The SmartSkim CrossFlow System sets the industry standard for skimming and separating floating oils and solids from industrial fluids. It is designed as a simple, trouble-free solution for removing free floating and mechanically dispersed tramp oils from wash tanks, individual machine coolant sumps, central coolant systems, and many other manufacturing process fluids.

Based on gravity flow and coalescence, the CrossFlow Separator can reduce tramp oils to less than 1% in a single pass. The SmartSkim “non-clogging” design allows for the separation of oils and settling of solids in one step.

Applications include water soluble, semi-synthetic & synthetic coolants from machining and grinding, rolling and drawing coolants, alkaline and acidic washwaters, stamping fluids, wastewater pre-treatment, aqueous quench pits, die casting mold release fluids, and any application where separation of two immiscible fluids is required.

**Attributes:**
- Open Channel coalescing technology is low maintenance. Frequency of cleaning is a fraction of what is required with competitive tortuous path plastic media coalescers
- Non plugging design means no worries about overflowing of the unit and spills
- Robust and industrial grade for a lifetime of use
- Sloped bottom for easy removal of solids and sludge
- Quick system payback
- Automated system for continuous operation
- Can be supplied with SmartSkim’s industry leading floating suction skimmers — all stainless steel design and no hoses that kink, harden or collapse.
- 304 stainless steel platepack is a lifetime purchase and easy to clean. No need to ever replace
- Gentle flow through the system won’t split weak emulsions or remove additives. Can be used with virtually any coolant or cleaner
- System can handle temperatures up to 250 degrees and flow rates up to 10 gpm based on chemistry

**Benefits:**
- Reduce new fluid purchases by extending the life of your industrial fluids
- Reduce waste volumes by 50% - 90%
- Extend the bath life of parts washers & conserve water
- Improve sump life, tooling, and parts quality in CNC operation
- Reduce misting & improve machine cleanliness
- Manage environmental waste, bacteria levels, and associated odors
- Remove oils prior to subsequent waste processing operations such as evaporation, waste water treatment, and sewer disposal

Universal Separators, Inc.
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Our multi-patented SmartSkim Suction skimmer is mounted in your tank and continuously removes the topmost oily layer. Skimmed oily fluids are pumped through the separator where floating contaminants are separated. Clean fluids return by gravity to the source tank. Inside the SmartSkim CrossFlow, there is no plastic coalescer media, filters, or consumables of any kind.

Our proprietary open channel platepack system separates and removes floating oils and solids by gravity only. This makes maintenance fast and easy. Open channels do not plug. SmartSkim systems just run and run. Oil that is captured inside the separator gravity drains to an oil collection drum. This oil is typically dry enough to sell or recycle. No electrical panels or hook ups are necessary. Just plug and play!

CrossFlow Separator Process Flow

Oils float to the surface as the fluids pass through the Platepack and become coalesced.

Flow of fluids through Platepack.

Solids settle to the bottom.

CrossFlow Footprint

The CrossFlow Separator takes up very little floor space. The unit measures 48” wide x 14” deep x 24” tall. In most instances the separator can be attached to existing parts washers or other structures. We sell an optional stand that provides for ease of installation. Due to the nature of the gravity discharge, our separator needs to be installed with the outlet port above the level of the fluid that it is cleaning.

The standard suction skimmer that is included with our systems requires an area of 12” x 12” x 18” deep within the source tank where it will be installed. Other suction skimmers are available to deal with restricted space constraints, shallow fluid levels and large fluid level fluctuations.