Membrane Filter System
JINGYUAN.hk
Filtration, Purification & Separation Solutions

PRODUCT BROCHURE · 2026

SKID-MOUNTED · MOBILE · CONTAINERISED

Keep Every Litre of Diesel Clean, Dry & On Spec.

Membrane-based diesel filtration & fuel polishing systems, 2.5–60 m^3/h — engineered for fuel depots, mining fuel farms, power plants, data centers and marine terminals.

2.5–60
m^3/h flow range — standard & custom configurations

0
vs. disposable cartridge programs — CIS membrane regenerates inline, no frequent change-outs

≥95%
free-water removal · target cleanliness NAS 6

2–3 yr
typical membrane service life with gas-pulse backwash



THE PROBLEM & OUR ANSWER

Stored Diesel Degrades. We Restore It.

Water ingress

Condensation and transfer moisture form free water in storage tanks — the root cause of injector corrosion and microbial growth.

Sediment & gum

Oxidised resins, asphaltene and micron-scale gum accumulate during storage and plug precision fuel systems.

Injector damage

Modern common-rail injectors run at micrometer clearances. One contaminated batch can disable an entire fleet or genset.



Diesel before and after Jingyuan membrane filtration — sediment and free water removed, fuel restored to clear & bright.

CIS Rigid Composite Membrane

5 mm rigid polymer membrane, oleophilic & hydrophobic — coalesces free water and captures particles in one pass. No disposable cartridges.

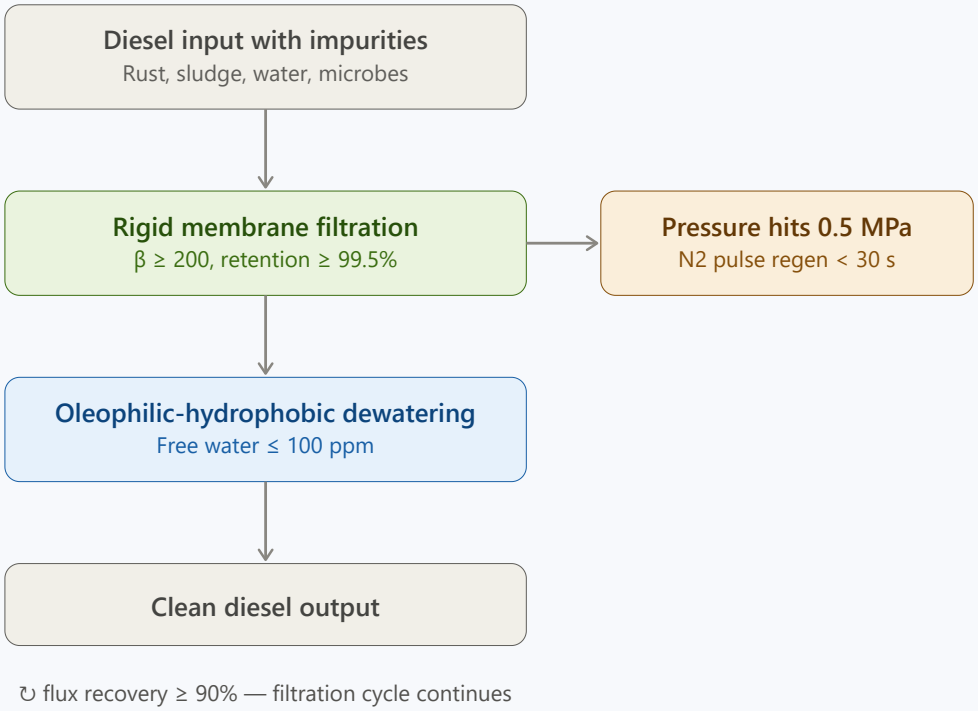
Gas-Pulse Backwash

N_2 pulse regeneration in ~30 s restores flux ≥95% — no element change-out, no oily waste, no downtime for consumables.

Dual-Stage Protection

Optional 5000 Gs magnetic pre-stage captures ferrous wear debris before membrane polishing.

PROCESS FLOW — CONTINUOUS CIRCULATION POLISHING



PRODUCT LINE

Five Platforms. One Standard.

Select by required flow rate — no model knowledge required. Between sizes, custom-flow skids are configured by engineering evaluation.



JY-G100 — 2.5 m³/h — MOBILE TROLLEY · POINT-OF-USE

- 2–25 µm (5 µm std)
- Dual-stage: 5000 Gs magnetic + CIS membrane
- Target NAS 6
- Plug-and-run, no civil works

Best for: wheel-to-tank field service, day tanks, small gensets and distributed point-of-use polishing.



JY-DX5 — 5 m³/h — COMPACT MOBILE SKID

- 2 / 5 / 10 / 15 µm
- ≥95% free-water removal
- Post-purification NAS 6
- Also: kerosene · hydraulic oil · turbine oil

Best for: fleet fueling bases, small port storage, day tanks and multi-site branch deployments.



JY-DX40 — 40 m³/h — STANDARD SKID · BEST SELLER

- 2–20 µm options
- ≥98% @ ≥5 µm (ISO 16889 basis)
- 8 membrane groups
- 30 s gas-pulse backwash
- VFD: ~10–40 m³/h adjustable
- 7.5 kW · DN80

Best for: fixed plant, refinery & tank-farm duty, loading-stage polish, depot networks.



JY-Q325 — 40 m³/h — CONTAINERISED STATION

- ExdIIBT4 explosion-proof motor (standard)
- ≥98% @ ≥5 µm
- DN80 flange
- Minimal civil works

Best for: remote mining fuel farms, outdoor operations and sites where civil works are impractical.



JY-DL60 — 60 m³/h — LARGE-FLOW PLATFORM

- 2–20 µm options
- ≥98% @ ≥5 µm
- DN100 PN16 main line
- No onboard pump — customer-supplied flow (0.2–0.4 MPa inlet)

Best for: large fuel depots, high-throughput terminals and finished-fuel polish before storage.

Need ~3–20 m³/h? Between standard sizes, Jingyuan configures custom-flow skid-mounted systems around your required flow, tank volume, fuel type and site conditions — send us the numbers, we do the engineering.

SPECIFICATION COMPARISON

Compare at a Glance.

Model	Rated Flow	Precision	Performance	Configuration	Power	Footprint
JY-G100	2.5 m^3/h mobile trolley	2–25 µm (5 µm std)	$\beta_x \geq 200$ · target NAS 6	Point-of-use, no civil works	Electric motor pump group	—
JY-DX5	5 m^3/h compact skid	2 / 5 / 10 / 15 µm	NAS 6 · ≥95% free-water removal	Mobile skid / modular	— (per configuration)	Compact
JY-DX40	40 m^3/h (VFD ~10–40)	2 / 5 / 10 / 15 / 20 µm	≥98% @ ≥5 µm	Skid-mounted · DN80 · 30 s backwash	7.5 kW pump, 380V/50Hz	3.78 m^2 · 1500 kg
JY-Q325	40 m^3/h containerised	5–10 µm recommended	≥98% @ ≥5 µm	Container station · ExdIIBT4 · DN80 flange	7.5 kW Ex motor, 380V 3-phase	5.16 m^2 · 1850 kg
JY-DL60	60 m^3/h no onboard pump	2 / 5 / 10 / 15 / 20 µm	≥98% @ ≥5 µm	Skid · DN100 PN16 · customer pump 0.2–0.4 MPa	Customer-supplied pump & flow	5.5 m^2 · 2185 kg

Common to all platforms: CIS rigid composite polymer membrane (5 mm wall, no disposable cartridges) · gas-pulse N_2 backwash regeneration, flux recovery ≥95% · typical membrane life 2–3 years · free-water removal ≥95% (dissolved water not removed) · media: diesel; diesel/biodiesel blends B20–B50 evaluated — suitability subject to engineering confirmation; gasoline strictly prohibited · ISO 16889 basis · static grounding ≤10 Ω · C3 anti-corrosion · fluid temperature 0–70 °C · carbon steel standard, stainless steel optional, Viton seals.

Selection shortcut: Required Flow ≈ Tank Volume ÷ Desired Filtration Time. Know your tank volume and turnaround target? Email us both — engineering confirms the match within one working day. Two systems share the 40 m^3/h tier: standard skid (JY-DX40) for fixed plants, containerised station (JY-Q325) for remote / outdoor / hazardous areas.

Simple duty

One tank, one duty point → JY-G100 or JY-DX5, delivered ready to run.

Plant & depot duty

Continuous or loading-stage polishing → JY-DX40, VFD-controlled.

Remote & outdoor

Mining farms, no civil works, Ex zones → JY-Q325 containerised station.

WHERE THEY WORK

Built for Real Fuel Duty.



Bulk Diesel Storage & Depots

Inbound cleaning · tank-to-tank circulation · loading-stage polish (50–1000+ m^3 tanks)



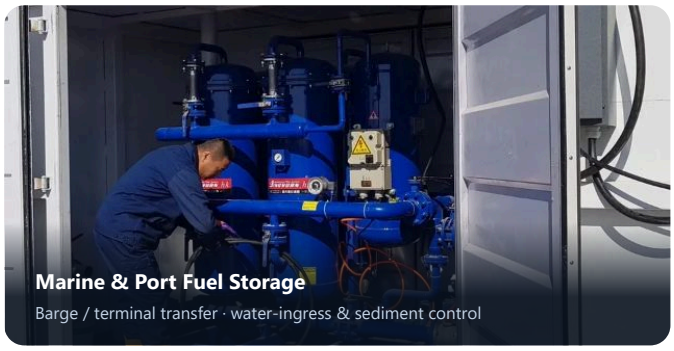
Mining Fuel Farms

Containerised remote duty · multi-tank service · minimal civil works



Power Generation & Data Centers

Standby / prime gensets · continuous beside-tank polishing · injector protection



Marine & Port Fuel Storage

Barge / terminal transfer · water-ingress & sediment control

VERIFIED DEPLOYMENTS — FIGURES PER CUSTOMER SITE RECORDS

JY-DX5 · West Africa Enterprise Fleet (2025) — six units across six branches, protecting 200+ vehicles and 50+ generator sets.

−70%	−85%	−60%	−80%
injector failures	fuel-related downtime	annual consumables cost	specialist dispatches

JY-DX40 · West Africa Multi-Depot Network (2025) — three systems inline at loading pumps across a depot network.

ISO 24/22/19 → 15/13/10	40 m^3/h
cleanliness improvement at loading stage	inline flow per depot

JY-DL60 · Hubei Oil Depot (2023) & Shandong Refinery (2025) — loading-stage outbound-fuel polish verified by customer-side laboratory analysis; 60 m^3/h finished-fuel polish as the final production step before plant storage.

WHY JINGYUAN

A Manufacturer, Not a Trader.



1 Membrane technology since 2010

Shenyang Jingyuan Membrane Systems Co., Ltd. — 14,000 m² factory in Tieling, Liaoning, China. We build the membrane, the skid and the control system.

2 Certified quality system

ISO 9001:2015 certified · CE marked · ISO 16889 test basis · C3 anti-corrosion standard, stainless steel and Ex configurations available.

3 Engineering-led selection

"Standard where possible. Custom where necessary." Every enquiry is reviewed by engineers — you get a configuration that fits your fuel, tank and site.

4 Export experience

Deployments across West Africa, Southeast Asia and domestic refineries, depots and data centers. Documentation and remote commissioning support in English.

Request a Configuration in One Email

Tell us: ① **required flow (m³/h)** · ② **tank volume & count** · ③ **fuel type (diesel / biodiesel blend)** · ④ **application (depot / mining / genset / marine)** · ⑤ **installation environment & Ex requirement**. Not sure about some items? Send what you know — "not sure" is a valid answer, and we will size it with you.

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Let's Talk About Your Fuel.

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Membrane vs. Cartridge
Compare the technologies:
fuel.jingyuan.hk/compare

Lifecycle Cost Factors
Self-assess your consumable burden:
fuel.jingyuan.hk/tco-calculator

FAQ & Selection Guide
Answers to the most-asked questions:
fuel.jingyuan.hk/faq