

Introducing the world's first **Winter Fuel Optimizer**

Precise

Affordable

Easy
to use



Blending
guide

Test result
in 3 minutes

Portable

Touch-sensitive
input panel

Cloud Point Analyzer

Model CPA-T30



COMPANY PROFILE

Phase Technology is the world leader in the design and manufacture of cold flow property instruments for petroleum products.

With a design based on 26 patents plus 2 patents in pending, Phase Technology's testing methods are compliant with all major petroleum industry standards and military specifications of the U.S., U.K. and NATO.

In the petroleum refining sector, Phase Technology analyzers are installed in almost every refinery in North America. Our cloud point analyzers are instruments of choice for certifying fuels in refineries worldwide.

Phase Technology attributes this success to proactive industry participation, ongoing product innovations and strong after-sale support.



**PHASE
TECHNOLOGY**

*Innovations in phase
analysis solutions*

WHAT IS CLOUD POINT?

Cloud Point is the temperature at which waxy solids first appear during cooling of diesel fuel. Keeping diesel fuel at cloud point over an extended period of time or cooling the fuel further will result in more extensive formation of wax solids.

Since fuel filters are vulnerable to plugging below this critical temperature, cloud point is the "fail-safe" operability standard adopted by the petroleum industry. It is also the primary cold flow property recommended by the Engine Manufacturers Association, the American Trucking Association and Filter Manufacturers Council.

FUEL GELLING CHALLENGES

During the cold winter months, commercial trucks, automobiles, and buses may encounter diesel fuel gelling problems. Such problems often present themselves when unseasonably low ambient temperature occurs. It may also happen to long-haul trucks that travel from warm to cold regions where on-board fuel purchased in the warm region may not be adequate for cold temperatures.

While diesel supplies in most regions of the world are seasonally adjusted to meet regional weather requirements, these adjustments are based on historical records of normal climatic pattern. They cannot fully account for or anticipate abnormal weather situations. In the event of a "cold snap", it may take several days for the properly adjusted fuel to reach the end users, especially if long-distance pipelining is involved.

On the other hand, unscheduled vehicle downtime is unacceptable as it affects the reliability of freight fleets and the availability of critical services such as buses and emergency vehicles. In order to prevent any potential downtime, certain costly and time consuming preventive measures are routinely employed. They include blending diesel with kerosene (#1 diesel), use of additives, prolonged idling and frequent refueling. These practices are often executed blindly without the knowledge of the fuel cloud point, resulting in either under or over estimating the need to respond. While under-estimation leads to inoperable vehicles, over-reaction leads to excessive fuel costs, air pollution and productivity loss.

With precise cloud point information, preventive actions are often avoided completely. When such actions are needed, a cloud point measurement provides a reliable confirmation of the remedy. It eliminates all guesswork from winter fuelling.

Phase Technology is proud to introduce the world's most precise portable cloud point analyzer for automotive applications. It is specifically designed to address the needs of truck fleets and fuel suppliers.

PRODUCT HIGHLIGHT

Features of Phase Technology's new Portable Cloud Point Analyzer, CPA - T30

- Fast
- Precise
- Easy to use
- Reliable
- Rugged
- Compact
- Light weight



Blending ratios are available based of measured cloud point values.



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PRODUCT APPLICATIONS

The portable analyzer will provide fleet managers, fuel wholesalers, retailers, and service technicians with accurate information on the cold flow operability of their diesel fuels, biodiesels and heating oils.

Applications:

- Blending of #1 and #2 diesel fuels for winter operation
- Optimize the use of cold flow additives
- Blending of biodiesels with petroleum stocks

Features:

- An accurate indication on whether any preventive measure is needed to avoid cold flow problems
- A guide to blend #1 and #2 diesel fuels to meet weather requirements
- A guide to optimize the use of cold flow additives; knowing when and when not to use additives

Benefits:

- Fuel cost reduction. Proper blending ratio reduces the use of #1 diesel, which is more costly in terms of price, energy content and maintenance (lower lubricity)
- Additive optimizer. To fleet operators, cold flow additive is a cost item. Adding sufficient amount, if required, to meet current weather conditions without overdosing improves the company's bottom line
- Downtime prevention. Accurate cloud point information prevents fuel gelling problems due to cold temperatures. In a "just in time" trucking industry, the benefit of eliminating downtime can make the difference between success and failure of delivery contracts
- Fuel quality monitor. Cloud point results can be used to track fuel quality from various suppliers
- Peace of mind. Accurate fuel cloud point assures the drivers that their diesel fuels meet the requirements of anticipated weather conditions
- Idling reduction. Accurate cloud point data will allow drivers to make informed decisions on whether idling or heating is needed to prevent fuel gelling, ultimately reducing the need for idling and fuel heating
- Exceptional payback period. The cloud point analyzer can pay for itself in just one winter

GLOBAL CLIENTS

Phase Technology continues to advance their proprietary technologies for greater return on investment for their customers. To name a few, our global customers include:

BP
ChevronTexaco
Citgo
ConocoPhillips
Flying J
ExxonMobil
Petro-Canada
Shell
Sunoco
Valero

Castrol
Pennzoil-Quaker
State
Prestone
Valvoline

BNSF Railways
Boeing
Mercedes-Benz
Continental Airlines
Northwest Airlines
United Airlines

U.S. Air Force
U.S. Army
U.S. Navy
U.S. National Guard
FAA

SIMPLE TO USE

- Put a cup under the Drain Port in the front recessed area to recover sample waste.
- Fill a new syringe with 10 mL of fuel sample.
- Firmly fit the syringe tip into the Injection Port and discharge the entire sample into the analyzer.
- Touch the "START TEST" button on the display screen.
 - The analyzer will do the test automatically.
 - Cloud point result will appear in a few minutes.
- Dispose the syringe safely. Sample in the drain cup is unspoiled by the test and can be used as fuel.



PRODUCT SPECIFICATIONS

CLOUD POINT	OPERATIONAL	ELECTRICAL
Precision: Within 1°C (1.8°F) of ASTM D-5773 and D-2500	Sample size: 10 mL Test duration: 3 min.	100 - 240 VAC 50 - 60 Hz or 12 VDC input
Minimum sample temperature: -40°C/F	Operator time: 0.5 min.	

OUTPUTS	PHYSICAL	OPTIONS
Analyzer Display: Test results Run history Blend formulation	Weight: 1.3 kg (3 lbs.) Dimensions: W x H x D 25 x 14 x 13 cm 10.0 x 5.5 x 5.0"	Rechargeable battery Cigarette lighter adaptor

CONTACT INFORMATION

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