



Lintel

Automated laboratory equipment for quality control

Automatic Fraass Breaking Point Tester

***Lintel*[®] ATH-20**

PASSPORT

Automatic Fraass Breaking Point Tester

Lintel® ATH-20		AIF 2.772.008		__ . __ . 20__
(type)	(modification)	(designation)	(serial number)	(production date)

1 MAIN TECHNICAL DATA AND CHARACTERISTICS

- 1.1 Automatic laboratory tester Lintel® ATH-20 (further - the tester), designed to determine the temperature of the fragility of bitumen in accordance with the methodology by GOST 11507, GOST 33143, GOST EN 12593, EN 12593, IP 80.
- 1.2 Field of application - laboratories of industrial enterprises and organizations, research institutes.
- 1.3 The tester is made in the climatic version of the UHL4 group according by GOST 15150-69.
- 1.4 Performance data of the tester given in table 1.

Table 1 – Performance data

Parameter	Unit of measurement	Value
Refrigerant coolant ¹ consumption at the assumed breaking point temperature up to -5°C	liters /min	1 to 2
Refrigerant coolant ¹ consumption at the assumed breaking point temperature up to -15°C	liters /min	2 to 3
Refrigerant coolant ¹ consumption at the assumed breaking point temperature -15°C and below	liters /min	4 to 5
Voltage	V	187 to 242
Frequency	Hz	49 to 51
Power supply, max	W	450
Ambient temperature	°C	10 to 35
Relative humidity at +25°C, max	%	80
Barometric pressure	mm Hg	680 to 800

- 1.5 Weight and dimensions of the tester given in table 2.

Table 2 – Weight and dimension

Parameter	Unit of measurement	Value
Weight, max	kg	12,5
Dimensions of the tester in working order (width x height x depth)	mm	400x395x275
Dimensions of the tester in the sample loading state (width x height x depth)	mm	400x555x275
Weight of the tester in the package, max	kg	22
Dimensions of the tester in the package (width x height x depth)	mm	470x498x398

¹ Running tap water can be used as a refrigerant coolant.

1.6 The accuracy parameters of the tester given in table 3.

Table 3 –Accuracy parameters

Indication	Unit of measurement	Value
The inner diameter of the working chamber of the thermostat	mm	36 to 38
The maximum distance between the grooves clips	mm	39,9 to 40,1
The minimum distance between the grooves clips	mm	36,4 to 36,6
Dimensions of the working plate made of steel tape (65G-SH-S-N-0.15 x 20 Russian standard):		
- length	mm	41,0±0,05
- width	mm	20,0±0,2
- thickness	mm	0,15±0,02
The tester evenly bends and straightens the working plate:		
- time of the bending process	sec	10 to 12
- time of the bending and straightening process	sec	20 to 24
Range of measurement of the breaking point temperature upper limit (at a refrigerant temperature of at least 28°C)	°C	+20
Range of measurement of the breaking point temperature lower limit (when the refrigerant temperature is not higher than 5°C and the ambient temperature is 20 °C)	°C	-45
Fallibility in determining the breaking point temperature, not more than	°C	1,0
The speed of lowering the temperature, with deviation, no more than	°C/min °C	1,0 0,1

1.7 Software Identification features given in table 4.

Table 4 – Software identification features

Sign	Value
Version	4.00
Checksum	6CF6B5C4

2 SCOPE OF SUPPLY

Designation	Name	Q-ty	Note
AIF 2.772.008	Automatic Fraass Breaking Point Tester Lintel® ATH-20	1	
AIF 2.772.008 RE	Operating manual	1	
AIF 2.772.008 PS	Passport	1	
AIF 2.772.008 MA	Certification program and procedure	1	
Supplies			
AIF 6.422.031	Plate 36,5 mm	1	
AIF 6.422.032	Plate 40 mm	1	
	The clamp screw 8...12	2	
	Silicone tube 10x2 Technical conditions (TU) 9936-152- 00149535-97	2	1,5m
Parts			
AIF 8.600.610	Working plate	10	

3 ACCEPTANCE CERTIFICATE

Automatic Fraass Breaking Point Tester

<u>Lintel® ATH-20</u>		<u>AIF 2.772.008</u>		<u>__ . __ . 20__</u>
(type)	(modification)	(designation)	(serial number)	(production date)

Accord to technical conditions (TU) 4211-015-0015785-2012 and is certified as suitable for operation.

Production date «__» _____ 20 __г.

stamp

QCD Head _____
(Name) (signature)

The tester is packed accordance with requirements of design documentation.

Packing date «__» _____ 20 __г.

Packed by _____
(Name) (signature)

Packed tester accepted by _____
(Name) (signature)

4 MANUFACTURER'S WARRANTY

- 4.1 The Manufacturer guarantees that the tester meets the technical requirements of TU 4211-015-0015785-2012 if the operating, transportation, and storage conditions specified in the operating manual of AIF 2.772.008 RE are met.
- 4.2 The Warranty period is 12 months from the date of delivery, but not more than 2,500 hours of operation of the tester.
- 4.3 The service life of the tester is 6 years, but not more than 15,000 hours of operation of the tester.
- 4.4 The manufacturer shall replace or repair the tester that does not meet the requirements of the operating manual during the warranty period at the place of manufacture free of charge.
- 4.5 The tester is accepted for warranty repair in the manufacturer's packaging with a full set of supplies.
Other packaging is allowed to protect the tester from damage and damage during loading, unloading and transportation of the tester.
- 4.6 Tester Information (model, serial numbers, date of sale, stamp of the seller) specified in the passport must correspond to the product.
- 4.7 Only BSDO «Neftehimavtomatika» JSC or a person holding a certificate for carrying out these works issued by the above organization has the right to carry out free warranty repairs.
- 4.8 Replaced defective parts of the product are the property of the manufacturer and are not subject to return.
- 4.9 If a material or manufacturing defect is found in the tester during the warranty period, the manufacturer will, at its sole discretion, repair or replace the tester with a similar one.
- 4.10 After the warranty period, the product is repaired on a General basis and in accordance with the rates set by the manufacturer.

4.11 The Warranty does not cover damage, defect, or unsatisfactory performance resulting from:

- failures of the product due to non-compliance with the rules of operation;
- mechanical damages of the tester or supplies caused by negligence in the operation of;
- damage caused by careless transportation;
- damage caused by foreign objects, dust, substances, liquids, insects, rodents entering the product;
- damage caused by a natural disaster (thunderstorm, lightning, flood, etc.);
- damage caused by non-compliance with state standards for power supply network parameters;
- Communications port (COM port) failure caused by connecting / disconnecting the peripheral device when the power is turned on;
- any other reason that is not related to the product's manufacturing defect.

4.12 The Warranty does not apply to the piezo sensor determining the moment of crack appearance on the sample.

4.13 The manufacturer guarantees that the accuracy parameters confirmed during the initial certification after transportation remain unchanged.

5 RECLAMATION PROCEDURE

- 5.1 Reclamations are made subject to keeping records of malfunctions during operation (see Appendix A). Send the fault record list to the manufacturer with a cover letter.
- 5.2 To make a reclamation, please contact the following contact:
Contact information:
Phone: +7 (347) 284-28-32
General and Technical Support Requests: lintellab@gmail.com
Website: www.bashnxa.com

APPENDIX A

A SAMPLE LIST OF FAULTS

Automatic Fraass Breaking Point Tester

<i>LinteL</i> ® ATH-20		AIF 2.772.008		__ . __ . 20__
(type)	(modification)	(designation)	(serial number)	(production date)

FAULT RECORDING AT OPERATION

Fault date Operation mode Load type	Fault type Fault cause	Operation time, hours	Note

(position)	(Name)	(signature)	(date)