

How CAST fits your treatment train

Modular pretreatment · No power · Plant stays · Pilot first · Patent pending

WHAT IT IS

- Modular pretreatment unit that tees into your influent ahead of the treatment you already own — clarifiers, flotation, RO, ion exchange, GAC, or membranes.
- Capillary Action Separation Technology: hydrophilic vessels lift fine solids, oils, and organics at low energy; selective media capture target constituents as the train is matched to your water.
- About a 6' × 6' pallet-class footprint. No electricity required. No moving parts. Especially in pilot, a bypass valve returns flow to the plant without CAST.
- Delivered as a service (lease-plus-usage). Always proven first on your stream in a paid pilot.

WHAT IT DOES TO THE WATER (EXPECTED RANGES — SITE-SPECIFIC)

- TSS removed: 90–99% · Turbidity: typically ~1–3 NTU · Oil & grease (when present): >90%
- Hydrophobic COD fraction: ~30–60% reduction · Membrane feed quality: SDI■■■ target below 3
- Downstream ion-exchange / GAC: longer run length and less fouling load (bench work has shown multi-fold IX extension ahead of resin)
- Fouling service: lift inner workings and pressure-wash as needed — aluminum construction is essentially non-fouling

WHERE THE ECONOMICS SHOW UP

- Produced water / industrial: reclaim water on site instead of trucking hundreds or thousands of miles to deep injection — major haul-off and disposal cost reduction.
- Municipal & reuse: steadier feed through weather events; protect membranes; polish effluent for reuse; defer CapEx on the existing plant.
- PFAS-impacted streams: pretreatment ahead of IX or GAC to cut media replacement (CAST concentrates/removes; it does not destroy PFAS).
- Challenging matrices / leachate: fine colloidal solids and mixed constituents of concern that overload conventional clarification.

HOW ENGAGEMENT WORKS

- 1) Short intake (contact, site, industry, problem statement) → 2) 60-minute scoping call → 3) One-page ROI from your costs → 4) Paid on-site pilot
- After proof-up: water-as-a-service model — Flotation keeps 50% of documented annual savings; you keep 50%. No large CapEx purchase of the unit to start.

WHAT CAST IS NOT

- Not a full plant replacement · Not disinfection · Not standalone desalination · Not a guarantee without a pilot on your water
- Complementary to existing operators and assets — designed to strengthen the train you already run.

Next step

Share water data or start intake. Scoping call with Chris or John.

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Documents · Intake · ROI estimator