



SEPRA S.r.l. COMPANY PROFILE

Sepra has been active for more than 25 years in the field of design, manufacturing and sales of components for membrane based cross-flow filtration systems. This allowed to develop a special expertise on this technology.

In order to ensure state-of-the art technology, we enforced tight cooperation with world leader membrane manufacturers like GE, Tami Industries, Hyflux, Berghof for which Sepra is Italian distributor. More than this, we also take advantage of internal design and manufacturing capability for other critical accessories.

More recently, new product lines were added that create synergies with membrane based technology (e.g. membrane bioreactors, new generation aeration for membrane bioreactors, combined ozone/membrane applications for waste water treatment, complete ozone systems).

Sepra normally supplies components and semi-engineered products to OEMs, engineering companies and contractors that rely on our specific membrane expertise and maximum flexibility in order to optimize design of complete installations. In other cases, we cooperate with end users that develop in-house new applications using internal resources or we supply turn-key units. We also cooperate with OEM and users on plant management and operation.

To maximize support, Sepra also offers complete pilot plant capabilities, both for in-house and field testing of new applications. Our mechanical shop has specialized into manufacturing pilot plants fullfilling custom requirements (e.g. high pressure, low pH, special materiats, etc.).

BACKGROUND

1983

Sepra (originally Stemar) is appointed Italian distributor by US membrane and equipment manufacturer Osmonics

1991

Focus on components and semi-engineered products

1993

Sepra is appointed Italian distributor by French membrane manufacturer Tami Industries

1995

DM and cartridge filtration product lines added to membrane

1998

UV sterilizers product line added to membrane

1999

New owned facility in Cesano Maderno

2000

Injectors/nozzles product line added (gas/liquid and liquid/liquid mixing)

Start-up of mechanical shop in Sovizzo (TA S.r.l.)

Pilot plant product line added (from lab scale to pre/production)

2001

Oil skimmers product line added, in order to implement extra capability on oily waste water treatment

Implementation of new capabilities for gas mixing (e.g. degassing equipment)

Owned pilot plant increased to 10 units, for in house and field testing

2002

Ozone product line added, including contact systems and instruments

2003

Tubular polysulphone membrane product line added, dedicated to membrane bioreactor

Owned pilot plant increased to 15 units, for in house and field testing

2004

Ozone product line is expanded to in-house built ozone generators and ozone measuring instruments; new company Ozonis S.r.l. fully dedicated to ozone is incorporated Nov 2004. Ozonis is then turned in a division of Sepra S.r.l.

2006

Enlarged product line for membrane bioreactors, including submerged hollow fiber membranes

2008

New membrane bioreactor concept, combination of injector aeration and tubular membranes for maximum energy efficiency on high load waste water (patent pending)

2010

Majority shareholder of TA Srl, increased capacity for pilot plants and new applications development

2011

Hollow fiber membrane offering enlarged, for MBR and tertiary filtration

2014

Acquisition of 90% shares TA Srl, investment in a new building for manufacturing activities (500 m², Montecchio)

2016

Increased availability of large rental units to test new application on industrial scale (skid mounted or containerized)

PRODUCTS & SERVICES

Septra's product lines cover different treatment steps related to membrane cross-flow installations and related systems; still, we have very strong focus on the specific technology. Scope of supply may range from strict component to a semi-engineered product like mechanical skids including valves, field instruments and piping.

We maintain a flexible approach in order to maximize value granted to customers, that may have different needs in term of vertical integration offered by components suppliers.

Product lines are better described in our catalogue or web site www.sepra.it. Here we propose only a short summary of products and services, with listing of officially represented companies.

Membrane elements and accessories for cross-flow filtration:

- polymeric spiral wound membranes (RO, NF, UF, MF) GE
- ceramic tubular membranes (UF, MF) TAMI INDUSTRIES
- tubular membranes for MBR BERGHOF
- hollow fiber membranes for MBR HYFLUX, in-house
- hollow fiber membranes for tertiary treatment HYFLUX
- housings in-house
- taylor made skids in-house
- chemical products for membrane operation and cleaning, dosing systems in-house

Dead end filtration:

- centrifugal separators in-house
- filtration cartridges GE
- housings in-house

Gas-liquid contacting:

- injectors and nozzles MAZZEI
- degassers GDT
- contacting systems in-house

Ozone

- generators in-house
- air dryers and oxygen concentrators in-house, IGS
- injectors and nozzles MAZZEI
- degassers GDT
- contacting systems in-house
- ozone measurement, gas ECOSENSORS
- ozone measurement, solution in-house

Oil skimmers

FRIESS

As anticipated, Sepra is also active supplying different high value engineering services:

- pilot testing (from lab scale to industrial, over 10 units for rental)
- process engineering
- procurement
- plant operation

Large containerized units are available for on-site testing; these include chemical pretreatment, ultrafiltration, reverse osmosis and all services in a “ready-to-use” unit that can be easily shipped and used on site with very limited installation work needed.

We are active in different market segments, including

- water treatment
- waste water
- food & beverage
- pharma and biotech
- chemical and oil

ORGANIZATION AND FACILITY

Sepra's staff actually include 20 people. The whole team is built by people having a specific membrane and ozone background.

Our actual facilities include:

- Cesano Maderno, owned facility
250 m2 offices, 450 m2 warehouse
- Montecchio, facility with 50% leasing residual
500 m2 shop, 30 m2 offices

In order to ensure premium quality and maximum flexibility, we have long term cooperation agreement with external specialized mechanical shops. Working on a long term basis allows us to maintain consistent performance and quality.

External shops we work with in different Italian locations:

- Precision shop, for stainless steel machining
- Specialized shop (high thickness pipes handling and welding), for membrane housing
- Specialized shop (stainless steel molding and pressure forming), for cartridge housing
- High load shop, for large skids assembling
- Molding house (Sepra owned mold), for special gaskets molding

REFERENCES

Sepra's references cover different markets and applications. We enclose a partial reference list that covers projects with higher complexity level, where Sepra was involved over a complete range of services.

We would like to point out that Sepra can list among its customers main engineering companies, OEMs deeply involved with membrane installations, large industrial groups that have in-house engineering capability (ACS, Angelini, Olon, Bracco, Enea, Enel, ENI, Fiat, Parmalat, Sandoz, Stahl) and important players in the Italian food market (Capurso, Ferrero, ICCA, Plac and many others).

We obviously serve also a large number of smaller, but very specialized OEMs, that are active in specific market segments; typical examples are:

- wine treatment
- dairy applications
- oil emulsions, degreasing baths and surface treatment