A comprehensive solution for cleaning & analysis of hydraulic & lubricating oils

KLEENTEK FERROCARE

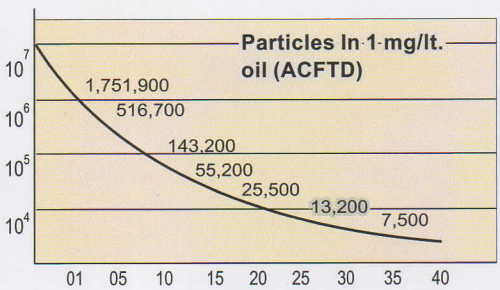
ELC

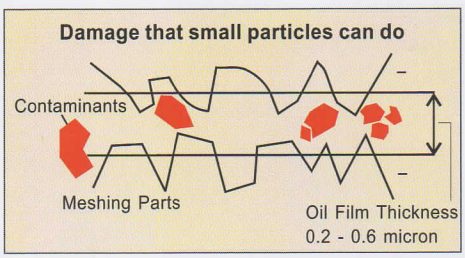
Electrostatic Liquid Cleaners

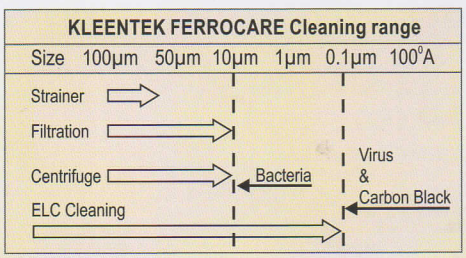
Electrostatic Liquid Cleaning does efficiently what mechanical filtration can never do.

For removal of solid contaminants from oil









Operating Conditions:

Mineral base oils, except IC engine oil

Moisture content 500 ppm max. for hydraulic oils. Temperature 60°C max.

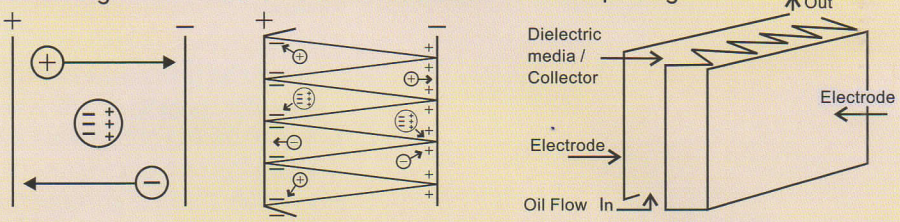
Standard power source: 415v 3ø 50Hz

For high temperature applications & fire resistant fluids, suitable models are available.

All ELC units offered with IOT & MODBUS Processors

Transmit data to your android phone or computer in real time.

Working: The ELCs effectiveness lies in its simplicity.



As fluid flows through the cleaning cell, the particles deposit on either the negative or positive electrode. The ELC removes all sizes & types of particles including bacteria & virus.

Introducing the ELC -R Series



- Engineered with enhanced Capacity & Speed.
- IOT enabled.



SELECTION GUIDE All figures are indicative only

Conventional Hydraulics (max. quantity)							
ISOVG / Type	32	46	68	100	Dimensions (mm) (L x W X H)	Weight (kg)	Pump Flow (lit / min)
ELC 8LP	2500l	1700l	1100l	600l	610 x 480 x 540	70	2
ELC 25A	6000l	4200l	2800l	1500l	800 x 505 x 680	100	3.5
ELC 50C	12000l	8300l	5600l	3000l	780 x 505 x 880	140	10
ELC 100LP	30000l	20000l	14000l	7600l	920 x 630 x 950	180	10
ELC R25	7,000l	5,000l	3,000l	2,000l	690 X 450 X 800	90	3.5
ELC 50R	15,000l	10,000l	7,500l	4,000l	690 X 450 X 800	110	10
ELC R100	30,000l	20,000l	14,000l	7,600l	690 X 500 X 1100	120	10
ELC R200	30,000l	20,000l	15,000l	8,000l	1140 X 500 X 1170	180	20
ELC R400	60,000l	40,000l	30,000l	16,000l	1250 X 1060 X 1170	360	30
ELC R600	1,20,000l	80,000l	60,000l	32,000l	1705 X 1060 X 1200	450	50

Specifications subject to change without prior notice.

NAS 1638 Contaminants' Specifications (per 100 mL)

	00	0	1	2	3	4	5	6	7	8	9	10	11	12
5-15µm	125	250	500	1,000	2,000	4,000	8,000	16,000	32,000	64,000	128,000	256,000	512,000	1,024,000
15-25µm	22	44	89	178	356	712	1,425	2,850	5,700	11,400	22,800	45,600	91,200	182,400
25-50µm	4	8	16	32	63	126	253	506	1,012	2,025	4,050	8,100	16,200	32,400
50-100µm	1	2	3	6	11	22	45	90	180	360	720	1,440	2,880	5,760
> 100µm	0	0	1	1	2	4	8	16	32	64	128	256	512	1,024
			For Missiles			For Servo Valves			For CNC M/c			New Oil		

For NAS 7 and better, derate the above max. quantities by 50%.

LVDH

Low Vacuum Dehydration

Low Vacuum dehydration does efficiently what centrifuging can never do.

For removal of moisture & gases from oil

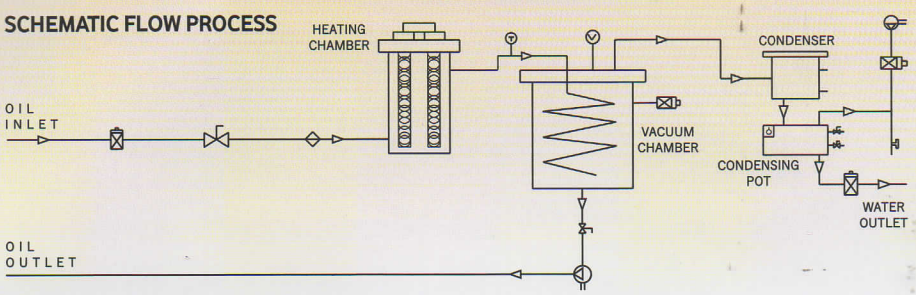
The LVDH unit uses a comprehensive process to remove water and gases from oil at temperature lower than 53° C, thus drastically reducing oxidation during the dehydration process. The LVDH is a quick, inexpensive and automatic system that overcomes centrifuging's major drawbacks, especially that of promotion of oxidation because of high temperature, inability to remove emulsified water, high power consumption & high maintenance costs.

Working:

Oil is drawn into the vapouriser via the vacuum pump and heater. Water boils below 53° C under vacuum - an efficient condensor collects evaporated water. Dissolved air and gases from oil are bled to the atmosphere via the vacuum pump.



SCHEMATIC FLOW PROCESS



Features:

- Fully automatic operation.
- Ultimate water removal through oil recirculation - to zero-free water content or to 50 % below saturation level.
- Reduces water content in a single pass by 0.25% - 1.5% depending on inlet oil temperature.
- Removal of soluble gases and air.

Application Areas:

- Hydraulic oils
- Turbine oils
- Lubricating oils
- Gear oils
- Synthetic Oils.

FUNCTION OF CATALYSTS				
Test	Catalysts (Metal)	Water	Time (Hrs)	Acid Value
1	nil	nil	3,500	0.17
2	nil	exists	3,500	0.90
3	iron	nil	6,500	0.65
4	iron	exists	400	8.10
5	copper	nil	3,000	0.89
6	copper	exists	100	11.20

Note: 1. Time: hours for reaching a certain level of acid value.
2. Test oil is of 32cSt/100°F (40°C)
3. Tested oil temperature is 200°F (93°C)

Acid value indicates formation of "Sludge" and sticky resinous matter which forms hard deposits on valves, pipes.

SELECTION GUIDE All figures are indicative only

Conventional Hydraulics (max. quantity)					
Model	Capacity	Condensor	Weight (Kg)	Dimensions L x W x H (mm)	Power
LVDH-600	8-10 L/min	Refrigerated	390	1470 x 785 x 1480	6kw @ 415 VAC 3P+N+E (50Hz)
LVDH-900	13-15 L/min	Refrigerated	480	1470 x 785 x 1480	8kw @ 415 VAC 3P+N+E (50Hz)
LVDH-2100	30-35 L/min	Refrigerated	600	1575 x 945 x 1580	16kw @ 415 VAC 3P+N+E (50Hz)
LVDH-3000	40-50 L/min	Refrigerated	650	1610 x 1050 x 1460	16kw @ 415 VAC 3P+N+E (50Hz)
LVDH-6000	80-100 L/min	Refrigerated	850	2100 x 1455 x 1945	24w @ 415 VAC 3P+N+E (50Hz)

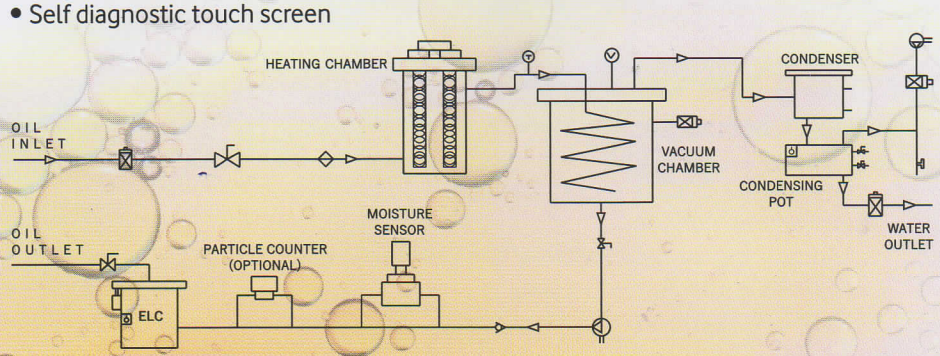
Specifications subject to change without prior notice.

The Integrated Unit

Removes free and emulsified moisture and suspended particulate matter from hydraulic & lubricating oils.

Benefits of ELC & LVDH In a Single Platform

- Automatically read moisture level in ppm or water solubility
- Automatically read particulate purity in NAS / ISO
- Read out on android smart phone / computer in real time
- Self diagnostic touch screen





All units offered with IOT & MODBUS Processors

Transmit data to your android phone or computer in real time.

SELECTION GUIDE All figures are indicative only.

Conventional Hydraulics (max. quantity)					
Model	Capacity	Condensor	Weight (Kg)	Dimensions L x W x H (mm)	Power
I - 600	8 – 10 L/min	Refrigerated	610	1470 X 1320 X 1260	6 Kwh @415 Volts,3Ø, 50Hz
I – 900	13 – 15 L/min	Refrigerated	700	1470 X 1350 X 1260	8 Kwh 415 Volts,3Ø, 50Hz
I – 2100	30 – 35 L/min	Refrigerated	865	1745 X 1560 X 1260	16 Kwh 415 Volts,3Ø, 50Hz

Specifications subject to change without prior notice.

Oil Test Equipment

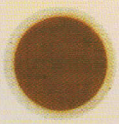
Contamination Checking Kit



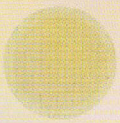
Run contaminated oil through a 'Patch Test' to visually assess levels of contamination for further action.



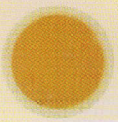
Contamination level which can damage equipment (10 mg / 100 mL)



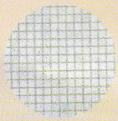
Contamination level which requires immediate cleaning (4 mg / 100 mL)



Contamination level to which oil can be cleaned to (1 mg / 100 mL)



Contamination level which requires immediate cleaning (2 mg / 100 mL)



Contamination level to which oil can be cleaned to (0.5 mg / 100 mL)

Request a 'patch test ' report, at your plant, in your presence.

S120-LCD

DIGITAL IMAGING PARTICLE COUNTER



A CLEAR PICTURE OF YOUR OIL

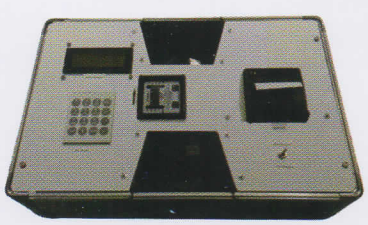
The S120 digital imaging particle counter is a revolutionary sensor capable of counting a broad spectrum of particles, recognising shapes and eliminating air bubbles from the counts. Digital imaging particle counting provides you with a deeper insight into your oils.

The sensor has the ability to measure a broad spectrum from 4 to >100µ recognising different shapes of particles which can be grouped into fatigue wear, sliding wear and cutting wear as well as fibres.

Principle of operation: Digital Imaging

Features:

- Oil cleanliness codes: ISO 4406, NAS 1638, & SAE AS4059
- Particles are grouped by micron size in seven categories - 4, 6, 14, 21, 38, 70, >100µ
- The S120 counts air and gas bubbles and eliminates them from the counts
- Highly accurate sensor capable of self-calibration
- Full integration with SCADA/PC/PLC which can be controlled via analogue or digital instrumentation
- Wear particle identification as fatigue wear, sliding wear and cutting wear as well as fibres.



Particle Counter with printer

MOISTURE DETECTOR

An accurate & simple solution to detect moisture in oil.



Moisture in Oil -

Detect it, Measure it, Remove it!

FUNCTION OF CATALYSTS				
Test	Catalysts (Metal)	Water	Time (Hrs)	Acid Value
1	nil	nil	3,500	0.17
2	nil	exists	3,500	0.90
3	iron	nil	6,500	0.65
4	iron	exists	400	8.10
5	copper	nil	3,000	0.89
6	copper	exists	100	11.20

Note: 1. Time: hours for reaching a certain level of acid value.
2. Test oil is of 32cSt/100°F (40°C)
3. Tested oil temperature is 200°F (93°C)

Acid value indicates formation of "Sludge" and sticky resinous matter which forms hard deposits on valves, pipes.

Moisture in oil is the biggest enemy of hydraulic & lubricating oils ... even bigger than particulate contamination

There is a clear nexus between presence of moisture and acid / sludge formation in oil. Now with the Moisture Detector, users have a quick, accurate & simple solution to measure moisture in oil.

Displays moisture level in ppm or AW (saturation level)

Principle of operation: Capacitance

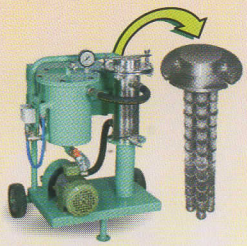
Interface: 4~20 mA/ Modbus

Gear box oil filtration



Gear box, straight cutting, water based fluids

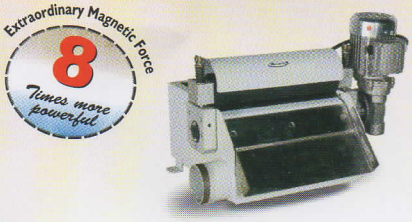
Gear Box Oil Filtration Systems



MS6 DHU - Magnet Strainer with mechanical filter

Reduce gearbox downtime while extending oil drain intervals. These units are used for removing ferrous contamination from gear boxes. The MS6 DHU unit can be attached directly to the gearbox and removes metallic wear particles efficiently.

Magnetix Separator



Extend coolant life ... Improve product quality...!

Magnetix
Extraordinary Magnetic Separator

Hi-power magnet separators for cutting oils, coolants, honing & washing fluids.

Some application areas: Surface grinding, Centreless grinding, Internal / external grinding, Honing, Gear grinding, Super-finishing, Electrical discharge machine.

Models available: From 20 to 500 LPM flow rate.

From EPT Canada



For acid & moisture control of Phosphate Ester / FRF fluids

System for contamination control & maintenance of EHC fire resistant fluids (Phosphate Ester)

- Restore and maintain fluid systems at peak performance, including the resistivity requirements.
- Units manufactured in India - Critical resins for acid control from EPT, CANADA
- Maintain acid number to < 0.2mg KOH/gm.
- Eliminate Servo Valve malfunction
- Maintain moisture below 300 to 500ppm.
- Remove oxygen & combustible dissolved gases.
- Remove particulate & insoluble gel / sludge, with high efficiency.

From FERROCARE INTERNATIONAL

NACHI
NACHI FUJIKOSHI CORP.
JAPAN

FERROCARE also offers



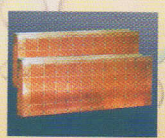
Hardened High Speed Steel Bars

Hardened high speed steel bars in 2 met lengths, from 0.20mm to 16 mm dia, in M2, M35 and M42 grades of high speed steel.



Hydraulic pumps and valves

High speed, low noise, low heat operation, ideal for Indian operating environment.



Copper slab & ring moulds

Copper slab & ring moulds for casting of steel slabs and copper rods

Helping you ... work better ... under pressure

EN ISO 9001:2008 CERTIFIED
TUV AUSTRIA

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