



# ErgoBloc LM

Wet-section block for non-carbonated and/or flavoured water



# Well thought-out block philosophy



The ErgoBloc LM promotes block technology decisively. How that? It represents the block concept with a determination that is unrivalled. The ErgoBloc LM does not only combine individual machines but it also is designed as a holistic system with one central unit each for the control system, the drive and the operation.

## At a glance

- Functions: Stretch blow moulding, labelling, filling and capping
- Output: Up to 55,000 containers per hour\*
- Processing range:
  - Non-carbonated and/or flavoured water
  - Cylindrical containers made of PET
  - Standard and lightweight containers
  - Container volumes of 0.2 to 2.0 litres
  - Containers of up to 100 percent rPET
  - Plastic reel-fed labels



\*depending on the processing range

# Design



## Filling and capping



## Labelling



## Stretch blow moulding



## Feeding and heating the preforms



Fully-electronic PFR filling valve with infinitely variable control

Labelling station with selective labelling for up to 55,000 containers per hour

Up to 2,750 containers per hour and blowing station

Highly-efficient infrared heating technology

- Up to 30 percent less space requirement in comparison to conventional block variants
- Uniform lubrication and safety concept and drive control
- Central HMI for complete operation and PLC for all control functions
- No transfer starwheels between the main modules
- Operation possible with **one single operator**

# Components

## Stretch blow moulder

- Torsion-resistant platform with skip-and-run technology
- Only four internal horizontal preform and container transfer points
- Actively controlled transfer grippers
- Five high-precision Monotec servo motors with real-time synchronisation

### **Infrared heating technology**

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- Parabolic reflector for top infrared emitter
- Adjustable base reflectors: adjustable to the respective preform length
- Maintenance-free system of ceramic reflectors

### **Air Wizard Triple**

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- Further developed compressed air recycling system with intermediate pressure levels for internal re-use of the compressed air
- Automatic self-optimisation of the blowing air recycling process
- Significantly reduced switching time dispersion



# Components Labeller

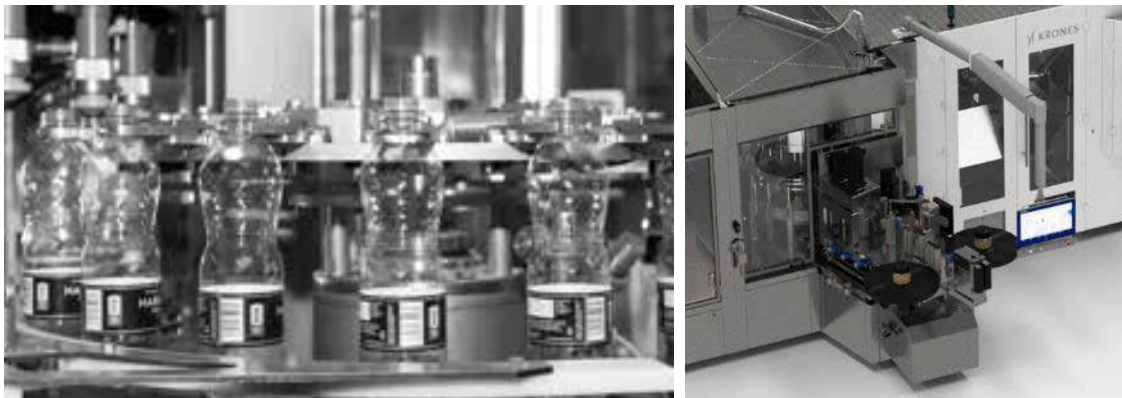


## Why label first and fill afterwards?

- Full bottles can have varying internal pressures.
- These variations can impact the labelling result.
- The bottles do not have any unwanted moisture.

## Solution: The ErgoBloc LM ...

- labels the bottles before filling them.
- pressurises the empty bottles with compressed air.



## Result

- Consistently excellent label fit
- Optimum conditions for lightweighting
- Ideal access for handling parts change-over
- Optimal accessibility from three sides
- "No bottle – no label" function
- Reduced hotmelt consumption due to "Gravure Glue Application"
- Unique servo motor technology
  - Flexible selection of the pitch
  - Maximum stable handling of thin, sustainable films



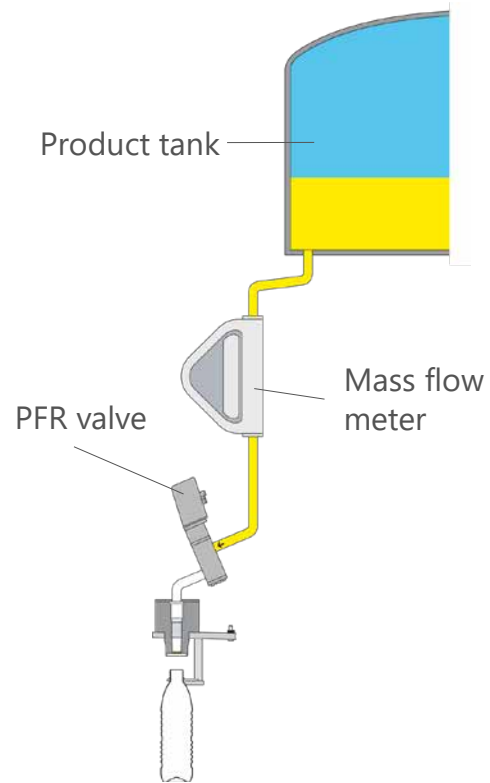
# Components

## Filler



### Filling system for non-carbonated, ozonised water: Hydrofill VFJ

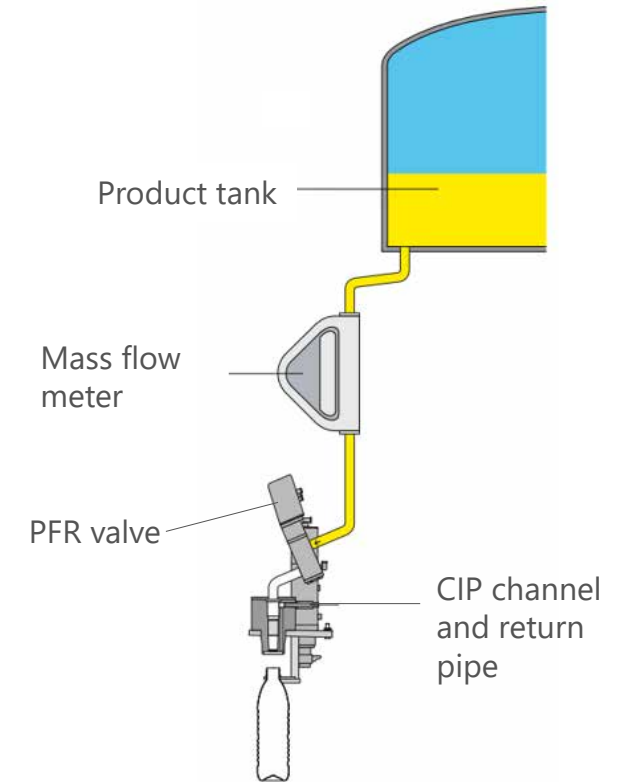
### Filling system for non-carbonated and/or flavoured water: Hydrofill with Modulfill top part VFJ



- Infinitely adjustable regulation of the filling speed thanks to PFR technology
- Reduced clean room volume thanks to the Tabletec front table
- Best efficiency rates due to the combination with Krones cap feed units
- Simple maintenance and assembly of the filling valve and the PFR valve
- Microbiological safety due to contact-free filling and perfect machine design
- Significant reduction of the required energy for the machine through the use of PFR valves
- State-of-the-art hygienic design

– Product feed from the top

– Maximal efficient cleaning due to the use of CIP cups



# Components

## Drive and transfer technology



### Drive technology

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- Servo drives use throughout all applications
  - Energy-efficient
  - Low wear
  - Reliable

### Transfer technology

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- Actively controlled transfer grippers
- Container conveyance via neck handling
  - Quick and very precise preform and bottle transfer
  - Smallest possible contact area between the material and the machine
  - Gentle conveyance also for light-weight containers
  - Reduction of handling parts
  - No PET abrasion during the transfer

### Servo Joint Control (SJC)

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Single machines or block mode? Both is possible: Because with the Servo Joint Control, you can electronically decouple the blow moulder, labeller and filler from the block.

- Automatic decoupling during malfunction
- Automatic synchronisation during restart
- Manual decoupling of individual machines for efficient change-over processes

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**SJC makes it possible:  
The ErgoBloc LM thinks on its own!**

# Operation

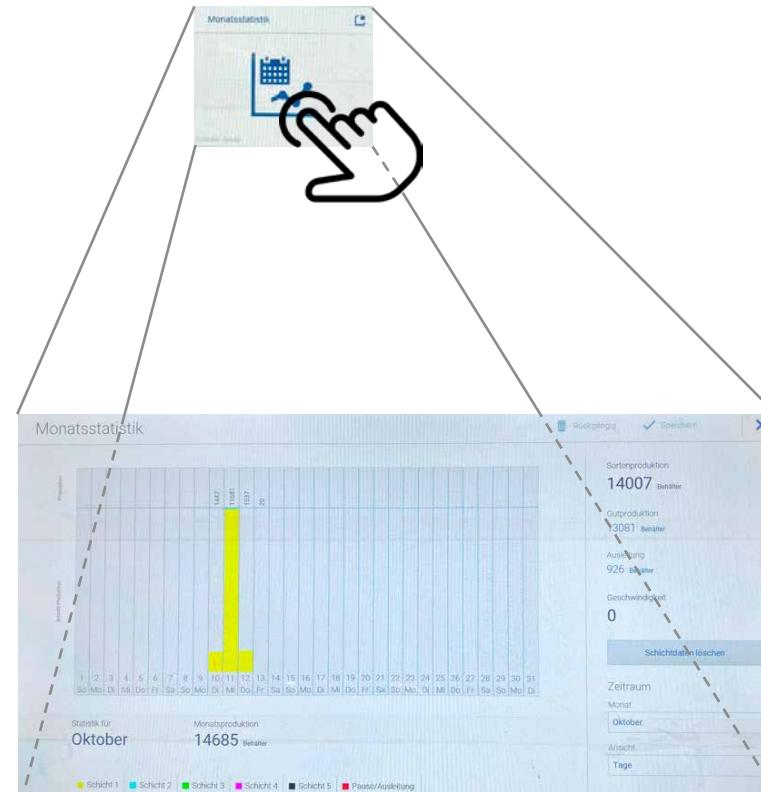


## Human Machine Interface (HMI)

- Intuitive operation with task-oriented menus
- Uniform look and feel at all three individual machine HMIs

## High degree of user friendliness

- Block operation **with just one operator**
- Height-adjustable 21-inch touch-screen (16:9)
- Optimal visibility due to large pivoting range of the screens
- VisiWin visualisation system
- LED status indicator for notifications





# Create your personal ErgoBloc LM

## Optional packages



### Simple and cost-efficient customisation with a broad range of function packages

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- Inspection of preforms
- Inspection of empty bottles
- Inspection of filled bottles
- Automatic foam cleaning for filling module
- Nitrogen injection
- Alternative layouts for cap feed
- Automatic Multireel reel magazine



# Benefits to you



## Four process steps – one operator

The block is designed as one unit in which all essential control and function elements are centrally combined. This way, just one operator can easily operate the entire ErgoBloc LM on his own.

## Energy savings

From optimised infrared heating technology to consistently implemented servo drive technology: The topic energy efficiency goes all the way through the block just like a red thread. Especially ambitious savings goals can be realised with the Air Wizard Triple compressed air recycling system.

## Focus on the essentials

The ErgoBloc LM has been planned as a single, integrated machine and it is designed exactly for one defined application. This allows to go without many cost-intensive elements. Therefore, it only needs one central touch-screen for all functions and only requires one single labelling station.

## Cost-efficient customisation

The pre-defined option packages enable to adapt the block to special requirements and keep the costs as well as the commissioning time low at the same time.

## Trouble-free continuous operation

Full power with no breaks: The labelling module automatically detects bottle gaps and does not apply glue or labels in this case. Disruptions due to missing bottles and unnecessary glue and label consumption are therefore not an issue.

## Small footprint

The ErgoBloc LM requires up to 30 percent less space than conventional block variants.

### Requesting a new machine

You can easily send a request for a non-binding quotation in our [Krones.shop](#).



# Certified ecological efficiency

## Machines with enviro seal



At Krones, the enviro label stands for excellent ecological efficiency. Products that bear the enviro label have proven in an objective test procedure that they efficiently use energy and media, and that they produce in an environmentally-friendly way. The requirements are defined by the EME standard that has been developed by the TÜV SÜD (technical inspection authority) for assessing production plants. The enviro test procedure has also been certified by TÜV SÜD as an independent expert. Therefore, you can be sure that: an enviro label stands for ecological efficiency.

**This is why the ErgoBloc LM is enviro-classified:**

### Energy efficiency

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- Increased station performance during stretch blow moulding and labelling
- Reduced energy consumption thanks to the omission of transfer starwheels and redundant components
- Height-adjustable base thermal shield and frequency-controlled neck finish cooling system
- Energy-efficient separated vacuum during labelling

### Media efficiency

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- Efficient cooling of the entire block
- Air Wizard Triple air recovery system
- No compressed-air consumption during the filling process

### Environmental compatibility

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- Use of enviro-compliant lubricants
- Recoverable CIP media



# Everything from a single source



## Training sessions at the Krones Academy – trained personnel for an increased efficiency of your line

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The multifaceted offer by the Krones Academy ranges from operation, servicing and maintenance courses through to management training. We will gladly also create your individual training programme.

## Evoguard – excellent valve technology all along the line

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The Evoguard valve series comprises a modular system with hygienic and aseptic components which contributes to an increased performance at every point of the production line and has the perfect solution for every process step.

## KIC Krones cleaning agents make your machine shine

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Only if the production environment is immaculate, can your product be brilliant. KIC Krones provides you with the optimum cleaning agents and disinfectants for each individual production step.

## KIC Krones adhesives – the all-rounder for a strong grip

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Regardless if PET or glass, plastic or paper, labels or packagings – at KIC Krones, you will find your ideal adhesives for a high-quality product presentation.

## Krones Lifecycle Service – Partner for Performance

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It goes without saying that also after the purchase of new machines, Krones takes care of your lines: The Krones LCS experts are always there to help you reaching your goals and turn your wishes into optimal LCS solutions.

## KIC Krones lubricants for each production step

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Whether for gears, chains or central lubrication systems – our greases and oils are true all-round talents. They can reach every lubrication point, protect your line and ensure gentle treatment for your products thanks to their food-grade quality.

**SOLUTIONS  
BEYOND  
TOMORROW**

