



TAILOR
MADE

SEPARATION TECHNOLOGY



COMPANY

HISTORY

Since 1979 Hydro Air Research Italia (HARI) has gained extensive expertise in process and waste water applications, becoming a leader in membrane separation technology.

Hydro Air Research Italia (HARI) was established on 1979 as a private enterprise specialized in design and manufacturing of membrane separation systems for industrial process applications. Since 1979 the company has gained extensive expertise in process and waste water applications, becoming one of the leader in membrane separation technology, widening its portfolio to other advanced separation techniques in different fields of application. Today HARI has grown into an enterprise which enjoys worldwide recognition, with enquires coming from Europe, Americas as well as Middle and Far East.

QUALITY

Hydro Air Research Italia pursues UNI ENI ISO 9001:2008 Quality Policy to enable the maximum satisfaction of its customers by responding appropriately to their needs and requirements.

MISSION

Hydro Air Research Italia works for and with customers to find and optimize solutions. Wide expertise and deep knowledge of membranes allow HARI to offer the most suitable solution to solve every problem.



+40

APPLICATIONS
SECTORS

+500

PLANTS
IN OPERATION

+35

YEARS
ON MARKET

PURIFICATION
TATION



PURIFICATION



CLARIFICATION

CLARIFICATION

FICATION

CON



CONCENTRATION

CENTRATION



APPLICATIONS

By working for more than 30 years through lab test, pilot scale test and industrial plants, Hydro Air Research Italia has gained extensive experience and own know-how on several process applications.

Industrial process applications include biotechnology and pharmaceutical applications, where HARI developed its own know-how, as well as applications in food and dairy, fine chemicals, petrochemical and chemical field. HARI designs and supplies complete plants "Zero Discharge Water Recycling", an advanced process to treat effluents obtaining water suitable to reuse or to discharge according to the law restrictions. HARI develops and realizes patented systems for Landfill Leachate Treatment, plants with an economical process, effective and reliable.



FOOD & DAIRY

Separation processes in milk, milk whey, fruit juice, sugar, starch, natural extracts, food additives, wine, beer, edible oils, waste water treatment and water reclamation.



PHARMACEUTICAL

HARI membrane systems are operating successfully in downstream processing for antibiotics and biological active principles extraction from fermentation broths.



TEXTILE & DYE HOUSE

Textile industry dye-house water recovery and color removal processes in order to allow removal of dissolved and suspended materials including COD, BOD, dyestuff/colorant, salt.





CHEMICAL & FINE CHEMICALS

Applications include polymers concentration/recovery, brine purification, catalyst recovery, solvents clean-up and exchange, acids concentration/purification, glycerin purification, pesticides removal.



BIOFUEL AND GREEN CHEMISTRY

Industrial process applications include applications upstream and downstream fermentation, in bioethanol production, biodiesel, biodegradable plastics, enzyme reactions.



INDUSTRIAL EFFLUENTS TREATMENTS

HARI is ready to face any separation problem on waste water, to treat the water making it suitable for discharge according to the law or suitable for recycling for industrial uses.



OIL & GAS

Among the major applications oily waste water treatment, reuse of produced water, seawater injection, sulfate removal, low salinity water injection.



INDUSTRIAL

HARI provides engineering solutions for the removal and recovery of emulsions, surfactants, pollutants in cosmetics and toiletries, laundry, detergents and metal working sectors.



LANDFILL LEACHATE

HARI has developed and realized patented systems for Landfill Leachate Treatment, turn-key plants with a sophisticated but economical process, effective and reliable.





MEMBRANE TECHNOLOGY

Membrane technology can be used in a wide range of separation processes. HARI expertise covers all the range of membrane processes, from Microfiltration and Ultrafiltration through Nanofiltration and Reverse Osmosis to Electrodialysis.

Depending on the purpose of the separation, different type of membranes can be used, characterized by different material of construction, configuration and selectivity. Organic and inorganic membranes, spiral wound and hollow fiber, tubular and plate type can be selected depending on the application and on process requirements. HARI technical specialists work with the end-user in order to satisfy the widest spectrum of requirements in terms of application, volume and rules, tailoring the system on the customer's needs.



MICROFILTRATION

The most open cross-flow filtration process.



ULTRAFILTRATION

Low pressure process for selective filtration of molecules.



NANOFILTRATION & REVERSE OSMOSIS

High pressure separation processes.



NARO™

HARI trade mark system to improve solids concentration and permeate recovery.



PERVAPORATION

Process for organic solvent drying and concentration, breaking azeotropes.



CHROMATOGRAPHY

Industrial chromatographic selective separations for molecules.



SOLVENT STABLE MEMBRANES

Membrane separation of molecules dissolved in organic liquids.



MEMBRANE BIOREACTOR (MBR)

Combination of activated sludge biological system and ultrafiltration system.



EVAPORATION / CRYSTALLIZATION

Concentration or separation of liquid solutions, suspensions and emulsions.



CAPABILITIES

The beginning of all HARI systems design is the evaluation of the customer's objectives and requirement. Test facilities and pilot plants are available for feasibility study and bench or semi-industrial trials.

Preliminary tests are carried out in HARI laboratories on small liquid samples providing separation performance and data useful for industrial plant scale-up as well as cost projections or economic models to determinate full scale operation and required capital costs. Pilot plant verification at customer's site is recommended to generate data under actual field conditions.



RESEARCH & DEVELOPMENT

R&D provide up-to-date answers to complex problems.



INSTALLATION & COMMISSIONING

Installation, start-up and commissioning of systems.



PROCESS DESIGN & ENGINEERING

Project pre-study, design, cost estimation, engineering and project management.



AFTER SALES SERVICE

Keep your system operating at peak efficiency throughout its life.

HYDRO AIR RESEARCH ITALIA S.R.L.

HEADQUARTER

Strada Provinciale 181, n11
26833 Merlino (LO)
Italy

Phone: +39 02 9066601

Fax: +39 02 90666030

Email: har@hydair.com

www.hydair.com

HYDRO AIR RESEARCH ITALIA S.R.L.

BEIJING OFFICE

Room B3A08, ZJ SUBARU Building,
Ronghua South Road No.16
Development Area, 100176 Beijing - China

Phone: +86-(0) 10-59767721

Fax +86-(0) 10-59767782

Email: harchina@hydair.com

