



# SEPARATION DYNAMICS

NDT / FPI Wastewater Treatment Systems  
INSPECT PARTS WITH LESS WASTEWATER

40 Years Proven

Water Filtration Experience  
Aerospace-Validated Technology

## THE PROBLEM YOUR FPI LINE CREATES EVERY DAY

Fluorescent penetrant inspection can generate many gallons of regulated wastewater daily — a mix of penetrant chemistry, emulsifiers, and rinse water that can't simply go down the drain. At \$1.00–\$3.00 per gallon for hauling and disposal, a facility running just 30 GPD pays \$10,000–\$30,000 per year before fees, fines, and unwanted attention from discharge regulators. And that cost never stops.

### For the NDT Lab Manager

“Keep running your FPI line exactly as you do - we handle the wastewater.” Your inspection process doesn't change, just less waste. Your penetrant chemistry doesn't change. We fit our system to your operation.

### For the EHS / Compliance Manager

Should you send green wastewater to the drain? Is your FPI wastewater specifically addressed in your discharge permit? Most facilities' permits were written around their dominant waste streams - not penetrant chemistry. That gap is growing more consequential. Reliable waste reduction opportunity.

### For the Plant / Facility Manager

Most customers recover their full investment in 12–18 months based on hauling and disposal cost savings alone. Over five years, that's \$60,000–\$200,000 in net savings depending on volume - after the initial payback, every year is pure savings. Compliance is handled. The hauling truck stops coming. The NDT team just does NDT.

## THE EXTRAN™ SOLUTION: PURPOSE-BUILT FOR FPI WASTEWATER

Most membrane systems weren't designed for oil-laden wastewater. EXTRAN™ was. SDI's proprietary regenerated cellulose hollow fiber membrane physically separates emulsified penetrant oil from water — producing clean permeate safe for re-use or sewer discharge. Unlike conventional polymer UF systems, EXTRAN™ resists oil fouling without chemical cleaning cycles. When flux declines, modules are simply swapped out in minutes. No chemicals. No downtime. No additional waste stream.



Before & After Filtration

### Why EXTRAN™ is Different

- No chemical cleaning — ever. Swap modules, keep running.
- Compatible with all penetrant types: water-washable AND post-emulsifiable (Method A, B & D)
- Extends Carbon service life — UF removes 99%+ of load before water touches carbon
- Fail-safe carbon configuration — redundant canisters plumbed in series
- Proven success with Magnaflux, Sherwin, Ardrex, and others

### Validated at the World's Best Facilities

If it works at world class aerospace manufacturing and MRO facilities, it will work at your facility.

- MRO Wheels & Brakes— multiple worldwide
- Aircraft Engine MRO's — multiple worldwide
- Aircraft turbine manufacturing plants – multiple worldwide
- Power Turbine MRO's – multiple installations
- US Air Force, US Army, US Coast Guard

## NDT / FPI SYSTEM MODELS

From compact discharge units for small shops to multi-module recycling systems for high-volume automated lines. All systems include EXTRAN™ UF + activated carbon polishing. Recycling configurations add options for re-pressurization pump, UV sterilization, ozone, chiller, automatic freshwater make-up, and optional DI polishing.

Model	Capacity	Configuration	Best For	Output
EUS-M	10–30 GPD	Compact single module	Low-volume / intermittent FPI lines, job shops	Discharge to sewer
EUS-E	40–150 GPD	UF + dual carbon polish	Small to mid-size MRO, aerospace suppliers, Direct Splitter™ replacement	Discharge to sewer
EUS-I	50–600 GPD	UF + carbon + UV + chiller	Broad range — aerospace manufacturing and MRO facilities, <b>full closed-loop recycling options</b>	Recycle or discharge
EUS-D	1,000–12,000 GPD	Multi-module, scalable	High-volume automated NDT lines, large aerospace and other MRO facilities	Recycle or discharge

Typical waste reduction: 95% or more. • Systems configurable for discharge or recycle • Compatible with all penetrant chemistries.



EUS-E – FPI Wastewater Filtration System

## DOCUMENTED RETURN ON INVESTMENT

Based on actual hauling and disposal cost savings. Actual savings depend on your current disposal costs and daily volume — we can run your specific numbers.

System	System Price	Annual Savings	Payback	5-Year Net Savings
EUS-M (15 GPD)	\$25,000	\$18,500/yr	~16 months	<b>\$67,000</b>
EUS-E-2 (30 GPD)	\$40,000	\$38,700/yr	~12 months	<b>\$154,000</b>
EUS-I-4 (75 GPD)	\$75,000	\$55,800/yr	~16 months	<b>\$204,000</b>
EUS-I-8 (120 GPD)	\$85,000	\$50,200/yr	~18 months	<b>\$176,000</b>

After payback, annual savings continue indefinitely. At \$1.00–\$3.00/gallon disposal cost, the math is straightforward.

### READY TO SOLVE YOUR PENETRANT WASTEWATER CHALLENGE?

Help us understand your situation, and we'll quickly evaluate your process and provide recommendations based on experience and industry best practices.

**Step 1: Call or email to assess your situation.**

**Step 2: We compare to best practices and recommend the best fit.**

**Step 3: You save money, reduce risk, and forget about FPI wastewater.**

INSPECT PARTS WITH LESS WASTEWATER



NDT Supply.com, Inc.  
7952 Nieman Road  
Lenexa, KS 66214-1560 USA  
Phone: (913)-685-0675  
Email: sales@ndtsupply.com