A **Truly Versatile** Karl Fischer EVAPORATOR



# Aquamax KF Oil Evaporator

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The Aquamax K F Oil Evaporator model 51000 has been designed as a "standalone" unit so that it can be used in conjunction with most leading models of coulometric and volumetric Karl Fischer titrators and to comply with the requirements of ASTM method D6304, "Standard test method for determination of water in petroleum products, lubricating oils and additives by Coulometric Karl Fischer titration".

It is important to know the water content of lubricating oils, additives and similar samples to enable accurate prediction of performance and quality. The presence of water in such samples could lead to corrosion and wear of machinery and reduce the effectiveness of the lubricating additives.



The oven temperature can be adjusted from ambient to 200°C and a digital carrier gas flow setting of 300 ml per minute.





Adjusting carrier gas flow.

Setting temperature.

# OI Evaporator Schematic



### **Methodology**

To conform to ASTM D6304 procedure C

0,5 grams sample is made up to 10 ml with dried hexane, shaken until dissolved, and then a 1.0 ml aliquot is injected into the base oil of the oil evaporator. The liberated moisture is transferred into the titration vessel by the carrier gas where it is titrated coulometrically



### **Application**

Determination of water in additives , lube oils , base oils , automotive transmission fluids , Hydrocarbons viscous samples , solvents , and other petroleum products

### Areas of application:

- Petrochemical
  Aviation
- Power (electricity)
  Chemicals
- Contract Laboratories
  Gases
- Universities
  Automotive
- Pharmaceuticals & Toiletries / Cosmetics

### **Technical Specifications**

| Heater type:         | Silcon mat heater            |
|----------------------|------------------------------|
| Temperature range:   | Ambient to 200°C             |
| Temperature control: | Digital setting              |
| Gas flow control:    | Digital setting              |
| Carrier gas:         | Nitrogen gas (not supplied)  |
| Desiccant:           | Molecular sieve              |
| Power supply:        | 24VDC, 100-240 VAC, 50-60 Hz |
| Dimensions:          | 18 x 24 x 21 cm              |
| Weight:              | 3Kg                          |

## **Ordering Information**

| Part No.   | Product                              |
|--|--------------------------------------|
| 51000  | Aquamax KF Oil Evaporator            |
| Supplied Accessories (also available as spare items) |                                      |
| 51-0101  | GlassVessel                          |
| 51-0102  | Vessel lid                           |
| 51-0103  | Red compression fiitings (pack of 4) |
| 51-0104  | Injection septa 8 mm (Pack of 20)    |
| 51-0105  | Vessel gas distribution tube         |
| 51-0106  | Pack 1 large and 3 small Orings      |
| 51-0107  | Gas inlet tube with 3 way cock       |
| 51-0108  | Gasoutlettube                        |
| 51-0109  | Desiccant bottle                     |
| 51-0110  | Bottle molecular sieve               |
| 51-0111  | Thermocouple K type                  |
| 51-0112  | Pack of 4 plastic tubes              |

### **Additional Accessories**

| Part No. | Product                |
|----------|------------------------|
| 51-0113  | Base Oil 1 Liter       |
| 51-0114  | Mains power pack       |
| 51-0115  | Silicone grease (tube) |
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### Certificates

All Aquamax KF Coulometric titrators are supplied with a calibration certificate traceable to national standards.



### PROCESS AND LAB INSTRUMENTATION

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