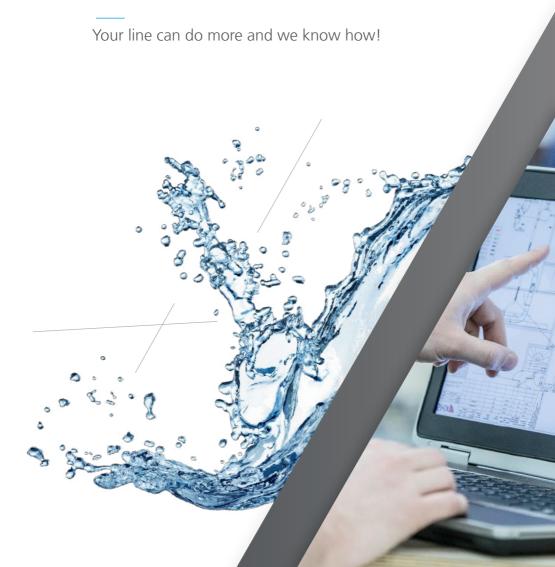


MORE EFFICIENCY FOR YOUR FILLING LINE

## LINE OPTIMIZATION





#### YOUR SITUATION

## GRADUAL DROP IN EFFICIENCY

When your line efficiency gradually decreases, this is often not immediately apparent – yet it can have severe consequences. On a line with an output of 60,000 containers per hour, for example, each lost percentage in line efficiency results in a production loss of approx. 2.5 million containers per year.

There can be many reasons for a drop in efficiency, including:

- A decrease in the technical availability of the individual machines
- Changes in the production material in combination with new products, formats or types
- Replacement or site-specific relocation of individual machines on the line and thus changes in the system control
- The number of format and product changeovers
- Fluctuation in personnel
- Modifications to the conveying system control.

Minor influencing factors often have a major impact. In most cases around 20% of all events generate 80% of all problems which restrict the availability of a line.



#### YOUR CHALLENGE

## DETECTING AND ELIMINATING CAUSES

In order to produce economically, bottling plants have to ensure the continuously high availability of their lines – a task which is difficult for two reasons: firstly, the **exact causes** of the drop in efficiency must be identified and secondly, **effective countermeasures** must be taken. Completely replacing a machine or the entire system cannot always be the answer.

### **OUR SOLUTION**

## LINE OPTIMIZATION

With its **line optimization** service KHS inspects the technical and organizational processes on your line, making effective suggestions for improvement and supporting the implementation of measures for KHS equipment. In detail, these services entail:

- Assessment of the current state of the line with a risk and weak point
  analysis, separated into external malfunctions and those caused by the system,
  and fault analysis by means of a PARETO chart, V chart and pie chart
- Report, presentation and discussion of the results
- Creation of a prioritized action list with the development of concrete suggestions for remedies to boost efficiency
- Consistent tracking of the **implementation thereof for KHS equipment.**

Line optimization is performed by our specialized auditors from KHS Service with the support of our regional centers in a process which is uniform the world over. You benefit from the expertise and many years of experience of our KHS engineers.



#### **YOUR RESULT**

# INCREASE IN EFFICIENCY BY UP TO 30%\*

You find out where you are losing productivity and how you can best correct this. **You gradually improve the efficiency of your lines** and make the best possible use of your production time. With line optimization you benefit in the long term from the following:

- Increase in the efficiency of your individual machines
- Portrayal of optimum measures for a gradual and long-term boost in line efficiency
- Best possible use of production time
- Maintained operational reliability and adherence to your quality criteria.

The result of **line optimization** is that you will be able to exploit your full potential in the future.

## YOUR CONTACT

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<sup>\*</sup>Potential depends on the current level of efficiency.