A | B | C | D | E |
|----|----|-----|----|-----|
| 34 | 57 | 120 | 90 | 200 |

COTTON THREAD LENGTH



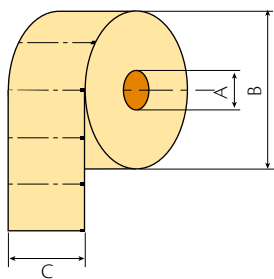
HEATSEALED OUTER ENVELOPE



Dimensions: mm

| A | B | C |
|----|----|-----|
| 90 | 80 | 160 |
| 90 | 90 | 180 |

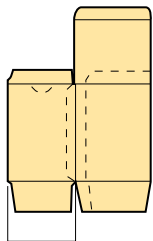
HEATSEALABLE OUTER ENVELOPE
PAPER REEL



Dimensions: mm

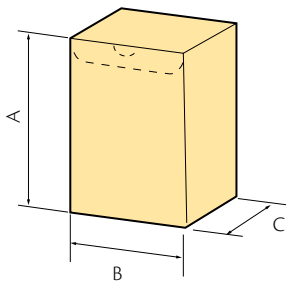
| A | B |
|----|---------|
| 76 | MAX 500 |

FLAT BLANK



| WEIGHT | THICKNESS |
|-----------------------------|------------------|
| 250 - 280 gr/m ² | Ø 0,35 - 0,45 mm |

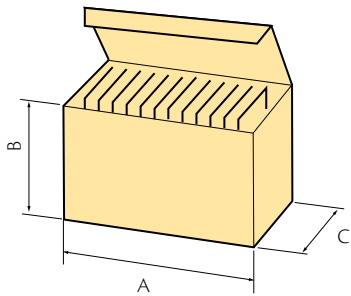
CARTON



Dimensions: mm

| | A | B | C |
|-----|-----|----|----|
| MIN | 90 | 92 | 82 |
| MAX | 140 | 92 | 92 |

CARTON



Dimensions: mm

| | A | B | C |
|-----|-----|----|----|
| MIN | 90 | 92 | 83 |
| MAX | 140 | 92 | 93 |

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