

IN USE WORLDWIDE

KLENOIL[®]

OIL FILTRATION EQUIPMENT

MAGNETIC FILTRATION

BYPASS HYDRAULIC OIL FILTERS

FILTER CARTRIDGES

OIL CLEANING SERVICES

OIL ANALYSIS



KLEENOIL[®] FILTERS & BY PASS FILTRATION SYSTEM

OPERATING PRINCIPLE

- The **KLEENOIL** filter cartridge is made of densely wound pure coniferous long fibre wood pulp paper specially manufactured by Kleenoil in the UK itself.
- The cartridge acts both by "**Absorption and Adsorption**" in a continuous process. The long fibres of the paper attract the water which arrives either through the combustion process or by condensation and **absorb** it like a sponge. At the same time, the larger oil molecules are rejected and are forced to pass between the tight windings of the cartridge. As the oil passes through the cartridge, minute carbon, wear metals and dust are extracted from the oil by adhering to the many surfaces of the filter- a process known as **Adsorption**.

KLEENOIL[®] BY-PASS HYDRAULIC FILTER

- The Kleenoil 'high pressure' oil filter can be fitted on the 'by-pass' basis to hydraulic systems, compressors or any system with oil at pressure up to 3000 psi(200 kgs/cm²)
- The flow through the Kleenoil filter is controlled to approximately 4 ltrs per minute at 40 psi. A flow rate which is low enough to have negligible effect on most 'system pressures', yet high enough to ensure that oil is being kept in 'as new' condition.

FILTRATION LEVELS

Particulate contamination in accordance with BS5540 PART 4 : 1981 and ISO/DIS 4406 14/9, equivalent to NAS 1638 CLASS 6 (Hydraulic oil specification)

LDU 9768 with LDC 1868	Tank capacity upto 120 ltrs.	Water Removal 0.32ltrs. to <0.025%
HDU 9778 with HDC 1878	Tank capacity upto 540 ltrs.	Water Removal 0.56 ltrs. to <0.025%
SDU 9788 with SDC 1888	Tank capacity upto 1360 ltrs.	Water Removal 1.20 ltrs. to <0.025%

KLEENOIL[®] MICRON FILTRATION SYSTEM

(FOR MINERAL OILS)

The Micron Filtration System is a multi-purpose fluid cleaning and transfer rig. The system can be used to clean most mineral oils such as hydraulic, gear and transmission oils, diesel type fuels and many soluble oils and fluids. In its static form, it can be permanently connected to large fluid reservoirs where machines and engines are in constant use. In its mobile form, it can be used for a wide variety of applications, including oil and fuel transfer and rotational cleaning of oils and industrial fluids in the machines.

MODELS	STATIC : 1 x SDU 9788	MOBILE : 1 x SDU 9788	2XSDU9788	4XSDU9788	6XSDU9788
Electrical Motor	0.22 KW/5HP/ 415 v 3 Phase 1450 rpm	0.22 KW/5HP/ 415 v 3 Phase 1450 rpm	0.22 KW/.5HP/ 415 v 3 Phase 1450 rpm	0.22 KW/ .5HP/415 v 3 Phase 1450 rpm	0.36 KW /1.0 HP/415 v 3 phase 1450 rpm
*Filter Rate	10 LPH	10 LPH	20 LPH	40 LPH	60 LPH
*Flow Rate	600 LPH	600 LPH	600 LPH	600 LPH	1200 LPH
Dimensions (H x W x D) mm	750 x 600 x 400	1100 x 600 x 700	1100 x 600 x 700	1100 x 600 x 950	1100 x 600 x 1200



2 nos Kleenoil 9788 hydraulic units installed on an injection moulding machine



***FLOW/FILTER RATE :** It is impossible to state an exact rate because it is dependent upon many factors such as viscosity, temperature, degree of contamination of fluid, pump pressure and degree of contamination of cartridge. As an approximate guide, the flow/filter rate of hydraulic oil at room temp through Kleenoil cartridges has been given above.



**ECLIPSE
MAGNETICS**

(FOR APPLICATIONS INVOLVING METAL RESIDUE)

TRAP THE IRON THAT DAMAGES YOUR TOOLS



ADD MICROMAG TO THE KLEENOIL MICRON FILTRATION SYSTEM FOR ULTIMATE OIL CLEANSING

- Magnetic filtration can be used to remove ferrous contamination from all industrial fluids where ferrous and para-magnetic contamination of a liquid is a problem.
- Maintain flow rates
- No back pressure
- Sub-Micron Filtration
- Minimal running costs
- Applications : Metal working/finishing; Hydraulic systems; Gear boxes; Grinding, Honing and Lapping machines; Manual and CNC machinery; Wire and EDM processes; Fine finishing operations; Pre-filtration; Press brake lubricant; Quenching operations; Part washing; Saw sharpening; Post drill head operations; Domestic and Industrial heating etc.



Contaminated Core



Cleaning Core



Clean Core



Capable of sub-micron filtration levels • Standard machine filtration, smaller wash stations, non-chemical environments

	MM5	MM10	MM20
Flow rate	70 LPM	100 LPM	150 LPM
Holding Capacity	1kgs	2 kgs	4 kgs
Max pressure	12 Bar		

High pressure version of the Micromag • Full Stainless Steel constructions • Comes with contamination indication device

	MM5/HP	MM10/HP	MM20/HP
Flow rate	70 LPM	100 LPM	150 LPM
Holding Capacity	1kgs	2 kgs	4 kgs
Max pressure	50 Bar		

Larger filter for higher contamination capacity and flow rates • Precision grinding machines and fine finishing operations.

	FM1.5M	FM 2.5
Flow rate	250 LPM	500 LPM
Holding Capacity	3 Kgs	6 Kgs
Max pressure	10 Bar	



Automated, self-cleaning • Offering continuous operator-free magnetic filtration

	AM6	AM12
No. of Cores	6	12
Flow Rate	450 LPM	900 LPM
Holding Capacity	7 kgs	12 kgs
Max. pressure	10 Bar	



Higher flow • Higher contamination • Non-stop operation • Harsh chemical environment • In-line/Offline • Automated self-cleaning • Full stainless steel construction

	AM 6	AM12
No. of Cores	6	12
Flow Rate	450 LPM	900 LPM
Holding Capacity	7 kgs	12 kgs
Max. pressure	10 Bar	

Skids can be supplied with two filters to accommodate higher flow rates.

SALIENT FEATURES - MICRON FILTRATION SYSTEM

- ▶ Removes contaminant particles down to less than 0.5 micron.
- ▶ Removes water content thus inhibiting the production of acids, which both degrade the oil and cause excessive wear.
- ▶ The simultaneous removal of minute contaminants as they occur, enables the oil to be extended within its operating specifications.
- ▶ Prevents corrosion of components.
- ▶ Reduces component wear (seals, piston rods, pumps etc.).
- ▶ Reduces the incidence of sticking and worn valve components.
- ▶ Extends life of in-line filters.
- ▶ All properties of oil being cleaned are maintained.
- ▶ Filter cartridge can be changed within minutes.
- ▶ No machine down-time as oil is cleaned continuously while machine is in operation.
- ▶ Can also be used as a transfer unit, to transfer oil from tank to tank.
- ▶ Water Glycol can also be cleaned using the **KLEENOIL** polypropelene filter cartridges

CONTAMINATION TESTING KIT



ON-LINE PARTICLE COUNTER



Portable Fluid Analysis Kit was developed to enable a person to conduct immediate oil analysis and obtain an immediate fluid cleanliness contamination level of the sample fluid. The kit enables the end user to achieve an ISO Code Cleanliness Level, monitor oil contamination in real time, plot ISO cleanliness levels and link to a PC with interface and trending software. It is compatible for connection to most types of filtration units. This is the most cost effective unit available and requires NO yearly calibration. Simple to use with instant LED read out for visible results and with a built-in data storage memory board for downloading all relevant data. This enables the user to record and create real time reports, in tables and graphs exported to excel files. It is portable and lightweight.

NAS GRADE TABLE

NAS GRADE (National Aerospace Standard 1638) is a widely adopted standard to measure the contamination degree of hydraulic oil.

NAS GRADE (nos. in 100 ml.)

Particle Size (μ)	1	2	3	4	5	6	7	8	9	10	11	12
5-15	500	1000	2000	4000	8000	16000	32000	64000	128000	256000	512000	1024000
15-25	89	178	356	712	1425	2850	5700	11400	22800	45600	91000	182000
25-50	16	32	63	126	253	506	1012	2025	4050	8100	16200	32400
50-100	3	6	11	22	45	90	180	360	720	1440	2880	5760
>100	1	1	2	4	8	16	32	64	128	256	512	1024



A FEW OF OUR CUSTOMERS



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