

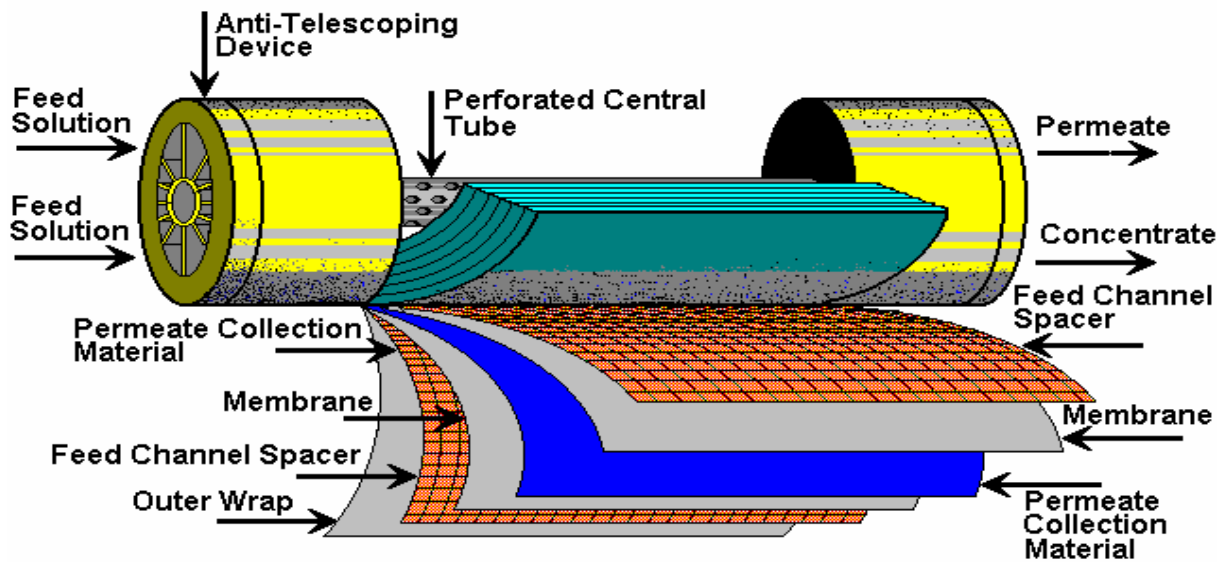
## Food and Beverage Application

### Product Concentration & Recovery

#### Benefits of Esmil Process Systems Membrane Systems

Membrane systems supplied by Esmil Process Systems have the following in benefits:

- Robust polyamide and polysulphone construction
- Low fouling ultra-smooth 3 layer membrane
- High surface area
- Easy-clean construction enabling high / low pH CIP
- Sanitary specification enabling high temperature sterilization



#### Spiral-wound element: A closer look

Membrane Type	Rejection
Microfiltration	Suspended Particles
Ultra-filtration	Macromolecules Protein Starch
Nano-filtration	Sugars Divalent Ions
Reverse Osmosis	Monovalent Ions BOD / COD

**SPECIALISTS IN THE TREATMENT OF CHALLENGING INDUSTRIAL EFFLUENTS**  
**Food & Beverage Industry**

**Benefit Summary**

<b>Application</b>	<b>Technology</b>	<b>Advantages</b>
Fat Removal	MF Membranes	Removes soluble and emulsified fats Removes lubricating oils
Dextrose Clarification	MF / UF Membranes	Less than 1 micron filters More efficient than media filters
Colour Removal	UF / NF Membranes	Removes soluble metals Removes organics No chemicals required
Starch & Sugar Concentration	RO Membranes	High temperature operation
Polishing Evaporator Concentrate	UF Membranes	High temperature operation

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