

# Beer Analysis

Equipment  
Accessories  
Laboratory  
Articles



# 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:  $d_{\text{opening}}=39$  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: 9.7l, 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**

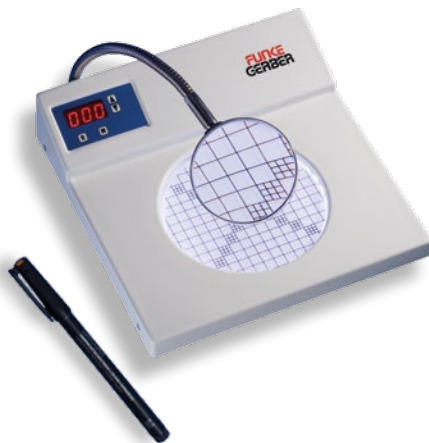
pH 9,21

**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<sup>2</sup> and 1/9 cm<sup>2</sup> 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


**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<sup>6</sup>) 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  | ● Total polyphenols           | ● vicinal diketones |
| ● Anthocyanogens<br>according to Harris and Ricketts | ● Copper cuprethol            | ● Beer colour       |
| ● Bitter units wort/beer                             | ● Nickel                      |                     |
| ● Total carotinoids Fraction 1-4                     | ● Thiobarbituric acid count   |                     |
| Further evaluable tests: ● Cyclamate                 | ● Iso-a-acids                 |                     |
| ● Iron   | ● Copper ZDBT                 |                     |
| ● Free amino-nitrogen (FAN)                          | ● photometric iodine sample   |                     |
| ● Total Carotenoids                                  | ● Total carbohydrates in beer |                     |
| company Wesergold                                    |                               |                     |

**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

**Cuvettes** for photometer

**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)

**Cover glass for microscope****8401**

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

**Staining cuvette****8430****Yeast counting chamber** according to Thoma**8763****Cover glass 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**

53l, 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**

53l, 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**

53l, 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

## 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 (%omas)	Graduation (%omas)	Length (mm)	Calibratable	
0 - 5	0,1	400	x	<b>2500</b>
5 - 10	0,1	400	x	<b>2501</b>
10 - 15	0,1	400	x	<b>2502</b>
15 - 20	0,1	400	x	<b>2503</b>
20 - 25	0,1	400	x	<b>2504</b>

## Normal saccharimeter

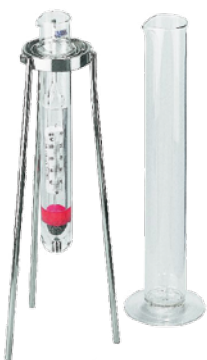
Read off at the top, reference temperature 20°C with thermometer, T. +10..30/0.2°C with corr. PTB 1626/30

Measurement Range (%omas)	Graduation (%omas)	Length (mm)	Calibratable	
0 - 10	0,1	370	x	<b>2510</b>
10 - 20	0,1	370	x	<b>2511</b>
0 - 20	0,1	450	x	<b>2513</b>
0 - 12	0,1	420	x	<b>2516</b>

## Pocket normal saccharimeter

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

Measurement Range (%omas)	Graduation (%omas)	Length (mm)	Calibratable	
0 - 7	0,1	275	x	<b>2530</b>
7 - 14	0,1	275	x	<b>2531</b>
14 - 21	0,1	275	x	<b>2532</b>
21 - 28	0,1	275	x	<b>2533</b>



### Pycnometer

50 ml according to Reischauer

**7300**

### Glass cylinder for spindles

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

**6809**

### Stand

Stand with cardanic suspension and hanging cylinder 210/22 mm

**6810**

**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	<b>7052</b>
	0..100 acc. to DIN 12775	0,2	420	<b>7054</b>
	0..100 acc. to DIN 12775	0,5	270	<b>7055</b>
Cold storage room thermometer, blue alcohol filling	-40..50	1,0	185	<b>7060</b>



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)	<b>9064</b>
200 ml (height: 175 mm, diameter: 56 mm, opening: Ø18 mm)	<b>9065</b>
500 ml (height: 253 mm, diameter: 68 mm, opening: Ø18 mm)	<b>9067</b>

### 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)	<b>9069</b>
200 ml (height: 175 mm, diameter: 56 mm, opening: Ø18 mm)	<b>9070</b>
500 ml (height: 253 mm, diameter: 68 mm, opening: Ø18 mm)	<b>9072</b>

## 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](http://www.funke-gerber.de)