IDRO GROUP

Water Treatment Solutions

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Idro® make it clear.

Expertise and experience at the service of the environment

IDRO GROUP SRL is a company founded in 1977, highly specialized in the environmental sector, able to design effective and suitable solutions for the treatment of water, air, waste and energy from renewable sources. The considerable experience acquired by IDRO Group makes it a **leader** in the field of **water purification**: it designs and builds advanced technology and sector-specific plants customized to the customer's needs.

The picture can't be displayed.

***More than 45 years of experience* and more than 10,000 completed water treatment plants**

idro®
make it clear.

OUR SERVICES

Financing

Thanks to this activity Idro Group provides financing for the construction of its plants, in the form of long-term rental or project financing, aimed at the realization of the same.

Maintenance

The Idro Group offers both extraordinary and scheduled maintenance service, which also includes control analysis.

Consulting

The Idro Group offers its consultancy for general and executive projects, for the feasibility study of the plants, for the technical specifications and the coordination of all purchases with technical and commercial supervision on supplies.

Assistance

The Idro Group's assistance services include technical assistance in plant management, supervision of installation and start-up, supervision of masonry works, personnel training, repair, refurbishment or extension of existing plants and the supply of products and reagents for water/ waste/ biomass treatment.

WATER TREATMENT TECHNOLOGIES

PRIMARY & DRINKABLE WATERS

WELL, LAKE AND RIVER WATER
BRACKISH WATER PURIFICATION
SEAWATER DESALINATION
DEMINERALISATION
TREATMENT AND REUSE INDUSTRIAL PLANTS

TYPES OF PLANT

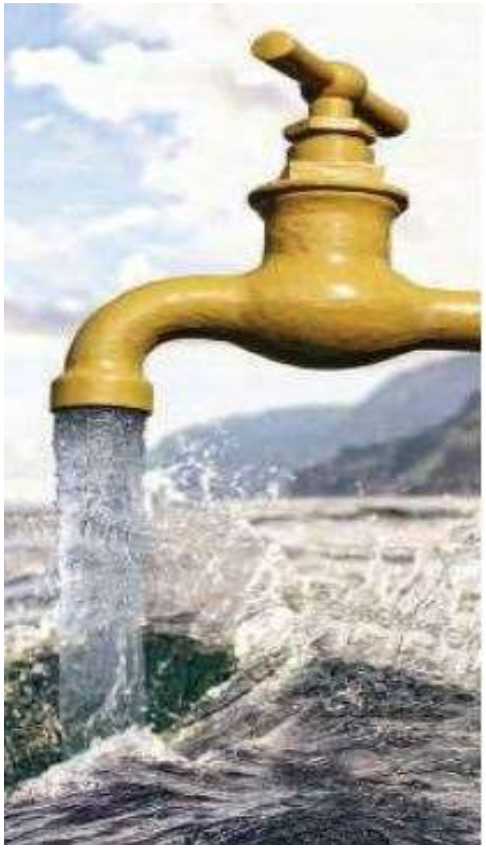
CARBON SAND FILTRATION
RESIN FILTRATION PLANTS
CHEMICAL-PHYSICAL TREATMENTS
LAMINAR PACKS, ULTRAFILTRATION
REVERSE OSMOSIS
DISINFECTION
DEBACTERIALISATION

WASTE WATER

CIVIL WASTE TREATMENT
INDUSTRIAL WASTEWATER
RAINWATER TREATMENT
WASTEWATER RECOVERY AND REUSE
RAINWATER RECOVERY AND REUSE
GREY WATER RECOVERY AND REUSE
BALLAST WATER TREATMENT

TYPES OF PLANT

CHEMICAL-PHYSICAL TREATMENTS
FLOTTATORS
OIL AND HYDROCARBON SEPARATORS
FIRST RAIN PLANTS
BIOLOGICAL PLANTS SBR
BIOLOGICAL PLANTS MBR
BIOLOGICAL PLANTS MBBR
BIODISKS
PERCOLATOR SYSTEMS



WATER TREATMENT TECHNOLOGIES

HEALTHCARE WASTE WATER

Disinfection of waste water coming from infectious disease departments

Treatment of fluid waste coming from biological laboratory

WATER TREATMENT TECHNOLOGIES

WASTE PRODUCED BY HEALTHCARE FACILITY

INFECTIOUS SOLID WASTE

1. PPE;
2. Microbiological Plate;
3. SWAB;
4. Sharps;

POLLUTED LIQUID WASTE

1. Blood Analysis Effluent;
2. Urine Analysis Effluent;
3. Washing Solution Effluent;
4. Chemicals and Detergent;

INFECTED WASTEWATER

1. Morgue Effluent;
2. Infectious Diseases Dept;
3. Autoptic Rooms;
4. General Wards

WATER TREATMENT TECHNOLOGIES

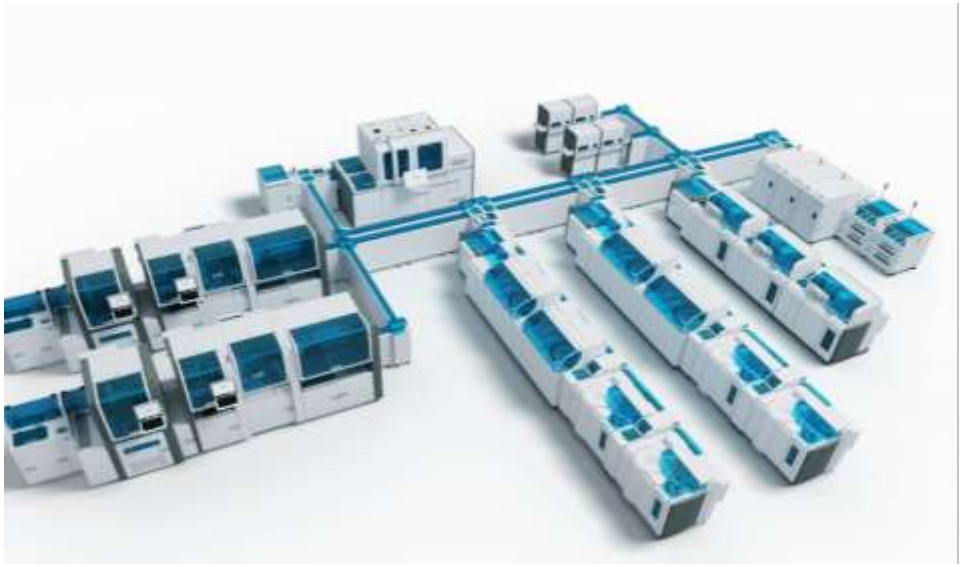
Polluted Liquid Waste: Current Situation

Problem Boundaries

Laboratory Liquid Waste
EWC 18.01.06* - 18.01.07

Low-Income Countries	High - Income Countries
Liquid waste Discharged directly into the public sewer	Collected in containers and sent to authorized plants for disposal
High Environmental Impact	High disposal costs

Biomedical Laboratories



WATER TREATMENT TECHNOLOGIES

Polluted Liquid Waste: AOP Treatment

Easy-to-use

Easy Installation

Safe

Elimination of biological and chemical risk

Sustainable

90% reduction of CO2eq per ton

Cheap

Significant reduction in disposal costs

Circular

Reintroduction of treated wastewater into the water cycle

WATER TREATMENT TECHNOLOGIES

Polluted Liquid Waste: AOP Treatment

LAB 250 L/D & LAB 500 L/D

Laboratory Liquid Waste Treatment

LAB 250 and LAB 500 allow to treat chemical fluid waste produced by biomedical laboratory to permit the introduction of the relative liquid component into biological wastewater treatment plant "WWTP" or sewage system, with an organic and inorganic pollutants removal greater than 90% and a complete removal of biologic hazards.

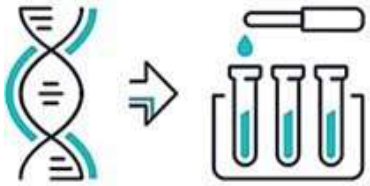
Polluted Liquid Waste: What is treatable?

In general, there are two key elements, which can be used as discriminating parameters for theclassification of liquid waste: the performance of the automatic analyzer and the size of thelaboratory:

- Recent analyzers use fewer reagents. This means that the liquid waste generated can beclassified as non-hazardous waste (EWC 18.01.07).
- Large laboratories usually generate a greater quantity of non-hazardous liquid waste (EER18.01.07) than hazardous waste (EWC 18.01.06*).

Specifically, the first type (EWC 18.01.07) derives from the laboratory departments of clinicalchemistry, molecular biology, electrophoresis and toxicology where hematological, serologicaland molecular biology analyzes are performed.

The second (EWC 18.01.06*) derives from the cytogenetic departments, where solvents andquinacrine are among the most commonly used dangerous agents.



WATER TREATMENT TECHNOLOGIES

Infected Wastewater: Current Situation

Problem Boundaries

Hospital Waste Water

Low-Income Countries → **High - Income Countries**

Wastewater Discharged directly into the public sewer

High pathogens spread risk

Autoptic Rooms and Morgue

WATER TREATMENT TECHNOLOGIES

Infected Wastewater: the Technology

SD 5000 L/D & SD 10000 L/D

Easy-to-use
Easy Installation

Safe
Elimination of biological risk

Sustainable
Biodegradable disinfectant agent

Low costs
Low consumption of chemicals

Automatic
100% automatic treatment cycles

WATER TREATMENT TECHNOLOGIES

Infected Wastewater: Treatment Efficacy

INPUT WASTE WATER

OUTPUT WASTE WATER

TRAINING & REMOTE CONTROL

SPECIALISED IDRO PERSONNEL DEDICATED TO FIELD AND REMOTE **TRAINING** AND **SUPPORT** ACTIVITIES

- Customized **lessons** focused on the type of plant in the **field**
- **Classroom** lessons
- Forums, chats
- Cases & best practices
- Quick learning tests
- E-learning courses - Video clips
- Online remote support

Thank you for your attention!