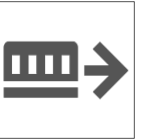


KRONES cap feed systems

Your caps can experience the joy of movement



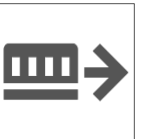
Keeping the journey short

The basic spatial conditions, performance specifications and the required buffer characteristics are decisive when selecting the cap feed system. Only when the feed system precisely suits the filling concept is it possible to achieve high efficiency. KRONES provides a wide range of variants which offer a suitable solution for all areas of use.

The variants at a glance

- Inclined sorters with inspection unit and buffer
- Sorting elevator with inspection unit and buffer positioned on the filler
- Sorting elevator with inspection unit and buffer close to the ground
- Double sorter with distribution gate
- Inclined sorter with inspection unit and cap buffer system ahead of cap sterilisation systems
- Sorting elevators with inspection unit and cap buffer system ahead of cap sterilisation systems
- Sorting elevators installed at low level with inspection unit and air conveyance of the caps to the capper





Inclined sorters

Mechanical inclined sorter for the orientation of rotationally symmetric flat caps:

- Controller integrated in the filler and terminal boxes on the sorters
- Design with distribution gate and Y-shaped channel as a redundant solution to ensure the continual operation of block-synchronised systems (when handling one cap type)

Output

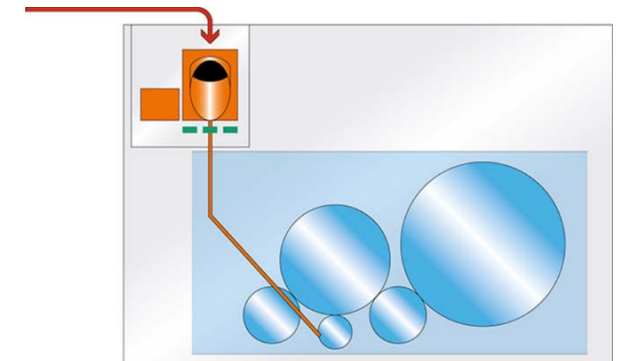
Up to 60,000 caps per hour depending on the cap type and dimensions.

Plus point

Proven system with one or two sorters for processing one or two cap types with different diameters

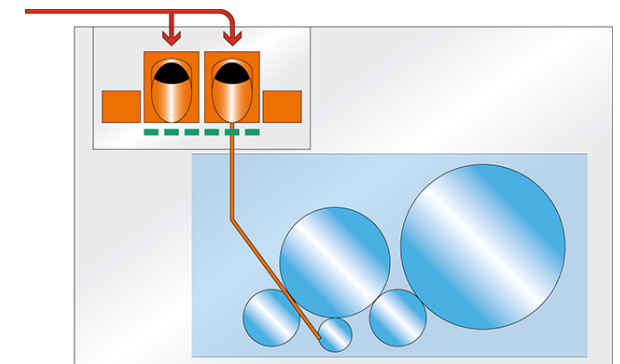
Inclined sorter for one cap:

- Without buffer and inspection unit
- For stand-alone fillers



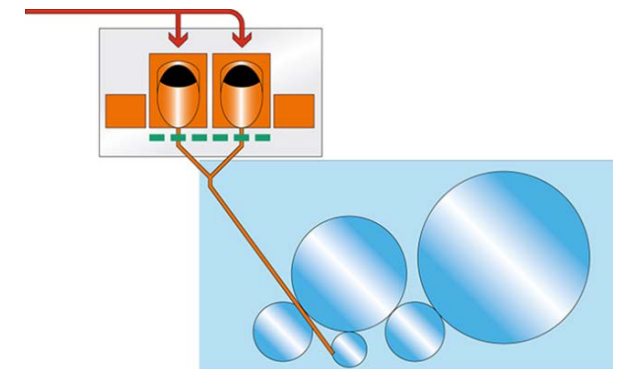
Inclined sorters for two caps:

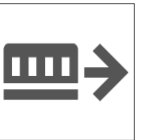
- Without buffer system and inspection unit
- For stand-alone fillers



Inclined sorters for one cap:

- Without buffer system and inspection unit
- For filler blocks





Inclined sorter with inspection unit and buffer system

Mechanical inclined sorter for the orientation of flat caps with cap inspection using a Checkmat CI-S (sensor-controlled) or Checkmat CI-C (camera-controlled) and Accucap cap buffer:

- After sorting: Examination of the caps for mechanical faults with the Checkmat CI-S inspection system and feeding to a rejection device
- Storage of the caps in the cap buffer system so that the block can be completely emptied in case of a malfunction
- Installation on a clean room roof above the filler discharge or on a platform

Output

Up to 60,000 flat caps per hour depending on the cap type and diameter

Plus points

- Proven system with one or two sorters for processing one or two cap types with different diameters
- High product quality as the caps are examined in the cap inspection unit

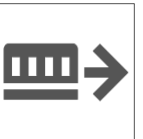
* CI-S = Cap Inspection – Sensor, CI-C = Cap Inspection – Camera



Inclined sorter for one cap type



Inclined sorter for two cap types



Inclined sorter for CapAsept D or CapAsept L

Cap feed unit with Checkmat CI-S (sensor controlled) or Checkmat CI-C (camera-controlled) inspection system, as well as a cap buffer system with one or two sorters:

- Installation of the system on the platform of an aseptic block system
- Storage of the caps in the cap buffer system so that the block can be completely emptied in case of a malfunction
- Cap transfer to the aseptic linear cap sterilisation unit CapAsept D* or CapAsept L**
- The sterilised caps are buffered in the CapAsept L cap sterilisation unit during the sterilisation process

Output

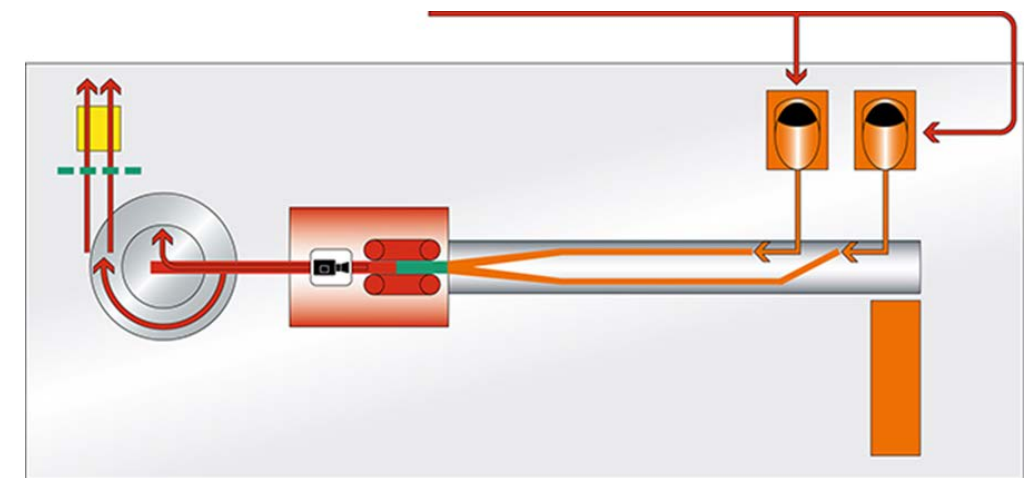
Up to 81,000 flat caps per hour depending on the cap type and diameter

Plus points

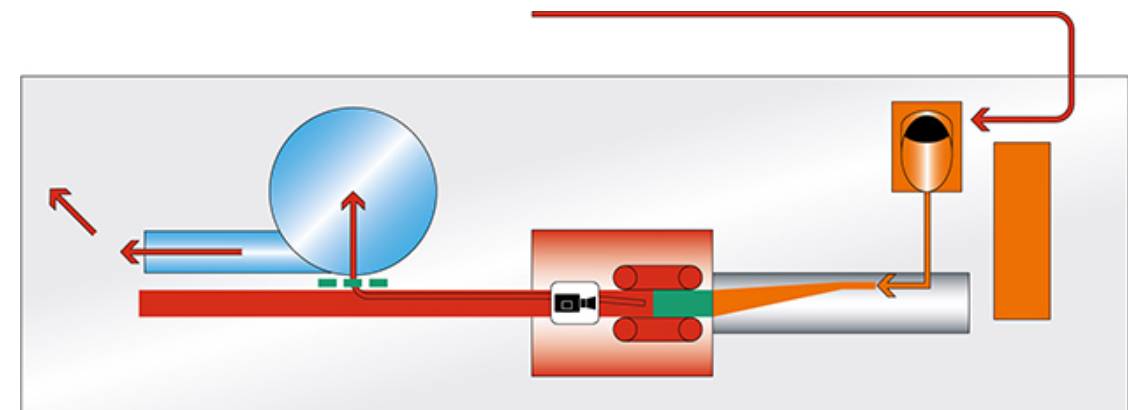
- Inclusion of the inclined sorter in an aseptic system
- Buffering possible for dry cap disinfection
- No buffer required for wet disinfection as the peracetic acid immersion bath already acts as a cap buffer system

* D = Dry (dry aseptic system)

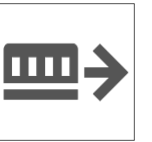
** L = Liquid (liquid aseptic system)



CapAsept D
Two inclined sorting systems and linear cap sterilisation unit



CapAsept L
One inclined sorting system and immersion-bath cap sterilisation unit



Capcade sorting elevator in raised position

The Capcade sorting elevator for the orientation of caps with cap inspection unit and Accucap cap buffer system:

- After sorting: examination of the caps for mechanical faults with the Checkmat CI-S (sensor controlled) or Checkmat CI-C (camera controlled) inspection system and feed to a rejection device
- Storage of the caps in the cap buffer system so that the block can be completely emptied in the case of a malfunction
- The buffer capacity depends on the cap diameter
- Installation of the system on a clean room roof above the filler discharge or on a separate platform

Output

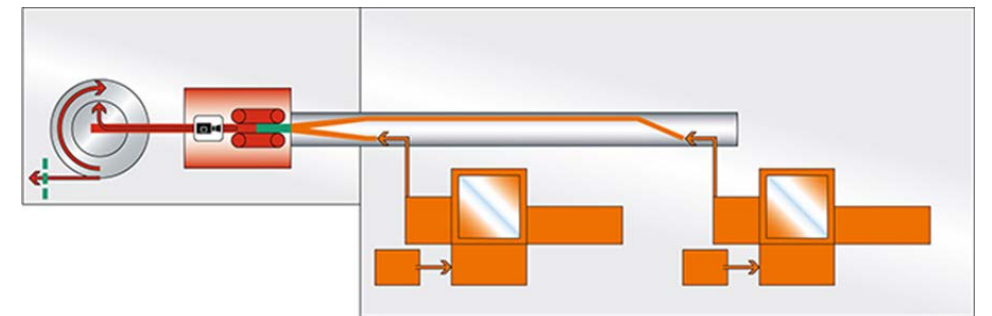
Up to 81,000 caps per hour depending on the cap type and diameter

Plus points

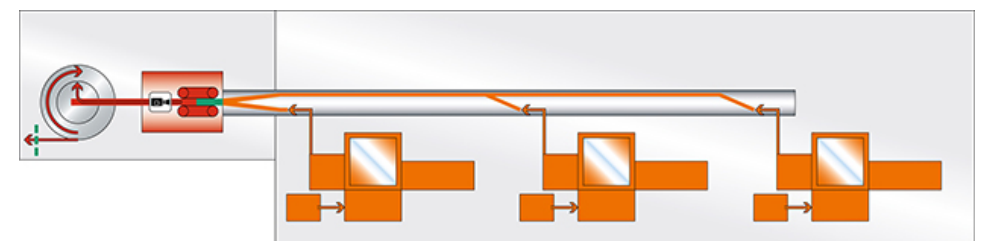
- Efficient system for cap sorting in the high-speed sector with up to three sorting elevators
- Perfect inspection of the cap quality and optimum system buffer characteristics



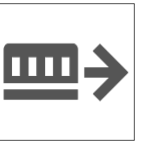
One sorting elevator



Two sorting elevators



Three sorting elevators



Capcade sorting elevator in low-level position

The Capcade sorting elevator for the orientation of caps with cap inspection unit and a cap buffer system:

- Low-level positioning of the Capcade sorter and inspection unit next to the filler, and arrangement of the cap buffer system on the machine clean room roof
- After sorting: Examination of the caps for mechanical faults with the Checkmat CI-S (sensor-controlled) inspection system and feeding to a rejection device
- Transfer of the intact caps to the Capvey Lift elevator system to supply the cap buffer system
- Storage of the caps in the cap buffer system so that the block can be completely emptied if a malfunction occurs

Output

Up to 81,000 caps per hour depending on the cap type and

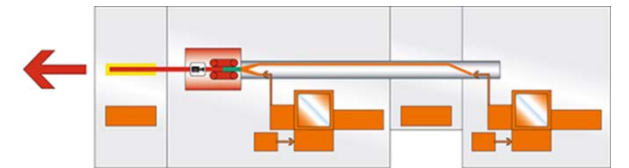
diameter

Plus points

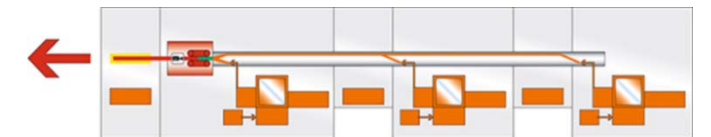
- High user friendliness thanks to low-level sorting and inspection
- Efficient system for cap sorting in the high-speed sector with up to three sorting elevators
- Gentle handling of caps using KRONES sorting elevator technology, gentle elevation thanks to the KRONES Capvey Lift



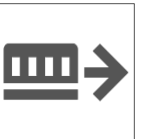
Low-level sorting elevator



Two low-level sorting elevators



Three low-level sorting elevators



Sorting elevator for CapAsept D or CapAsept L

Capcade sorting elevator for the orientation of caps with cap inspection using a Checkmat CI-S (sensor controlled) or Checkmat CI-C (camera controlled) and Accucap cap buffer:

- Installation of the system on the platform of an aseptic block system
- Storage of the caps in the cap buffer system so that the block can be completely emptied in the case of a malfunction
- Cap transfer to the aseptic cap sterilisation unit CapAsept D* or CapAsept L**

Output

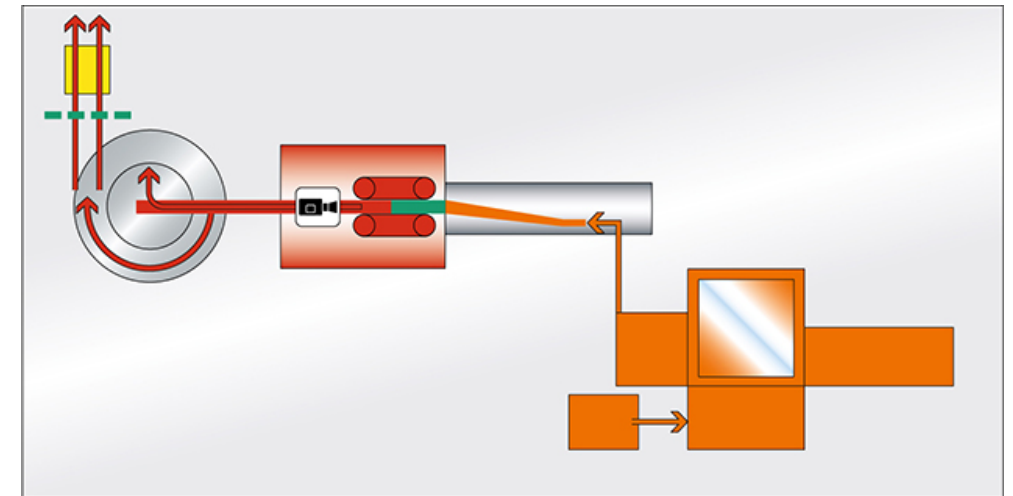
Up to 81,000 flat caps per hour depending on the cap type and diameter

Plus point

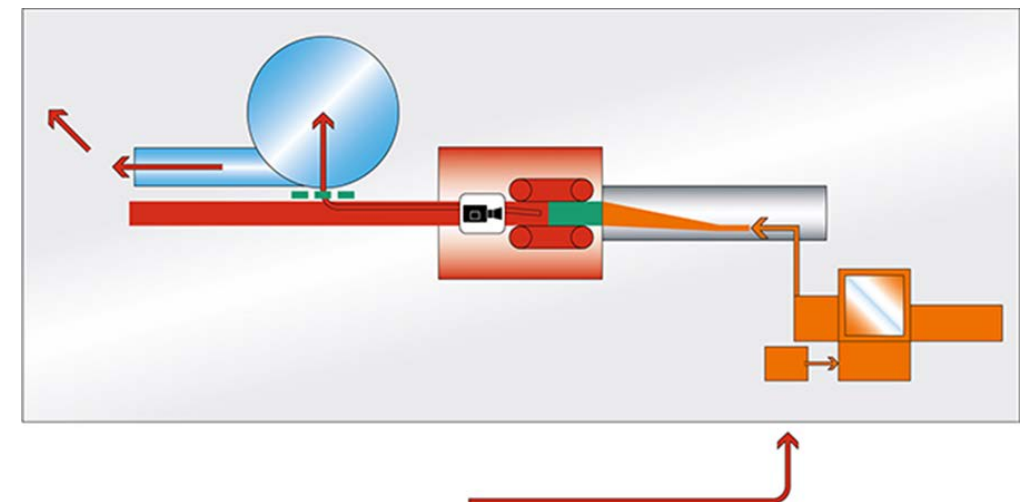
The systematic inclusion of the sorting elevator solution in an aseptic system. A cap sterilisation system (either wet or dry design) is integrated depending on the defined sterilisation concept.

* D = Dry (dry aseptic system)

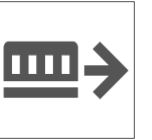
** L = Liquid (liquid aseptic system)



Sorting elevator for CapAsept D



Sorting elevator for CapAsept L



Cap feed system – benefits to you

Well designed system layout

The cap feed systems are easily accessible for the user and maintenance personnel and caps can easily be refilled. With numerous layout options, the selected feed system can be specifically tuned to suit the production requirements.

Extremely diverse variants

The cap feed system can be designed for conventional filling systems or aseptic filling systems, depending on the requirements. The inclusion of a second sorter allows the system to be quickly changed over to handle a different cap format.

High processing reliability

A high product quality is guaranteed in those variants which include an integrated inspection system. Each cap is checked before it is transferred to the capper.

Intelligent logistics

The systems are close to the filler – either close to the ground or on the roof of the machine. This keeps the distances to be covered by your caps and the required conveyor sections short.

Economic efficiency included

The integration of a cap buffer system allows for the targeted emptying of the block.

Highest product quality

Depending on the system, there is the option to check the caps for faults with a stand-alone cap inspection unit.



Digitalisation



Process
technology



Bottling and
packaging equipment



Intralogistics



Lifecycle
Service

We do more.

 **KRONES**