



PACAPIME - Mórahalom (H) Ultrafiltration of ink water from flexography

Pacapime at Halle is a family business belonging to the biggest cardboard producers in Belgium. Since beginning 2009 Pacapime started a complete new factory at Mórahalom (Hungary) to concentrate on the East-European market. In this factory cardboard boxes are formed and printed. The ink waste water coming from the rinsing of the clichés and the ink piping of the printing machines has to be treated before it can be discharged into the sewer to comply with local restrictions.

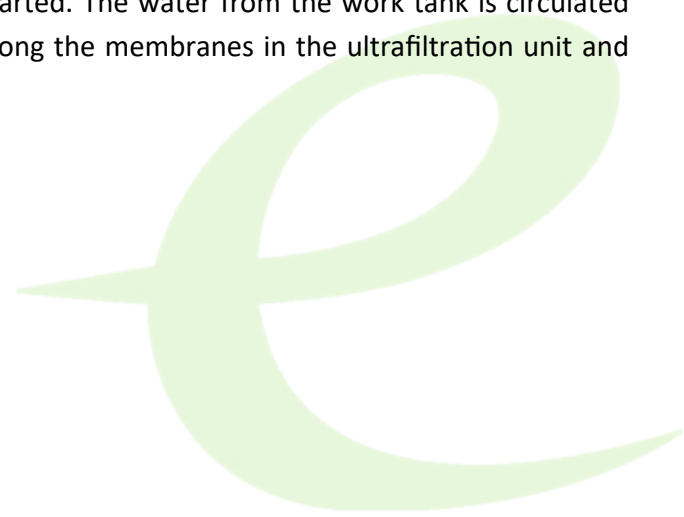
However the water treatment plant in Halle consists of a well working combination of biological and physico-chemical treatment, it was chosen to equip the new factory with an innovating technique: ultrafiltration.

After executing a pilot test TREVI supplied the design, erection and start-up of the installation. The ultrafiltration unit is provided with ceramic membranes and a vibrating sieve as pre-treatment.

The ink waste water is stored after sieving in a buffer tank and a work tank of each 8 m³. When enough waste water is available, an ultrafiltration cycle is started. The water from the work tank is circulated along the membranes in the ultrafiltration unit and



Ultrafiltrationunit



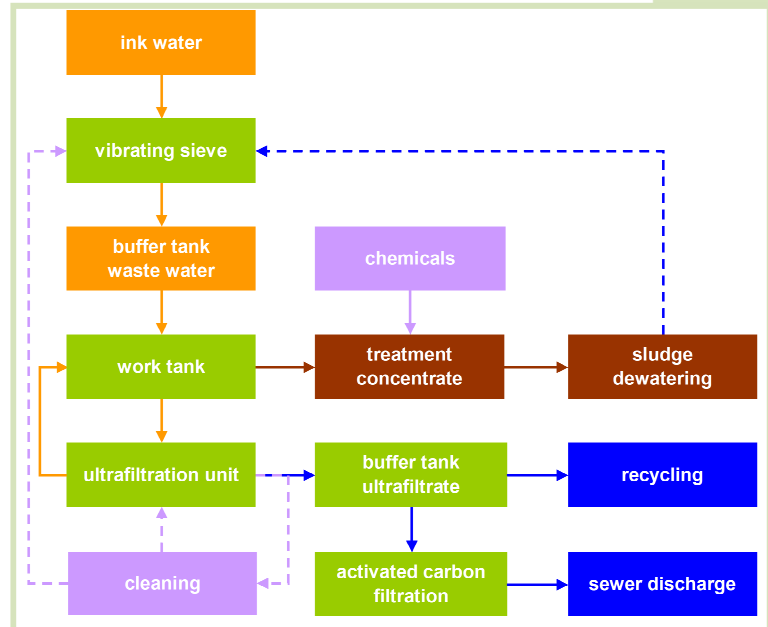
separated into filtrate and concentrate.
The filtrate is stored in a buffer tank and recuperated or discharged into the sewer after activated carbon filtration.

After ending the cycle the concentrate is pumped out of the work tank into the sludge reactor. By dosing a coagulant and a specific flocculant a clear water phase is achieved which can be separated from the sludge by simple dewatering.

The installed ultrafiltration unit has a capacity of 250 l/h and allows to treat 5 m³ waste ink water a day. The capacity of the installation can be doubled

in function of the expected increase of production by installing additional membrane surface, without any other adaptations.

Design parameters		
parameter	unit	design
shift flow	m ³ /d	5
flow	m ³ /h	0,25



Cleaning Unit



Ultrafiltration



Vibrating screen



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