

# METERS PETROLEUM EQUIPMENT



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Meters of Petroleum Equipment measure the consistency of lubricating greases (Penetrometer) or determining their heat value which do not contain water, coal, paraffin and other combustible substance (Oxygen Bomb Calorimeter) or can trace low levels of free, emulsified and dissolved (Coulometric Karl Fischer Titrator)

Used in Petroleum Industry, Petrochemical Industry, Oil Industry.

## PTL31-01 PENETROMETER

The instrument is used to determine the penetration of pavement petroleum asphalt, modified asphalt, liquid petroleum asphalt and emulsified asphalt. It is also suitable to test solid particle, powder, colloid and raw-food materials such as cheese, glycine, butter, cream and leavening. It is suitable to determine the penetration of asphalt, paraffin and grease. Equipped with cold light source and magnifying glass, easy to use and operate. Equipped with penetration display, the data is stable and accurate, easy to observe. It has the function of coarse and fine adjustment of lifting frame, which is convenient for the needle point to align with the sample plane.



Product Image Coming Soon

## SPECIFICATIONS

Model	PTL31-01
Measurement range	0 penetration~600 penetrations
Resolution	0.1 penetration(0.01mm)
Timing range	5s, 8s, 10s, 12s, 30s, 60 s, and the error is less than $\pm 0.1$ s
Temperature control accuracy	$25\text{ }^{\circ}\text{C} \pm 0.1\text{ }^{\circ}\text{C}$
Constant temperature bath	hard glass chamber
Stirring	Magnetic stirrer, rotary stirring
Working environment	
Temperature	$(15\sim 35)^{\circ}\text{C}$
Relative humidity	$\leq 85\%$
Power consumption	200W
Power supply	AC(220 $\pm$ 10%)V, 50Hz
Dimension	260 $\times$ 400 $\times$ 640 mm
Net weight	16 kg
Optional accessories	
Grease masher	It is used in the tests which determine the cone penetration of lubricating grease (or petrolatum)
Standard cone	102.5g $\pm$ 0.05g
Other cones	1/2 scale cone, 1/4 scale cone
Optional	Grease cone penetration test devices

# PTL31-06 PENETROMETER (FOR WAX & WITH CONSTANT TEMPERATURE BATH)

The instrument is used to determine the penetration of pavement petroleum asphalt, modified asphalt, liquid petroleum asphalt and emulsified asphalt. It is also suitable to test solid particle, powder, colloid and raw-food materials such as cheese, glycine, butter, cream and leavening. It is suitable to determine the penetration of asphalt, paraffin and grease. Equipped with cold light source and magnifying glass, easy to use and operate. It has the function of coarse and fine adjustment of lifting frame, which is convenient for the needle point to align with the sample plane.



## SPECIFICATIONS

Model	PTL31-06
Measurement range	0 penetration~600 penetrations
Resolution	0.1 penetration(0.01mm)
Timing range	5s, 8s, 10s, 12s, 30s, 60 s, and the error is less than $\pm 0.1$ s
Temperature control accuracy	$25\text{ }^{\circ}\text{C} \pm 0.1\text{ }^{\circ}\text{C}$
Constant temperature bath	hard glass chamber
Stirring	Magnetic stirrer, rotary stirring
Working environment	
Temperature	$(15\sim 35)^{\circ}\text{C}$
Relative humidity	$\leq 85\%$
Power consumption	200W
Power supply	AC(220 $\pm 10\%$ )V, 50Hz
Dimension	261 $\times$ 400 $\times$ 640 mm
Net weight	16 kg
Optional accessories	
Grease masher	It is used in the tests which determine the cone penetration of lubricating grease (or petrolatum)
Standard cone	102.5g $\pm 0.05$ g
Other cones	1/2 scale cone, 1/4 scale cone
Optional	Paraffin needle penetration test devices

## PTL32-14 AUTOMATIC OXYGEN BOMB CALORIMETER

The instrument is suitable to determine calorific value of combustible materials such as petroleum products without water (gasoline, jet fuels, diesel oil and fuel oils, etc.), coal, coke and paraffin, etc. This instrument adopts sealed oxygen bomb. The whole structure adopts stainless steel material. The inner water cylinder is composed of stainless steel sheet. The cross section is pyriform and the capacity is 3kg. The external water jacket is double layer container. It filled with water when doing determination. It make the water temperature in the cylinder uniform by water jacket stirrer and form the constant temperature environment meeting the requirements of test.



### SPECIFICATIONS

Model	PTL32-14
Heat capacity	14400 J/K~14500 J/K
Pressure endurance of oxygen bomb	20 MPa
Temperature measurement range	10 °C~35 °C
Repeatability	≤0.2% (Grade C)
Resolution	0.001 K
Measurement accuracy	≤ 60J/g
Data saved	31 pieces
Relative humidity	≤ 85%
Power supply	AC(220±10%)V, 50Hz
Total power consumption	≤150W
Dimension	600×460×430 mm
Optional accessory	Pellet press machine

## PTL32-15 OXYGEN BOMB CALORIMETER

The instrument adopts technology of single chip machine, LCD screen, high accuracy temperature sensor and high performance A/D conversion device. It is a highly intelligent instrument. The test procedure is fully automatic. After placing the sample and inputting the right parameters, the instrument will finish all the procedures without manual interference. It will print the test data directly after test is over. The inner water container is made of stainless steel and water volume is 3000g. The external water jacket is a double container. It will be filled fully with water when testing, and the stirrer in the water jacket will work to ensure the uniform temperature and create the constant temperature condition for test requirement.



## SPECIFICATIONS

Model	PTL32-15
Heat capacity	14000 J/K~15000 J/K
Pressure endurance of oxygen bomb	20 MPa
Temperature measurement range	15 °C~28 °C
Repeatability error	≤0.2% (Grade C)
Resolution	1.001 K
Measurement accuracy	≤ 60J/g
Relative humidity	≤ 85%
Power supply	AC(220±10%)V, 50Hz
Total power consumption	≤150W
Dimension	600×480×460 mm
Optional accessory	Pellet press machine

## PTL32-20 AUTOMATIC OXYGEN BOMB CALORIMETER

Adopting semiconductor refrigeration to decide the refrigerating capacity according to the calorific value, the instrument can automatically adjust water temperature and keep water in a relative constant temperature range, realize the continuously and long time test requirement, and make sure the test result is correct. Using USB port, convenient to connect. One computer can control many sets of Oxygen Bomb Calorimeter. Adopting professional discharge water ports, more convenient and fast when the instrument drains away water or change the water. The electronic balance with communication function to share the data by the internet.

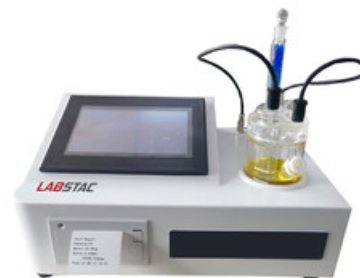


## SPECIFICATIONS

Model	PTL32-20
Pressure endurance of oxygen bomb	20 MPa
Measuring temperature range	5°C~40°C
Temperature resolution	0.0001°C
RSD(Relative standard deviation)	≤0.1%
Test time period: main period	about 8mins
Measuring range	5MJ/kg~40MJ/kg
Measuring error	±60J/g (Benzoic acid)
Accuracy	Better than GB/T213-2008 "The determination method of coal calorific value"
Ambient temperature	15°C~35°C
Relative humidity	≤ 85%
Dimension	650×450×450 mm
Net weight	55 kg

# PTL33-01 COULOMETRIC KARL FISCHER TITRATOR

The instrument is used to determine water content in the liquid petroleum products. The instrument adopts microcomputer control technology, with the characteristics of fast analysis speed, high precision, LCD display, automatic printing, menu selection and other functions. It is a fully functional, easy to operate, automatic measuring and analyzing instrument. It can be used for micro analysis of low content samples with high sensitivity. The 0.5ul injector is equipped, and the calibration of the instrument is fast and accurate. The unique alternating balance isolation detection technology makes the balance detection more rapid, accurate and stable.



## SPECIFICATIONS

Model	PTL33-01
Titration method	Microprocessor controlled titration
Sensitive valve	0.1ugH <sub>2</sub> O
Accuracy	10ug - 1mgH <sub>2</sub> O is $\pm 3\mu\text{g}$ , 1mgH <sub>2</sub> O above, 0.3% (excluding injection error).
Electrolytic current output	0-400MA automatic control
Display system	LCD color 7 inch large screen display
Power consumption	Less than 100W
The use of environment	
temperature	5°C - 40°C
Humidity	less than 85%

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