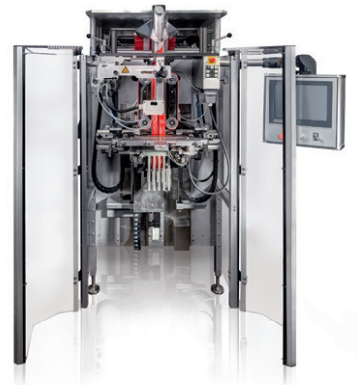




# ZENOBIA



ONE MACHINE. MULTIPLE POSSIBILITIES.



**TEEPACK**  
wrap your brand in quality

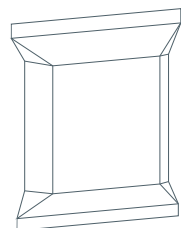


# ZENOBIA

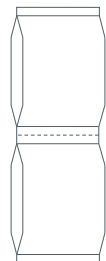
## WRAP YOUR BRAND IN QUALITY

### BECAUSE GOOD THINGS SHOULD LAST LONGER.

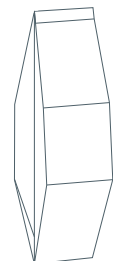
Transporting the full enjoyment potential of your brand depends on the right packaging. With the ZENOBIA vertical form, fill & seal machine, TEEPACK guarantees a positive product experience for your customers with high-quality, custom packaging. Our continuous motion ZENOBIA packaging machine provides numerous possibilities and combines maximum flexibility with absolute reliability.



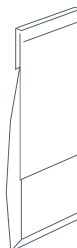
PILLOW BAG



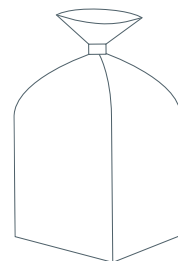
CHAIN BAG



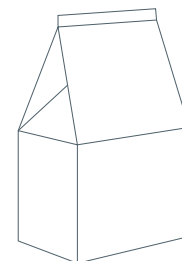
GUSSETED BAG



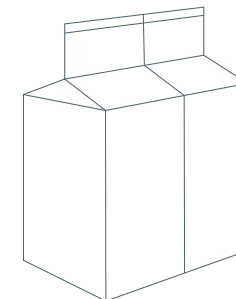
PREMIUM BAG



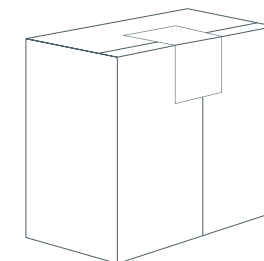
CLIP BAG



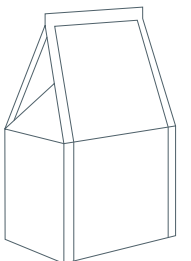
BLOCK BOTTOM BAG  
GABLE TOP



BLOCK BOTTOM BAG  
AIR FREE



BLOCK BOTTOM BAG  
FOLDED TOP (SINGLE/DOUBLE)



BLOCK BOTTOM BAG WITH  
CORNER SEAL

### PASTA

The ZENOBIA offers multiple packaging options for pasta including block-bottom bags with gable top, folded top with reusable tags and clip bags – ZENOBIA produces all established types of pasta bags.

### RICE

From boil-in-bags to block bottom bags with folded top, you can produce all standard bag types with high-speed efficiency – all on a single machine.

### COFFEE

The most important requirement when packaging coffee is preserving the precious aroma over a long period of time. The ZENOBIA guarantees absolutely airtight bags packaged in a protective packaging environment ( $\text{CO}_2 < 1\%$ ) with an aroma protection valve applied with the latest ultrasonic technology.

### LEGUMES

This is where high speed and flexibility counts. The ZENOBIA is precisely designed for the packaging of legumes. With high efficiency and compact bags in all standard formats.

### CEREALS

Whether cornflakes or traditional muesli with dried fruit – and including bag-in-box packaging of cereals – ZENOBIA offers a complete production process from a single source.

### TEA

In addition to the common packaging options for loose tea, we also offer a premium nylon tea bag that differentiates your product at point-of-sale and promises an enjoyable experience for your customers.

### SUGAR/SALT

As different as salt and sugar may be, filling processes for both requires fine precision, speed, reliability and robustness. The vertical form, fill & seal machine ZENOBIA packages stable block-bottom bags reliably and precisely – whether salt, granulated sugar, sugar cubes, rock sugar or powdered sugar.





# ZENOBIA

## HIGH PERFORMANCE MEETS FLEXIBILITY

### INCREASE YOUR EFFICIENCY WHILE REDUCING COSTS

The vertical form, fill & seal machine ZENOBIA stands for the highest quality, performance and efficiency, thereby ensuring a guaranteed top return on investment. The acquisition costs of the machine are only a small part of the production costs during the life cycle of the machine. High performance and high efficiency combined with minimal space requirements result in lower production costs. One of the many advantages: the unique air-free system further increases savings by managing up to 100 air-free bags per minute, replacing a space-consuming additional machine and minimising the waste of packaging material!



### HIGH PRODUCTION EFFICIENCY

Machine down times during a film reel change are unknown to ZENOBIA because that's done by the automatic rollsplicer without disrupting production. The splice can be done between changing the reels which greatly improves efficiency.

### MAXIMUM PACKAGING DIVERSITY GUARANTEED

The ZENOBIA lets you flexibly switch between different packaging formats and sizes as well as between filling media – making it the optimal choice for almost all areas of bag packaging.

### MODULAR DESIGN FOR YOUR INDIVIDUAL REQUIREMENTS

The modular machine concept of ZENOBIA and its comprehensive assembly kit are designed to meet your individual market and product standards and requirements.

### EXTREMELY LONG LIFE DUE TO PREMIUM MATERIALS

The ZENOBIA combines outstanding material quality with a low-wear construction.

### ECOLOGICAL AND ECONOMICAL PRODUCTION WITH AIR FREE SYSTEM

Due to minimal fin with sealing directly above the product level no packaging material is wasted.

### EASY OPERATION

The user-friendly touchscreen for easy programming, the quick access machine room and automated processes ensure optimal usability with minimal training expenditures.

### HIGHEST SAFETY STANDARDS

The ZENOBIA meets all the requirements of modern occupational safety.

### SECURE PROCESSES

The innovative and high-quality technology of the ZENOBIA features online diagnostics for minimal machine downtimes and more efficient production.

### EXTREMELY LOW MAINTENANCE COSTS

Low-wear construction and contact-free longitudinal sealing guarantee an absolute minimum of maintenance and costs.

### INNOVATIVE TECHNOLOGY IN GERMAN QUALITY

You've made an excellent choice with a packaging solution from ZENOBIA! It guarantees the highest machine building quality "Made in Germany". Experienced, highly-skilled technicians deliver deep technical know-how and maximum quality in-house manufacturing.

### FLEXIBLE MATERIAL PROCESSING

The machine can process almost all mono and laminate packaging materials of different thickness to enable the production of a variety of bag styles.



# ZENOBIA

## INNOVATIVE TECHNOLOGY FOR MAXIMUM FLEXIBILITY

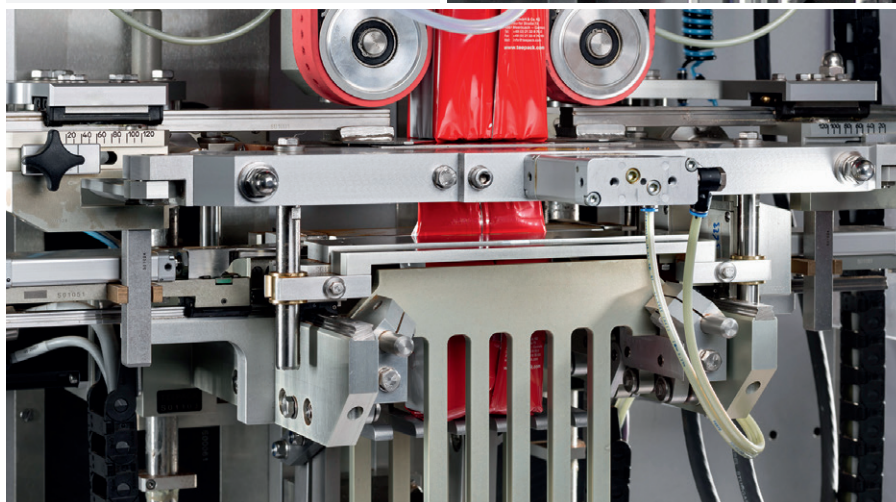
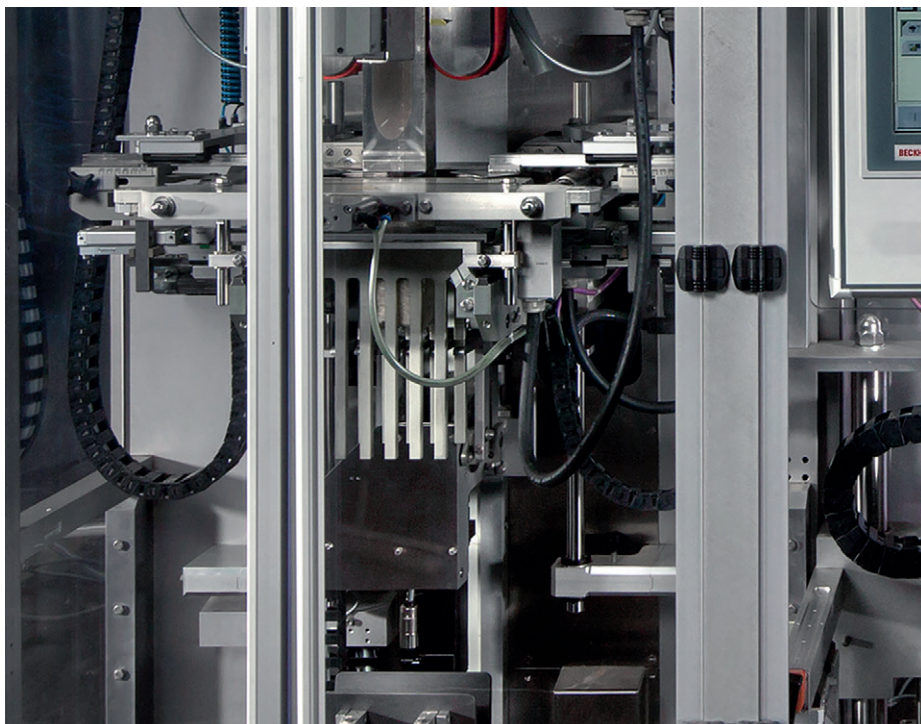
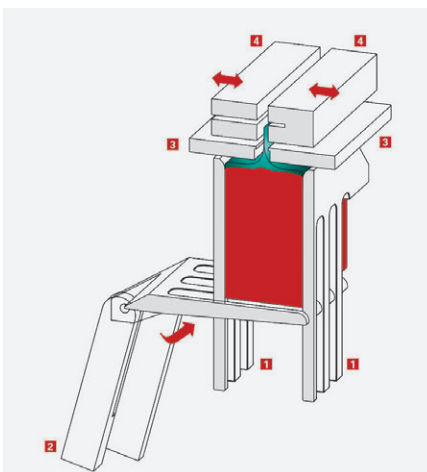
### PURE PLEASURE, AROMATICALLY PACKAGED.

When pleasure needs to be transported, you need the right packaging. The vertical form, fill & seal machine ZENOBIA offers you a modular system which can be tailored to your individual requirements. ZENOBIA lets you enjoy a multitude of options with maximum flexibility and absolute reliability.

### AIR FREE SYSTEM

The patented Air Free System seals the bag, condenses the product and disperses unnecessary air in a single process step.

- 1 Steering plates
- 2 Servo-driven lifter
- 3 Folding plates
- 4 Cross seal jaws

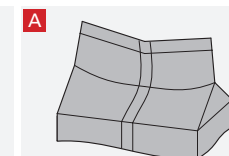
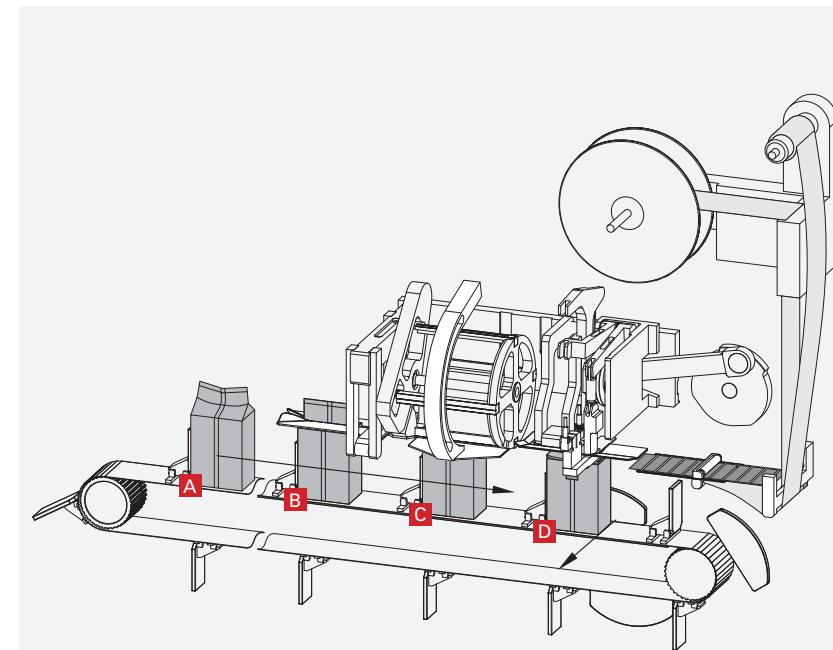


ZENOBIA's patented Air Free System performs multiple tasks simultaneously: It takes just one processing step to close the bag, compress the product as necessary and press all excess air out of the bag.

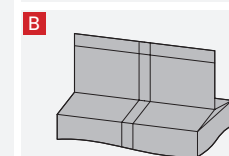
One of the many advantages: The Air Free System which manages up to 100 air-free bags per minute, replaces a space-consuming additional machine, avoids wasting packaging material and helps you save.

### EQUIPPED FOR ANY BAG AND MADE TO PRESERVE GOOD QUALITY

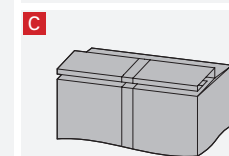
High economic efficiency is the trademark of ZENOBIA. Continuous operation and automatic folding processes interact perfectly with a minimal footprint and fully integrated machine control. The folding unit is synchronised with the conveyor belt, ensuring the bag stands idle between procedures so that each step from A to D can be implemented exactly and securely.



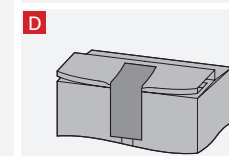
Air-free block bag



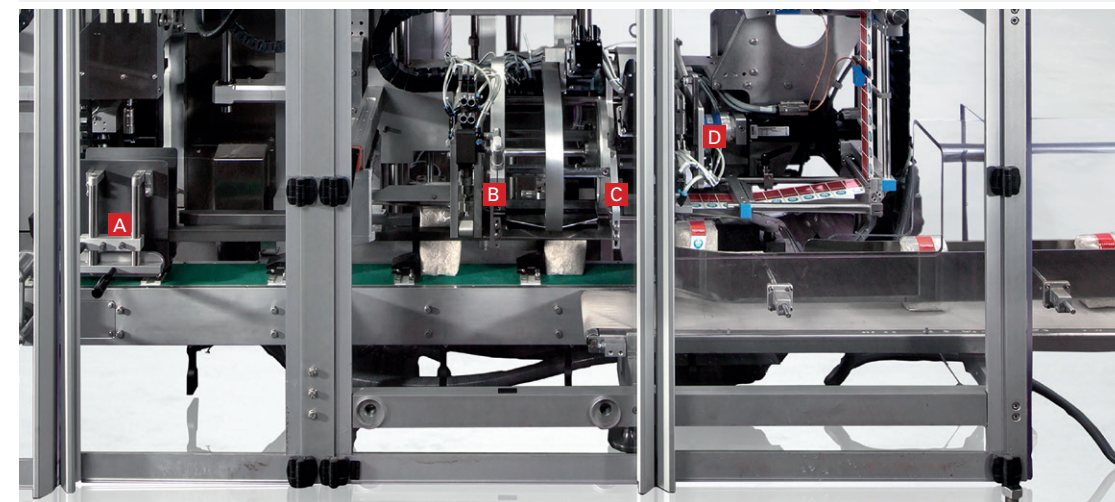
Bag formation  
Exact alignment  
of the bag fin



Folding  
Optional single- or  
double-fold of the bag fin



Labeling  
Fixation of the folded bag  
fin with a resealable label





# ZENOBIA

## MODULAR OPTIONS TO MEET EVERY DEMAND

### MANUAL/DIGITAL GASSING SYSTEM

Oxygen-sensitive products require special protection. The optional gassing system ensures just that by automatically supplying nitrogen or noble gases during the packaging process. Your advantage: it supports highest product quality and a long shelf life – negative environmental impacts are literally excluded.



### VALVE APPLICATION

ZENOBIA's valve application allows attaching up to 100 aroma valves or relief valves per minute to the flat, unshaped film web via ultrasonic technology. The advantage is obvious: the aroma-seal valves prevent oxygen from acting upon your product while letting emitted gases escape. Thus, the package stays in its defined shape because emitted gases can no longer put them under pressure.

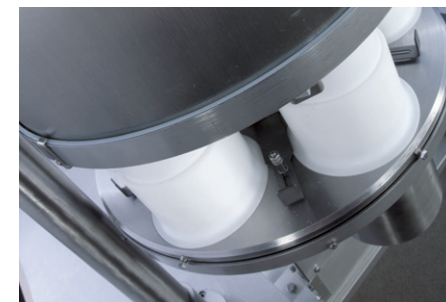


### LABEL APPLICATION STATION

The modular Label Application Station also adds to ZENOBIA's various possibilities: this module enables you to label up to 80 bags per minute using a high-quality cardboard label in miniature formats from 80 to 180 millimeters. These are sealed (e.g. PREMIUM BAGS made of nylon) with heat seal or ultrasonic technology.

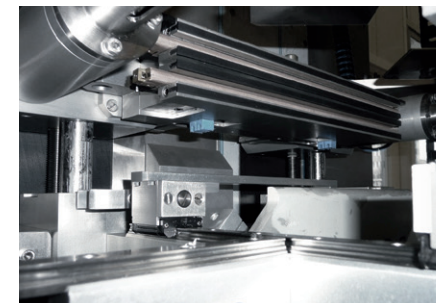
### AUTOMATIC SPLICER

The automatic rollsplicer allows for smooth and precise roll changes during production without flash and in rapport length.



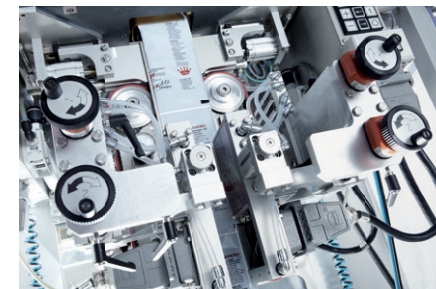
### DOSING SYSTEMS

The cup dosing system packs free-flowing, pierced or granular products volumetrically. The auger dosing system fulfils exact dosing requirements for powdered or granulate-based products. The multihead weigher doses products gravimetrically.



### SEALING SYSTEMS

Impulse sealing ensures airtight seams on Mono-PE film, heat sealing is ideal for compound films, and hygienic ultrasound sealing for heat-sealable films pushes product residues out of the seal area.



### CORNER SEALING SYSTEM

The contact-free sealing system produces the seams directly at the forming tube.

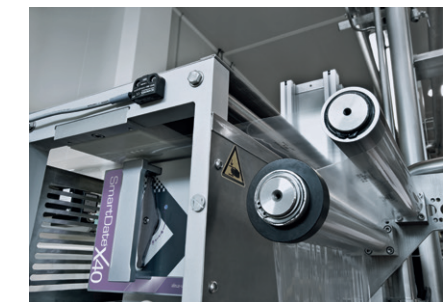


### FILM TRACKING CONTROL

Film tracking control allows for ultrasound controlled, exact film guidance with longitudinal sealing for optimal bag quality.

### PRINTING SYSTEMS

The optional thermotransfer, inkjet and laserprinter for the ZENOBIA allows the printing of special information such as date of packaging and bar codes.



### LABELING

The integration of a labeling device for the perfect placement of the label is possible at several places in the process. The labeling device is controlled over the ZENOBIA control touchscreen. This guarantees a synchronised production and labeling speed.



### VACCUUM PUMP

The vacuum transport belts can also be driven by an integrated and digitally controlled vacuum pump.

### IONISATION

To avoid electrostatic problems, different ionisation systems are available to be integrated into the film carrier or the cross seals. This ensures that the filling material does not stick on the statically loaded film and will not generate leaks in the sealings.

### REPEAT ACCURACY CONTROLLED BY PRINT-MARK CONTROL

Printed films need to be exactly steered by optical print-mark regulation. Transparent films without print-marks are optionally controlled by a rotary encoder.

### BAG TOP HOLES

From simple round holes to three-holes and the Euro hole, all options are available. Customer specific variations are also possible.



# ZENOBIA

# MODULAR MACHINE CONCEPT

## EQUIPPED FOR ANY BAG AND MADE TO PRESERVE GOOD QUALITY

With its modular design and equipment options, ZENOBIA is able to produce bag packages in an impressive variety. As a result, you will get exactly the package variant you need – custom-tailored to your brand and product. ZENOBIA perfectly adapts to your needs and demands, producing various bag packages, such as block bottom, air-free, pillow, gusset and

four-edge sealed bags in the most diverse packaging sizes. Different sealing systems can be used, such as ultrasonic four-edge, impulse or heat sealing. Get to know our label application station – capable of labelling the smallest bags you can imagine.

Bag specifications*	Pillow Bag	Chain Bag	Gusseted Bag	Premium Bag
Width	60-280 mm	60-280 mm	60-200 mm	45-60 mm
Depth			40-100 mm	
Fill level				
Flap length				
Draw-off length	100-600 mm	100-600 mm	100-600 mm	132-160 mm
Modules				
Sealing Sytem	1 2 3 4	1 2 3 4	1 2 3	1 3 4
Air Free System				
Four Edge Sealing				
Folding Machine				
Carton Label Application Station				MANDATORY
Label Application	OPTIONAL	OPTIONAL	OPTIONAL	OPTIONAL
Valve Application	OPTIONAL	OPTIONAL	OPTIONAL	
Gassing System	OPTIONAL	OPTIONAL	OPTIONAL	

Clip Bag	Block Bottom Bag Gable Top	Block Bottom Bag Air Free	Block Bottom Bag Folded Top (single/double)	Block Bottom Bag Corner Seal
60-200 mm	60-200 mm	60-200 mm	60-200 mm	60-200 mm
40-100 mm	40-100 mm	40-100 mm	40-100 mm	40-100 mm
60-250 mm		60-250 mm	60-250 mm	60-250 mm
40-100 mm		40-100 mm	40-100 mm	40-100 mm
156-430 mm	156-430 mm	156-400 mm	156-400 mm	156-400 mm
1 2 3	1 2 3	1 2 3	1 2 3	1 2 3
OPTIONAL	OPTIONAL	MANDATORY	OPTIONAL	OPTIONAL
OPTIONAL	OPTIONAL	OPTIONAL	OPTIONAL	MANDATORY
	OPTIONAL	OPTIONAL	MANDATORY	OPTIONAL
OPTIONAL	OPTIONAL	OPTIONAL	OPTIONAL	OPTIONAL
OPTIONAL	OPTIONAL	OPTIONAL	OPTIONAL	OPTIONAL
OPTIONAL	OPTIONAL	OPTIONAL	OPTIONAL	OPTIONAL

1 Heat Seal 2 Impulse Sealing 3 Continuous Sealing for PE 4 Ultrasonic Sealing

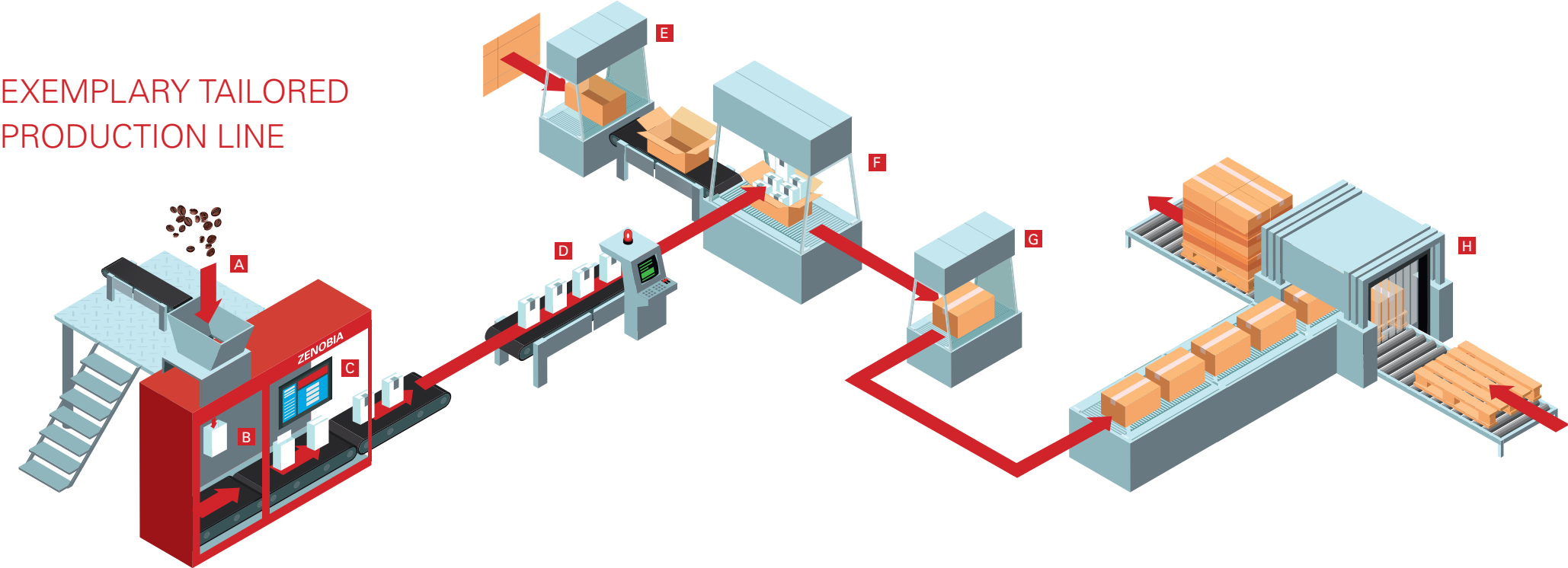
\*Reserve technical changes

## OUR LINE-UP-SERVICE FOR EFFICIENT PACKAGING AUTOMATION

The compact construction of the ZENOBIA, even with additional modules, requires very little space. This offers you the opportunity to build a production line within your broader production facilities which meet both your production output and product diversity. This includes complete synchronisation of, e.g., automation processes in alignment with your individual requirements and delivering utmost efficiency. We would be pleased to support you with your planning and implementation processes.

- A Dosing systems
- B Air Free System
- C Folding and label application
- D Checkweigher and metal detector or X-Ray
- E Carton erector
- F Case packer
- G Carton sealer and checkweigher
- H Palletising

## EXEMPLARY TAILORED PRODUCTION LINE





# TECHNICAL DATA

## ZENOBIA BASIC MACHINE WITH AIR FREE SYSTEM TECHNICAL SPECIFICATIONS

### Film dimensions:

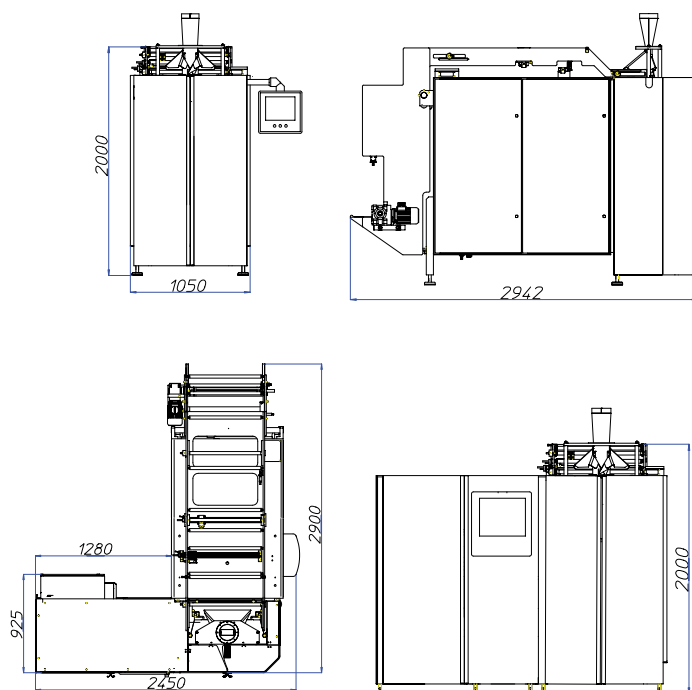
Film width	(mm)	max. 650
Film roll diameter	(mm)	max. 550
Inner roll core diameter	(mm)	76 -152 (3"-6")

### Nominal output:

Pillow Bag	200	bags per min.
Block Bottom Bag Gable Top	130	bags per min.
Block Bottom Bag Folded Top	100	bags per min.
Air Free Bag	100	bags per min.

### Connection data:

Mains connection	230/400V, 50 Hz, 3Ph, N/PE
Air Pressure	(min.) 6 bar
Protection class:	IP54
Machine colour:	Stainless steel V2A



## AT A GLANCE: INNOVATIVE TECHNOLOGY FOR HIGH EFFICIENCY PRODUCTION

- Consistently high velocity – up to 200 pillow bags, 130 block bottom bag gable top, 100 block bottom bags folded top or 100 air-free bags per minute
- Flexible, fast and user-friendly format changes with less downtimes
- Automatic splicer available
- Software-supported recipe management assigned to any desired bag format
- Longitudinal heat sealing. Compatible with all standard films (incl. Mono PE)
- Easy use through PC-operated touchscreen
- Optimal customer support through remote diagnosis and maintenance by the ZENOBIA service team
- Constant, slip-free film guidance by a packaging pre-roll and vacuum-assisted transport belt
- Ultrasonic controlled, exact film guidance to produce a constant longitudinal sealing for optimal bag quality
- Encoder for unprinted/transparent films
- Print mark registration: high-precision cutting control of every bag
- Compatible with all standard dosing systems
- Compatible with all standard thermo-transfer, inkjet and laser printers
- Multiple sealing systems:
  - Heat sealing (standard)
  - Impulse sealing
  - Continuous sealing for PE
  - Ultrasonic controlled sealing

# ZENOBIA

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