01-2013

Petroleum Testing Analyzers

Rapid TBP and Potstill distillation model RTBP

- New RTBP 500 to 2000 ml TBP D2892 and D5236 fully automatic unit
- New GEC-TitraMax Total acid, base number, Mercaptan Sulphur all in one.
- New GECIST 1160 V6
- New Carburane V3.0
- New D86 NDI450 Model
- GC DHA ASTM D6729-D6730 and D6733 software
- MINIDIST 1160 version V6.0
- Still the more compact and portable Coulometric KF titrator GEC-AQUAMAX
- Automatic TBP D2892 and D5236 Potstill distillation units up to 200L

The new trend in the analytical industries is to provide mini or micro analyzers for the determination of physical properties. These new instruments allow to reduce the volume of the fractions required to characterize a sample . The crude oil or chemicals laboratories can prepare fractions in smaller volume. Our team of engineers introduced in 2010 a new distillation model, the RTBP unit which can accommodate 2 sets of distillations method D2892 and D5236 in the same compact process cabinet for flask capacity 500 ml to 3000 ml. An automatic fraction collector 8 receivers allows to prepare the fractions without any operator intervention from loading his sample to the last fraction un-

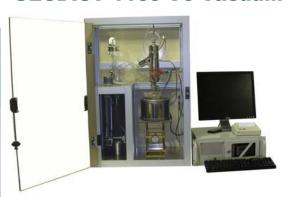
tion from loading his sample to the last fraction under vacuum.Less than 8 hours for TBP D2892 up to 375 C AET 700F AET.

The new MINIDIST RTBP benefits of our GECDIST net supervisor software under windows W7.

This Unit specially designed for catalyst evaluation laboratories , offshore crude oil labs , small refineries has a very good ratio of return on investment .



GECDIST 1160 V6 Vacuum D1160 Distillation



Fully automatic vacuum distillation unit for crude residues, asphalt, lubricants, biofuels, synthetic oils Etc.. From IBP at ambiant temperature to FBP Final boiling point at 570/600 C AET 1050 / 1100 F AET.

- Easy to use
- Stand alone unit
 - For less than subcontracting 100 samples go to full automation in your lab

The GECDIST 1160 V6 unit is a distillation unit in accordance with ASTM D1160 method and the result of more than 40 years in manufacturing D1160 units . In fact GECIL Process has been the first manufacturer in 1981 to introduce a fully automatic D1160 unit . The new version includes all benefits of previous generation at an affordable price . In addition this instrument can be upgraded later on to be remote control from our GECDIST Net W7 PC supervisor Network system .

The unit includes a new level follower system with increase accuracy for volume determination and distillation rate control . The unit can be set up in less than one hour and ready to run in your laboratory even by your own staff with the provided installation procedure .



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Get the benefit of state
of the art software and
experience of one of
the leading research
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Gas Chromatography Custom Analytical solutions

CARBURANE Version V3.0 Windows W7 new release DHA Detailed Hydrocarbon Analysis software and GC Turn key systems ASTM published in 2002 the new method for Detailed Hydrocarbons Analysis with GC D6729, D6730 and D6733. CARBURANE automatically generates several reports of DHA, PIONA, PONA and physical properties. CARBURANE software and databases can be used on any GC hardware. Our team of specialists will be glad to define with your laboratory the necessary GC Hardware configuration and the applications useful for your plant. The robustness of the method D6733 has been so good that some of our customers are using Carburane On line to predict the RON and MON values of their effluents.

CARBURANE Version V3.0 automatic peak labeling software can be used also with other data files such as HPLC and others

Our GC specialist will turn your current GC in a state of the art DHA system with installation of software, databases, method set up and training on site. Software optimized for 32 bits new generation GC's.

CHROMDIS simulated distillation software by GC As per ASTM D2887,D3710,D5307, D6352 and all Simdist methods

- CSD from 35 to 650°C
- HTSD from 174 to 720°C

Automatic Distillation Apparatus

Several years ago GECIL process was the first manufacturer to designed a distillation unit with PC control . Since then , several improvements have been made on our full line of distillation units for petroleum and petrochemical samples :

ASTM D86 , D850 , D1078 for group 0 to 5 sample types with stand alone and multiple units link to supervisor PC .

ASTM D1160 vacuum distillation for QC and Research . GECDIST1160 fully automatic stand alone unit for QC control . MINIDIST1160 with embedded PC Pentium

ASTM D2892 We are supplying more than 30 models from semi automatic to fully automatic design with flask capacity from 1L to 200L

ASTM D5236 GECIL process also pioneered the design of such automatic distillation units more than 15 years ago with flask capacity from 2L to 50L.

Multiprocess units are also available with the combination of several ASTM methods in the same process cabinet allowing a faster return on investment for our customers . **DH87** Dehydration continuous automatic removal of water from crude oils samples **ASTM D6560 IP143** Asphaltenes Extractor to quantify Asphaltenes content or prepare sample for other lab technique such as GC ...

GECDIST-Net Windows NT/XP Pro / VISTA supervisor software allows the control of several distillation units from a remote area via Ethernet TCP/IP port.

Upgrade Controller V6 . We are providing our current users of older distillation units, even 30 year old units with a new electronic controller compatible with GECDIST Net .



Karl Fischer Coulometric and Volumetric titrators

The "ACE" Automatic Compensation Errors Patented control system guarantees that the electrolysis current produced by the coulometer and the count rate displayed are always correctly synchronised. "ACE" built in KF coulometric titrator Aquamax is the only titrator with such feature.

<u>GEC- Aquamax</u>: QC and Research laboratory unit for liquids, gas and solids with small bench size. Results Manager software package to transfer easily to a PC spreadsheet.

<u>Cou-LO Formula KF Reagents</u>: Easy to use packaging for single shot use.

<u>GEC-KFV Volumetric Titrator</u>: <u>QC</u> and Research laboratory units for liquids, viscous liquids and solids.



GEC-KFV Volumetric Karl Fischer Titrator



GEC- Aquamax KF titrator for petroleum samples

GEC-TAN and TitraMax Titrators D664, D2896, D4739, D3227

The GEC-TAN unit Total acid number titrator is a single D664 method instrument but can also run the micro volume method . The GEC-Titra Max unlike the GEC-TAN is a multi titration units : total acid number TAN , Total Base number TBN , Mercaptan sulphur determinations . These units have been designed to offer maximum specifications and features whilst being priced at a very competitive level. The titrators conform to several ASTM methods for petroleum products, lubricants and transformer insulating oils. Easy to use. Provides precise results even for non-specialized users. Specific titration programs upon the method selected with calibration step , blank determination and direct readout of result. Data Logger. Transfer of results to printer or PC.



ASTM D661 GEC-TAN Titrator

Automatic D86 D850 D1078 Distillation unit



- Fully Automatic Apparatus.with touchscreen display
- Real time curves and synoptic display.
- Automatic fire detection
- Automatic detection of receiver, drip deflector, sample probe, coolant liquid level and more...
- Automatic distillation rate optimization
- Automatic probe positioning to improve reproducibility
- Automatic diagnostic programs for preventive maintenance
- Run in °C °K or °F , in mmHg mbar-bar or psi.
- Password protected functions with several level of users.
- Extensive library of distillation programs greater than 1000.
- Data storage unlimited with transfer in Pdf , Xls , Doc
- Built in Ethernet interface, 3 USB ports Etc...

Automatic Cold Behavior units

Our line of automatic cold behavior analyzers includes in single or multiple configuration the following:

D97 Pour point tilting unit ASTM D97 **D2500** Cloud point ASTM D2500 **D6371** Cold filter plugging po int ASTM D6371

External multiple units cooling bath -80C or -50C



Automatic Flash Testers

ASTM D93 Pensky Martens flash point with gas and electrical ignitor NPM 440
ASTM D92 Cleveland Flash point with or without autosampler NPM 440
ASTM D56 Tag flash point NTA 440
IP 170 ISO 1306 Abel Flash point NAB 440
NFT 60103 Luchaire Closed cup Flash point NLU 440
ASTM D3828 Small Closed cup flash point

Other automatic ASTM petroleum analyzers

D5 , D217, D937,D1321,D1403 automatic penetrometer D36 Softening point , D189 Conradson Carbon Residue , D525 , D873,D942,D5304 Oxidation Potential gums and induction period tester , 2 positions and 4 positions units , D611 Aniline point tester , D892, D6082 Foaming tests, D3230 Salt in crude test , D4530 MCRAT Carbon Residue tester , D7279 Houillon Viscosity tester





NPV 310





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Other Semi automatic or Manual ASTM petroleum

For more than 30 years our company has serviced the petroleum and petrochemical industries with automatic , semi automatic or manual ASTM analyzers.

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D6 Loss on heating oil and asphaltic compounds

D91 Oil test centrifuge

D113 Ductibility test of bituminous materials

D189 Conradson Carbon Residue

D323 Reid Vapor Pressure

D381 Existent Gum in Fuels

D445 Viscosity Test Baths

D524 Ramsbottom Carbon Residue

D665 Rust preventing test of oil

D721 Oil content in petroleum waxes

D892, D6082 Foaming tests

D942 Oxidation stability of lubricants

D943 Oxidation test of mineral oils

D1401 Demulsibility test bath

D1500 Color of Petroleum Products

D1552 Sulphur in Petroleum Products

D1742 Oil Separation during Storage

D1754 Thin Film Oven Test

D1831 Roll Stability of Lubricating Grease

D2068 FBT Test of Fuels

D2440 Oxidation Stability of Insulating Oils

D2619 Hydrolytic Stability Test (Bottle Method)

D2624 Electrical Conductivity in jet and diesel

D2784 Sulphur in LPG wickbold method

D2872 RTFOT test of asphalt

D3230 Salt in Crude Test

D3427 Air Release Properties Test

D4530 MCRAT Carbon Residue Tester

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Also available to users of viscosity baths with difficult to clean capillary viscometer tubes ,our VW6-V2 " VISCO WASH " model .Automatic visco tube washer will save you time and money and decrease your exposure to cleaning solvents . Resins ,Asphalt, Polymerized samples, Glues Etc..









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GT instruments is the subsidiary of GECIL Process, manufacturer of petroleum and petrochemical physical test apparatus since 1967. Our continuous servicing and collaboration with many major petroleum research institutes all around the globe guarantee the latest developments in these techniques. Our team of chemists, electronic and software engi-

neers, continuously improve the productivity

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