



## CAPABILITY STATEMENT

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**Our goal is to**

satisfy your environmental and financial expectations by the design of proven 'state-of-the-art' treatment plants for challenging industrial effluents.

Benefit from Esmil's vast experience in membrane applications.

**[www.esmil.co.uk](http://www.esmil.co.uk)**



Esmil Process Systems formed in 1975 and has over 40 years' experience in the field of effluent treatment and re-cycling.

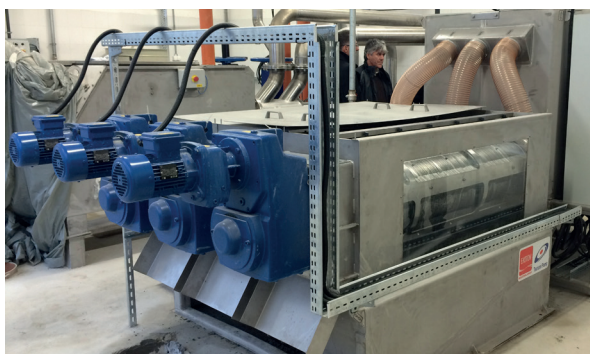
Esmil is a specialist solutions provider in the field of effluent treatment and water re-cycling, offering BAT (Best Available Technology) using state of the art membrane separation processes.

In fact the 'Companies' innovative approach to effluent treatment and re-cycling resulted in the prestigious "Queens Award for Environmental Achievement" and "DTI best supplier".

Since these important milestones the Company has continued to achieve technical excellence in the field of effluent treatment and re-cycling, culminating in the Company's largest project thus far.

ESMIL Process Systems have been providing solutions for a wide range of wastewater treatment and product recovery problems for over 40 years. Whether utilizing conventional technologies, or more modern membrane processes, we offer a complete solution package tailored to your specific needs.

We offer tailored services ranging from small scale evaluation, through lease purchase with operational and maintenance contracts, to full process design, construction and commissioning. Our aim is to minimise your financial risk and maximize your return through product recovery and/or waste reduction.



## OUR EXPERIENCE COVERS:

- Ultrafiltration
- Nanofiltration
- Reverse osmosis
- Membrane bioreactors
- VSEP (Vibratory Shear Enhances Process)
- DAF
- Various sludge dewatering equipment

ESMIL use proven technologies for optimal treatment effectiveness and reliability. In the process of developing new solutions to reduce the cost of effluent disposal and environmental compliance, ESMIL has established unique associations with industry organizations and the largest supplier of specialty membranes, Suez Water Technologies & Solutions.

ESMIL continually look to new developments in the technology, for example by association with New Logic International (U.S.A.) with the revolutionary vibratory shear enhanced processing (VSEP) fouling-resistant membrane.

## ESMIL Design Philosophy

We will use the most appropriate solution to suit your treatment requirements. Our general approach to wastewater treatment will combine conventional physico-chemical treatment processes, supplemented where necessary with advanced proven Membrane Technology. For example, for oily water treatment applications, conventional gravity separators and/or flotation techniques are typically supplemented by specialised Membrane Technology which can result in even potable quality water being produced.

Conventional treatment processes effectively separate solids from effluent streams, assisted by ever improving coagulation chemistry. The main advantages of conventional technology approaches to treatment are:

- Low capital cost.
- Flexible operation.
- Reliable and easy to operate.
- Modular and easy to upgrade.



### Our services include:

- Small scale pilot plant evaluation. This can be carried out either in-house or at your site. We assess treatment effectiveness, product recovery, plant size, and other specific requirements.
- Selection of optimal membrane systems.
- Capital plant and process operational cost projection.
- Integrated plant design, using both conventional processes, and Membrane Technology.
- Build, installation and commissioning.
- Operator training and process optimization.
- Long term, comprehensive service support including maintenance and system upgrades.
- Lease purchase with full operational and maintenance contracts.

## The Testing Laboratory

Let us prove your application is suitable for membrane separation, we can and do! Our fully equipped testing laboratory houses the very latest membrane test rigs to ensure the right membrane is selected, and initial determination of flux rates and permeate recovery.

### The Pilot Plant

We at Esmil believe there is no substitute for experience. If we can prove performance, usually on site, using one of our six Pilot Test Rigs, this improves confidence in performance and as our pilot rigs are fully scalable we can confirm design parameters, performance guarantees and accurate assessment of chemical consumption and running costs.

We have a fully ATEX certified pilot plant for use in explosive environments!

### The Design Team

Our team of design engineers has many years of experience in the field of membrane separation, this gives our clients confidence that the right membrane technology and chemistry is applied to their project.

### The Project Team

Our project team has a demonstrable track record of delivering projects successfully, we work in some of the most demanding industries globally and ensure projects are delivered on time and within budget.

### The Commissioning Team

A shiny new plant is no good if it does not work! Our commissioning engineers have years of hard won experience in commissioning membrane systems to ensure optimum performance and years of trouble-free operation.

### Quality assurance

Esmil Process Systems Ltd operates a quality assurance system based on ISO9001 of trouble-free operation.

## References

To be respectful to our valued clients, we would appreciate notification if the intention is to contact any of our reference sites to enable us to advise them in advance. Thank you for your understanding in this matter.

- Shell E & P Ireland Ltd / Corrib Gas Terminal, Co. Mayo
- J G Pears  
HAL Offshore Ltd / Oil and Natural Gas Corporation, India
- Unilin S.A.S.Boards Division, France
- Shell UK
- Emvertec
- B.P. Petroleum
- I S P Microcaps
- Wiggins Teape
- British Gas
- Kronospan
- Coca-Cola Schweppes
- Hartridges Soft Drinks

## ESMIL PROCESS SYSTEMS LTD

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High Wycombe, UK, HP10 0DG

## Staff and Labor Force

By directly employing key staff, Esmil Process Systems Ltd, has immediate access to all the skills necessary to provide the comprehensive services described above. These include professional engineers and environmentalists, skilled tradesmen and site operatives.

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