

Corrugated Plate Interceptor (CPI) Oil & Water Separator

Wastewater Pretreatment



FRC's CPI Separator uses corrugated plates for gravity-driven oil and solids separation—ideal for refineries, terminals, and food processors.

FRC's Corrugated Plate Interceptor (CPI) is a high-efficiency oil-water separator designed to outperform traditional API separators by leveraging corrugated plate technology. The CPI system delivers superior separation of oil, water, and solids in a compact footprint with minimal operator intervention—making it ideal for industrial and petrochemical wastewater streams.

Influent oily wastewater enters the CPI separator and flows across inclined corrugated plate packs that slow the flow and promote phase separation. Due to density differences, solids settle to the bottom while oil droplets rise and coalesce on the plate surfaces. Skimmers remove the oil to a recovery trough, and sludge is discharged via augers. This gravity-based method efficiently separates immiscible phases, delivering cleaner effluent without the need for high-pressure or chemical inputs.

Key Features

- High-efficiency separation using inclined corrugated plate packs
- Compact design compared to traditional separators
- Stainless-steel construction resists corrosion in harsh environments
- Minimal moving parts for low maintenance
- Available with static or rotating oil skimmers
- Gas-tight cover options for volatile environments
- Fully customizable system configuration including skids, catwalks, and controls

Specifications

- Flow Capacity: Up to 6,000+ GPM
- Free Separation Area: 5.5 151 sq ft
- Effective Separation Area: 32 3,101 sq ft
- Construction: Stainless steel (304, 316, duplex, or custom alloys)

How can we help you? Contact us today to find



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your best solution.

applications.

Why choose a CPI?

FRC's CPI separator is a modern

upgrade to outdated API systems—

utilization, and robust stainless-steel construction. With scalable designs and

offering faster separation, better space

low-maintenance performance, it's the

preferred choice for reliable oil-water

separation across diverse industrial

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Applications

- Oil and gas production wastewater
- Petrochemical and refinery effluent
- Produced water and frac flowback
- Food processing and meat/dairy operations
- Transportation terminals and bulk handling facilities
- Renewable fuels and LNG plants