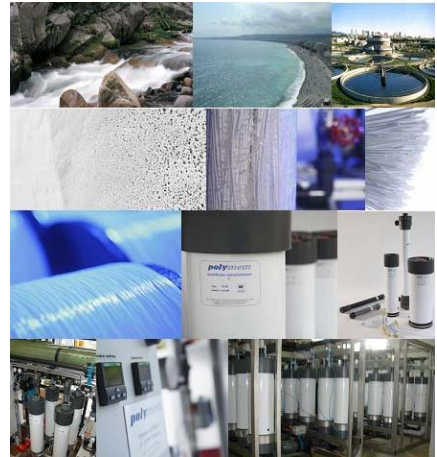


# polymem

MEMBRANE MANUFACTURER

## Membrane filtration specialist

- We manufacture a large range of **ultrafiltration membranes and membrane modules for water treatment.**
- We offer original and modular liquid filtration solutions, **customised membranes and modules**
- We service ultrafiltration membrane systems (all brands): providing process **optimization, maintenance and replacement of membrane modules.**



## Polymem is an experienced and innovative company

- Polymem is an **independent company** located in the “membrane technology valley” of Toulouse – France. It was established in 1997 by two engineers who had over 25 years experience in **Hollow Fiber Membrane manufacturing for water treatment applications.**
- Polymem strives to **continuously improve its range of products and processes** and is thus involved in major national and European membrane research & development projects. Polymem was awarded, for its numerous innovations, the « **2000 Innovation Award** » from the INPI (French National Institute for Intellectual Property).
- Polymem is building **strong business relationships internationally by providing support to major OEM** companies that opt for the Polymem products in their respective markets and countries.

## Our strengths



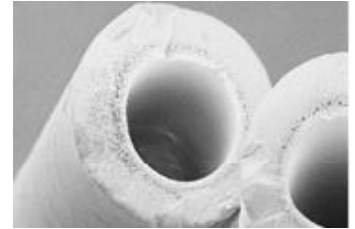
- Our modules are all **NSF/ANSI 61** approved (American Public Health and Security Company) and **ACS** approved (French Ministry of Health):
- **More than 250 facilities have now been installed worldwide**
- Some of our major **partners and customers include:** Cameron (USA), Ondeo Suez (France), Westech (USA), ADSF (France), Aquatec Maxcon (Australia), VEOLIA (France), Aquapro Ingenieria (Mexico), Christ Water (Ireland), Acuanovus (Mexico), Fournié (France), Lenntech (Netherlands), Saur (France), Burkhalter (Switzerland), Consolidated Water...
- **End users include:**
  - in **industrial** applications: Danone, Lactalis, Smiths Snackfood (Pepsico), Total, BHP, Pemex, Pfizer, United Chemical, BSN, Pechiney, Kodak, Saint Gobain, Arcelor, Micron, CEA,...
  - in **municipal** applications: Little America (USA), Nanteuil en Vallée (France), Kerry Assay (USA), Northeast Alabama (USA), Maroochydore Alliance (Australia), Brie (France), Scamander (Tasmania), Alabaster (USA), Franklin (USA), Livna (Israel), Masseur (France), Eau de Paris (France), Belestia (France), Saskatchewan (Canada), Chambéry Métropole (France), Eau de Paris (France)...

## Our products

### Ultrafiltration and microfiltration

We manufacture hollow fibre membrane modules for the ultrafiltration and microfiltration of natural water, sea water, process water or waste water:

- **UF and MF hollow fibre Modules**
  - Supplied in compact modules providing from 4 to 540 m<sup>2</sup> of filtration area for single production units with filtration capacities of 200 l/h to more than 50 m<sup>3</sup>/h
  - for dead end or cross flow inside/out for liquid concentration
- **Custom made modules for hospital, residential or other specific applications**



### Reverse Osmosis and Nanofiltration

Spiral wound membranes for nanofiltration and reverse osmosis for liquid purification (demineralization, desalination...)

### Turn key Units

**Pilot units** fitted with any of these membranes to carry out testing campaigns at the client's premises.

**Water treatment units (rack or skid mounted)** using our membranes for our partners and customers, Engineering companies, OEM and water treatment companies (End users: Industries, Municipalities, Public or private authorities)



## Applications



Polymem membranes and modules are used for commercial, industrial and municipal purposes:

- Treatment of natural water (ground water, surface water) for **drinking water or process water production**.
- **Pre-treatment** of soft and brackish water before **demineralisation or desalination** by reverse osmosis.
- Tertiary filtration of pre-treated wastewater for **reuse**.
- Process water **recycling**
- Combining membrane filtration and biological treatment to treat waste waters (domestic or industrial).
- Other miscellaneous applications include: Food industry applications (grape juice, wine), Medical and Residential applications...

## Our Ranges of Products

### Membrane modules

#### Housemem

Products for residential applications

- SafeShower
- SafeTap
- SafeLine
- MF/UF 100
- AQuaMemR



#### Polymem® Inside

Custom made modules



#### Gigamem®

Modules with removable membrane elements

- UF35G
- UF 80G**
- UF 240



#### Ultramem®

The historical range of Out/In modules

- MF/UF100L
- MFUF100LL
- UF/UF80**
- MF/UF120



#### InOMem

In/Out filtration modules

- MF/UF20
- MF/UF30
- MF/UF50

### Standards Systems

#### Mobile Aquamem

Easily transportable units and containerized units



#### Aquamem UF80G

Water treatment capacities from 5 to 50 m3/h. Turn key systems (skids) or membrane racks / cleaning process with a dedicated pump or modules per modules



#### Aquamem UF240

Water treatment capacities from 50 m3/h. Turn key systems (skids) or membrane racks / cleaning process with a dedicated pump or modules per modules



### Custom made Systems

#### Pilot units

Water treatment units dedicated to pilot trials on site / for sale or rental



#### Custom made units

Membrane mono or multi-process : Ultrafiltration / Nanofiltration / Reverse Osmosis



## Our Services

### Membrane filtration testing

**Feasibility:** Polymem can carry out feasibility testing of membrane filtration processes on your effluents (laboratory tests with specific Polymem micro-modules depending on the nature of the pollutants).

**Pilot tests:** Polymem has a fleet of pilot testing units: dead end and cross flow UF/MF, reverse osmosis and nanofiltration. Trials on site allows to determine the optimum operating parameters for the design of future facilities.



### Replacement

Polymem offers NSF and ACS approved solutions for **membrane modules replacement** (all brands) and guarantees:

- **Minimum flow rates, the quality of the treated water and conversion rate**
- An **economic gain**
- A **gain in compactness** and / or **capacity**



### Expertise

**Our know-how as a membrane manufacturer provides for better maintenance servicing and plant optimisation:**

#### Modules

- **Optimisation** of the module's membrane performance involves: chemical cleaning of modules to find the optimal cleaning parameters (cleaning products, concentrations, temperature ...)
- Estimation of the remaining service life of the module's membrane (by carrying out all the mechanical testing to estimate the state of aging of the membranes)
- Dedicated teams specially trained to repair hollow fibre membrane modules both in France and worldwide at the client's premises. Proven and validated repair procedures for membrane modules (all brands).

#### Process

- **Membrane performance optimisation: operating parameter analysis and recommendations to improve filtration rates, chemicals & energy consumptions** (optimising backwash and flushing frequencies, duration, cleaning modes., and CIP...).