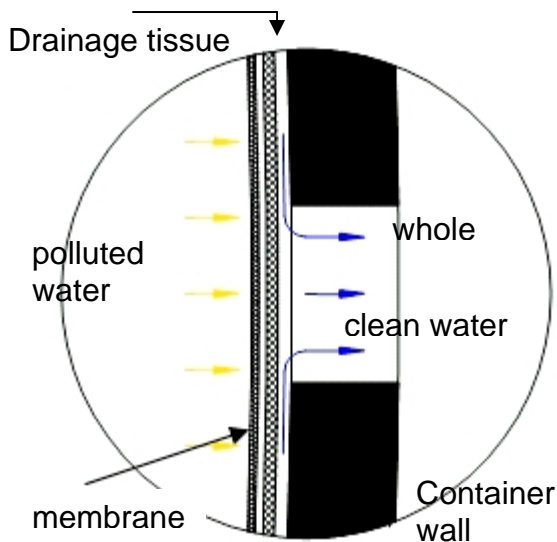


## Method description ultra filtration system: Typ: ROTOMEM

### Description :

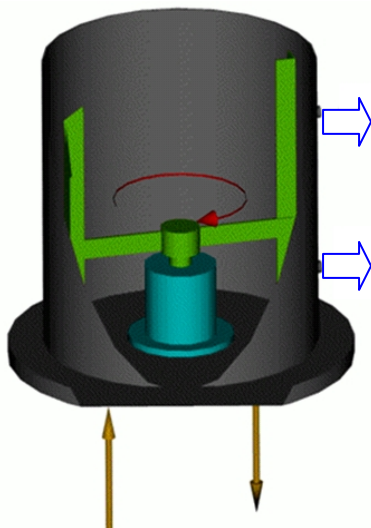
The filter liquid (eg delubricant bath) in default will be pumped with a centrifugal pump from the process liquids in a pressure vessel, in which the working pressure (about 1.8 bar) is set up.



This container is covered on the inside with an inexpensive flat membrane, between the membrane and the vessel wall is a stainless steel drainage tissue, which leads away the permeate over 4 holes at the entire perimeter. On the lower and upper side the seal is guaranteed with a round rubber cord, which will be adjusted to the different to be filtered liquids. The interior basket is covered on the outside and inside with a membrane and again sealed up as described above.

The purified liquid goes with a high proportion of active cleansing through the membrane by the trans-membrane pressure (before the membrane 1.8 bar, behind the membrane 0.2 - 0.3 bar) and is lead through the described VA-draining tissue behind the membrane, and is removed by the filter pipe.

The shaft on which the agitator is built, will be kept by a bearing shell in the base plate.



The agitator is so designed, that working fluid to filter is set in high rotation (about 5 to 6 m / sec) in the reservoir tank, in which the membrane is located. This prevents the covering of the membranes. This high flow speed on the membrane can only be reached with a rotating filter system of Abwa-tec GmbH. With conventional cross-flow systems, such flow speed cannot be achieved and therefore are resulting in a blockade of the membrane.

Through this high rotation, a constant flux (filter throughput) achieved and the concentration of oils and the dirt, which are seperated, essential increased. The volume of disposed liquids (concentrate) is minimized.

The concentration of pollutants happen in the container, so in this filtration system no additional submit tanks are needed.

Another advantage of this filtering system is the use of flat polymer membranes. These membranes are available in all materials and pore sizes, so that the membranes can be perfectly aligned to the filter process fluid. The membranes are conventional membranes (ceramics, winding modules, capillary module etc.) are very favourable, so that the operating costs of the operator are minimized.