ECOPRO

Company Introduction

Customized Industrial Wastewater Treatment & Separation Solutions

Industrial wastewater • Solid-liquid separation • Customized systems

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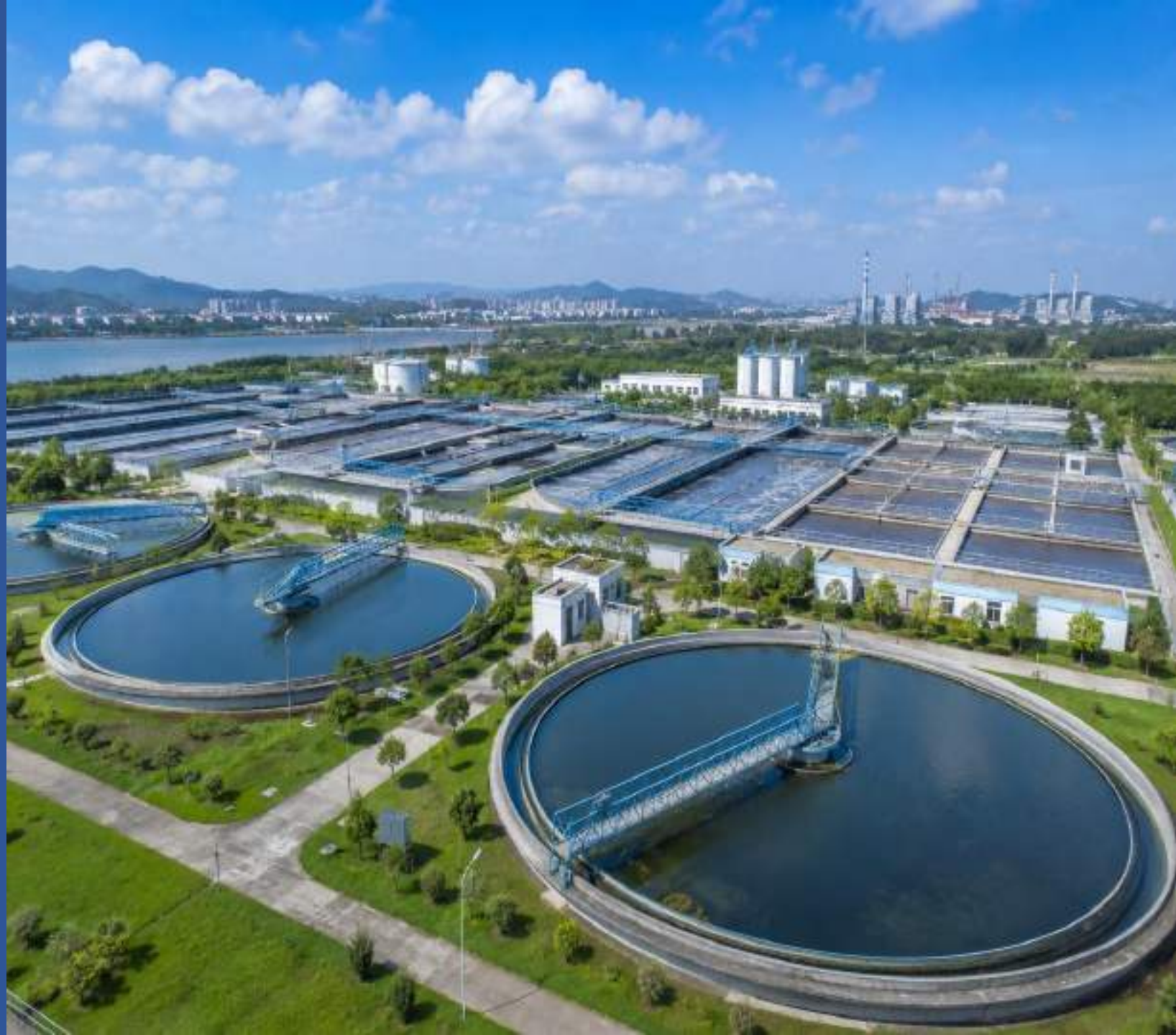
SECTION 01

Who we are

ECOPRO



ECOPRO at a glance

ECOPRO is a customized water and wastewater treatment and separation technology company.

We focus on practical, compact and export-ready systems for industrial clients who need stable solid-liquid separation, oil removal, sludge reduction and water reuse.

- Customized engineering
- Industrial focus
- Separation driven
- Export-ready
- Field-oriented
- Compact footprint

From process selection to equipment manufacturing and shipment, the goal is simple: to be your one-stop, faithful partner for water and wastewater solutions.

Company in numbers

Numbers help customers understand capacity, focus and delivery confidence.

20,000㎡

manufacturing workshop

~300

DAF units / year capacity

50+

export experience to 50+ countries

Global

project delivery mindset

Our capacity is built around repeatable manufacturing quality, while our engineering work remains project-specific.

What makes ECOPRO different

Practical engineering

We start from water quality, hydraulic behavior and site constraints, not from catalog models.

Custom-built systems

Materials, layout, controls, dosing, access and packaging can be adjusted for each project.

Separation expertise

Oil-water separation, solid-liquid separation and sludge reduction are the core of our process thinking.

Export execution

We design for container loading, installation convenience, commissioning and maintenance access.

Better pretreatment is often the difference between a system that works on paper and a system that works every day.

SECTION 02

What we solve

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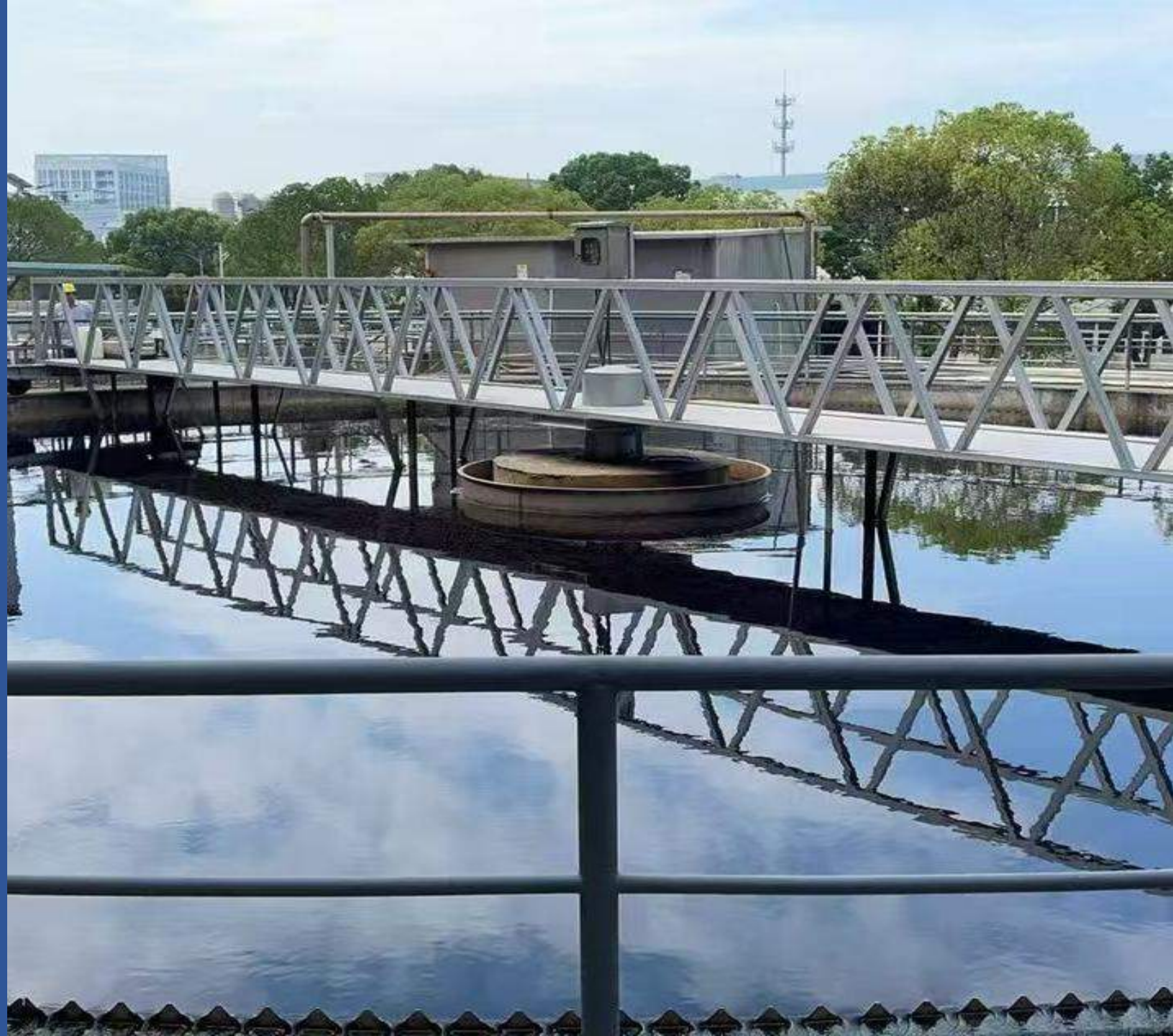


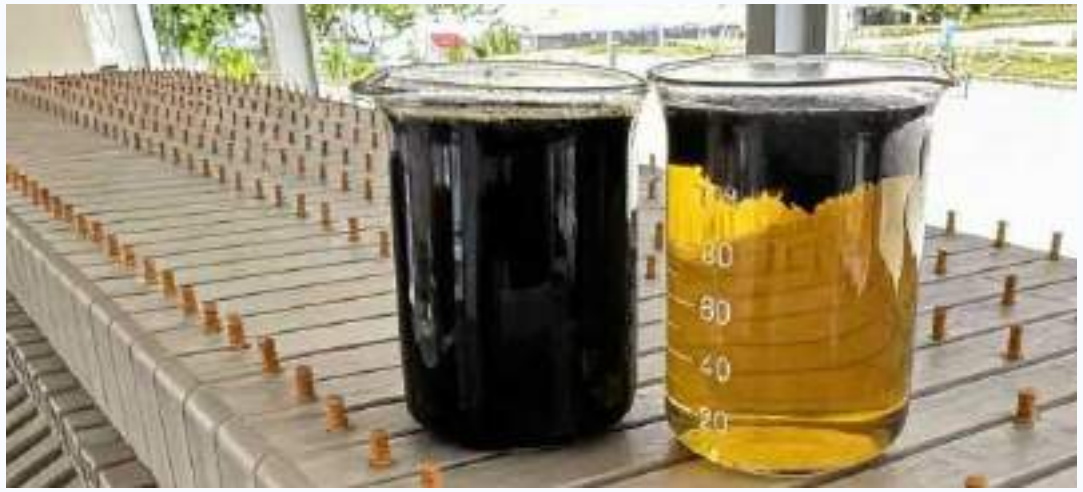
Industrial wastewater is rarely stable

01	**High solids**	TSS, fiber, sand, paint slag and suspended particles
02	**Oil & grease**	Free oil, emulsified oil, scum and foam
03	**Shock load**	Variable pH, COD peaks and batch discharge
04	**Space limits**	Existing plants often have limited footprint and access

Typical Wastewater Challenges
ECOPRO's solution logic:
remove what can be separated early, reduce downstream burden, and improve system stability.

Typical industries served

Food & beverage	Dairy	Slaughterhouse	Pet food
Oily wastewater	Refinery & petrochemical	Paint shop	Chemical blending
Metalworking fluids	Textile & dyeing	Pulp & paper	Sand washing & mining
Municipal upgrading	Waterworks pretreatment	New energy	Reuse & pure water



SECTION 03

Technology portfolio

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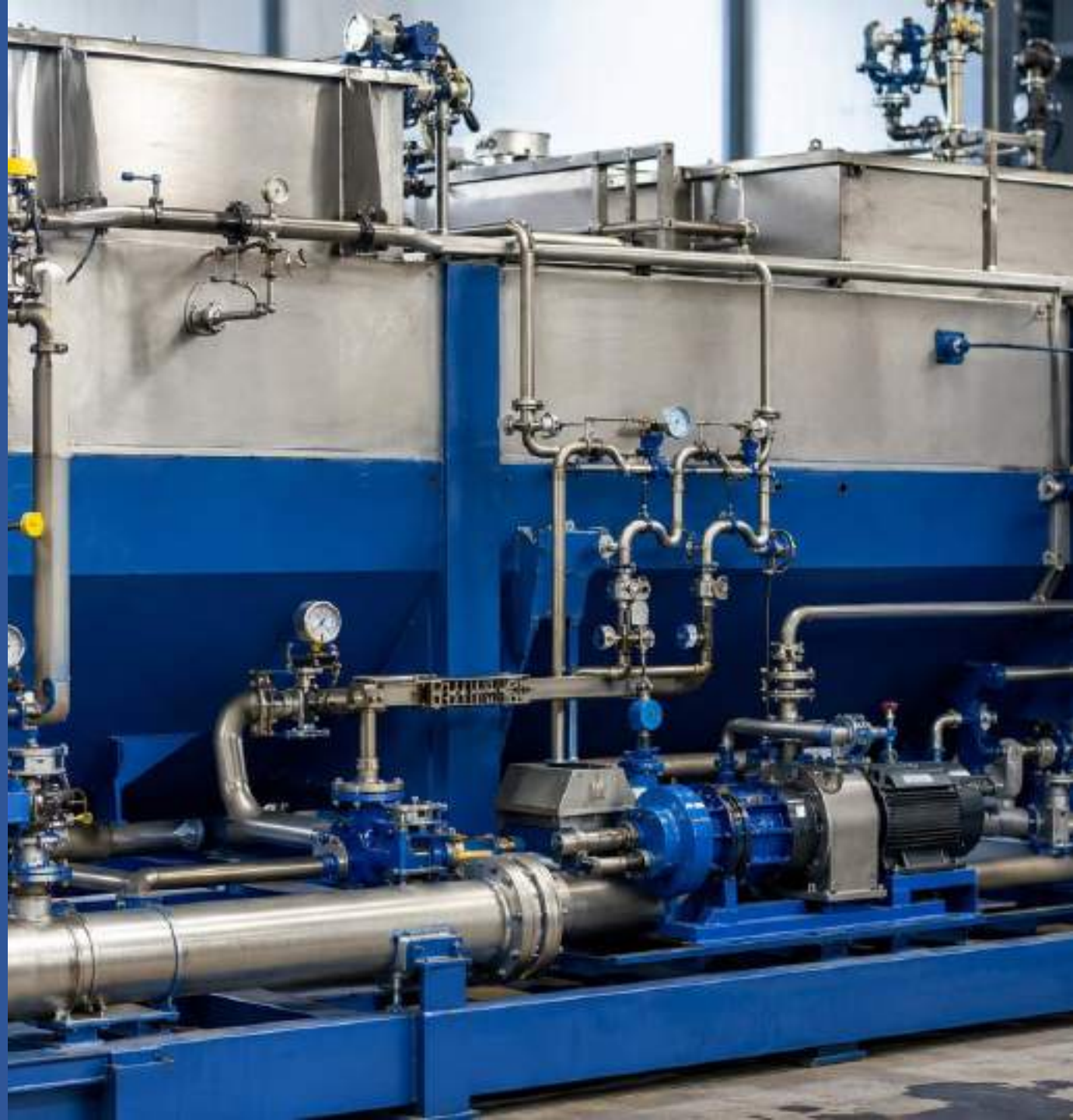

Technology portfolio: separation-first system design

Flotation
CAF, DAF (dissolved air system)

Sedimentation
Lamella clarifier

Screening
Static screen, rotary drum screen

Sludge Treatment
Screw press, filter press, sludge dryer

Filtration
MMF, ACF, sand / carbon filters

Membrane
UF, RO, MBR, EDI systems

We combine technologies according to the wastewater profile, not according to a fixed catalogue.

Flotation: CAF & DAF

CAF: rough separation & load reduction

Designed to remove free oil, grease, foam, scum and larger floatable solids before downstream treatment.

Oil & grease

TSS

COD support

DAF: fine separation & polishing

Microbubbles attach to flocs, emulsified oil and fine solids to improve effluent stability.

Oil & grease

TSS

COD support

Sedimentation & Screening: protect the downstream process

Three common front-end objectives

Remove large solids

Static screen
/ rotary drum screen
/Bar screen

Sedimentation

Lamella clarifier system

Reduce hydraulic stress

Equalization + controlled feeding

For lamella clarification, the value is not only smaller footprint — it is more stable solid-liquid separation under controlled hydraulic conditions.

Sludge Treatment: reduce volume, reduce cost

Sludge is not the end of treatment. It is the beginning of disposal cost.

Screw Press

Compact, low-speed, suitable for many biological and chemical sludges

Sludge Dryer

Uses heat pump technology for hot-air closed convectional recycling, condensing, dehumidifying, and drying

Filter Press

Continuous operation, suitable for larger sludge flow

Polymer Dosing System

Three-tank polymer dosing system automates PAM feeding, dissolving, dosing efficiently

The right dewatering equipment depends on sludge type, operating mode, target cake dryness and site labor habits.

Filtration & membrane systems: from treatment to reuse

MMF / ACF — Turbidity, color, residual suspended solids and organics polishing

UF — Fine suspended solids, bacteria and colloids removal

RO — Salts, conductivity and dissolved contaminant reduction

MBR — Biological treatment + membrane separation for compact reuse systems

EDI — High-purity water polishing after RO

Membrane systems perform best when pretreatment is stable.
Good separation upstream protects membrane life downstream.

SECTION 04

Engineering & manufacturing

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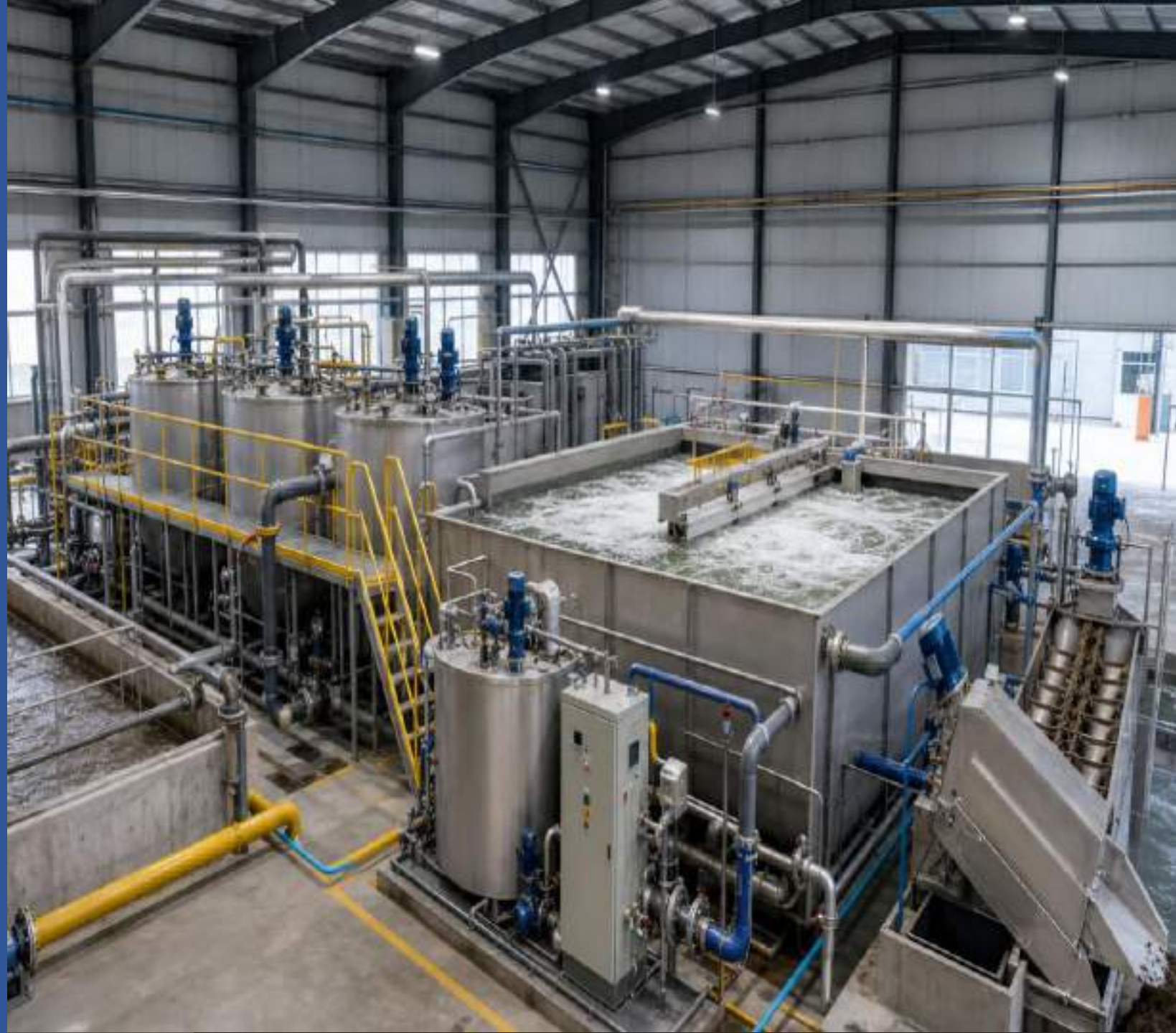


From inquiry to shipment: a project workflow

Water quality | Process design | Equipment sizing | Layout / GA | Manufacturing | FAT | Packing & shipment

Water quality

COD, BOD, TSS, O&G, pH, flow profile, temperature and discharge target.

Process design

Decide whether the system needs screening, CAF, DAF, lamella, filtration, biological or membrane.

Manufacturing

Material selection, welding, assembly, coating, electrical control and functional test.

Delivery

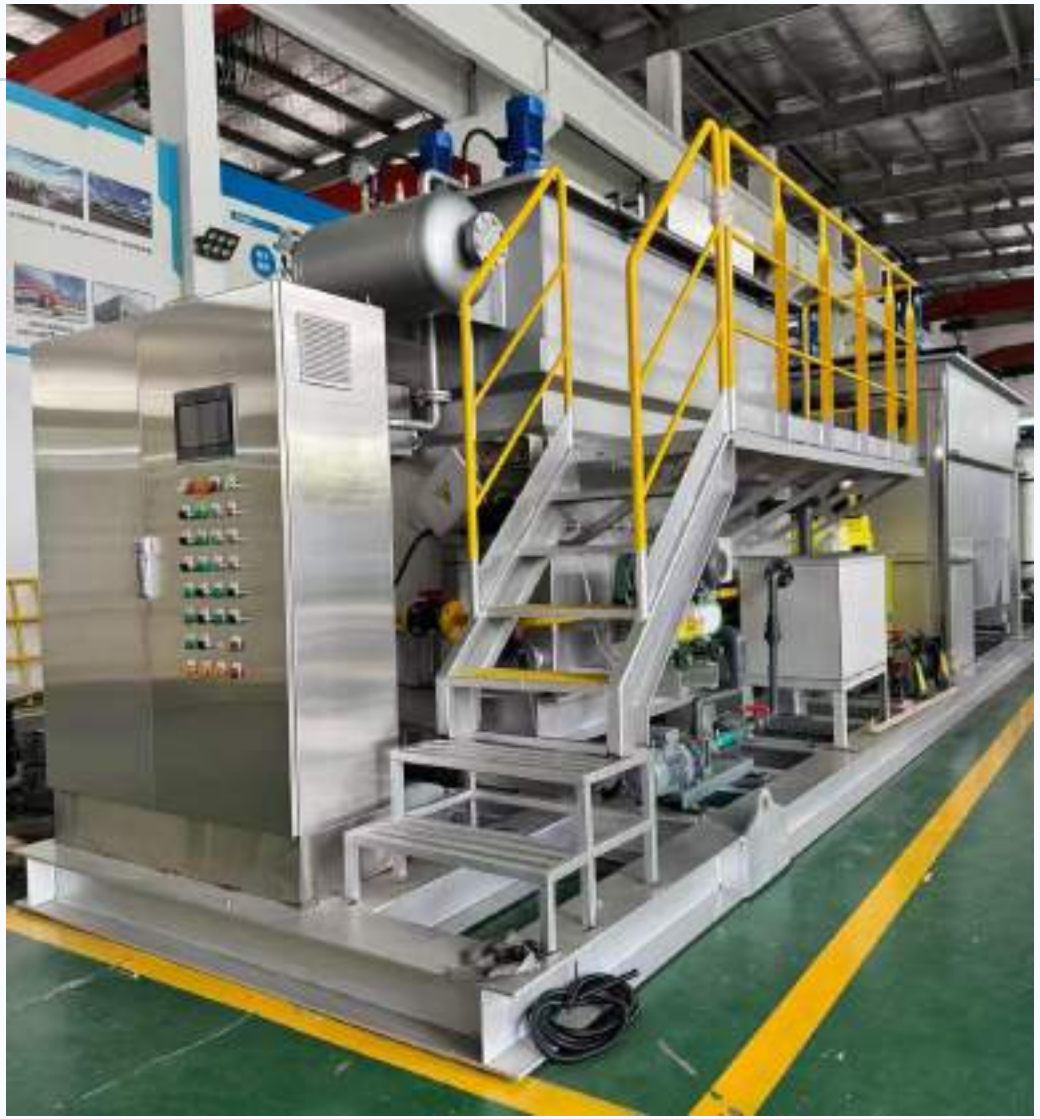
Container loading, documentation, installation support and commissioning guidance.

A good wastewater project is not decided by equipment name — it is decided by the quality of each engineering step.

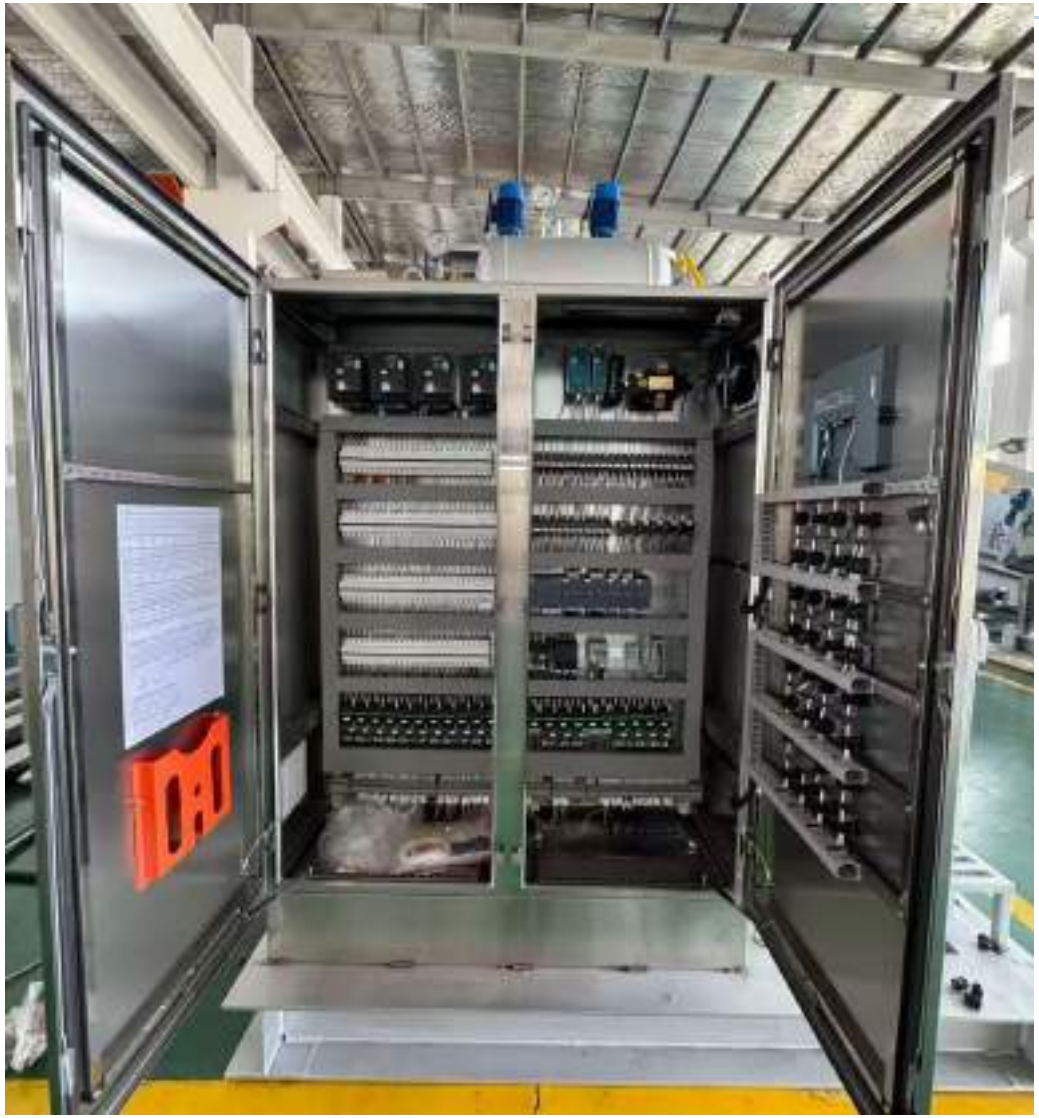
Customization capability

Material	SS304 / SS316L, FRP, carbon steel, lining
Hydraulic design	Inlet distribution, retention time, surface loading, sludge removal
Control system	PLC, HMI, sensors, dosing interlocks, remote-ready logic
Layout	Skid-mounted, containerized, modular, site-specific access
Chemicals	Coagulant, polymer, pH adjustment, online polymer preparation
Export details	Voltage, frequency, documentation, packing, spare parts

Customized does not mean complicated. It means fit-for-purpose.



Manufacturing & quality control



QA/QC focus

- ✓ Material and component confirmation before production
- ✓ Dimensional checks during fabrication and assembly
- ✓ Welding, coating, lining and sealing inspection
- ✓ Electrical cabinet, PLC/HMI and functional testing
- ✓ Factory Acceptance Test before packing when required
- ✓ Spare parts, manuals and shipment documentation

Quality is built into each step — not inspected only at the end.

Export-ready delivery mindset

For overseas projects, equipment design and logistics must be considered together.

Container loading	Maximize space while protecting critical components
Modular assembly	Reduce site installation time and labor uncertainty
Access & maintenance	Keep valves, pumps and dosing systems serviceable
Documentation	GA drawings, I/O list, manuals, packing list and spare parts
Remote support	Installation and commissioning guidance for local teams

A well-packed container saves cost.
A well-designed system saves time after arrival.

SECTION 05

References & cooperation

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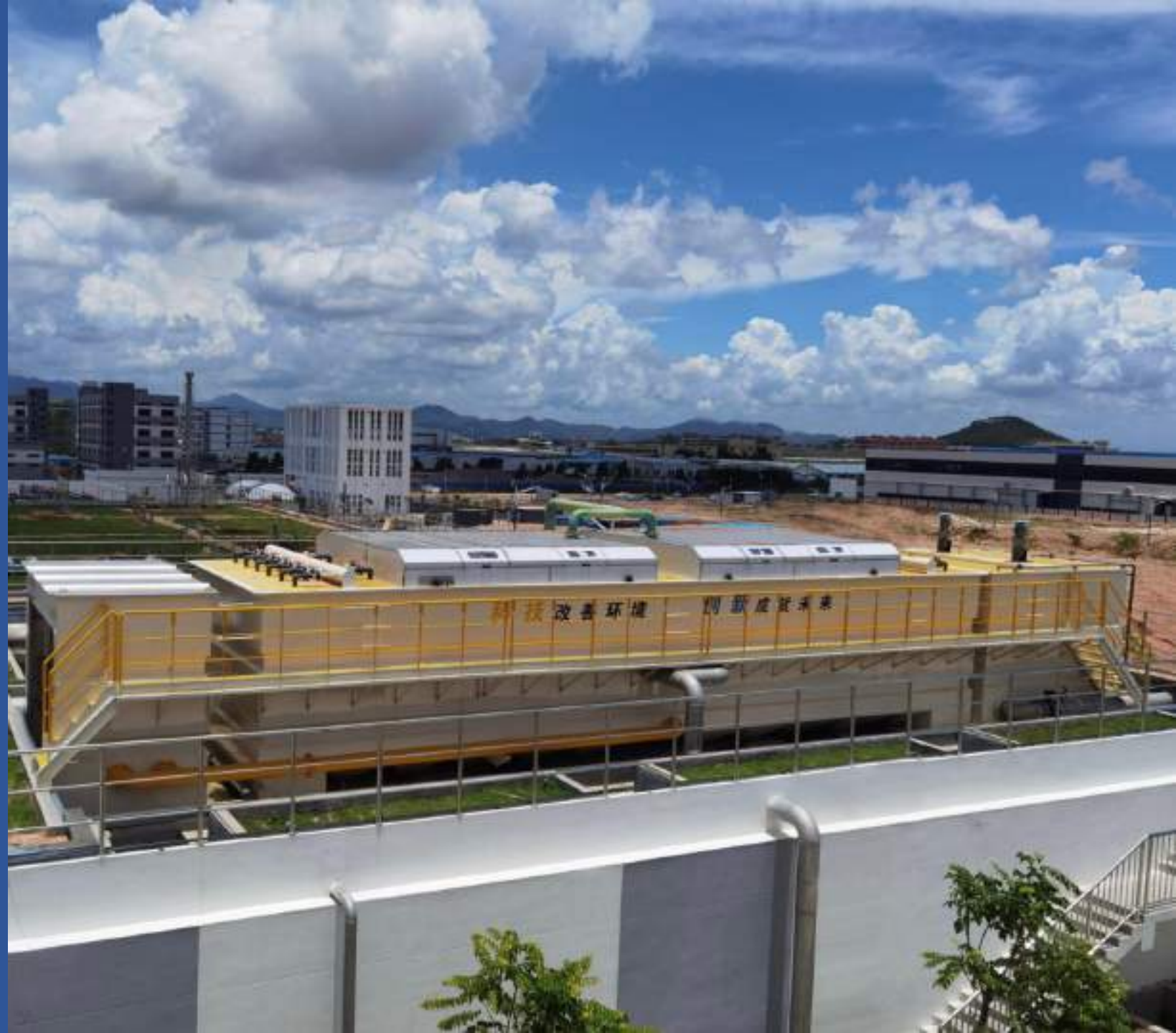


Project reference

In South Africa

DAF Worksite on Food Wastewater
Capacity: 600m³/D

Influent:	Effluent:
• SS: ≤ 500 mg/L	• SS: ≤ 15 mg/L
• Oil & Grease :≤ 300 mg/L	• Oil & Grease :≤ 10 mg/L

In Chile

DAF Worksite on Beverage Wastewater
Capacity: 750m³/D

Influent:	Effluent:
• SS: 1,000 mg/L	• SS: ≤ 150 mg/L
• Oil & Grease :120 mg/L	• Oil & Grease :≤ 15 mg/L

In Spain

DAF + Screw Press Worksite on Dairy Wastewater
Capacity: 1,500m³/D

Influent:	Effluent:
• TSS: 600–1,200 mg/L	• TSS: ≤ 20 mg/L
• Oil & Grease :150-350 mg/L	• Oil & Grease :≤ 10 mg/L
• COD: 3,500–5,500 mg/L	• COD: <100–150 mg/L

Project reference

In Indonesia

DAF+ Screw Press Worksite on Palm Oil Wastewater
Sludge volume: 80–120 m^3/day

Before Dewatering
- Feed solids (DS): 0.6–1.2%
- COD (in sludge): 50,000 mg/L
- Oil & Grease: 5–10% of DS

Dewatering Performance
- Cake solids: 16–20% DS
- Volume reduction: ~80–85%
- Filtrate SS: <200 mg/L

In Italy

DAF+ Screw Press Worksite on Winery Wastewater
Sludge volume: 80 m^3/day

Before Dewatering
- Feed solids (DS): 0.8–1.5%
- COD (in sludge): 40,000 mg/L
- Volatile solids (VS/DS): 65–75%

Dewatering Performance
- Cake solids: 20–24% DS
- Volume reduction: ~85–90%
- Filtrate SS: <120 mg/L

In Vietnam

Sludge Dryer Worksite on Textile Wastewater
Capacity: 4,000m^3/D

Before Drying
- Sludge volume: 40–60 m^3/day
- Inlet moisture: 78–82%
- Color: high (residual dyes & chemicals)

Drying Performance
- Outlet moisture: 10–15%
- Throughput: 1,000–1,200 kg wet sludge/hour

Project reference

In Malaysia

DAF Worksite on Cake and Dessert Wastewater
Capacity: 1,200m³/D

Influent:
- SS: ≤ 500 mg/L
- Oil & Grease :≤ 300 mg/L

Effluent:
- SS: ≤ 15 mg/L
- Oil & Grease :≤ 10 mg/L

In China

Worksite on River Water Treatment
Capacity: 50,000m³/D

Influent:
- SS: ≤ 600 mg/L
- Oil & Grease :≤ 150 mg/L

Effluent:
- SS: ≤ 5.0 mg/L
- Oil & Grease :≤ 0.2 mg/L

In Australia

Worksite on Slaughterhouse Wastewater
Capacity: 1,920m³/D

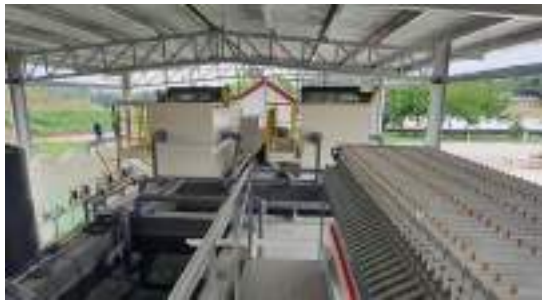
Influent:
- TSS: 1,200-2,500 mg/L
- Oil & Grease : 300-800 mg/L
- COD: 4,000-6,500 mg/L

Effluent:
- TSS Removal: 90-95%
- O&G Removal: 85-90%
- Sludge Volume Reduction: 75-85%

Project reference

In Greece
UF+ RO Worksite on Slaughterhouse Wastewater
Capacity: 600m^3/D


In Malaysia
Worksite on Leachate WWTP
Capacity: 500m^3/D




In Malaysia
Worksite on Balloon Wastewater
Capacity: 2,000m^3/D


Project reference

Application	Capacity	Main target	Typical solution
Refinery oily wastewater	400 m^3/h	SS ≤20 mg/L; Oil ≤10 mg/L	DAF oily wastewater treatment
Coal chemical upgrading	1,000 m^3/h	SS ≤10 mg/L; TP ≤0.5 mg/L	Chemical + clarification / flotation
Paint shop overspray	10 + 5 m^3/h	High TSS / paint sludge control	DAF + chemical conditioning
Slaughterhouse wastewater	200 m^3/d	High COD, TSS and O&G	DAF + sludge dewatering
Municipal phosphorus removal	50,000 m^3/d	SS <5; TP <0.2	Chemical dosing + DAF
Waterworks pretreatment	100,000 m^3/d	Turbidity <0.5 NTU	High-rate clarification / flotation

Project values above are representative snapshots used to explain ECOPRO's application range. Final design always depends on confirmed water quality and site conditions.

Why customers choose ECOPRO

01	**One solution mindset**	Equipment selection is connected with the full process, not isolated.
02	**Customized but practical**	Design changes must serve installation, operation and maintenance.
03	**Separation-first thinking**	Reduce oil, solids and sludge early to protect downstream treatment.
04	**Export experience**	Packaging, voltage, documentation, FAT and spare parts are planned in advance.
05	**Fast response**	Clear communication helps overseas projects move faster.

We help customers separate what should not stay in the water.

Cooperation model: what we need to design correctly

Flow rate	Average, peak and operating hours
Water quality	COD, BOD, TSS, O&G, pH, TN, TP, salinity
Discharge target	Reuse, sewer, surface water or local standard
Site conditions	Footprint, elevation, power, access and climate
Operation preference	Automation level, chemical availability, labor and maintenance

The better the input information, the more reliable the process design and quotation.

ECOPRO

Thank you!

Let’s build a wastewater system that works every day on site.

Customized Industrial Wastewater Treatment & Separation Solutions