

# DIN 51794 IGNITION TEMPERATURE OVEN

## AUTOIGNITION TEMPERATURE OF GASES AND VAPOURS

Model: FLC-2

ver. 2.4, 2022

### STANDARD REFERENCES:

- DIN 51794 - "Determining the Ignition Temperature of Petroleum Products"
- IEC 60079-20-1 - "Explosive atmospheres. Material characteristics for gas and vapour classification. Test methods and data".
- EN 14522 - "Determination of the auto ignition temperature of gases and vapours".
- Method A.15 - "Auto-Ignition Temperature (Liquids and Gases)",  
Official Journal of the European Union no. L142, May 31, 2008  
European Community (EC), EC no. 440/2008, Part A: Methods for  
the Determination of Physico-Chemical Properties, Guideline A.15

### OVEN SPECIFICATION:

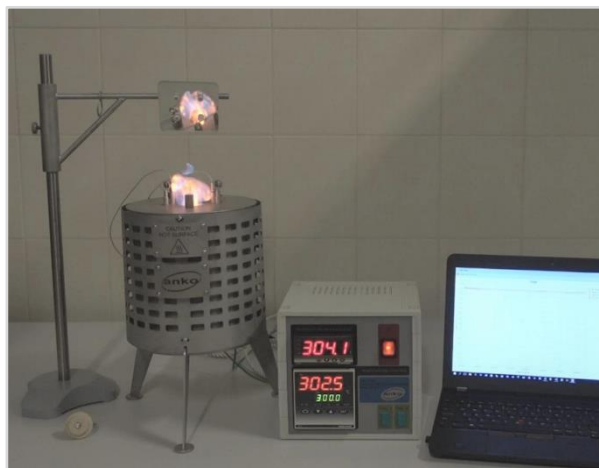
Heating chamber	range: from 75°C to 650°C high quality long life heater
Metal parts	stainless steel
Test thermocouple	type K, $\varnothing 0,5\text{mm}$
Control THC	type K, Inconel® shield, isolated ANKO design

### CONTROL BLOCK:

Controller	PID type furnace temperature adjustment
Thermometer	test temperature readout standard accuracy: $\pm 0,3\%$ FS optional accuracy: $\pm 0,1\%$ FS
USB output for PC mode	test temperature control & readout test management test protocol printing & storage
Power supply:	1000 W, 110 / 230 VAC

### ADDITIONAL OPTIONS (SEPARATELY QUOTED):

3 <sup>rd</sup> temperature measurement circuit
Additional, type K thermocouple & thermometer
Top cover plate assembly with THC
Hear resistant top cup
Hand-operated bulb pump
AIT DIN ReqTemp® program
Custom design accessories

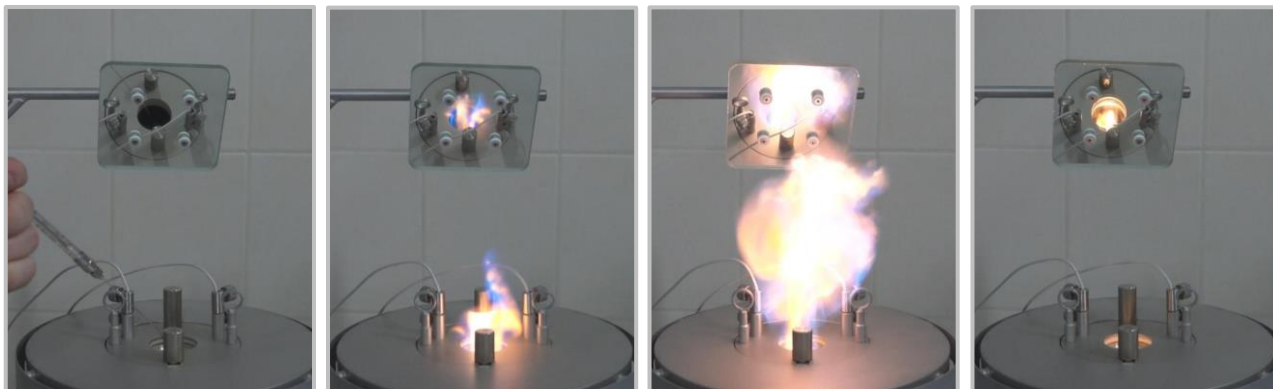


## TEST PRINCIPLE:

Ignition vessel (200 ml glass conical flask) is heated inside the electric furnace. Small portion of flammable liquid (or gas) is introduced into the flask opening. The lowest ignition temperature is obtained in a number of tests series.

## SAMPLE INTRODUCTION AND IGNITION OSERVATION:

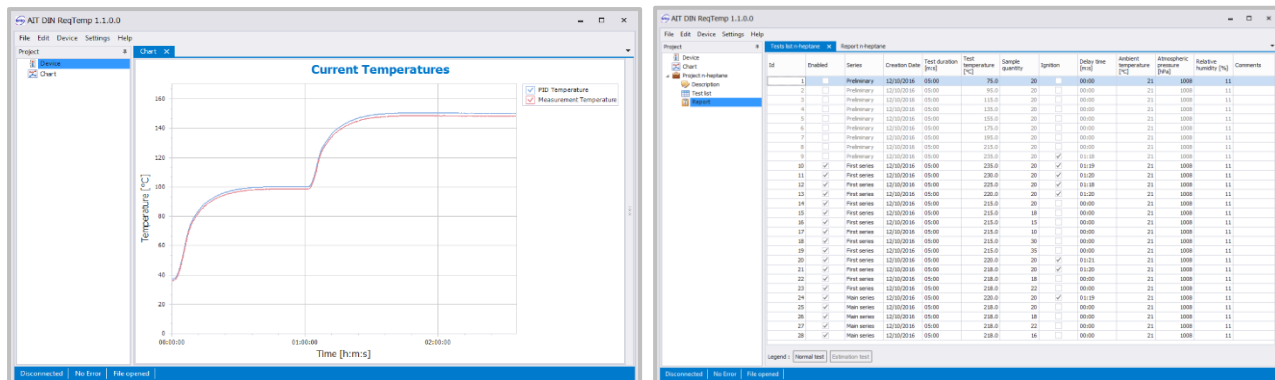
Furnace temperature is adjusted to required value. Samples are transferred with pipette or syringe into the ignition vessel - glass flask. Mirror mounted above the flask opening enables observation of ignitions.



## SOFTWARE:

Test can be performed in manual mode (without PC), however before each test glass flask temperature must be stable. It is much easier to evaluate the test temperature stability with the help of a computer program.

Software features are: recording temperature, own encrypted file format, dynamic chart with tools for analysis, tests management, report generation according to DIN Standard.



## ACCESSORIES & MANUALS:

- |                        |   |                        |    |                     |
|------------------------|---|------------------------|----|---------------------|
| • Test THC:            | 1 | • 1ml/0,5ml syringe:   | 5  | • user manual       |
| • Glass flask:         | 5 | • ceramic insulator:   | 10 | • maintenance guide |
| • 1ml pipette:         | 1 | • mirror glass:        | 5  | • software manuals  |
| • 0,5ml glass syringe: | 1 | • glass flask support: | 5  |                     |

## OPTIONAL CALIBRATION, TRAINING & ASSISTANCE:

- Installation assistance
- Training on-site
- Accredited laboratory calibration certificate

The information given in this document represents the state of engineering at the time of publishing. We reserve the right to make modifications to above specifications.



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