THE INDUSTRY STANDARD
The CoolantLoop™ Coolant Recycling Systems are based on decades-long successful fluid treatment practices, using the award-winning, multipatented SmartSkim® Systems approach to solving problems.

SmartSkim is the industry leader in coolant recycling systems. By getting the fluids out of dirty sumps on a regular basis, all three types of coolant contamination problems - tramp oils, solids, and bacteria - can easily and effectively be removed. We incorporate the “best in class” coalescing and skimming technologies. Our oil separators and skimmers quickly promote the capture and separation of contaminated floating oils and suspended solids from your valuable machining coolants. Additionally, our FilterLoop process can polish the coolant to levels of 1 - 10 micron. With the correct processes in place your coolant life can be extended exponentially.

The SmartSkim CoolantLoop can be used with virtually any coolant. Our mode of operation provides for continuous recirculation of the system which eliminates stagnation, provides aeration, and gives multi-pass filtration. Because of our open-channel coalescing technology, our system will not split weak emulsions or remove additive packages like other technologies.

Attributes:
- Designed for easy installation and minimal maintenance
- Highly reliable systems with little to no downtime
- Minimal operator involvement and training
- No need to budget for expensive consumables
- Runs on plant air only. No electrical panel necessary on standard systems
- System payback typically in less than 9 to 12 months
- Systems available for small, medium and large operations

Benefits:
- Reduce your cost of new coolant concentrate purchases by 35% to 65%
- Cut your cost of dirty coolant disposal by 50% to 90%
- Better control of coolant concentration levels
- Improve machine tool cleanliness and reduce misting
- Eliminate environmental risks and the liability of off-site disposal
- Improve tool life and product quality
- Reduce coolant supply pump maintenance
- Safeguard worker health and safety
- Improve coolant efficiency
SmartSkim® CoolantLoop™
Coolant Recycling Systems

**CoolantLoop Systems include:**

- Dual compartment processing tank for the storage of dirty coolant and a constant supply of immediately available clean recycled coolant (Note: CL400 system is a single compartment processing tank)
- Our patented floating suction skimmers for the most efficient skimming of the floating tramp oils
- Our patented oil separators for the most efficient separation of non-emulsified oils from your valuable water soluble coolant solution
- Various filters for the removal of particulates from the dirty coolant; filtration includes reusable filters for larger particulates and magnetic separators for ferrous fines
- Ozone generation via corona discharge technology and micro-bubbles from a special dispersion stone. The most efficient removal of bacteria and odors
- Air operated diaphragm pumps that provide for ease of maintenance and minimal air consumption
- SmartSkim provides retrofit components to improve the efficiencies of Hyde, Xybex, Sanborn, Deerpath and other outdated coolant recycling systems

### Standard CoolantLoop Systems

<table>
<thead>
<tr>
<th>Model</th>
<th>Tank Size (gal) Clean/Dirty Side</th>
<th>Length (inches)</th>
<th>Width (inches)</th>
<th>Height (inches)</th>
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<tbody>
<tr>
<td>CL400</td>
<td>400 total</td>
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<td>83</td>
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<td>1,200/1,200</td>
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<td>140</td>
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</table>
CoolantLoop™

Additional Features:

- **COOLANT RETURN SYSTEM**: Our larger FilterLoop pump allows for the flow of recycled coolant to a plant-wide distribution system.
- **INLET STRAINER/FILTERS**: Stainless steel strainer basket fitted with nylon reusable 100 or 250 micron filters.
- **OZONATOR**: Provides biological and odor control while minimizing or eliminating the use of expensive and dangerous biocides.

Optional Equipment:

- **MAGNETIC SEPARATOR**: Rare-earth magnetics for the Inlet Filter and/or on the FilterLoop for filtration down to 1 micron of ferrous fines.
- **COOLANT PROPORTIONER**: While a coolant proportioner is included as a standard feature on our recyclers, we also offer precision metering proportioners that ensure a greater level of coolant concentration control.
- **SUMP CLEANER/COOLANT DISPENSER**: Allows for the quick removal and easy transport of coolants to/from the sumps and our SmartSkim Recycler.
- **HOSE REELS**: Assist in the distribution of recycled coolant back to your sumps. One hose reel can effectively serve multiple machining centers.

Site Requirements

**Air**: Systems needs 30 PSI of clean dry plant air. Entire system uses approximately 5-15 SCFM of air.

**Electric**: Ozonator supplied with standard 120V plug. (240v available upon request)

**Water**: ¾” NPT water line at 40 PSI for coolant makeup proportioner.

**Maintenance**: System should be cleaned periodically as needed depending on contamination loading, type of coolant used, pre-filtration available and maintenance practices of plant. Total system cleaning of once per year is recommended.

Materials of Construction

All CoolantLoop™ Systems are manufactured to industrial grade standards. Process tanks are welded inside and out and have a powder-coated exterior finish. All tanks are channel reinforced and tank bottoms have support beams. We use non-stalling air operated diaphragm pumps with poly or aluminum bodies and Buna-N wetted parts.

Standard filtration includes a size #1 or #2 bag filter housing, however, a number of optional polishing filtration devices are available based on the particular needs of your shop. All CoolantLoop systems incorporate the SmartSkim world renown 304 stainless steel floating suction skimmers and separators. Systems are shipped complete with all fittings, piping, hoses and valves to make a complete assembly.
Dirty coolant is introduced into the inlet side of the CoolantLoop System by a sump sucker (sumpcleaner), drum vacuum or a more manual process. Passing through the inlet strainer/filter will capture any large debris such as chips, ear plugs and other particulates that get into your coolants.

The multi-patented SmartSkim floating suction skimmer continuously skims the surface via a transfer pump which moves the skimmed fluids through the oil/water separator. The SmartSkim open channel coalescing design removes free and mechanically dispersed oils and gross solids. Clean treated fluids gravity flow from the oil/water separator into the clean tank which then allows the coolant to continuously overflow back into the dirty side for further processing (Note: the CL400 processing tank is just 1 compartment). This provides continuous aeration of the coolant and multi-pass filtration. There is no stagnant coolant in the CoolantLoop. Captured tramp oil will gravity drain into a customer provided drum or tote.

The FilterLoop includes a polishing bag filter(s) and an optional rare-earth magnetic separator. The FilterLoop pump is used to supply recycled coolant back into your operations either via a portable transport (totes, drums) or via an overhead distribution piping system.

An ozonator is supplied to inject active oxygen into your contaminated coolant to minimize/kill any biological build-up and it’s associated odors that were generated while in the CNC sumps.

New coolant is made up into the system as required with a proportionator. A Hydrominder is provided as the standard unit, and a Dosatron as an upgraded option.