

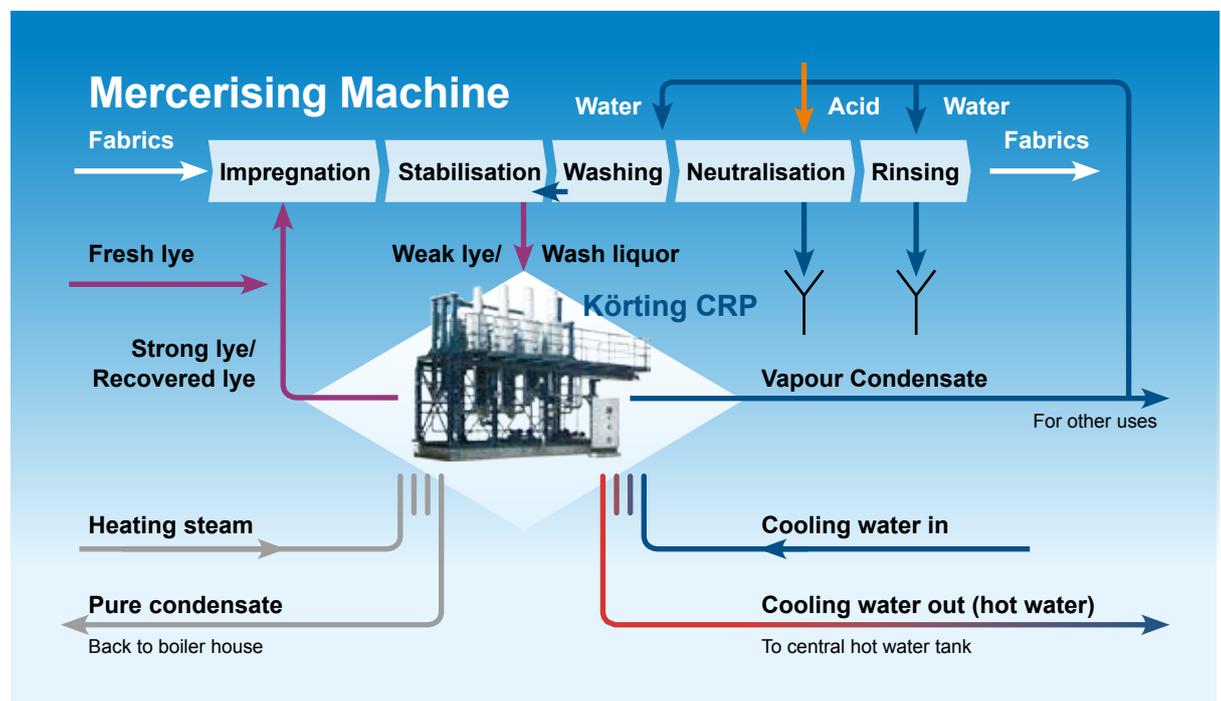
Changing Mercerising Waste Water into Money

Caustic Recovery for Mercerising Lye

During the mercerising process the diluted caustic soda (weak lye) from the stabilisation compartment is normally drained. Körting has found a way to recover this diluted caustic soda by evaporating water. We have been supplying Caustic Recovery Plants for mercerising lye to the textile industry since 1956 and have installed around 200 systems world-wide.

As shown in the sketch below, the Caustic

Recovery Plant (CRP) separates the weak lye (wash liquor) into strong lye and vapour condensate. The strong lye (recovered lye) can be reused at the mercerising machine. Depending on the quality of the fabrics an additional lye cleaning with hydrogen peroxide might be advisable. Körting has developed a lye cleaning system with peroxide to ensure that the recovered lye can meet the high quality standards of a modern production.



The vapour condensate is slightly alkaline soft water without any hardness. It has a temperature of approx. 90°C. It can be

used for washing, e.g. in the mercerising or bleaching machine, or in other pretreatment.

The Körting Caustic Recovery Plant

requires heating steam and cooling water. Almost the same amount of steam which is used for the recovery of the mercerising lye can be saved in the hot water generation. This hot water generation is a by-product in which the cooling water is heated up to 60°C to 80°C.

The Caustic Recovery Plant is very energy efficient, especially when this hot water generation is integrated in the central hot water system.

There is no direct contact between the heating steam and the lye, therefore the heating steam condensate can be reused as boiler feed water without additional treatment.



Advantages

- Payback-time is less than one year!
- No alkaline waste water from mercerising machine.
- Generation of hot water from the waste energy.
- Generation of soft water, the vapour condensate is slightly alkaline.
- Recovery of surplus lye for wet-on-wet mercerising.
- No contamination of the heating steam.
- Environmental protection. Less chemicals for neutralisation are needed.



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