ZIEMANN CIMC ENRIC

HOLVRIEKA CIMC ENRIC

MASH FILTER
TCM
HIGH-SPEED FILTRATION

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THE MASH FILTER GENERATION FROM ZIEMANN – THIN-LAYER CHAMBER TCM MASH FILTER

High performance
The mash filters from ZIEMANN accomplish 16 brews per day with ease. They require 30 percent less in investment costs and take up a minimum amount of space. These are just the basics. The ZIEMANN mash filter TCM excels in a wide range of additional features:

Efficient design
The ZIEMANN mash filter TCM is designed as thin-layer chamber mash filter with large filtration areas. The Thin-Layer Chamber Mash Filter permits more brew sequences than ever before.

Minimum maintenance costs
The omission of membranes increases service reliability and reduces maintenance costs to a negligible value.

Effective technology
This new technology provides excellent qualities of the wort which boast lowest turbidity values and highest yields.

ZIEMANN mash filter type TCM

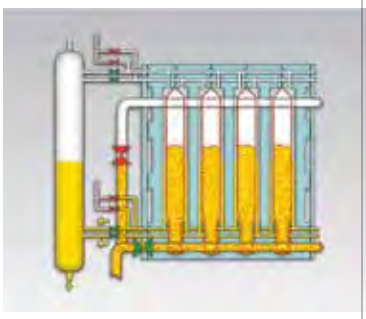
THE LAUTERING PROCESS IN ITS OPTIMIZED FORM – THE OPERATING MODE OF THE ZIEMANN MASH FILTER TCM

The ZIEMANN mash filter TCM is filled in less than 3.5 minutes with a defined volume flow via the lower mash channel.

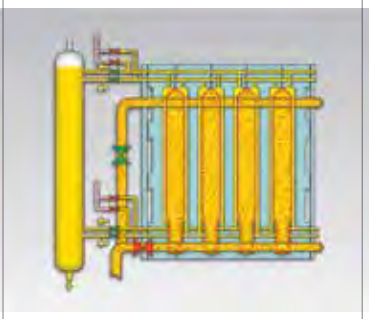
During the filling process air is expelled from the chambers via the upper channels and the first wort is already extracted via the bottom corner channels. It is fed directly to the wort collecting vessel – cloudy wort pumping is not necessary.

The first wort lautering step commences when the first amount of wort is lautered into the wort collecting vessel from the upper corner channels. This is when the mash supply via the upper mash channel opens and the lower mash channel closes.

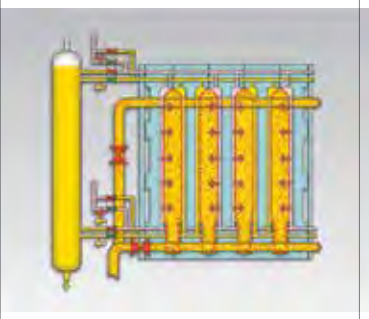
1 Feeding the filter via the lower mash channel



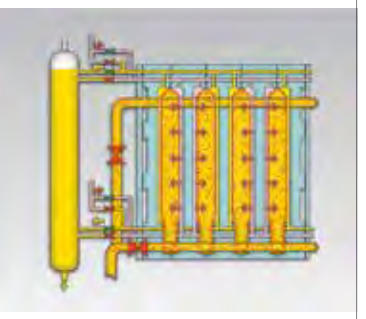
2 Final mash pumping = first wort extraction via the upper mash channel



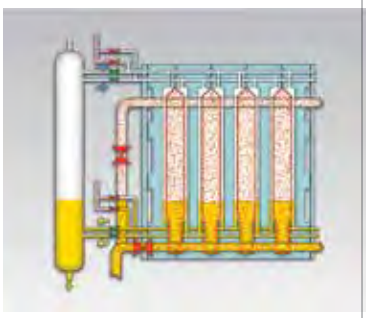
3 Sparging in AD > BC direction of flow



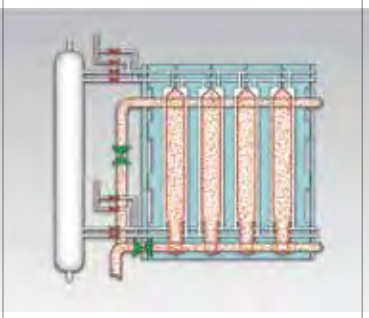
4 Sparging the follow-up brew in BC > AD direction of flow



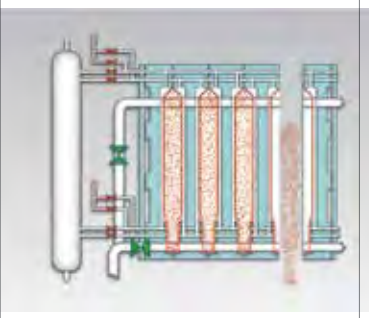
5 Emptying the filter



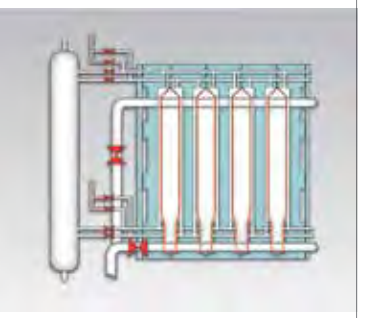
6 Blowing out of the mash channel

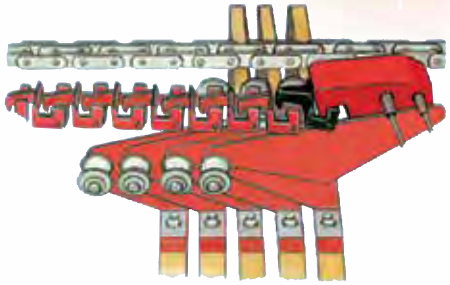


7 Removal of spent grains



8 Closing the filter





New mash infeed technique
Unlike the familiar systems which loop the mash at the end of the plate package the separate upper mash channel in the ZIEMANN mash filter TCM has the advantage that there is always a constant volume flow over a defined diameter. This ensures homogeneous mash infeed at known flow velocities.

Based on its design, in the ZIEMANN mash filter TCM the sparging direction alternates from brew to brew; this provides a "back flushing" of the filter cloths, which prolongs the cloth service life.

System advantages in high-gravity brewing
Based on its design and process control ZIEMANN mash filters are ideal for high-gravity brewing and for the processing of raw grains. The ZIEMANN mash filters are designed as thin-layer filter press. The depth of the individual chambers depends on the composition of the mash to be filtered.

The press frame of the ZIEMANN mash filter is fitted with a high-performance mechanical system; this provides extremely short idle times in "opening", "removal of spent grains" and "closing". This provides more time for the lautering process.

The rotating transport chain permits a fast plate transport. This means shorter set-up times.

Diagram of transport chain
Transport chain

PATENTED AND PERFECT: THE FULLY AUTOMATIC CLOTH CLEANING SYSTEM

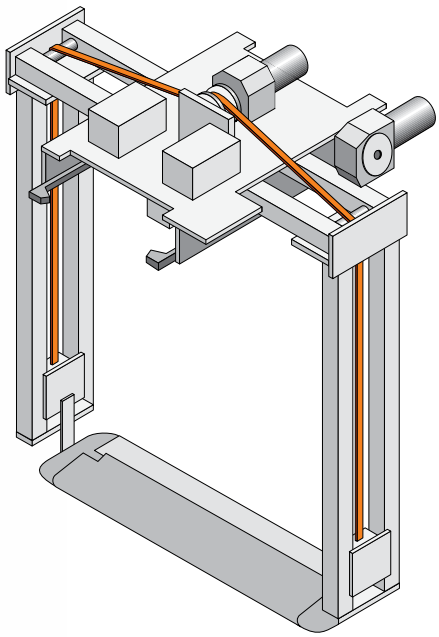
ZIEMANN mash filters are fitted with a fully automatic cloth cleaning system which makes every cloth clean down to the pores within the shortest amount of time. The system is patented and a ZIEMANN standard.

Well designed down to the last detail

- No remains left on the cloths
- Fast plate transport through rotating transport chain
- The plates are suspended from above, which means that there is no tilting
- Charge flexibility through blind plates
- Shortest set-up times for cloth replacement based on sealing function of the cloth edges with automatic seal replacement
- Replacement of filter cloths not until after some 2,500 brews – without having to remove the plates
- ZIEMANN mash filters can be fully integrated in the brewhouse CIP system

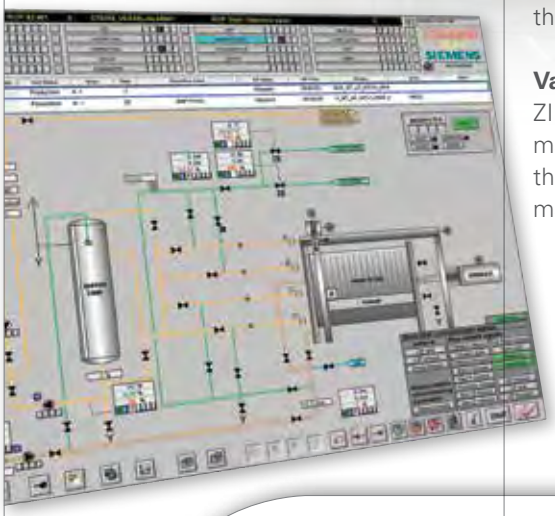
Result: Maximum efficiency with low investment and maintenance costs.

Automatic cloth cleaning device



Frame of automatic cloth cleaning device

OPTIMAL UTILIZATION OF SPACE: IDEAL WHEN SPACE CONDITIONS ARE RESTRICTED



Based on their compact design the ZIEMANN mash filters require very little space. The brewery can consequently install the filters as an individual filter or as a double filter running in parallel operation. When space conditions are restricted these options make the ZIEMANN mash filters TCM a particularly expedient choice.

Variable concept of automation

ZIEMANN mash filters can be integrated with little expenditure in the brewhouse automation concept or can be operated on their own as an individual solution. In both cases the lautering process is carried out fully automatically by the automation system of the mash filter.

IT DEPENDS ON THE SETTING: LAUTER TUN OR MASH FILTER?

The answer depends on the overall concept and the structural environment in which the brewery operates.

ZIEMANN has been offering both lautering concepts along side each other for decades. Each one developed to boast the familiar innovative strength at the highest level of efficiency. It depends on which technique fits in better with the brewery environment. This is for the brewery management to decide.

Individual and tailor-made solutions have always been given priority at ZIEMANN. In this way, ZIEMANN can design a concept that allows the brewery to respond optimally to the market development.

Who else can provide this?

Mash filter TCM

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