uni-recycling

INTEGRATED ENVIROMENTAL SOLUTION

COMMITMENT TO SUSTAINABLE DEVELOPMENT!

www.uni-recycling.de www.uni-recycling.ro

OUR SERVICES

We understand that every environmental issue represents a unique challenge, that is why over the years we have tried to expand our services from recycling to industrial cleaning and decontamination.

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WHY UNI-RECYCLING?

BECAUSE WE CARE!

For the environment, future generations and the world we all live in!

Registered at **25 United Nations organizations** and **NATO** and service provider to European Union.

Top Quality Assurance
Fully compliant with international laws and environmental regulations.

UNI-RECYCLING AT A GLANCE

- Turnkey Projects
- German Engineering Practices
- Consultancy
- Environmental services
- Environmental solutions
- Training courses
- Environmental Studies

Founded in 2005, Uni-Recycling, a German-Romanian group of companies, rapidly grew to become an internationally recognized environmental service provider gaining clients' trust by successful implementation of a wide variety of projects, especially in the field of environmental protection in several regions.

UNI-RECYCLING MISSION & VALUES

Our mission is to safeguard a greener planet for future generations!

We develop our services with a focus on natural resources protection offering solutions tailored to clients' requirements always taking the environment into account.

This is the reason why we invest on the most advanced technologies to be able to solve the most complex environmental challenges. We deploy experts and technologies across the continents urgently to minimize environmental impacts of any situation.

EXPERIENCE | RESPONSIBILITY | RELIABILITY | PROFESSIONALISM | MOBILITY | SAFETY

OIL SLUDGE TREATMENT

Turnkey projects including design, installation, operation and consulting.
With a record of over 1,000,000 m^3 sludge in accordance with international standards.

Uni-Recycling is prepared for fast & efficient intervention in any location, using **fully mobile equipment**, on standard and non-standard pits & lagoons, carrying out the whole chain of operations.

In-house technologies for treatment of sludge from:

- Pits and lagoons
- API separators
- Tank cleaning

UNI-RECYCLING provides:

- Fast and efficient intervention.
- Efficient design and right choice of chemical.
- Mobilization to any remote location.
- Highly trained and experienced team of specialists.
- Entire cycle of operations within the project.
- Mobile installations that can be relocated easily.

Concrete lagoons & API separators

Natural Lagoons

Oil sludge treatment is an intricate process that, with Uni-Recycling know-how, can be accomplished without any interruptions in the relevant industrial unit operations.

We enjoy three-phase centrifuges, vertical separators, ionizers, chemicals and state-of-the-art installations as well as specialized technicians on board.

Mobility is the key

By designing mobile installations, we ensure flexibility reducing the costs and eliminating the requirement for sludge transportation.

Water

Solid

Oil

*By setting up an **on-site laboratory**, we ensure highest recovery rates by adjusting chemicals dosing rates recipes.*

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DRILLING WASTE MANAGEMENT

Drilling cuttings & waste management environmental protection solutions.

Uni-Recycling owns mobile and stationary units which can be integrated to **treat cuttings, wastes and residues** resulted from drilling operations, based on requirement and location.

Recovered water phase will go to our labs to determine optimal treatment method, oil will be delivered to the client and solids will be disposed or encapsulated.

We run through different treatment stages such as: **screening, washing, solidification, stabilization and disposal**; all aiming at returning the site to **its former natural state.**

Skimming the surface oil

Evaporation of produced water

Produced water treatment

FROM
MATURE ASSETS

BACK TO NATURE

REHABILITATION OF CONTAMINATED SITES

Remediation of soil contaminated by oil, chemicals, acid tars & mercury.

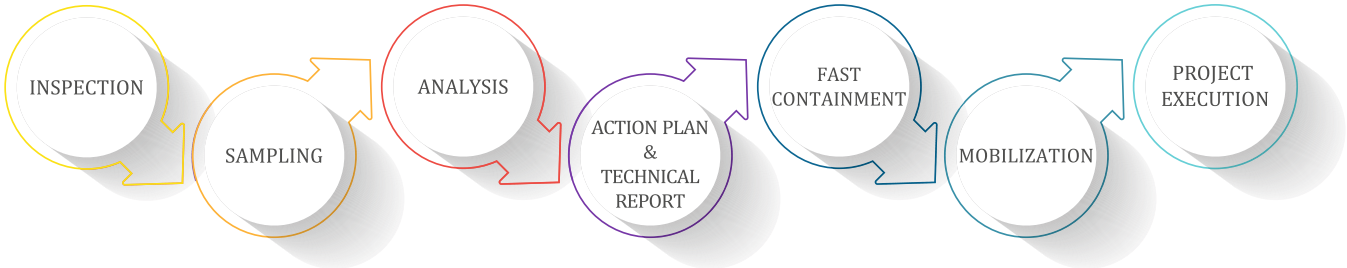
APPLIED METHODS

soil washing | *stabilization* | *solidification* | *bioremediation* | *ecological restoration*

Uni-Recycling carries out all necessary steps for site rehabilitation. Soil remediation is a **complex process** which requires **careful attention in investigation, expertise in identification** of the optimal method and **correct application** of the mechanical, physiochemical, thermal or biological remediation procedures. Remediation can be done on-site or off-site and is adaptable to every type of contamination.

Contaminated soil is a **threat to ecosystem** and can impact human health and nature. Soil remediation helps to **minimize the risks, safeguard underground water resources, restore the natural landscape** and enable safe reuse of the land for new applications.

Uni-Recycling is experienced in the field, e.g. rehabilitation of over **100,000 tons of contaminated soil** from a historically polluted site. In this example, contamination was carcinogenic Chromium +3 and Chromium +6.



BEFORE

AFTER

WATER & WASTEWATER TREATMENT SOLUTIONS

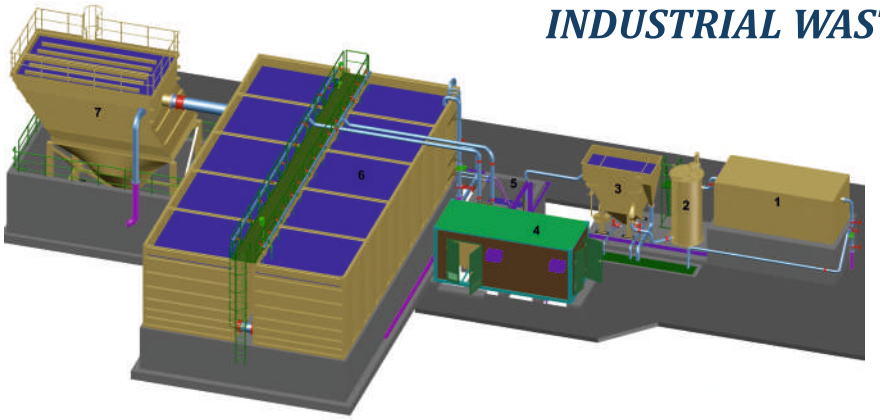
Water has rapidly become a precious element.

Uni-Recycling's concern is to help protect water resources by applying innovative technologies in water & wastewater treatment.

- DRINKING WATER TREATMENT
- SEWAGE (MUNICIPAL WASTEWATER) TREATMENT
- INDUSTRIAL WASTEWATER TREATMENT
- TREATMENT OF THE SLUDGE GENERATED IN WASTEWATER TREATMENT PLANTS

FEASIBILITY STUDY → DESIGN → PRODUCTION → DELIVERY → INSTALLATION & COMMISSIONING → OPERATION & MAINTENANCE

DESIGN, BUILD & OPERATE MUNICIPAL & INDUSTRIAL WASTEWATER TREATMENT PLANTS

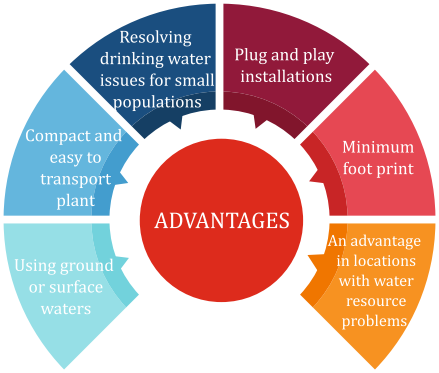


We offer wastewater & emulsion treatment services using fixed or mobile equipment, **proprietary recipes and adequate reagents developed from lab to pilot scale** before fabrication to ensure highest effluent quality possible.

Turnkey projects for various industrial applications.

DRINKING WATER TREATMENT

A solution for large & small populations.



MUNICIPAL WASTEWATER TREATMENT PLANTS

From compact solutions to grand projects.

A diversity of chemical, physical and biological processes are used in line with requirements to ensure optimum ecological and economical solutions.

To save diminishing water resources, we have developed several water re-use options.

TANK CLEANING

Manual, semi-automatic and automatic tank cleaning

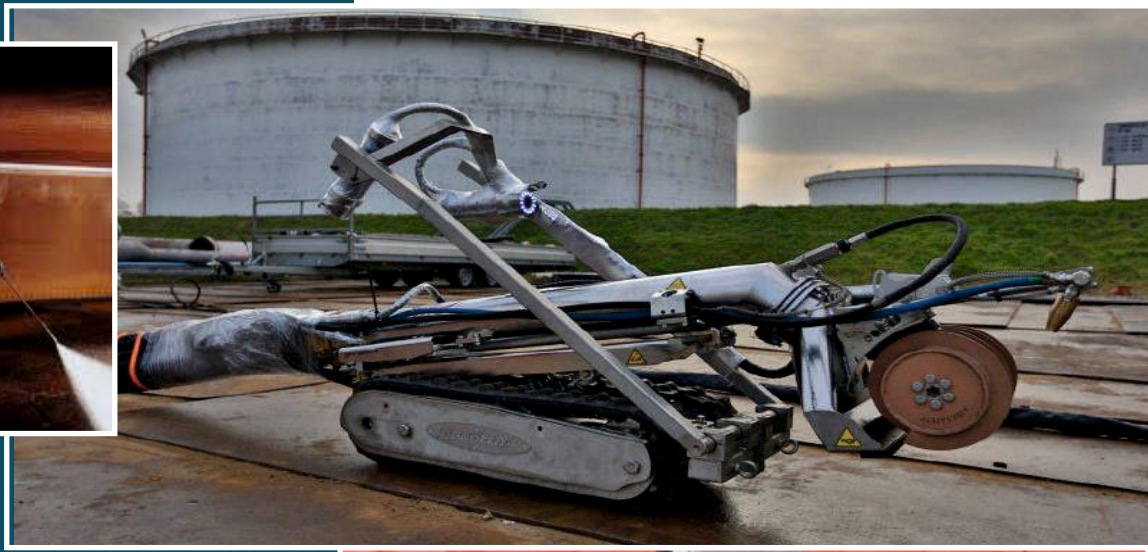
Tank cleaning is a very delicate service which requires experience, know-how, responsibility and professionalism. **Uni-Recycling** provides such a service for almost all types of storage tanks, using mobile installations and innovative solutions.

MANUAL TANK CLEANING

Uni-Recycling provides MANUAL CLEANING (MC) services with specialized personnel using adequate PPE and taking vigorous safety measures.
Usually, manual tank cleaning represents the first stage of tank interior inspection or it can be performed prior to non-destructive test.

SEMI-AUTOMATIC TANK CLEANING

Our SEMI-AUTOMATIC CLEANING (SAC) service relies on a remote-controlled truck based vehicle which is equipped with a cleaning cannon and a video camera. Live video of inside the tank is sent to the operator giving directions for orientation and supervision which optimizes performance.



AUTOMATIC TANK CLEANING

AUTOMATIC (no man-entry) TANK CLEANING (ATC) is suitable for both fixed and floating roof tanks.

INDUSTRIAL CLEANING & MAINTENANCE

Reduced process efficiency brings about energy loss. Uni-Recycling's cleaning division has developed effective and reliable mechanisms to not only save more energy, but also reduce downtime, increase process efficiency and reduce overhaul costs, as:

- High-pressure cleaning of heat exchangers, air coolers, pipes and other industrial equipment using combi jetting and vacuum trucks, high pressure pumps, etc.
- Maintenance services including retubing of heat exchangers and air coolers .
- Preventative maintenance planning.
- Disposal / recovery of the generated waste in industrial cleaning process.

HEAT EXCHANGER CLEANING

the

We use bundle extractors to eliminate the risk of damage.

Inside and outside high pressure cleaning of bundles with proper equipment in the least possible time.

Preferably, the cleaning process is performed by automatic devices using special nozzles, achieving a high rate of productivity and safety for the operators. Depending on the situation, cleaning operations can be performed in-situ by using modular, portable, safe and easy to assemble modules.

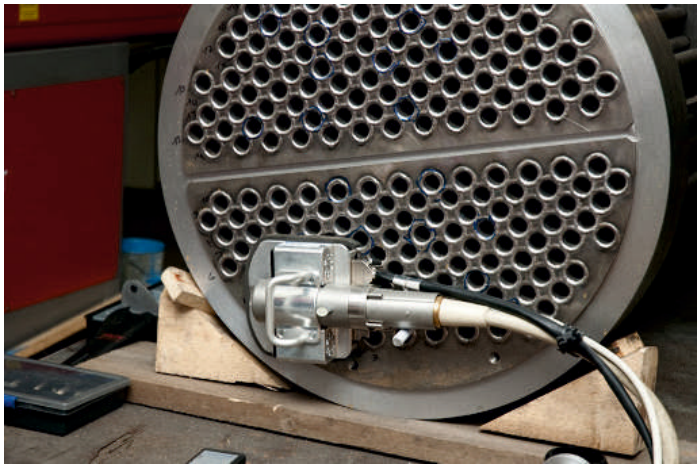
AIR COOLER CLEANING

Usually, the cleaning operations are performed in-situ by using modular, portable, safe and easy to assemble modules.

Cleaning of inside bundles and outside finned pipes.

High standard vacuum services perfect for day-to-day suction, discharge and transportation activities, general industrial cleaning or for use in the (petro) chemical industry and in refineries.

RE-TUBING & MAINTENANCE SERVICES



Heat exchanger re-tube works are especially important subject for big industrial plants such as: oil refineries, petrochemical industry, power plants, other chemical industries for equipment like Shell and tube heat exchangers, condensers, feed water heaters, etc.

It is generally a more economic option comparing with new equipment fabrication, but however this works needs expertise and special equipment.

If the condition of the tubes/ finned tubes has significantly degraded due to overheating or excessive corrosion, re-tubing the bundle with an equivalent or higher-grade type tubes can be required to increase the life of the equipment and optimize the working performance.

Uni-Recycling has created the foundation and gained experience in to performing such works.

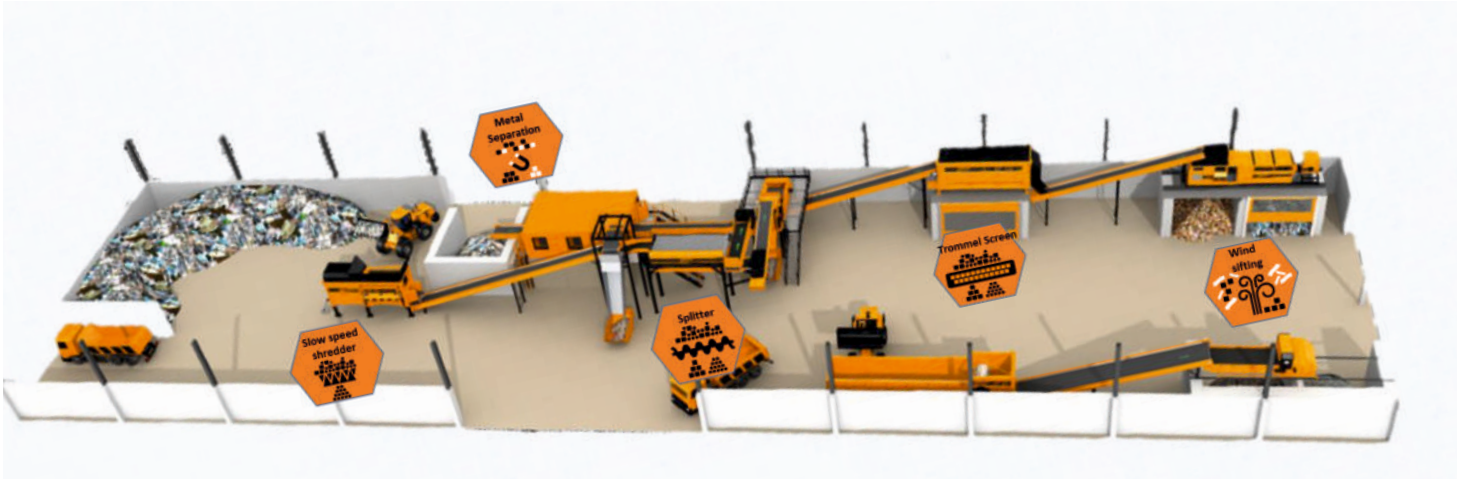
HAZARDOUS & NON-HAZARDOUS WASTE MANAGEMENT

All kinds of industrial events generate A LOT of waste, while nowadays, it has become more expensive to dispose of unsorted waste than sorted waste.

In our view, **waste is resource!**

We manage every stage of waste handling process.

consultancy — *design* — *installation* — *operation* — *service & maintenance* — *optimization*



Uni-Recycling offers **integrated waste management solutions** for all types of waste, from collection to recovery and reporting to the authorities, complying with the legislation in-force and the waste management hierarchy.

We provide destruction services **for non-compliant or confiscated products** under the supervision of the authorities and the Beneficiary

FROM WASTE TO VALUE

- PREVENTION
- REDUCTION
- REUSE
- RECYCLE
- RECOVERY
- INCINERATION
- DISPOSAL

PROCESSES

SHREDDING
SCREENING
CHIPPING
TURNING
SIFTING
PRESSING
MIXING
WASHING
CONVEYING

APPLICATIONS

WASTE WOOD RECYCLING
CONSTRUCTION WASTE
BIOMASS
LANDFILL MINING
COMMERCIAL WASTE
COMPOST TREATMENT
COMPOST SCREEN OVERSIZE
REFUSE-DERIVED FUELS - RDF
PIT AND QUARRY
SOURCE SEPARATED ORGANIC WASTE

Uni-Recycling offers mobile and stationary solutions. We are the exclusive distributor of a renowned manufacturer for waste processing equipment.

Combining the quality of the equipment provided with our expertise in the field of waste management, **we offer not only equipment, but complete solutions, tailored to the needs of clients.**

ADVANTAGES

Low operating costs thanks to efficient drive systems • Robust design of all machines
Low proportion of fine particles • The perfect solution for every situation • Service & maintenance

INTERVENTION ON SPILLS & ACCIDENTAL POLLUTION

Spills can have disastrous consequences for society; economically and environmentally.

It is necessary for all the industrial sectors, **especially petroleum refining and oil transportation**, to have the necessary tools for fast and efficient intervention in potential spill cases. **Uni-Recycling** provides quick intervention kits for all industries:

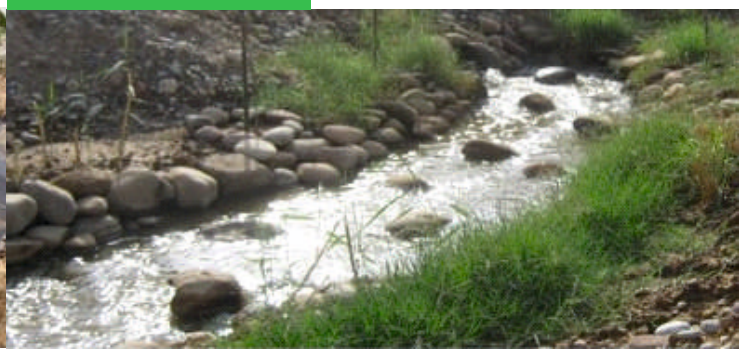
Pads *Rolls* *Socks*

Pillows *Booms* *Spill Kits*

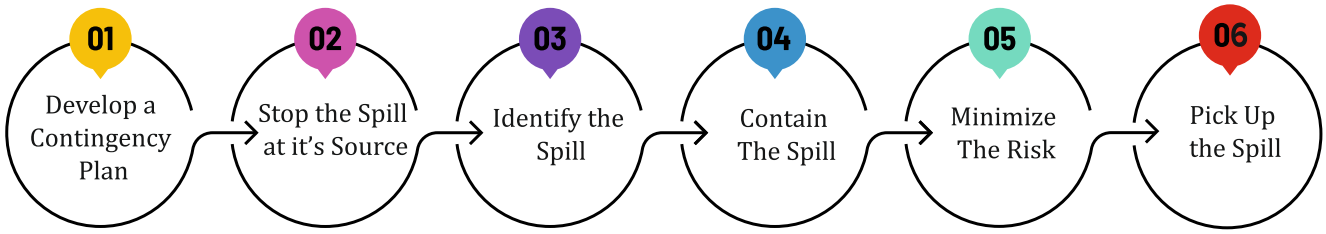
MAINTENANCE	*suitable for all fluid spills.*
OIL ONLY	*dedicated to resolving oil and hydrocarbon spills.*
CHEMICAL	*suitable for more aggressive chemicals such as acids, kerosene and detergents*

BEFORE

AFTER



WE CAN SATISFY ALL OF THE STEPS TO SPILL CONTROL



TRAINING & CONSULTANCY

In the field of environmental protection and industrial services.

Uni-Recycling provides consultancy and training for different environmental concerns. With our own equipment and qualified personnel, we can realize, **analyze and identify problems** in real time from investigation of the problem to the implementation of the driving strategy and to accomplish our mission **to increase awareness**, we offer a wide range of courses conducted for purposes suitable for all levels and abilities.

Our environmental training programs are suitable for those employees of organizations that are **committed to prevent accidents, injuries, hazards and diseases** in their assigned spaces. Additionally, to empower local communities, we offer **job specific training** courses that will lead us to choose the qualified applicants to finally work on the plants we offer.

In order to identify optimal solutions applicable to each situation, our specialists take preliminary samples, if necessary and carry out tests on representative samples in our labs to be able to offer **best treatment options.**

PROCUREMENT SERVICES

Meeting market demands

After many years of provision of high standard services, we have noticed a gap in some regions where we operate and have decided to increase our capacity to serve other sectors as well. In this regard, Uni-Recycling has opened a procurement and sourcing department aiming to address the deficiencies at highest quality and lowest cost.

PIPING EQUIPMENT

VALVES
PIPES
FLANGES
FITTINGS
GASKETS
BOLTS & NUTS

PROCESS & MECHANICAL EQUIPMENT

HEAT TRANSFER EQUIPMENT
HEATERS
SEPARATORS
DEAERATORS
STORAGE TANKS

ROTARY EQUIPMENT

PUMPS
COMPRESSORS
ENGINES
BLOWERS

FILTRATION TECHNOLOGIES

FOR VARIOUS TYPES OF FLUIDS,
E.G. PRODUCED WATER, DIESEL, GASOLINE, ETC.
MOBILE TANK CLEANING SYSTEMS
FOR NO MAN-ENTRY CLEANING OF PRODUCT TANKS

COMMITMENT TO SUSTAINABLE DEVELOPMENT!

Having been through a wide span of environmental protection experience, Uni-Recycling has reached an insight to tailor more effective ways to pave developing countries' road to a sustainable future. We have adopted technologies specially designed to target locations where proper infrastructure for mega projects is non-existent, yet local populations are in serious need of solutions to basic human needs.

Not only do we offer fast and efficient solutions to preserve the environment and provide the long forgotten masses with their basic needs, but also we:

Turn waste into value

Offer plug and play solutions

Design compact and easy to transport plants

Minimize footprint for fast installations

Help to protect global water resources and environment

Contribute to sustainable socio economic development

OUR MISSION

In the interest of people and the environment

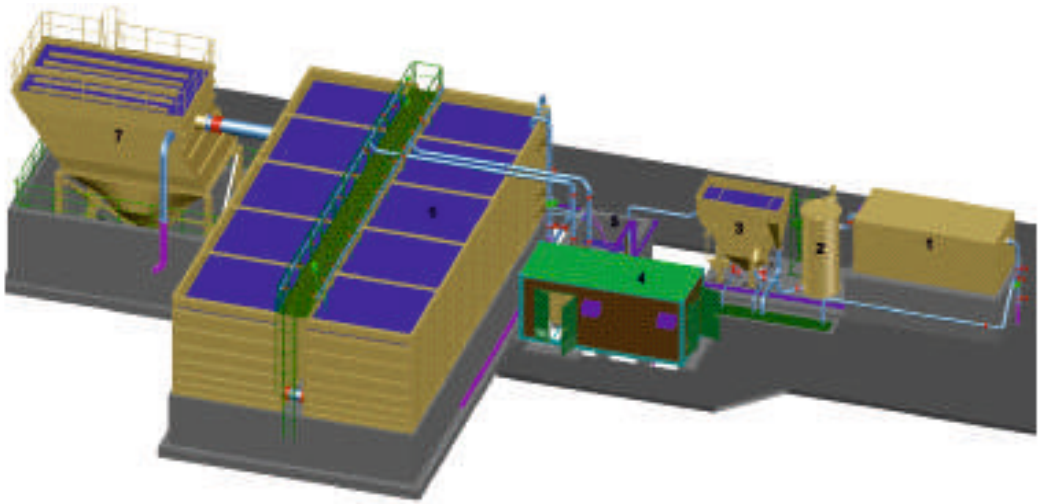
WIDE RANGE OF DIFFERENT APPLICATIONS

RECYCLING MACHINES

Shredding / Screening / Chipping /Turning / Sifting / Washing

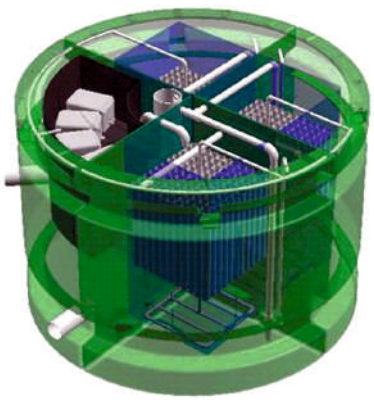
WASTE WATER TREATMENT PLANTS

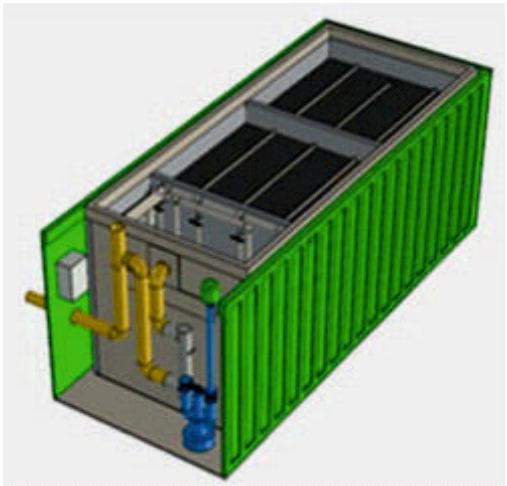
Design/Build/Installation&Commisioning/Operation&Maintenance



COMPACT SEWAGE TREATMENT

From Small Household to Large Village Applications





AND INTEGRATED SOLUTIONS

DECANTER CENTRIFUGES

Dewatering/Separation/Clarifying/3 Phase

FILTER EQUIPMENT

Produced water/Pre-filtration/Waste water/ Different types of fluids/Brines

FUEL CONDITIONERS

VERTICAL CENTRIFUGAL SEPARATORS

Minimum foot print
with
Plug and play installations

uni-recycling

INTEGRATED ENVIROMENTAL SOLUTION

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