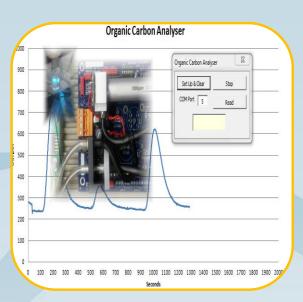


Realistic



Innovative



Simplicity

AFRICAN HORIZON TECHNOLOGIES Pty Ltd developed Hydraspin Lab-TOC and adapted for field use.

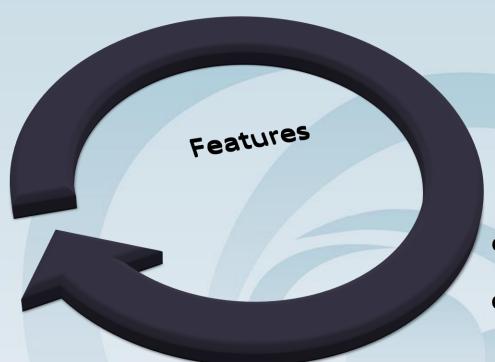


**Advancing Africa Through Technology** 

The Hydraspin Lab-TOC unit is an instrument designed for the measurement of the dissolved and finely suspended organic carbon contents of water. The analysis is based on photo oxidation of organic carbon.

That is a process of ultra-violet/peroxodisulphate oxidation of the organics in the sample followed by infrared detection of the carbon dioxide liberated.

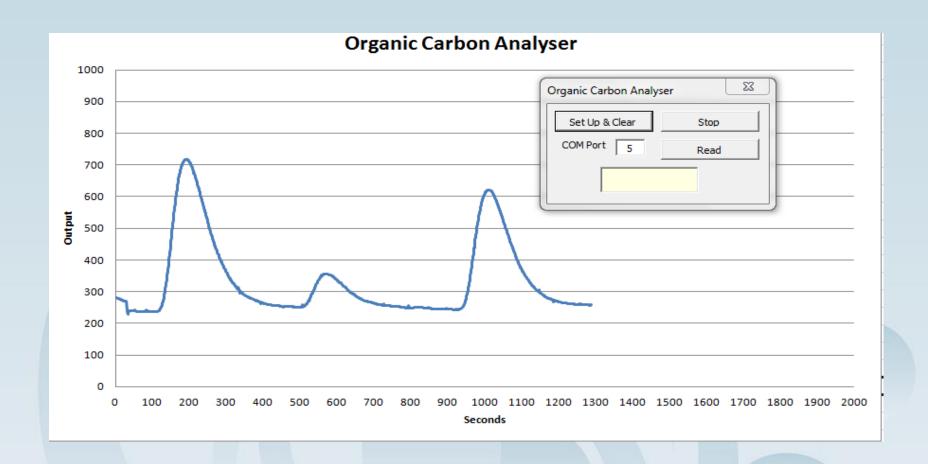




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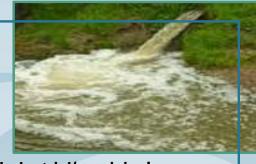




## **TYPICAL APPLICATIONS**



Mining



Industrial/municipal



Food & Beverage



Manufacturing





Conventional Oil & Gas



## **SPECIFICATIONS**

Range: Linearized from 5 to 50 mg/l as carbon (dissolved organic carbon).

Response time:

Six minutes from sample introduction to result printout.

#### Calibration:

Pre-programmed calibration at the start of each run utilizing freshly prepared calibration standards.

#### **Detector:**

Non dispersive infra red, sensitive CO<sub>2</sub> gas liberated. Sample Volume: 1 to 8 ml (Adjustable).

#### **Outputs:**

4-20 mA

**Outputs:**4 - 20 mA and 0- 5Volt.

#### Indicators:

Local LCD display Air Supply: Instrument quality, CO<sub>2</sub> Free Air, 350 ml/min at 150 Kpa.

#### Reagents:

Phosphoric acid solution. 05% v/v. Potassium peroxodisulphate solution 4,0% v/v. Reagent consumption depends on the analysis range selected but normally the acid will be consumed at a rate of 15 ml/min and the peroxodisulphate at 1 ml/min.

#### **Temperature:**

Sample 50'C maximum, instrument 40'C maximum ambient.

Power Supply: 220V 50Hz 2A.



### PRINCIPLE OF OPERATION

Sample from sampling well to glass flow manifold.

Sample is mixed
with
Ortophosphoric
acid, which
reacts and
removes
inorganic carbon
compounds.

Inorganic carbon free sample is then mixed with potassium peroxodisulphate, which aids the oxidation of organic carbon to CO<sub>2</sub> using ultraviolent activation.

The air/ CO<sub>2</sub>
mixture is dried
and flows
through the IR
detector to
detect CO<sub>2</sub>
concentration.

A digital or 4-20 mA output signal, proportional to the CO<sub>2</sub> concentration is fed via the Control Circuitry to the computer or server.

S.A legislation must be revised for the accurate detection of oil & grease



# CONTACT US ON.....

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Excellence is not an act but a habit

