

KLEENTEK USA

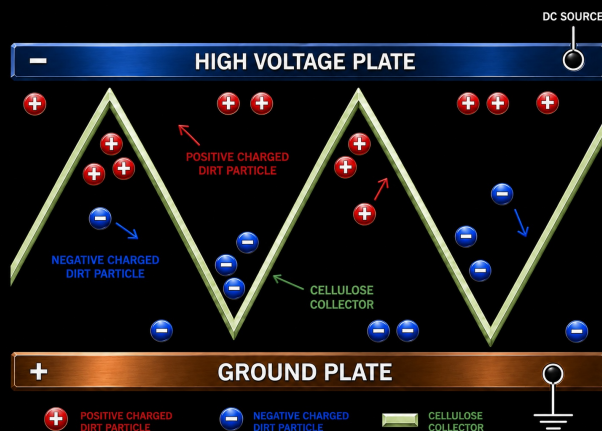
A DIVISION OF UNIVERSAL AIR SYSTEMS

www.kleentekusa.com

ELECTROSTATIC OIL CLEANING

Clean oil Just Elements No clogging

KLEENTEK strips contaminants and varnish from hydraulic and lube oil using nothing but an electrostatic field — down to sub-micron size, with zero pressure drop.



INDUSTRIES WE SERVE



POWER GENERATION



HEAVY MANUFACTURING



AUTOMOTIVE



STEEL AND METALS



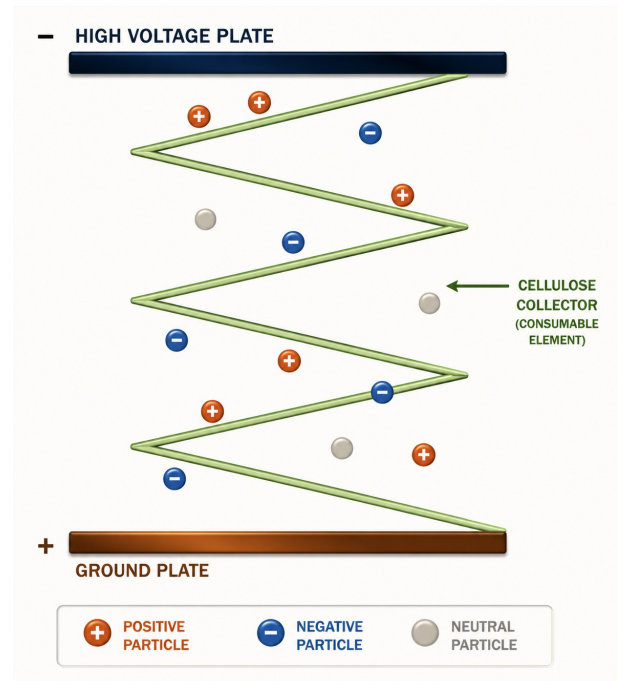
PRECISION MACHINING

Electrostatic cleaning, explained

Every insoluble particle suspended in hydraulic or lube oil carries a charge — positive, negative, or neutral. KLEENTEK is built around that fact.

Oil is drawn through an electrostatic field sized to its flow rate. Two flat electrodes, mounted in parallel, create a uniform field: positive particles migrate to the negative plate, negative particles to the positive plate — a process called electrophoresis.

A uniform field alone can't move neutral particles. So the collector shapes part of the field into sharp, concentrated points. At those points, the field is strong enough to polarize neutral particles and pull them in too — dielectrophoresis. **The result:** everything comes out, not just the particles that were already charged.



Inside the Collector

The voltage plate field lives inside a replaceable collector cartridge — concentric cylinders separated by dielectric material, folded like bellows. Oil rises through it from the bottom with nothing blocking its path, so there's no ΔP to monitor. Contaminants stick to the cylinder walls instead of packing into a media bed, giving the cartridge a collection surface — and a service life — far beyond a conventional filter element.

Zero delta P

Oil flows freely through the collector with no obstruction — no pressure drop to track, no flow restriction as it loads.

Never clogs

A large collection surface holds far more contaminant than any comparable filter, even in heavily loaded oil condition.

Sub-micron removal

Captures particles conventional filtration can't — including the oxidation products that accelerate oil breakdown.

Three sizes, one technology



COMPACT / LOW-FLOW

DOC N25

The smallest footprint in the lineup — sized for smaller reservoirs and tighter kidney-loop installations.



MID-FLOW

DOC N50

The workhorse Mid-size for most industrial hydraulic and lube systems, balancing throughput against skid footprint.



HIGH-FLOW

DOC N100

The largest unit for high-volume reservoirs — turbines, large gearboxes, and central hydraulic systems.

See page 4 for exact flow rate and reservoir capacity.

All units include these Standard items

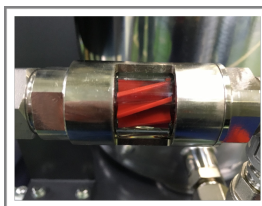
Digital Display

Visual Flow Indicator

Stainless steel tubing

Casters for portability

Sample Valve



What's a Kidney Loop system?

A kidney loop is a side-stream: a small auxiliary circuit that continuously pulls oil from the main reservoir, cleans it, and returns it — running alongside the central lubrication or hydraulic system rather than replacing it. Keeping oil clean this way cuts wear on moving parts, extends oil life, and reduces unplanned downtime across hydraulic systems, gearboxes, turbines, and large engines. Regular filter-change maintenance is replaced by simple, infrequent collector changes.

Sizing & compatibility

Maximum oil quantity – gallons and lbs. (by ISO viscosity grade)

Unit	VG 32	VG 46	VG 68	Weight lbs	Flow Rate GPM	Kleentek P/N	UAS Part #
ELC-R100SP	12,680	8,453	5,812	355	3.17	2/CC-R50SP	60-0474
ELC-R50SP	6,340	4,227	2,905	238	2.38	1/CC-R50SP	60-0474
ELC-R25SP	3,170	2,113	1,453	159	0.98	1/CCR25SP	60-0473
ELC-R10SP	1,320	898	581	154	0.58	1/CC-R10SP	60-0472
ELC-R3PSP	211	145	100	44	0.32	1/XX-R3SP	60-0471

Maximum oil quantity – Liters, Kg (by ISO viscosity)

Unit	VG 32	VG 46	VG 68	Weight Kg	Flow Rate L/min	Kleentek P/N	UAS Part #
ELC-R100SP	48,000	33,000	22,000	161	12	2/CC-R50SP	60-0474
ELC-R50SP	24,000	16,000	11,000	108	9	1/CC-R50SP	60-0474
ELC-R25SP	12,000	8,000	5,500	72	3.7	1/CCR25SP	60-0473
ELC-R10SP	5,000	3,400	2,200	70	2.2	1/CC-R10SP	60-0472
ELC-R3PSP	800	550	380	20	1.2	1/XX-R3SP	60-0471

Compatibility & operating limits

- Mineral oils (except engine oil and HLP-D per DIN 51524/2)
- Synthetic oils — PAO, ester, vegetable — with the standard units
- Phosphate ester & PGA (except Skydrol) with a special unit option
- Max oil temperature: 65°C constant (90°C for H-type)-
- Max viscosity: 600 cSt • Water removal to 500 ppm
- Standard power: 115V, single phase

Ready to size your system?

SEND US YOUR RESERVOIR VOLUME AND OIL TYPE FOR A RECOMMENDATION

SALES@KLEENTEKUSA.COM

Kleentek USA — A Division of Universal
Air Systems West Chester, OH 45069
513-737-2677
kleentekusa.com