PATRAMAS

We are a leading provider of integrated water treatment solutions, process enhancement services, and specialized chemical and equipment programs for industrial and infrastructure applications.

Connect today with our sales:

+6221 8908 3456
pgt@patramas.com
www.patramas.com

Head Office:
Grha Patramas, Jl. Pahlawan No.104
Citeureup, Kab. Bogor - Indonesia 16810

© 2025 PT Patramas Global Techindo. All rights reserved.

Water Technologies & Chemical Solutions



Company Profile

PATRAMAS



Patramas has a comprehensive and competitive suite of water treatment products and services in our portfolio. We are dedicated to assisting our valued customers in identifying optimal product or suite of products to meet their specific requirements at the best total life-cycle economic value.

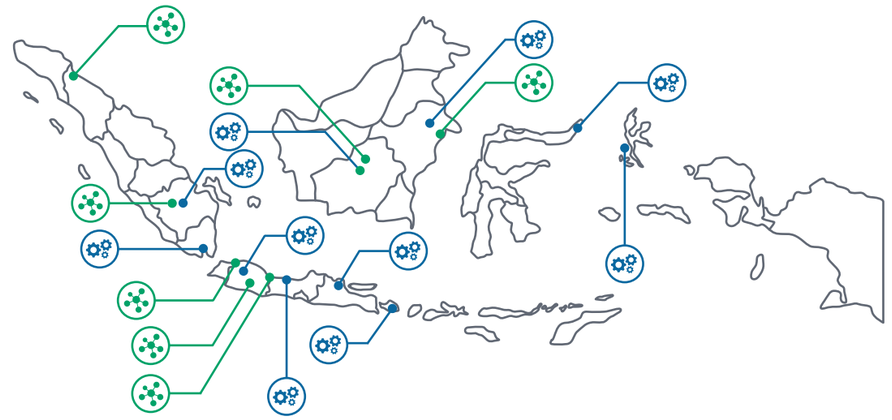
Finding answers in water and changing the world with water together with customers and society, this is what we do at Patramas.



INDUSTRIES WE SERVE

Industries We Serve

- Chemical Processing
- Commercial Laundries
- Food & Beverage Processing
- Healthcare & Life Sciences
- Hospitality
- Manufacturing
- Mining & Mineral Processing
- Oil & Gas
- Palm Oil Mill
- Petrochemicals
- Power Generation
- Pulp & Paper
- Refineries and Fuel Additives



Engineering Services

Chemicals Technology

Patramas's integration sets us apart from our competition. It provides unique manufacturing flexibility to maximize value as market demand changes. Our business works together across the value chain to share knowledge, insights, and best practices. This collaboration leads to better-informed decisions, more efficient operations, and the delivery of unique value.

Project Experience & Client Portfolio

- Client / Location : PT Darya-Varia Indonesia / Citeureup, Bogor
  Industry : Pharmacy
  Project : Biological WWTP-CS IFAS (100 m^3/day)
  Year : 2013

- Client / Location : PT Medifarma Laboratories / Cimanggis, Depok
  Industry : Pharmacy
  Project : Biological WWTP-Anaerobic CSTR (50 m^3/day)
  Year : 2014

- Client / Location : PT Bisma Dharma Kencana / Central Kalimantan
  Industry : Palm Oil Mill
  Project : Boiler Chemicals (50 m^3/day)
  Year : 2024

- Client / Location : PT Jababeka Infrastructure / Jababeka, Cikarang
  Industry : Industrial Estate
  Project : Aerobic WWTP Upgrade (1000 m^3/day)
  Year : 2017

- Client / Location : PT Yupi Indo Jelly Gum / Gn. Putri, Bogor
  Industry : Food Industry
  Project : UASB Biological WWTP (168m^3/day)
  Year : 2021

- Client / Location : PT Indofermex (AB Mauri) / Depok
  Industry : Food Industry
  Project : Activated Sludge - Submersible Aeration (414 m^3/day)
  Year : 2017

- Client / Location : PT Indofood CBP Sukses Makmur / Cibitung, Bekasi
  Industry : Food Industry
  Project : IFAS-EA WWTP Construction (1,500 m^3/day)
  Year : 2018

- Client / Location : PT Bayer Indonesia / Cimanggis, Depok
  Industry : Pharmacy
  Project : Aerobic IFAS-WWTP (185 m^3/day)
  Year : 2018

- Client / Location : PLTU Bukit Asam / Tanjung Enim, South Sumatra
  Industry : Coal Power Plant
  Project : Water Treatment Plant (200 m^3/hour)
  Year : 2018

- Client / Location : PT GS Battery (ASTRA) / Karawang, West Java
  Industry : Automotive Industry
  Project : Laboratory Design
  Year : 2022

- Client / Location : PT Dankos Pharma (KALBE) / Pulogadung, Jakarta
  Industry : Pharmacy
  Project : Aerobic IFAS WWTP (150 m^3/day)
  Year : 2021

- Client / Location : PLTU Bukit Asam / Tanjung Enim, South Sumatera
  Industry : Coal Power Plant
  Project : Chemical Injection Station Upgrade
  Year : 2018

- Client / Location : PT Bintang Toedjoe (KALBE) / Cikarang, Bekasi
  Industry : Pharmacy
  Project : Aerobic IFAS WWTP (150 m^3/day)
  Year : 2021

- Client / Location : PT Interbat / Sidoarjo, East Java
  Industry : Pharmacy
  Project : Aerobic IFAS WWTP (270 m^3/day)
  Year : 2018

- Client / Location : PT Edico Utama / Pulogadung, Jakarta
  Industry : Automotive Industry
  Project : Biochemical WWTP (100 m^3/day)
  Year : 2018

- Client / Location : PT Yupi Indo Jelly Gum / Gn. Putri, Bogor
  Industry : Food Industry
  Project : UASB Biological WWTP Expansion (300 m^3/day)
  Year : 2021

- Client / Location : PT Indofermex (AB Mauri) / Depok
  Industry : Food Industry
  Project : Activated Sludge Turnkey Project (520m^3/day)
  Year : 2021

- Client / Location : PT Yupi Indo Jelly Gum / Karanganyar, Jawa Tengah
  Industry : Food Industry
  Project : UASB Biological WWTP Turnkey Project (360 m^3/day)
  Year : 2022

Water Treatment Technologies

For over a decade, industries have relied on Patramas to provide solutions for their **process and water treatment needs. We help overcome complex challenges by delivering innovative technologies that improve operational efficiencies, enhance product quality, protect plant assets and minimize environmental impact.**

Patramas's water-treatment solutions start at the intake water system and carry through to the waste-water treatment plant, supporting every aspect of client's process operations and enhancing their industry's reliability, efficiency and profitability. We offer total plant solutions for:

- Intake Water Treatment
- Raw Water Treatment
- Boiler Water Treatment
- Cooling Water Treatment
- Drinking Water Treatment
- Process Water Technologies
- Wastewater Treatment
- Total Plant Utilities

Our Strategy

Becoming the trusted partner for circular solutions in water and waste. Patramas leverages its profound expertise in water and waste, its ability to manage complex projects at a large scale, its partnership culture, recognized brand, and deeply committed teams to generate environmental and social value.



We offer treatment of water from condensate, surface impoundments, industrial waste streams, municipal gray water, cooling towers, the sea, wells, ponds, surface supplies, lagoons, rivers, lakes, you name it…

We purify source water for use in applications as diverse and broad as: high pressure boiler feed water, low pressure boilers, heaters, cooling, heat transfer equipment, process recycle, rinse, cooling towers, cleaning, other evaporative applications, municipal use, drinking, and many others.

We employ the technologies needed to purify the water:

- **Zero Liquid Discharge Ion Exchange**
- **Electric power Ion Exchange**
- **Reverse Osmosis**
- **Ultrafiltration**
- **Membrane Bioreactor (MBR)**
- **Carbon adsorption**
- **Deoxygenation**
- Cartridge filtration
- **Chlorination**
- **Chemical treatment**
- **Biological treatment**
- **Final polishing**

PATRAMAS

Water Treatment Technologies

Depending on the specific use, raw water supplies can be contaminated and require treatment. These contaminants are many and varied and sometimes require multiply unit operations to make the water usable. Table 1 below illustrates the main type of contaminants by source and application.

Patramas's suite of treatment technologies are designed to manage any raw water source producing the desired quality of treated water. Figure 1 shows the filtration spectrum of various common contaminants and the separation processes needed to remove them.

Table 1: Main types of contaminants by source and application

Water source	End use	Typical Contaminants of Concern
Surface water	Potable	Suspended solids, dissolved organics, pathogens
	Microelectronics manufacturing	Suspended solids, dissolved organics, dissolved solids
	Boiler feedwater	Suspended solids, dissolved organics, dissolved solids
Groundwater	Potable	Dissolved solids, dissolved organics, pathogens
Sanitary sewage	Treatment for discharge	Suspended solids, dissolved organics, pathogens
	Reuse	Suspended solids, dissolved organics, pathogens
Industrial wastewater	Treatment for discharge	Suspended solids, dissolved organics, dissolved solids, pathogens, fats, oils, and greases, pH
Seawater	Potable	Dissolved solids, suspended solids, dissolved organics, pathogens

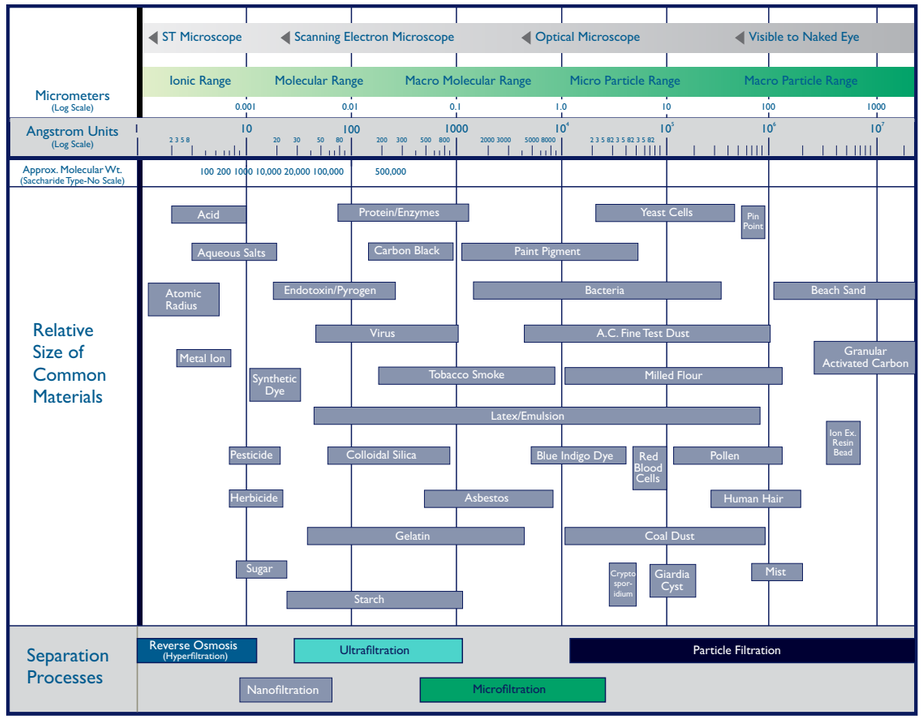


Figure 2: Filtration Spectrum

Water Demand Dynamics

When designing water treatment plants be they for potable or sewage water treatment, it is essential to account for typical diurnal demand curve. Simply put, water consumption is not linear and it follows a typical pattern as illustrated in the curve in Figure 2. Demand tends to peak in the morning trailing off until a second lesser peak occurs in the early evening. During the night, demand plummets. It is incumbent on designers to take this in account in their calculations to ensure these dynamics are accomodated.

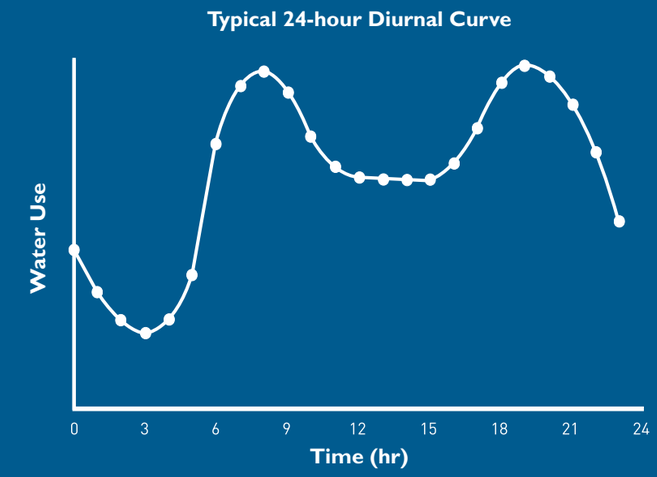


Figure 2: Diurnal Curve showing water consumption throughout the day

Global Trends

Water is a finite source and its use is of particular importance to Patramas, throughout the cycle of its capture in the natural environment for the production of drinking water, through to the discharge of decontaminated wastewater.

3B
Growth in
GLOBAL POPULATION By 2050

55%
Growth in
GLOBAL WATER DEMAND By 2050

2/3
of Global Population Will
NOT HAVE ACCESS TO CLEAN WATER By 2030

100+
Year
AGING INFRASTRUCTURE in Mature Markets



WATER & WASTEWATER ENGINEERING



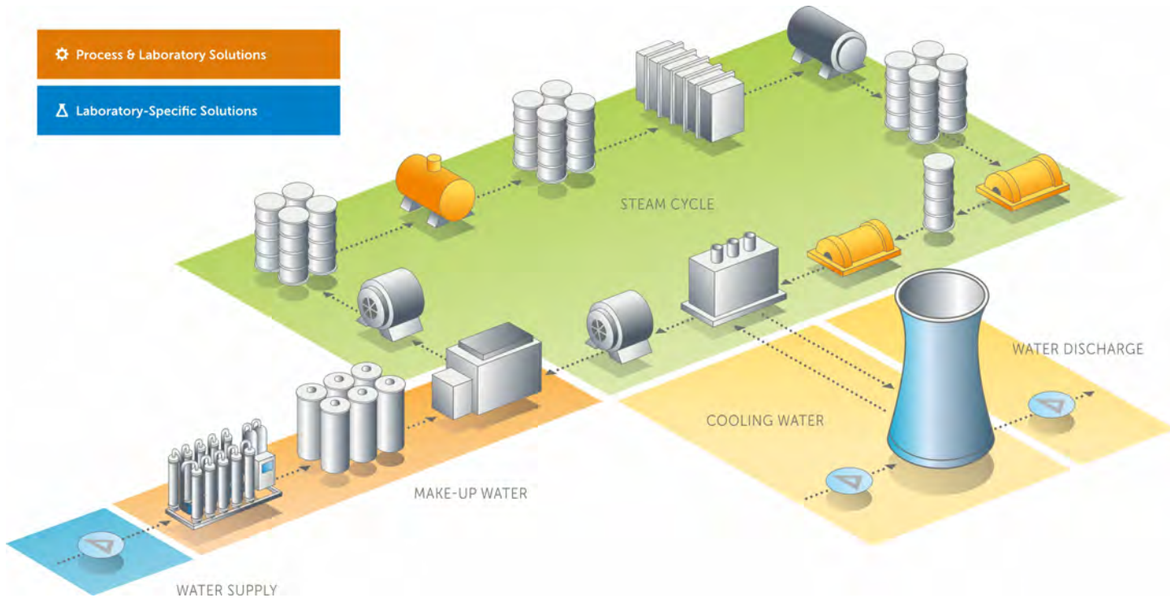
Water & Wastewater Engineering

- Plant evaluation and operation optimization
- Capital project planning
- Pilot studies
- Rate and cost of service studies
- Feasibility, financial and capacity analysis reports
- Raw water intake studies and piping design
- Water treatment facility and ground well design
- Total water treatment plant system design
- Water transport and storage design
- Wastewater collection, treatment, disposal design
- Membrane softening system design
- Reverse osmosis system design
- Effluent disposal and reuse facilities design
- Project startup
- Environmental impact assessment

Creating New Value by Integrating All The Capabilities of Our Team

To cater to diverse customer needs, Patramas provides comprehensive solutions by integrating its capabilities and combining its diverse products, services, and technologies in water treatment chemicals, water treatment facilities, and maintenance services. We seek to create new value which contributes to customers and society, by creating business models that are not limited to the provision of products or technologies, transcending existing frameworks of business.





Boiler Water Treatment

With over 10 years of diverse industry experience, our commitment to developing innovative boiler water treatment technologies continues to this day. The combination of boiler water chemical treatment with advanced, precisely engineered chemistry provides a comprehensive solution for boiler water treatment, effectively mitigating scale and corrosion within the boiler system. Our boiler water chemistry is designed to prevent corrosion and scale in all areas of the steam system: pre-boiler corrosion, internal treatment scale and corrosion, and condensate corrosion.We couple our industry-leading chemistries with automated monitoring and control.

Our Approach

Patramas has helped our customers with their boiler systems through automation, service, specialty chemistries, and equipment, to drive overall reduction of total cost of operation. We focus on customers in institutional, manufacturing, food & beverage, power generation, chemical, primary metals, paper, and mining. Our experience with firetube and water tube boilers optimization has led to millions of gallons in water savings and asset protection.

Our Solutions

- Boiler Internal Treatment
- Condensate Line Treatment
- Corrosion Inhibitors
- Oxygen Scavengers
- Scale and Deposit Control
- Soot and Fireside Treatment





BOILER WATER TREATMENT





COOLING WATER TREATMENT



Cooling Water Treatment

We understand that your productivity and product quality could be impacted by your cooling water system. Industrial cooling towers and closed loop efficiency can be adversely affected by corrosion, scaling, fouling and biological contamination. Scale, corrosion and microbial fouling threaten your cooling system every day. Combat them with a cost-effective chemical program designed to your unique circumstances.

Patramas offers a full array of cooling water treatment solutions including chemicals, equipment, automation and software, designed to safely optimize cooling system performance while conserving water and minimizing waste.

Our Solutions

- Scale and Deposit Control
- Corrosion Inhibitors
- Cooling Water Biocontrol
- Chlorine dioxide
- Legionella Control



Industrial & Commercial Reverse Osmosis (RO) Systems

Patramas provides reverse osmosis systems and equipment for industrial and commercial applications. Our RO solutions can be fitted with a variety of pre-treatment modules including cartridges, multimedia, greensand filters, activated carbon pre-filtration, softeners or chemical feed systems.

Packaged Desalination Systems

Desalinate your specific brackish or seawater with pre-engineered systems. These systems offer a turn-key pre-engineered solution to brackish or seawater reverse osmosis desalination. Patramas's packaged approach reaches a wide range of applications through speed of delivery and low costs.

We offer skid-mounted systems available in various models, capable of delivering permeate at a range of 100–5,000 m^3/day. These systems provide easy installation and dependable operation. Each system is equipped with a variable frequency drive (VFD) for optimal control of the high-pressure pump, ensuring energy efficiency and consistent water production.





Membrane Chemistry

Improve permeate quality and meet production demands. An effective reverse osmosis (RO) chemical program consisting of antiscalants, cleaners and biocides, combined with the right pretreatment processes and chemistry, will enhance system performance while reducing energy and water costs. Adding our cleaning program and appropriate maintenance provides substantial returns by extending membrane life, resulting in less downtime and lower total cost of operations.

Our comprehensive chemical-based membrane programs will help you operate consistently without unexpected upsets:

- Antiscalants
- Cleaners
- Biocides
- Pretreatment



REVERSE OSMOSIS SYSTEMS & CHEMICALS



WASTEWATER TREATMENT TECHNOLOGIES

Wastewater is the ultimate untapped resource. Patramas's approach is to see wastewater as an opportunity, not a burden. Today's technology developments allow us to realize this vision. Whether it's ensuring that industries meet stringent discharge compliance or recovering energy from municipal sewage, Patramas will seek to maximize wastewater's true hidden value.

Technologies and Processes

- Clarification / Filtration
- Physical / Chemical Treatment
- Advanced Oxidation (AO)
- Wet Air Oxidation (WAO)
- Heavy Metals Removal
- Oil / Water Separation
- Aerobic Biological Treatment:
  - Activated Sludge Process
  - Integrated Fixed Film Activated Sludge (IFAS)
  - Membrane Bioreactor (MBR)
  - Moving Bed Bioreactor (MBBR)
  - Sequential Bioreactor (SBR)
- Anaerobic Biological Treatment:
  - Upflow Anaerobic Sludge Blanket Reactor (UASB)
  - High Rate Anaerobic Reactor
  - Anaerobic Membrane Bioreactor





Packaged Wastewater Treatment Technologies

Producing clean water doesn't have to be complicated. Patramas's packaged plant products provide customers with optimized, ready-to-go treatment solutions that are simple and economical. Our broad portfolio can transform any water source into clean, safe drinking water and any wastewater discharge into the highest quality reuse water.

Installing water and wastewater treatment infrastructure can be expensive for municipalities, but using a packaged plants can help reduced the total cost while still ensuring the community has a safe, high quality water system.

With rising discharge fees and increasingly restrictive access to fresh water sources, industries can benefit from a packaged treatment plant solutions by reusing process and wastewater on site, reducing overall capital and operational costs.

- Various packaged models are available to accommodate treatment needs across a variety of industries and feed water conditions.
- Packages can be operated in series or parallel modes for flexibility in effluent quality and flow rate, respectively.
- All process components are included within a single skid to simplify transport, layout and operation. Within our containerized length scope, we include aeration blowers, tank covers, feed pumps, PLC and controls.
- Packages can be configured with multiple compartments and treatment options for various treatment needs.
- By minimizing the client expenditure for production, installation, commissioning, and operation, our packaged MBBR provides a highly economical solution.





Aging infrastructure and increasing demand for high-capacity biological water treatment have created a need for more efficient, compact and affordable solutions. Integrated treatment systems must be easy to operate and install while minimizing capital expenditure. These new systems must also be capable of addressing frequent changes in feed water.

A mobile, packaged solution is thus key to enabling companies to manage their wastewater with the most efficient technology at the lowest cost. Patramas Nenggala™ MBBR provides all of these benefits for end-users in industries ranging from Food & Beverage to Pharmaceutical. In addition, Nenggala™ MBBR offers added value to the customer through flexible design, rapid implementation and automation built to minimize manual intervention and operating costs.

Typical Applications:

- Chemical Processing
- Commercial Laundries
- Food & Beverage Processing
- Healthcare & Life Sciences
- Hospitality
- Manufacturing
- Mining & Mineral Processing
- Oil & Gas
- Palm Oil Mill
- Petrochemicals
- Power Generation
- Pulp & Paper
- Refineries and Fuel Additives

DETAILED DATA-DRIVEN ANALYSIS SUPPORT

To support your day-to-day data-driven plant analytics, we also offer laboratory chemicals and scientific instruments, including:

- General Laboratory and Scientific Equipment
- Onsite and Online Analyzers
- Testing Kits
- Laboratory Chemicals
- Laboratory Glassware and Plasticware
- Scientific Measurement Equipment
- Spectroscopy Instruments
- Automatic Samplers

Our geographic market covers the whole Indonesian territory and we are distributing the products as a wholesaler, for retail and for specific projects.

- Industries
- Universities
- Hospitals
- Analytical/Surveyor/Research Centre Institutions

Additionally, we are proud to partner with world-leading brands such as SigmaAldrich, HACH, Merck, HANNA, Thermo Fisher, Duran, Binder and more.







LABORATORY CHEMICALS AND INSTRUMENTS



GENERAL & SPECIALTY CHEMICALS

Patramas is committed to supplying high-quality products to all our customers, aligning with our vision of becoming the leading chemical supplier in Indonesia. We assure that every order is handled meticulously at each stage of the distribution process. We are dedicated to advancing our customers' businesses through our profound understanding of their industries and the global trends that influence their operations and profitability. It is our privilege to leverage our extensive chemical and raw material expertise to deliver valuable and transparent business relationships to both customers and suppliers.

With our long-standing business contacts and strategic market insight, we develop new and alternative sources for innovative high-performance specialty chemicals that help drive your business success.

Our Products:

- Biocides
- Coagulants
- Corrosion Inhibitors
- Drilling Fluids
- Emulsifiers & Demulsifiers
- Flocculants
- Fuel Additives
- General Acids & Bases
- Gycols
- Metal Working Fluids
- Oil Spill Dispersants
- Sludge Conditioners
- Specialty Polymers
- Special Blend Surfactants





