FUNKE GERBER

Beer Analysis

Equipment
Accessories
Laboratory Articles



Funke-Dr.N. Gerber Labortechnik GmbH
Ringstraße 42 · 12105 Berlin · Germany
Fon: +49 30 702006-0 · Fax: +49 30 702006-66
kontakt@funke-gerber.de · www.funke-gerber.de

Beer Analyser

FermentoFlash



including printer **3572**

for the automatic analysis of beer.

Measurement of alcohol content and extract as well as the values derived from them: density, apparent extract, original wort and osmotic pressure.

Dimensions: (300x330x240) mm (BxDxH),
Weight: 5 Kg

Cleaner **3563**

500 ml, PE bottle

Funke-Gerber Zero-Diluent **3565**

for daily zero calibration
5l, PE container, sufficient for more than 100 calibrations

Sample Preparation

Funnel **9239**

suitable for folded filters **9512** and **9513**, PE, Dimensions: d=140 mm, l=170 mm

Conical flask **8823**

1000 ml, narrow neck, borosilicate glass with graduation,
DIN 12380. Dimensions: $d_{opening}$=39 mm, l=225 mm

Beaker **8805**

800 ml, low form, borosilicate glass with graduation and spout
Dimensions: d=94 mm, l=135 mm

Folded filter

100 pieces, diameter: 240 mm **9512**
100 pieces, diameter: 320 mm **9513**
Other folded filters available on request.

Ultrasonic bath RK510 **9530**

for degassing the beer sample and further laboratory tasks,
content: 9.7 l, made of stainless steel with timer and drain
Internal dimensions: (240x150x300) mm (BxDxH),
External dimensions: (325x265x305) mm (BxDxH), Weight: 7 Kg



CryoStar I

for isotonicity determination **7150**

according to MEBAK 2.10.2.

Reference method for the measurement of osmotic pressure. Used to assess the isotonicity of drinks.

The scope of delivery includes 50 sample vials, a sample stand, two calibration standards and 500 ml of cooling bath fluid. Optional printer.

Dimensions: (290x380x190)mm (BxDxH), Weight: 12 Kg



pH4440 **4440**

With the pH4440 it is possible to measure the pH value, conductivity and redox potential. During the measurement and calibration, the large colour display shows all of the important information (reading, temperature, temperature sensor, condition of the electrodes etc.).

The intuitive menu navigation with the tried and tested 5-button operation allows simple operation of the device. Without accessories.

Dimensions: (210x150x80)mm (BxDxH), Weight: 1,1 Kg

pH single-rod electrode EGA 143/Pt1000 **4457**

with integrated temperature sensor.

pH gel electrode 142/Pt1000 **4458**

with integrated temperature sensor.

Conductivity electrode 1/cm with Pt 1000 **4465**

Conductivity electrode 0,1/cm with Pt 1000 **4466**

Buffer solutions 250 ml, PE bottle

pH 4,01	**4460**
pH 7,00	**4461**
pH 9,21	**4462**

KCl-solution, 3M **4400**

250 ml, PE bottle



Colony counter ColonyStar 8500

for the manual counting of colonies, with pressure-sensitive light field with 145 mm diameter, with direct and indirect energy-saving LED illumination, with adjustable brightness and colour, with digital display and acoustic counting feedback, height-adjustable housing, frosted glass and clear glass plate with 1 cm^2 and 1/9 cm^2 graduation. Petri dishes with a diameter of up to 145 mm can be used, for smaller Petri dishes a reducing insert is supplied.
Includes felt pen and magnifying glass.

Dimensions: (275x300x80) mm (BxDxH), Weight: 1,7 Kg



Universal water bath WB436-D 3707

Digital temperature display (actual value), target temperature adjustment. Pt 100 measurement sensor (platinum sensor).
Stopwatch (1-100 min with acoustic signal).
Internal and external housing made of stainless steel.
Temperature range: up to 100 °C, contents: 18 l
Internal dimensions: (300x320x194) mm, (BxDxH)
External dimensions: (331x396x265) mm, Weight: 9,8 Kg

Universal shelf 3727

made of stainless steel, for WB436-D

Lid 3747

made of stainless steel, for WB436-D

Digital hand refractometer DR201-95 5614

for testing sugar in wort and beer, switchable to 1.3330-1.5318 nD, 0-95 % Brix: 0.1 %, automatic temperature compensation (10-40) °C, temperature measurement (0-40) °C.

Dimensions: (80x130x40) mm, (BxDxH), Weight: 200 g



Moisture analyser mIB 50-3N 5670

Weighing range max: 50 g, resolution 0.001 g,
moisture (0-100) %, temperature range: (50-160) °C in steps of 1 °C

Dimensions: (210x335x153) mm (BxDxH), Weight: 6 Kg

80 sample dishes made of aluminium suitable for **5670** 5671



Analytical balance AEJ220-4M 5811

pipette calibration programme, weighing range max: 220 g, resolution 0.1 mg.
Compact housing with anti-static plastic draught shield with three sliding doors.
Internal automatic adjustment system time-controlled every 4 hours.
Possibility of gLP/ISO logging. Percentage determination.
Official or in-house calibration certificate for an extra charge.

Dimensions: (213x290x314) mm (BxDxH), Weight: 3,2 Kg

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Precision balance PCB2500-2 — 5820

Weighing range max: 2500 g, resolution 0.01 g
Percentage determination, recipe memory. Possibility of gLP/ISO logging.
Calibration certificate for an additional charge.

Dimensions: (163x245x79) mm (BxDxH), Weight:1,4 Kg



Humidity/temperature measuring device testo610 — 7115

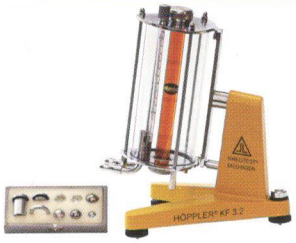
with humidity sensor and NTC temperature sensor, measurement range: (-10 to +50) °C, (0 to 100)% rH accuracy: ±0.5°C, ±2.5% rH

Dimensions: (46x119x25) mm (BxDxH), Weight: 90 g



Haake Viscotester C (R version) — 6530

Rotational viscometer according to ISO 2555, 1652
Measurement range: (100-13x10^6) mPas(cP)
Stand and carrying case included in the scope of delivery.



Viscometer according to Höppler KF3.2 — 6540

Basic unit with 1 control thermometer (-1 to +21) °C viscosity measurement range: (0.6 to 70 000) mPas(cP)
Temperature range: (-60 to +150) °C



Photometer Nanocolor UV/VIS — 8720

Measurement range: (190-1100) nm suitable for MEBAK measurements.

- a-acids
- Anthocyanogens according to Harris and Ricketts
- Bitter units wort/beer
- Total carotinoids Fraction 1-4
- Total polyphenols
- Copper cuprethol
- Nickel
- Thiobarbituric acid count
- vicinal diketones
- Beer colour

Further evaluable tests:

- Cyclamate
- Iron
- Free amino-nitrogen (FAN)
- Total Carotenoids company Wesergold
- Iso-a-acids
- Copper ZDBT
- photometric iodine sample
- Total carbohydrates in beer

Also suitable for water analysis: determination of aluminium, ammonium, carbonate hardness, chlorine, chloride, COD, detergents, iron, hydrazine, copper, manganese, nitrate, nitrite, residual hardness, sulphate, sulphite.

Dimensions: (285x390x155) mm (BxDxH), Weight: 6,5 Kg for photometer

Cuvettes — 8721



Binocular microscope MBL2000 — 8761

with 45° inclined viewing.

Stable metal housing with coaxial fine and coarse adjustment knob.
Built-in XY-stage with integrated lighting 6 V/20 W. Double lens Abbe condenser NA 1.25 with iris diaphragm, swing-in filter holder, height adjustment.

Glass filter: blue, yellow, green.

10-fold planocular lenses: 4x/NA 0.10; 10x/NA 0.25; 40x0.65, 100xNA 1.25 oil

Weight: 7 Kg

Phase contrast device — 8780

for microscope MBL2000, 40x, NA 0,65

Microscope slides — 8400

semi-frosted, cut, 50 pieces, Dimensions: (76x26x1) mm (BxDxH)

Coverglass for microscope — 8401

100 pieces, Dimensions: (18x18x0,15) mm (BxDxH)

Staining cuvette — 8430

Yeast counting chamber according to Thoma — 8763

Coverglass for yeast counting chamber according to Thoma — 8764

10 pieces, Dimensions: (26x20x0,4) mm (BxDxH)

Slides — 8765

Dimensions: (76x26x1,32) mm (BxDxH) with depression



Steriliser SN55 — 6049

53 l, for the reliable and complete destruction of highly-resistant micro-organisms.

With natural convection, for bringing to the correct temperature (+30 °C to +250) °C

Dimensions: (585x514x787) mm (BxDxH), Weight: 55 Kg

Incubator IN55 — 6014

53 l, with natural convection, for bringing to the correct temperature (+30°C bis +80) °C

Dimensions: (585x514x787) mm (BxDxH), Weight: 55 Kg

Universal cabinet UN55 — 6002

53 l, with natural convection, for bringing to the correct temperature (+30°C bis +300) °C

Dimensions: (585x514x787) mm (BxDxH), Weight: 55 Kg

Further models, also with forced air circulation, are available on request.

Laboratory glassware

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Brewery saccharimeter

Read off at the top, reference temperature 20°C with thermometer, T. +5..25/0.2°C with corr. PTB I 3685 a-e/29

Measurement Range (%mas)	**Graduation** (%mas)	**Length** (mm)	**Calibratable**	
0 - 5	0,1	400	x	**2500**
5 - 10	0,1	400	x	**2501**
10 - 15	0,1	400	x	**2502**
15 - 20	0,1	400	x	**2503**
20 - 25	0,1	400	x	**2504**

Normal saccharimeter

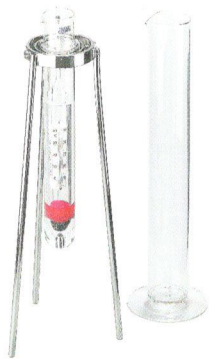
Read off at the top, reference temperature 20°C with thermometer, T. +10..30/0.2°C with corr. PTB 1626/30

Measurement Range (%mas)	**Graduation** (%mas)	**Length** (mm)	**Calibratable**	
0 -10	0,1	370	x	**2510**
10 - 20	0,1	370	x	**2511**
0 - 20	0,1	450	x	**2513**
0 - 12	0,1	420	x	**2516**

Pocket normal saccharimeter

Reference temperature 20°C with thermometer, T. 0-30/1.0°C with corr.

Measurement Range (%mas)	**Graduation** (%mas)	**Length** (mm)	**Calibratable**	
0 - 7	0,1	275	x	**2530**
7 - 14	0,1	275	x	**2531**
14 - 21	0,1	275	x	**2532**
21 - 28	0,1	275	x	**2533**



Pycnometer **7300**

50 ml according to Reischauer

Glass cylinder for spindles **6809**

Foot diameter 80 mm, internal diameter 35 mm, height 400 mm

Stand **6810**

Stand with cardanic suspension and hanging cylinder 210/22 mm

Fermentation tube according to Lietz – for determining the degree of final fermentation **5635**

750 ml, 695 mm long, internal diameter: 55 mm/20 mm

Fermentation tube according to Lietz – for determining the degree of final fermentation **5636**

250 ml, 450 mm long, internal diameter: 42 mm/20 mm

Rubber stopper for fermentation tube according to lietz **3050**

suitable for **5635** und **5636**, diameter (19/24) mm, height 25 mm

Thermometer

Normal Thermometer Hg filling also available with official calibration	**Measurement Range** (°C)	**Graduation** (°C)	**Length** (mm)	
	0..50	0,1	420	**7052**
	0..100 acc. to DIN 12775	0,2	420	**7054**
	0..100 acc. to DIN 12775	0,5	270	**7055**
Cold storage room thermometer, blue alcohol filling	-40..50	1,0	185	**7060**



100ml 200ml 500ml

Bottles for durability test

Clear glass, with closure made of galvanised iron wire and rubber discs

100 ml (height: 132 mm, diameter: 48 mm, opening: Ø18 mm) **9064**
200 ml (height: 175 mm, diameter: 56 mm, opening: Ø18 mm) **9065**
500 ml (height: 253 mm, diameter: 68 mm, opening: Ø18 mm) **9067**

Bottles for durability test

Clear glass, with closure made of galvanised iron wire and silicone discs

100 ml (height: 132 mm, diameter: 48 mm, opening: Ø18 mm) **9069**
200 ml (height: 175 mm, diameter: 56 mm, opening: Ø18 mm) **9070**
500 ml (height: 253 mm, diameter: 68 mm, opening: Ø18 mm) **9072**

Other laboratory Articles

Alcoholmeter

for determining the volume concentration of ethanol-water mixtures

Laboratory glassware, pipettes, filter paper

in various sizes

Test strips

(Detection of: carbonate hardness, chloride, iron, copper, nitrate, nitride, sulphate, peroxide)

Magnetic stirrers, stands, Bunsen burners, Petri dishes, grain samplers, sample bottles, brushes etc.
can be found in our complete list at www.funke-gerber.de

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Ringstraße 42 · 12105 Berlin · Germany
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