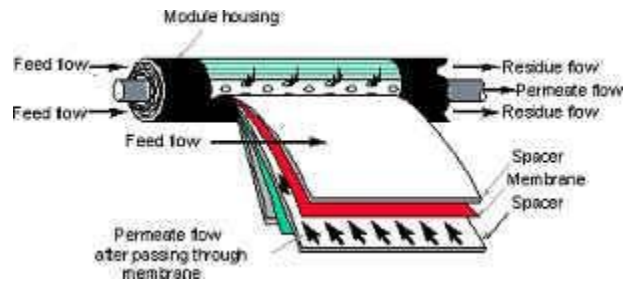


Plate & Frame membranes

Membrane technology

Spiral membranes

Spiral membranes consist of two layers of membrane, placed onto a permeate collector fabric. This membrane envelope is wrapped around a centrally placed permeate drain (see picture below). This causes the packing density of the membranes to be higher. The feed channel is placed at moderate height, to prevent plugging of the membrane unit. Spiral membranes are only used for nano filtration and Reverse Osmosis (RO) applications.



Spiral membrane

Pillow-shaped membranes

Membranes that consist of flat plates are called pillow-shaped membranes. The name pillow-shaped membrane comes from the pillow-like shape that two membranes have when they are packed together in a membrane unit. Inside the 'pillow' is a supporting plate, which attends solidity.

Within a module, multiple pillows are placed with a certain distance between them, which depends on the dissolved solids content of the wastewater. The water flows through the membranes inside out. When treatment is done, the permeate is collected in the space between the membranes, where it is carried away through drains.