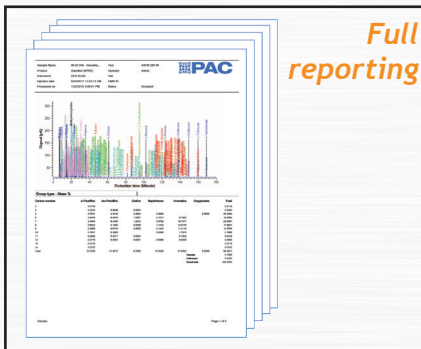




solid partners
proven solutions



NEW!
Agilent 8890
GC Platform



Full Range of DHA Solutions

Detailed Hydrocarbon Analysis of Light Petroleum Streams and Light End in Crude Oils

- Workflow oriented, User-friendly DHA XLNC Software
- Unique DHA Combi allows the analysis of both Light Petroleum Streams and Light End in Crude
- Easy Instrument Validation through Dedicated Quality Control Samples
- In Compliance with ASTM D5134, D6729, D6730, D6733, D7900, Fast DHA, DHA Front End, IP601, EN 15199-4

COMPLETE RANGE OF DETAILED HYDROCARBON ANALYSIS SOLUTIONS

PAC's AC Analytical Controls offers a full range of Detailed Hydrocarbon Analyzers (DHA) to determine individual hydrocarbon composition in light hydrocarbon streams, gasoline blending feedstocks and spark ignition engine fuels. Understanding the composition of these hydrocarbon streams is essential for the refining industry. DHA helps optimizing production, meet regulatory requirements and enhance profitability.

The AC DHA analyzers comply with leading standard test methods. For analysis of light petroleum streams, analyzer solutions are available following ASTM D5134, D6729, D6730, D6733. Additionally, PAC offers a Fast DHA application to determine the individual components in gasoline blending feedstocks within 28 minutes.

Unique DHA Combi enhances sample scope

The product range also includes a DHA Front End to characterize light hydrocarbons in stabilized crude oil according ASTM D7900, IP 601 and EN 15199-4. This application can also be provided as DHA Combi, where the Front End application is combined with a standard method in one solution. PAC pioneered and developed the innovative method and software to merge the DHA Front End analysis data with High Temperature SimDis results according to IP 545, EN 15199-3 and ASTM D7169, greatly improving accuracy.

AC8612™ provides superior analysis performance

The patented AC8612 application, based on thermodynamic modelling of GC analysis results, provides a complete D86 result in just 8 minutes. AC8612 can analyze naphtha and gasoline samples in D86 groups 0, 1 and 2. It reports distillation curves which correlate perfectly to the physical distillation results, with improved accuracy, speed, safety and automation. In this new version of DHA software, this patented calculation is available in all modes.

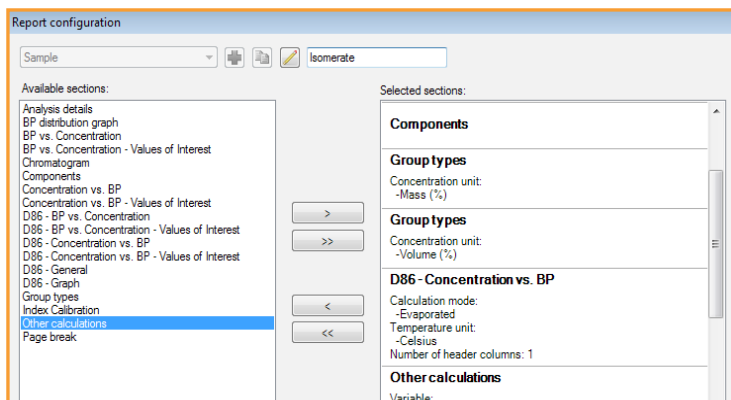
USER-FRIENDLY DHA XLNC SOFTWARE FOR RELIABLE AND REPEATABLE PERFORMANCE

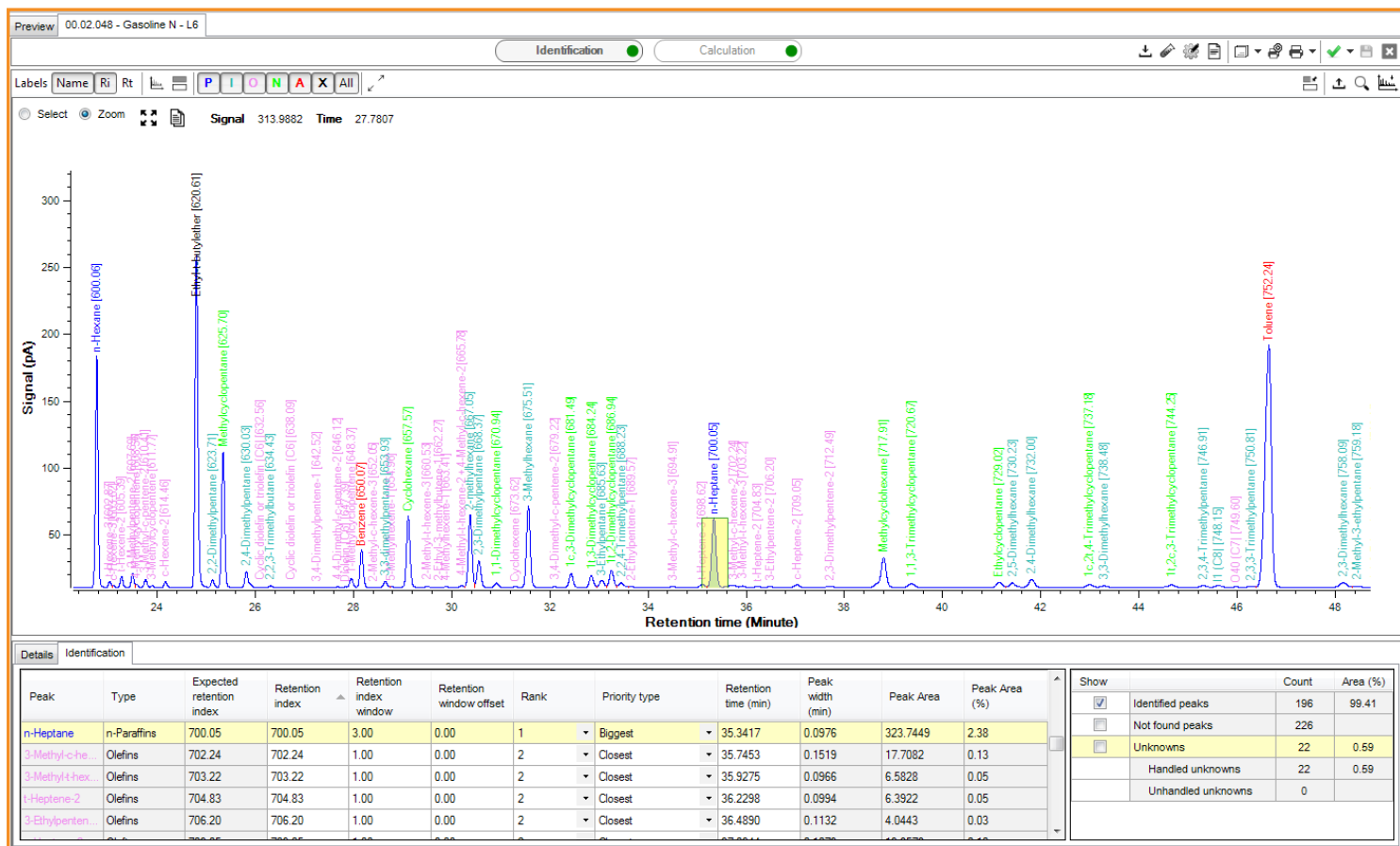
Easy Operation for Accurate Analysis

- Fully configurable results processing
- Intelligent peak identification
- Co-elution handling with option to set ratio's
- Work-flow oriented, intuitive interface
- One-click access to results
- Drag-and-drop identification and smart filters
- Reference graph for each product
- Hydrocarbon group-type filtering
- Flexible reporting and LIMS transfer of results

Key Advantages

- Full compliancy to leading standard test methods, including performance calculations
- AC FAST DHA runs detailed hydrocarbon analysis within 28 min
- DHA Front End for more accurate crude oil analysis, with possibility to merge results in SimDis XLNC™
- Patented AC8612 calculation for D86 group 0,1 & 2 available in all modes
- Optimized and re-engineered DHA XLNC Software
 - Work-flow oriented, intuitive interface
 - Multi-language support
 - Independent from Chromatography data systems



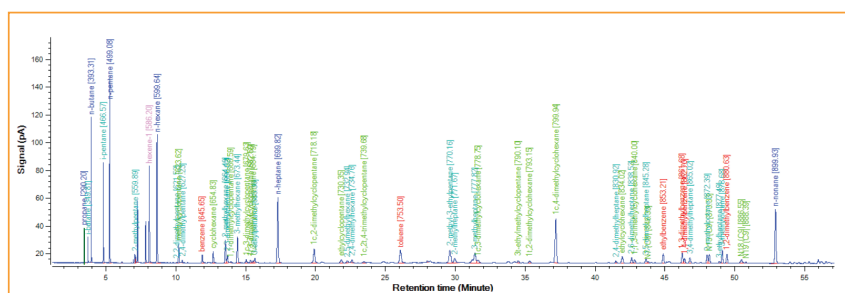


DHA COMBI

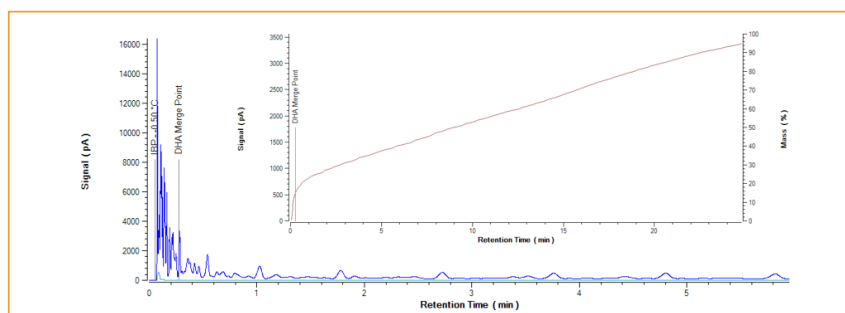
UNIQUE DHA COMBI ALLOWS THE ANALYSIS OF BOTH LIGHT PETROLEUM STREAMS AND LIGHT END IN CRUDE

The AC DHA Combi allows analysts to combine two DHA applications into one gas chromatograph (GC). Using the unique AC DHA Combi inlet, the instrument includes both the DHA Front End (FE) application for light end analysis in crude oil and one of the following standard ASTM test methods: D6729, D6730, D6733 or the AC Fast DHA application.

DHA FE complies with IP 601, EN15199-4 and ASTM D7900 to characterize the C1 - nC9 fraction in crude oil. PAC pioneered and developed the innovative software to merge the DHA FE analysis data with High Temperature SIMDIS results for improving the crude oil analysis accuracy according to IP 545, EN 15199-3 and ASTM D7169.



AC DHA Analysis



AC SIMDIS Analysis

SPECIFICATIONS

Ordering Information							
Single Channel Systems	GCG6510.002A/C	DHA FAST SYSTEM ON 8890 GC					
	GCG6510.003A/C	DHA D 6730 SYSTEM ON 8890 GC					
	GCG6510.006A/C	DHA D 6729 SYSTEM ON 8890 GC					
	GCG6510.008A/C	DHA D 6730 COMBI SYSTEM ON 8890 GC					
	GCG6510.010A/C	DHA FAST COMBI SYSTEM ON 8890 GC					
	GCG6510.013A/C	DHA D 6729 COMBI SYSTEM ON 8890 GC					
	GCG6510.014A/C	DHA D 6733 SYSTEM ON 8890 GC					
	GCG6510.015A/C	DHA D 6733 COMBI SYSTEM ON 8890 GC					
	GCG6512.002A/C	DHA FE SYSTEM ON 8890 GC					
	GCG6510.016A/C	DHA D 5134 SYSTEM ON 8890 GC					
	GCG6510.017A/C	DHA D 5134 COMBI SYSTEM ON 8890 GC					
	GCG2120A A/C	AC 8612 SYSTEM ON 8890 GC					
Additional Channels*	GCG6530.002	ADDITIONAL FAST DHA CHANNEL ON 8890 GC					
	GCG6530.003	ADDITIONAL DHA D6730 CHANNEL ON 8890 GC					
	GCG6530.006	ADDITIONAL DHA D6729 CHANNEL ON 8890 GC					
	GCG6530.014	ADDITIONAL DHA D6733 CHANNEL ON 8890 GC					
	GCG6530.016	ADDITIONAL DHA D5134 CHANNEL ON 8890 GC					
* Allows for additional channel only when first channel is also AC DHA. Additional channel not possible in DHA Combi							
Utilities Requirements							
Carrier gas	Helium (99.999%), hydrogen (99.999%) for Fast DHA						
Detector gas	Hydrogen (99.999%) and air						
System power	110 - 230 Volts						
Cryogenic oven cooling	Liquid nitrogen or liquid CO ₂						
Standard Methods							
Standard Test Methods	Scope	Max. FBP (°C)	Conc. Range (%mass)	Max. Olefin	Column Length	Run time	Separation Comments
ASTM D6729	Spark ignition engine fuels oxygenate blends	225°	0.01-30	25	100	140	No separation of vital oxygenates and toluene
ASTM D6730	Spark ignition engine fuels oxygenate blends	225°	0.01-30	25	100 + 3	170	Separation is tuned for major components. No 1-methylnaphthalene/tridecane separation
ASTM D6733	Spark ignition engine fuels oxygenate blends	225°	0.01.15	20	50	150	No separation of benzene, toluene and vital oxygenates for ambient method. Uses ASTM D3606 or D5580 for Benzene/Toluene, ASTM D5599 or D4815 for oxygenates
ASTM D5134	Virgin naphthas, reformates, and alkylates.	250°	0.01-30	< 2%	50	120	Scope up to C9, Olefin free samples
Fast DHA	Spark ignition engine fuels oxygenate blends	225°	0.01-30	20	40	28	No separation of vital oxygenates and toluene. The resolution between peaks depends on the individual concentration of the components
DHA FE	Stabilized crude oils, straight naphta, reformates, alkylates.	n.a.	0.01-30	20	50	118	Separates up to C9, after C9 SIMDIS is used for data merge
DHA Combi	Mixed application	Method Dependent				Combines DHA FE with D5134, D6729, D6730, D6733	

Continuing research and development may result in specifications or appearance changes at any time

ABOUT PAC

PAC develops advanced instrumentation for lab and process applications based on strong **Analytical Expertise** that ensures **Optimal Performance** for our clients. Our analyzers help our clients meet complex industry challenges by providing a low cost of ownership, safe operation, high performance with fast, accurate, and actionable results, high uptime through reliable instrumentation, and compliance with standard methods.

Our solutions are from industry-leading brands: AC Analytical Controls, Advanced Sensors, Alcor, Antek, Herzog, ISL, Cambridge Viscosity, PSPI, and PetroSpec. We are committed to delivering superior and local customer service worldwide with 16 office locations and a network of over 50 distributors. PAC operates as a unit of Roper Technologies, Inc., a diversified technology company and a constituent of S&P 500, Fortune 1000, and Russell 1000 indices.

HEADQUARTERS

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Contact us for more details.

Visit our website to find the PAC representative closest to you.