



Procon

Procon Environmental Technologies

COMPANY PROFILE



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**SCAN TO VISIT
WEBSITE**



Executive Summary

Procon Environmental Technologies is a dynamic environmental technologies company committed to developing and implementing innovative solutions that mitigate pollution and enhance ecological resilience. Our mission is to provide effective and affordable technologies and services for managing environmental risks, with a specific focus on hydrocarbon contamination. As a leader in oil-water separation, emergency spill response, and bioremediation, we serve clients across the industrial, mining, marine, and environmental sectors.

We are proudly driven by a commitment to sustainability, community development, and corporate environmental compliance. Our integrated model not only delivers world-class environmental technologies and services but also invests in human capital development and regenerative agriculture as part of our environmental stewardship ethos.

About Us

Procon Environmental Technologies (Pty) Ltd was founded in 1993 and has since actively engaged in delivering cutting-edge Environmental Technologies to various sectors, including industrial, mining, power generation, transport and logistics, and petrochemical industries across Southern Africa.

We offer a comprehensive range of environmental management solutions, with a specific focus on systems designed to minimize the environmental impact of industrial and mining activities on their surroundings. Over the years, we have established strong partnerships with leading international companies and experts in their respective fields.

Procon's business ethos revolves around not only meeting but exceeding our clients' needs by providing highly reliable products and services. We are well-positioned to maintain our prominent role in the environmental industry within Africa. Our management and site teams possess extensive technical expertise, ensuring that we consistently deliver on our commitments to our clients.

MISSION

To deliver practical, scalable, and sustainable environmental technologies while empowering communities through education, employment, and environmental stewardship.

Our VISION

To be a leading African environmental technologies company that bridges industrial innovation with community development and ecological integrity.



Meet the Team

We have a dedicated team that shares passion for environmental sustainability, our decades of combined experience in environmental engineering, wastewater treatment and bioremediation gives us a unique perspective to environmental solutions.

Our team works collaboratively to design, install, and maintain efficient oil-water separator systems, provide spill response and soil remediation solutions that meet the highest environmental and regulatory standards.

From system designers and field technicians to environmental consultants and client support specialists, each member of our team plays a vital role in delivering customized solutions that help industries reduce pollution, manage runoff, and safeguard aquatic ecosystems. Our mission is simple: cleaner water, a cleaner planet, and a cleaner future delivered with integrity, expertise, and environmental stewardship.



Caitlin Rautenbach
General Manager



Daniel Mahlangu
Operations Manager



Reinhardt Rautenbach
System Specialist



Joy Du Toit
Accounts Manager



Ntokozo Skhosana
Safety Officer



Katelyn van Tonder
Office Administrator



Nkosinathi Ramphisa
Technician



Sello Ramphisa
Technician



Mahlatse Mohlape
Technician



Procon Environmental Technologies is at the forefront of innovative oil water separation technology primarily focused on addressing water pollution caused by hydrocarbon residue generated by processing plants on the mines.

Prospin is a complex design that works on a simple principle, the oil water is pumped tangentially into the large diameter end of the separator, this initiates a spinning vortex which is accelerated as it moves down the tapered separation tube.

The motion propels the water to the outer walls due to its higher density, while the oil with lower density is moved to the centre. The separated oil is extracted via an orifice located at the outlet of the separator, then the treated water is discharged on the other end of the tube.

KEY BENEFITS

RECYCLED WASTE WATER

Re-use of effluent water in the wash bays and pollution control dams and other water-based applications.

COST EFFECTIVE SOLUTION

Lower maintenance, reduced equipment failure which increases production and optimizes plant performance.

HYDROCARBON RECOVERY

Increased hydrocarbon & contaminants recovery from the effluent plant.

COMPARISON TABLE

FREE OIL RECOVERY

The ProSpin Free Oil Recovery system is a highly effective and innovative solution designed to efficiently remove free floating oil from the surface of the water. Unlike standard rope or mop skimmers, ProSpin can handle greater volumes of oil, making it an ideal choice for various industrial and environmental application.

- ✓ **Primary Function**
Recover floating (free-phase) oils from water surface
- ✓ **Oil Type**
Free-floating oil only (non-emulsified)
- ✓ **Separation Mechanism**
Self adjusting skimmers
- ✓ **Recovery Output**
Recovered oil can often be reused or sold

OIL WATER SEPARATOR

The Prospin Oil Water separator is a revolutionary system that solves the issue of residual oil waste in by using mixed flow de-oiling hydrocyclones which results in higher separation rate. Prospin has been tried and tested with results that demonstrates the efficient separation of oil and other contaminants from water.

- ✓ **Primary Function**
Separate oil and suspended solids from water to prevent pollution.
- ✓ **Oil Type**
Free oil & emulsified oil
- ✓ **Separation Mechanism**
Hydrocyclone
- ✓ **Recovery Output**
Separated oil typically sent to disposal or further treatment

Customized to Site Specifications & Client Requirements



7m³ Oil Water Separator

Dimension:

H(1750mm) x L (2150mm) x W (553mm)

Capacity:

7000 Litres per hour

Components:

- Stainless Steel Skid complete with
- De-oiler Liner and Vessel
- Strainer Housing
- Low Shear Pump
- Control Panel & Automation



3.5 m³ Free Oil Recovery

Dimension:

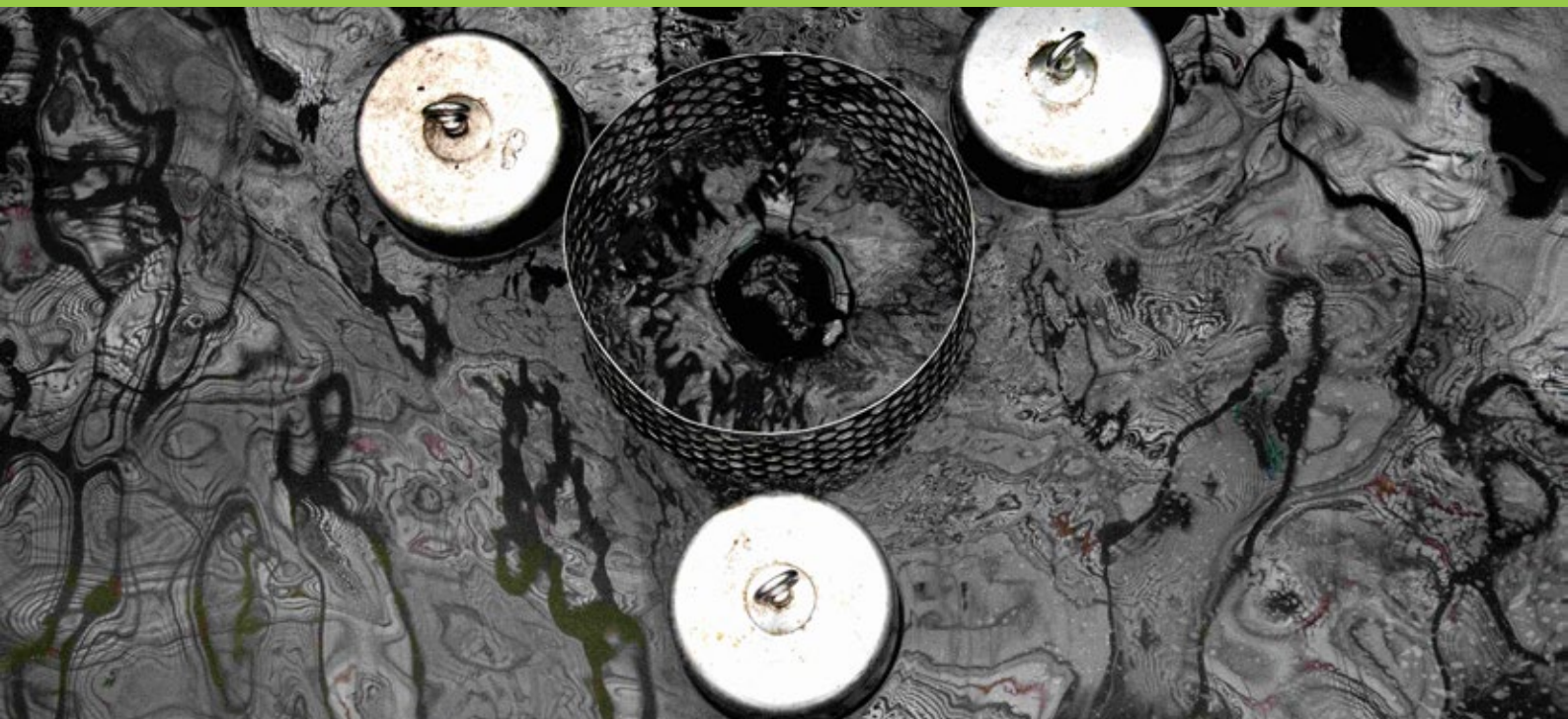
H(1750mm) x L (1500mm) x W (550mm)

Capacity:

3500 Litres per hour

Components:

- Stainless Steel Skid complete with
- De-oiler Liner and Vessel
- Strainer Housing
- Low Shear Pump
- Control Panel & Automation



Procon provides Mycelx filtration system solutions that guarantee 99,9% removal of hydrocarbons to meet storm water discharge limits. Mycelx is also used in process applications, in various industries, to solve difficult process problems and de-bottleneck existing processes. Mycelx is a patented oil removal technology.

Fifteen patents, Fortune 100 clients, and hundreds of installations worldwide attest to the fact that Mycelx is the undisputed, best solution for reliable oil and hydrocarbon removal from water and air.

Mycelx hydrocarbon matrix is designed to remove hydrocarbons ranging from BTEX to crude oil, sheen, chlorinated hydrocarbons, PCBs, organic solvents, pesticides and organically bound metals from wastewater.

WHY CHOOSE MYCELX ?

- Process Water Filtration systems to remove 100% of TPH, oil and grease from water
- Absorbs concentrated slugs with less than 1 Psi pressure differential, will not release pollutants due to its visco-elastic nature
- Chemistry is fixed in the filter – no metering, no chemical handling and no guesswork
- Fixed footprint; small space required
- Simple installation: gravity flow capable
- Used in parallel with other Procon Solutions



Integrating oil-water separators with polishing filters provides a multi-barrier system that enhances overall treatment performance.

KEY BENEFITS INCLUDE

✓ Staged Contaminant Removal

- Primary Stage (OWS) removes 70–95% of free oil and solids.
- Secondary Stage (Polishing Filter) targets remaining 5–30%, especially dissolved/emulsified oils.

✓ Improved Effluent Quality

- Ensures compliance with discharge regulations (e.g., <10 ppm oil content or stricter for sensitive environments).
- Supports water reuse in processes like equipment washing or dust suppression.

✓ Protects Downstream Equipment

- Prevents clogging, fouling, or premature wear on downstream pumps, membranes, or biological systems.

✓ Optimized Operating Costs

- Reduces frequency of media replacement by extending the life of polishing filters (thanks to upstream pre-separation).
- Lower sludge volumes compared to chemical treatment methods.





Procon Environmental Technologies offers a cutting-edge, modular approach to wastewater treatment, designed to adapt to diverse industrial and commercial site conditions. Built for flexibility, efficiency, and sustainability, the system allows users to customize treatment modules based on the contamination profile of their wastewater, especially effective after oil-water separation or for lighter loads such as car washes and process effluent.

Each module is pre-engineered and skid-mounted for ease of integration, rapid deployment, and mobile use. From oil droplet removal to reverse osmosis for high-purity reuse applications, the system scales to meet both low- and high-volume treatment needs. Units are compact, robust, and compliant with environmental discharge standards.

MODULAR SYSTEM OVERVIEW

Module 1

Oil Removal Bag

Removes sheen oil from wastewater



Module 2

Carbon Filtration

Filtration Removes larger particles, residual hydrocarbons and debris from wastewater



VISIT WEBSITE TO VIEW MORE PRODUCTS

Module 3

Particle Removal Filtration

Remove particulates from your wastewater



Module 4

Mycelx Polishing

Removes Oil and Hydrocarbons to 1ppm and below



Module 5

Reverse Osmosis Unit

Removes sheen oil from wastewater.





We harness the power of microbial bioremediation to detoxify and restore soils contaminated with hydrocarbons, heavy metals, and industrial waste. Our targeted application of native and augmented microbial strains breaks down pollutants safely and effectively, enabling land to be rehabilitated for agriculture, development or conservation.

HOW IT WORKS?

Microbial soil remediation is a biological process that leverages the natural metabolic pathways of microorganisms to break down, transform, or immobilize contaminants present in polluted soils. These microbes feed on pollutants as a source of carbon or energy, converting harmful substances into non-toxic by-products like carbon dioxide, water and organic biomass.

WHY SOILPRO?

Microbial soil remediation is a natural and cost-effective process that utilizes beneficial microorganisms to degrade, transform, or detoxify harmful contaminants in the soil. This service is ideal for industries such as mining, petrochemicals, manufacturing, and agriculture where hydrocarbon spills, heavy metals, pesticides, and other persistent organic pollutants compromise land quality and environmental safety.

BIOREMEDIATION PROCESS FLOW

Site Characterization & Assessment

Soil sampling and laboratory analysis to identify pollutants and their concentrations.

Microbial Selection & Culturing

Selection of commercial strains known for degrading specific contaminants.
Culturing in bioreactors to multiply microbial load before field deployment.

Remediation Strategy

In-situ bioremediation (treating soil on-site without excavation).
Ex-situ bioremediation (excavating and treating soil in controlled conditions).

BioStimulation

Adding nutrients, oxygen, and moisture to optimize microbial growth.
Adjusting pH and C:N ratio to favor enzymatic activity.

Monitoring

Uniform application of microbes via spray rigs, irrigation systems or trenching methods.
Continuous monitoring of degradation progress.

Post -Remediation

Verification through soil testing, environmental audits, and third-party verification if required.
Final soil conditioning and preparation for revegetation, agriculture, or development.



Procon Environmental Technologies provides rapid-response spill containment and cleanup services tailored to industrial, mining, commercial, and municipal sectors. Our solutions address hydrocarbon, chemical, and wastewater spills on land or near water bodies using integrated remediation technology, expert field teams, and bio-compatible consumables.

Spill incidents that are accidental or operational pose severe risks to environmental health, personnel safety, and regulatory compliance. Our end-to-end service model is designed to mitigate those risks swiftly and effectively while supporting site recovery and compliance reporting.

Whether it's a localized oil spill or widespread sludge discharge, Procon's mobile units and trained technicians are prepared to intervene immediately, minimize environmental impact, and restore affected areas using industry-proven techniques.

Emergency Spill Response

- On-site Spill Containment & Control
- Oil, Chemical, and Fuel Spill Recovery
- Hazardous Material (HAZMAT) Response
- Wastewater Overflow & Sewage Response
- Flood Water Contamination Cleanup

Containment & Recovery Services

- Deployment of absorbent booms, socks, pillows and barriers
- Use of oil skimmers and vacuum tankers
- Spill kits for land, hard surfaces, or aquatic environments
- Bund wall sealing and drain protection
- Dewatering and sediment control systems

Remediation & Cleanup

- Surface decontamination
- Manual recovery and excavation for contaminated soils
- Hydrocarbon remediation using bioremediation agents
- Chemical neutralization and rinsing
- Microbial/enzymatic spill treatment

Spill Prevention & Preparedness

- On-site spill risk assessments
- Spill response plans and training
- Custom spill kit supply and station installations
- Emergency response drills and simulation



Procon has successfully done Oil Water Separator System Installations and Oil Spill Clean ups at various plants and mines, we have a track record of delivering quality services and reliable water reticulation systems. For more information, visit our website to book a **FREE CONSULTATION**.





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