EQUIPMENT

**3510 LACTOSTAR MILK ANALYSER (ACCESSORIES INCLUDED)**

For the routine analysis of milk:

<table>
<thead>
<tr>
<th></th>
<th>From %</th>
<th>to %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fat</td>
<td>0.00</td>
<td>40.00</td>
</tr>
<tr>
<td>Protein</td>
<td>0.00</td>
<td>10.00</td>
</tr>
<tr>
<td>Lactose</td>
<td>0.00</td>
<td>10.00</td>
</tr>
<tr>
<td>SNF</td>
<td>0.00</td>
<td>15.00</td>
</tr>
</tbody>
</table>

The density and freezing point are calculated.

Dimensions (WxDxH): 440x440x200 mm
Weight: 15.5 kg

**3530 LACTOFLASH MILK ANALYSER (ACCESSORIES INCLUDED)**

Analysers for the rapid and accurate determination of:

<table>
<thead>
<tr>
<th></th>
<th>From %</th>
<th>to %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fat</td>
<td>0.00</td>
<td>30.00</td>
</tr>
<tr>
<td>SNF</td>
<td>0.00</td>
<td>15.00</td>
</tr>
</tbody>
</table>

The density, protein, lactose and freezing point are calculated.

Dimensions (WxDxH): 300x330x240 mm
Weight: 5.0 kg

**ACCESSORIES FOR LACTOSTAR AND LACTOFLASH**

- **7151** Thermal printer
- **7157** Thermal paper
- **3563** Cleaning agent 500 ml, PE bottle
- **3565** Funke-Gerber Zero-Diluent 5,000 ml, for daily zero calibration, PE container, sufficient for more than 100 calibrations
SPARE PARTS

3510 - 023  Hose pump complete

3510 - 023A  pump-head

REFERENCE MATERIALS

The exact values depend on the batch. These are included in the delivery.

3517  Reference milk 1.5% fat

3518  Reference milk 3.5% fat

3670  NOVA SAFETY CENTRIFUGE

Bench centrifuge with angular rotor for butyrometric fat determination according to Dr. N. Gerber, as well as for the determination of the solubility of milk powder with special solubility index tubes (art. no.: 3637)

Properties:

- Automatic interlocking lid
- Automatic brake (braking time < 8s)
- Centrifugation timer (digital)
- Heater: temperature adjustable in 1°C steps from room temperature up to 65 °C (can be switched off)
- Capacity: max. 8 butyrometers or max. 8 special solubility index tubes

Technical specifications:

RCF: 350 g ± 50 g
rpm: 1350
Effective radius: 160 mm
Weight: 13 kg
Dimensions (WxDxH): [470x380x230] mm
3680  SUPERVARIO-N
MULTI-PURPOSE CENTRIFUGE

Centrifuge for fat content determination according to Gerber, Roese-Gottlieb, Babcock and for the determination of the solubility of milk powder (ADPI).

Properties:
- Stainless steel housing
- Programmable rotor speed from 600 rpm to 1130 rpm in increments of 10 rpm (corresponding to a g value of 77 to 372 g, depending on the rotor)
- Programmable heater up to 68 °C in 1 °C increments
- Programmable centrifugation time from 1 to 99 minutes
- Automatic interlocking safety lid
- Automatic shut-down in case of unbalance
- Automatic brake

Technical specifications:
Connection values: 230 V/50...60 Hz/1200 VA
Weight when empty: 26 kg
Total height with lid: 460 mm
External diameter: 670 mm
Filling height: 370 mm
Speed range: 600 to 1130 rpm
Temperature range: room temperature up to 68 °C

ACCESSORIES

- For the determination of fat content according to Gerber
  - Head A: for a maximum of 36 butyrometer buckets, effective radius of the attachment: 260 mm
  - Butyrometer bucket

- For the determination of fat content according to Babcock
  - Head A: for a maximum of 18 Babcock buckets, effective radius of the attachment: 260 mm
  - Babcock bucket
  - 3254, 3256, 3258 Babcock bottle without stopper

- For the determination of fat content according to Roese-Gottlieb
  - Head B: for a maximum of 8 Mojonnier tubes, effective radius of the attachment: 190 mm (operation only possible in accordance with the respective safety regulations)
  - Extraction tube according to Mojonnier
• For solubility determination

- **3687** Head C: for a maximum of 6 buckets for solubility index tubes, effective radius of the attachment: 190 mm
- **3633** Bucket for solubility index tubes
- **3634** Solubility index tube (ADPI tube)

---

**3707 UNIVERSAL WATER BATH WB436-D [DIGITAL]**

Digital temperature display (actual value), digital setpoint temperature adjustment. PT 100 sensor (platinum sensor). Stopwatch [1-100 min. with acoustic signal]. Stainless steel inner and outer casing. Protection against overheating (even when tank is empty), use with distilled water if possible.

Technical specifications:
- **Temperature range:** up to 100 °C
- **Volume:** 18 l
- **Connected loads:** 230V/50Hz...60Hz/1000 W
- **Interior dimensions (WxDxH):** (300x320x194) mm
- **External dimensions (WxDxH):** (331x396x265) mm
- **Weight:** 10 kg

---

**3708 UNIVERSAL WATER BATH WB436-A [ANALOGUE]**

As art. no. 3707 but with analogue temperature control (adjusting knob), temperature display with thermometer (included in the scope of delivery), thermostatic heat controller.

---

**ACCESSORIES FOR WATER BATHS WB436**

- **3717** Butyrometer stand: stainless steel, for 36 butyrometers
  Dimensions (WxDxH): (383x325x200) mm, diameter of the hole: 27.2 mm

- **3766-G** Butyrometer tube (closed): made of brass, for butyrometer stand (art. no. 3717), external diameter, bottom: 27 mm, external diameter, top: 33 mm, internal diameter: 25.8 mm, length: 170 mm

- **3766-O** Butyrometer tube (open): made of brass, for butyrometer stand (art. no. 3717) external diameter, bottom: 27 mm, external diameter, top: 33 mm, inner diameter: 25.8 mm, length: 170 mm
**Universal shelf:** made of stainless steel, dimensions (WxDxH): (280x225x2) mm, diameter of the hole: 16.9 mm

**Lid:** made of stainless steel, dimensions (WxDxH): (350x320x4) mm

**Mojonnier stand:** made of stainless steel for 10 Mojonnier tubes

**PH METER PH4440**

With the pH4440 it is possible to measure the pH value, conductivity and redox potential. During the measurement and calibration, the colour display shows all of the important information (measured value, temperature, temperature sensor, condition of the electrodes etc.). The intuitive menu navigation with the tried and tested 5-key operation makes operation of the device simple. Electrodes available as an option.

Dimensions (WxDxH): (210x150x80) mm

Weight: 1.1 kg

**pH single rod measuring chain:** EGA 141/Pt1000 with integrated temperature sensor.

**pH gel electrode:** EGA 142/Pt1000 with integrated temperature sensor.

**Conductivity electrode:** 1/cm with Pt1000

**Conductivity electrode:** 0.1/cm with Pt1000

**Buffer solutions:** 250 ml each, PE bottle

**pH 4.01**  **pH 7.00**  **pH 9.21**

**KCl solution:** 3M, 250 ml, PE bottle
Filter papers: with writing surface for sediment tester,
1000 pieces (80x45) mm, filter diameter: 28 mm

Reference table: with 3 purity grades, German standard
With this device it is possible to measure 12 samples fully automatically at the press of a button.

Properties:
- Reference method in accordance with ISO/IDF/DIN 5764
- Large touchscreen
- New cooling system
- Easy to use, fast, accurate and robust

The freezing curve is displayed during the measurement on the graphical colour display. This is ideal for observing, protocolling and providing proof of the plateau search stipulated by the technical standard (DIN/ISO/IDF 5764).

7150 CRYOSTAR I
Automatic cryoscope, single sample device

Properties:
- Reference method in accordance with DIN/ISO/IDF 5764
- Large touchscreen
- New cooling system
- Easy to use, fast, accurate and robust

7160 CRYOSTAR AUTOMATIC (MULTI-SAMPLE DEVICE)
With this device it is possible to measure 12 samples fully automatically at the press of a button.

Properties:
- Reference method in accordance with DIN/ISO/IDF 5764

Weight: 15.2 kg
Dimensions (WxDxH): (430x435x185) mm, with measurement head: 240 mm [H]

ACCESSORIES FOR CRYOSCOPY

7151 Thermal printer: Dimensions (WxDxH): (170x170x65) mm

7157 Thermal paper

7152 Thermistor, long version: for CryoStar automatic and CryoStar I up to serial number 7150-03000

7172 Thermistor, short version: for CryoStar I from serial number 150000

7165 Calibration standard „A“-0.000 °C: 250 ml in PE bottle

7166 Calibration standard „B“-0.557 °C: 250 ml in PE bottle
The device allows the determination of the solubility index of powdery substances or the mixing of liquids. There are two basic modes available for this:

- Measurement of the solubility index of dried milk according to ISO 8156
- Mode with freely adjustable speed (1000-4000 rpm) and mixing time (5s-99s) for mixing substances and determining the solubility index of substances other than dried milk

**ACCESSORIES**

- **Glass mixing bowl**
- **Stirrer blade**
The device makes it possible to determine the tamped volume or density of powdery and granular products. The product enables compliance with the following standards:

- ISO 8967 (milk powder)
- IDF 134 (milk powder)
- USP <616> method I (pharmaceutical powder)
- ISO 8460 (instant coffee) and others

**JOLTING VOLUMETER**

**Replacement measuring cylinder** for art. no. 7700

**COLONYSTAR BACTERIA COUNTER**

For the manual counting of colonies, with pressure-sensitive light field 145 mm in diameter, with direct and indirect energy-saving LED illumination, with adjustable brightness and colour, with digital display and acoustic counter feedback, height-adjustable housing, black and white Wolffhügel disc with 1 cm² and 1/9 cm² graduation. Magnifying lens with flexible arm (Ø 90 mm), 2x magnification. Petri dishes with a diameter of up to 145 mm can be used; the reducing insert supplied can be used for Petri dishes with a smaller diameter.

**Dimensions (WxDxH):** (275x300x80) mm

**Weight:** 2.0 kg

**HUMIDITY MEASURING DEVICE MLB 50-3C**

Weighing range max.: 50 g, reading precision 0.001 g, humidity: (0-100)%

**Dimensions (WxDxH):** (210x335x156) mm

**Weight:** 6 kg

**ACCESSORIES FOR HUMIDITY MEASURING DEVICE MLB 50-3C**

- Aluminium specimen dishes:
  - 95 mm in diameter, 80 pieces
  - 100 mm in diameter, 100 pieces

- Circular glass fibre filter: for splashing or caking specimens
**5811-1  ANALYTICAL SCALE AEJ200-4CM**

With pipette calibration programme, weighing range max.: 220 g, reading precision 0.1 mg, housing with wind protection and three sliding doors. Automatic internal adjustment every 3 hours or upon a temperature change of > 0.8 °C. GLP/ISO logging possible, percentage determination. Calibration certificate optional.

Dimensions (WxDxH): [206x335x335] mm  
Weight: 5.4 kg

**5820  PRECISION SCALE PCB2500-2**

Weighing range max.: 2500 g, reading precision 0.01 g, percentage determination, formulation memory. GLP/ISO logging possible. Calibration certificate optional.

Dimensions (WxDxH): [163x245x79] mm  
Weight: 1.4 kg

**8761  BINOCULAR MICROSCOPE MBL2000**

With 45° slanted viewer. Stable metal casing with coaxial fine and coarse focus. Built-in cross table, with integrated 6V/20W illumination. Double lens Abbé condenser N.A. 1.25 with iris diaphragm, pivotable filter holder, height adjustment, glass filters: blue, yellow, green, 10-fold planar eye pieces

Technical specifications:
- Objectives: 4x/NA 0.10; 10x/NA 0.25; 40x/0.65, 100x/NA 1.25 oil
- Weight: 1.6 kg

**8400  Slide** for microscope, half white, cut edges, 50 pieces, dimensions (WxDxH): [76x26x1] mm

**8401  Cover glass for microscope** dimensions (WxDxH): [18x18x0.2] mm

**8430  Staining cuvette** dimensions (WxDxH): [105x90x80] mm

**6049  Steriliser SN55**: 53 l, with natural convection for temperature regulation 5 °C above room temperature up to +250 °C, dimensions (WxDxH): [585x514x784] mm, weight: 57 kg
Incubator IN55: 53 l, with natural convection for temperature regulation 5 °C above room temperature up to +80 °C, dimensions (WxDxH): (585x514x784) mm, weight: 57 kg

Universal cabinet UN55: 53 l, with natural convection for temperature regulation 5 °C above room temperature up to +300 °C, dimensions (WxDxH): (585x514x784) mm, weight: 57 kg

[further models, also with forced air circulation, are available on request]

Methylene blue tablets: for bacteria count estimation, 50 pieces

Resazurine tablets: 100 pieces for LOVIBOND comparator 2000+ (art. no. 5160)

LOVIBOND comparator 2000+: for resazurine test, housing for 2 test tubes for colour comparisons, with milk observation stand, without colour disc (see art. no. 5161)

Colour disc: for resazurine 4/9 with 7 standard reference colours

Test tube: set consisting of 4 pieces, dimensions: external diameter 15 mm, length: 110 mm

Delvotest - microbiological inhibitor test

Individual test SP-NT: contents up to 100 samples

Plate test SP-NT: for 96 tests each

Determination of alkaline phosphatase

Lactognost: Original pack with reference table for 100 samples

Testing strips Phosphatesmo MI: pack of 50 strips

Peroxtesmo MI: high temperature heating detection/UHT test determination of peroxidase (pack of 100 strips)
### Mastitis detection

<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>7920</td>
<td><strong>California Mastitis Test (Schalm test):</strong> for quick determination of increased cell content in milk from which a possible mastitis infection can be diagnosed. 2 test trays with 4 dishes, 1 spray bottle 250 ml</td>
</tr>
<tr>
<td>7930</td>
<td><strong>California Mastitis Test (CMT), (test liquid):</strong> 1 l</td>
</tr>
<tr>
<td>7931</td>
<td><strong>California Mastitis Test (CMT), (test liquid):</strong> 5 l</td>
</tr>
</tbody>
</table>

### Pocket refractometer

For measuring the degree of evaporation in milk and determining the concentration in various fields of application. With the internationally defined Brix scale it is possible to determine the weight percentage of the dry matter directly.

- **Length:** 185 mm each.

<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>5610</td>
<td>0-32% Brix: 0.2%</td>
</tr>
<tr>
<td>5612</td>
<td>28-62% Brix: 0.2%</td>
</tr>
<tr>
<td>5613</td>
<td>45-82% Brix: 0.2%</td>
</tr>
</tbody>
</table>

### Digital hand refractometer

- **Measurement range:** 1.3300 - 1.5318 nD/0-95% Brix, resolution: 0.0001 nD/0.1% Brix, temperature compensation from 10 - 40 °C, dimensions (WxDxH): (80x130x40) mm

### Digital Abbé refractometer

- **Measuring range:** from 1.300 - 1.7200 nD/0-95% Brix, resolution 0.0001 nD/0.1% Brix, temperature compensation 0-90 °C, serial interfaces RS-232 and RS 422, 115/230 V, 50/60 Hz, dimensions (WxDxH): (120x290x300) mm, weight 5 kg

### Discharge viscometer

- **Easy-to-use viscometer for measuring the viscosity of yoghurt, curdled milk, sour cream, kefir, etc.** The elapsed time for the passage of the material to be measured serves as a measure of the viscosity. With stand and two different discharge nozzles.

### Glass plate

- **Code:** 6521

### Stop watch

- **Code:** 6522
### Butyrometers

All butyrometers come in standard packs of 10. Please place your order in units of 10.

- **Precision butyrometer 0-4%**: 0.05; for drinking milk and vat milk, frosted rear scale wall, fault tolerance: 0.025%, (accessory: 3280)

<table>
<thead>
<tr>
<th>Code</th>
<th>Milk Type</th>
<th>Range</th>
<th>Accuracy</th>
<th>Accessory</th>
</tr>
</thead>
<tbody>
<tr>
<td>3150</td>
<td>Powdered milk butyrometer (according to Teichert’s method)</td>
<td>0-1%</td>
<td>0.01</td>
<td>3280, 3290</td>
</tr>
<tr>
<td>3151</td>
<td>Skimmed milk butyrometer (according to Siegfeld’s method)</td>
<td>0-5%</td>
<td>0.1</td>
<td>3280</td>
</tr>
<tr>
<td>3152</td>
<td>Skimmed milk butyrometer (according to Kehe’s method)</td>
<td>0-6%</td>
<td>0.1</td>
<td>3280</td>
</tr>
<tr>
<td>3153</td>
<td>Skimmed milk butyrometer (according to Sichler’s method)</td>
<td>0-7%</td>
<td>0.1</td>
<td>3280</td>
</tr>
<tr>
<td>3154</td>
<td>Skimmed milk butyrometer (according to Roeder’s weighing method)</td>
<td>0-8%</td>
<td>0.1</td>
<td>3280</td>
</tr>
<tr>
<td>3155</td>
<td>Skimmed milk butyrometer (according to Roeder’s weighing method)</td>
<td>0-9%</td>
<td>0.1</td>
<td>3280</td>
</tr>
<tr>
<td>3156</td>
<td>Skimmed milk butyrometer (according to Roeder’s weighing method)</td>
<td>0-10%</td>
<td>0.1</td>
<td>3280</td>
</tr>
<tr>
<td>3157</td>
<td>Skimmed milk butyrometer (according to Roeder’s weighing method)</td>
<td>0-12%</td>
<td>0.1</td>
<td>3280</td>
</tr>
<tr>
<td>3158</td>
<td>Skimmed milk butyrometer (according to Roeder’s weighing method)</td>
<td>0-16%</td>
<td>0.2</td>
<td>3280</td>
</tr>
<tr>
<td>3159</td>
<td>Ice cream and condensed milk butyrometer (according to Roeder’s weighing method)</td>
<td>0-35%</td>
<td>0.5</td>
<td>3310</td>
</tr>
<tr>
<td>3160</td>
<td>Ice cream and condensed milk butyrometer (according to Roeder’s weighing method)</td>
<td>0-70%</td>
<td>1.0</td>
<td>3310</td>
</tr>
<tr>
<td>3161</td>
<td>Ice cream and condensed milk butyrometer (according to Roeder’s weighing method)</td>
<td>0-0.5%</td>
<td>0.02</td>
<td>3280</td>
</tr>
<tr>
<td>3162</td>
<td>Ice cream and condensed milk butyrometer (according to Roeder’s weighing method)</td>
<td>0-15%</td>
<td>0.2</td>
<td>3290, 3300, 3320</td>
</tr>
<tr>
<td>3163</td>
<td>Ice cream and condensed milk butyrometer (according to Roeder’s weighing method)</td>
<td>0-6-12%</td>
<td>0.1</td>
<td>3290, 3300, 3320</td>
</tr>
<tr>
<td>3164</td>
<td>Ice cream and condensed milk butyrometer (according to Roeder’s weighing method)</td>
<td>0-12%</td>
<td>0.1</td>
<td>3290, 3300, 3320</td>
</tr>
<tr>
<td>3165</td>
<td>Ice cream and condensed milk butyrometer (according to Roeder’s weighing method)</td>
<td>0-16%</td>
<td>0.2</td>
<td>3290, 3300, 3320</td>
</tr>
<tr>
<td>3166</td>
<td>Ice cream and condensed milk butyrometer (according to Roeder’s weighing method)</td>
<td>0-35%</td>
<td>0.5</td>
<td>3310</td>
</tr>
<tr>
<td>3167</td>
<td>Ice cream and condensed milk butyrometer (according to Roeder’s weighing method)</td>
<td>0-70%</td>
<td>1.0</td>
<td>3310</td>
</tr>
<tr>
<td>3168</td>
<td>Ice cream and condensed milk butyrometer (according to Roeder’s weighing method)</td>
<td>0-0.5%</td>
<td>0.02</td>
<td>3280</td>
</tr>
<tr>
<td>3169</td>
<td>Ice cream and condensed milk butyrometer (according to Roeder’s weighing method)</td>
<td>0-15%</td>
<td>0.2</td>
<td>3290, 3300, 3320</td>
</tr>
<tr>
<td>3170</td>
<td>Ice cream and condensed milk butyrometer (according to Roeder’s weighing method)</td>
<td>0-6-12%</td>
<td>0.1</td>
<td>3290, 3300, 3320</td>
</tr>
<tr>
<td>3171</td>
<td>Ice cream and condensed milk butyrometer (according to Roeder’s weighing method)</td>
<td>0-12%</td>
<td>0.1</td>
<td>3290, 3300, 3320</td>
</tr>
<tr>
<td>3172</td>
<td>Ice cream and condensed milk butyrometer (according to Roeder’s weighing method)</td>
<td>0-16%</td>
<td>0.2</td>
<td>3290, 3300, 3320</td>
</tr>
<tr>
<td>3173</td>
<td>Ice cream and condensed milk butyrometer (according to Roeder’s weighing method)</td>
<td>0-35%</td>
<td>0.5</td>
<td>3310</td>
</tr>
<tr>
<td>3174</td>
<td>Ice cream and condensed milk butyrometer (according to Roeder’s weighing method)</td>
<td>0-70%</td>
<td>1.0</td>
<td>3310</td>
</tr>
<tr>
<td>3175</td>
<td>Ice cream and condensed milk butyrometer (according to Roeder’s weighing method)</td>
<td>0-0.5%</td>
<td>0.02</td>
<td>3280</td>
</tr>
<tr>
<td>3176</td>
<td>Ice cream and condensed milk butyrometer (according to Roeder’s weighing method)</td>
<td>0-15%</td>
<td>0.2</td>
<td>3290, 3300, 3320</td>
</tr>
</tbody>
</table>
### Cream butyrometer (measuring method, for ice cream)

<table>
<thead>
<tr>
<th>Range</th>
<th>Value</th>
<th>Accessories</th>
</tr>
</thead>
<tbody>
<tr>
<td>0-15%</td>
<td>0.2</td>
<td>3280</td>
</tr>
<tr>
<td>0-20%</td>
<td>0.2</td>
<td>3280</td>
</tr>
</tbody>
</table>

### Cream butyrometer (according to Roeder’s weighing method)

<table>
<thead>
<tr>
<th>Range</th>
<th>Value</th>
<th>Accessories</th>
</tr>
</thead>
<tbody>
<tr>
<td>0-5-40%</td>
<td>0.5</td>
<td>3290, 3300, 3320</td>
</tr>
<tr>
<td>0-30-55%</td>
<td>0.5</td>
<td>3290, 3300, 3320</td>
</tr>
<tr>
<td>0-50-75%</td>
<td>0.5</td>
<td>3290, 3300, 3320</td>
</tr>
<tr>
<td>0-5-70%</td>
<td>1.0</td>
<td>3290, 3300, 3320</td>
</tr>
</tbody>
</table>

### Cream butyrometer (according to Koehler’s measuring method)

<table>
<thead>
<tr>
<th>Range</th>
<th>Value</th>
<th>Accessories</th>
</tr>
</thead>
<tbody>
<tr>
<td>0-30%</td>
<td>0.5</td>
<td>3280</td>
</tr>
<tr>
<td>0-50%</td>
<td>1.0</td>
<td>3280</td>
</tr>
<tr>
<td>0-70%</td>
<td>1.0</td>
<td>3280</td>
</tr>
</tbody>
</table>

### Cream butyrometer (weighing method according to Schulz-Kley)

<table>
<thead>
<tr>
<th>Range</th>
<th>Value</th>
<th>Accessories</th>
</tr>
</thead>
<tbody>
<tr>
<td>0-5-40%</td>
<td>0.5</td>
<td>3280</td>
</tr>
</tbody>
</table>

### Butter butyrometer (according to Roeder’s weighing method)

<table>
<thead>
<tr>
<th>Range</th>
<th>Value</th>
<th>Accessories</th>
</tr>
</thead>
<tbody>
<tr>
<td>0-70-90%</td>
<td>0.5</td>
<td>3290, 3300, 3323</td>
</tr>
</tbody>
</table>

### Cheese butyrometer (weighing method according to Van Gulik)

<table>
<thead>
<tr>
<th>Range</th>
<th>Value</th>
<th>Accessories</th>
</tr>
</thead>
<tbody>
<tr>
<td>0-40%</td>
<td>0.5</td>
<td>3290, 3300, 3321</td>
</tr>
</tbody>
</table>

### Curd butyrometer (weighing method)

<table>
<thead>
<tr>
<th>Range</th>
<th>Value</th>
<th>Accessories</th>
</tr>
</thead>
<tbody>
<tr>
<td>0-20%</td>
<td>0.2</td>
<td>3280</td>
</tr>
</tbody>
</table>

### Food butyrometer (according to Roeder’s weighing method)

<table>
<thead>
<tr>
<th>Range</th>
<th>Value</th>
<th>Accessories</th>
</tr>
</thead>
<tbody>
<tr>
<td>0-100%</td>
<td>1.0</td>
<td>3290, 3300, 3320</td>
</tr>
</tbody>
</table>

### BUTYROMETER ACCESSORIES

**FIBU PATENT CLOSURE**

For all measuring method butyrometers, FIBU without adjustment key.
<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>3270</td>
<td><strong>ADJUSTMENT KEY</strong></td>
<td>For FIBU patent closure.</td>
</tr>
<tr>
<td>3280</td>
<td><strong>Rubber stopper, conical</strong>: for all measuring method butyrometers,</td>
<td>Diameter 11 mm/16 mm, L: 43 mm</td>
</tr>
<tr>
<td>3290</td>
<td><strong>Rubber stopper</strong>: for all weighing method butyrometers for sealing the bulb,</td>
<td>Diameter 9 mm/13 mm, L: 20 mm</td>
</tr>
<tr>
<td>3300</td>
<td><strong>Rubber stopper with hole</strong>: for all weighing method butyrometers,</td>
<td>Diameter 17 mm/22 mm, L: 30 mm</td>
</tr>
<tr>
<td>3310</td>
<td><strong>Rubber stopper without hole</strong>: for powdered milk butyrometers, also suitable for</td>
<td>For extraction tube according to Mojonnier, art. no. 3870 3871, diameter 17 mm/22 mm, L: 30 mm</td>
</tr>
<tr>
<td>3320</td>
<td><strong>Cream beaker without holes</strong>: for ice cream and condensed milk butyrometers and cream butyrometers</td>
<td>According to Roeder, external Ø: 15 mm, L: 77 mm</td>
</tr>
<tr>
<td>3321</td>
<td><strong>Cheese beaker with holes</strong>: for butyrometers according to Van Gulik’s method</td>
<td>External Ø: 15 mm, L: 77 mm</td>
</tr>
<tr>
<td>3323</td>
<td><strong>Butter beaker with 2 holes</strong>:</td>
<td>External Ø: 15 mm, L: 77 mm</td>
</tr>
<tr>
<td></td>
<td><strong>Butyrometer stand</strong> (also suitable for special solubility index tubes, art. no. 3637)</td>
<td>For 36 samples (PP plastic), dimensions (WxDxH): [610x80x160] mm</td>
</tr>
<tr>
<td></td>
<td><strong>for 36 samples</strong> (PP plastic), dimensions (WxDxH): [610x80x160] mm</td>
<td>For 12 samples (PP plastic), dimensions (WxDxH): [225x80x160] mm</td>
</tr>
<tr>
<td></td>
<td><strong>for 12 samples</strong> (PP plastic), suitable for art. no. 3331, dimensions</td>
<td>For 36 samples (PP plastic), suitable for art. no. 3330, dimensions</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(WxDxH): [660x95x165] mm</td>
</tr>
<tr>
<td></td>
<td></td>
<td>For 12 samples (PP plastic), suitable for art. no. 3331, dimensions</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(WxDxH): [230x85x90] mm</td>
</tr>
<tr>
<td></td>
<td><strong>Protective shaking hood</strong></td>
<td>For 36 samples (PP plastic), suitable for art. no. 3330, dimensions</td>
</tr>
<tr>
<td>3340</td>
<td></td>
<td>(WxDxH): [660x95x165] mm</td>
</tr>
<tr>
<td>3341</td>
<td></td>
<td>For 12 samples (PP plastic), suitable for art. no. 3331, dimensions</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(WxDxH): [230x85x90] mm</td>
</tr>
</tbody>
</table>
## Volumetric Pipettes (with one ring mark)

<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
<th>Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>3431</td>
<td>10.75 ml milk</td>
<td>3432</td>
<td>11 ml milk</td>
</tr>
<tr>
<td>3433</td>
<td>1 ml amyl alcohol</td>
<td>3434</td>
<td>5.05 ml cream</td>
</tr>
<tr>
<td>3435</td>
<td>5 ml water</td>
<td>3436</td>
<td>5 ml cream</td>
</tr>
<tr>
<td>3437</td>
<td>50 ml short design, L: 390 mm</td>
<td>3438</td>
<td>25 ml short design, L: 365 mm</td>
</tr>
</tbody>
</table>

## Automatic Tilt Measure Superior

- **3420** With rubber stopper and 500 ml storage bottle, 10 ml sulphuric acid
- **3421** With rubber stopper and 250 ml storage bottle, 1 ml amyl alcohol

## Digital Proportioning Devices

For aggressive acids and alkalis, without bottles.

- **9484** 1-10 ml: 0.05 ml, with thread adapter: A25, A28, A32, A38, A40
- **9485** 2.5-25 ml: 0.1 ml, with thread adapter: A32, A38, A40

## Variable Proportioning Devices

For aggressive acids and alkalis, without bottles.

- **9487** 1-10 ml: 0.2 ml, with thread adapter: A25, A28, A32, A38, A40
- **9488** 2.5-25 ml: 0.5 ml, with thread adapter: A32, A38, A40

## Babcock Bottle (without stopper)

- **3254** 0-8% for milk, stopper on request
- **3256** 0-20% for cream, stopper: 3290
- **3258** 0-60% for cream and cheese, stopper: 3290

## Extraction Tube (according to Mojonnier)

- **3870** With rounded bulb, accessories: cork stopper (art. no. 3872), or rubber stopper (art. no. 3310)
- **3871** With flattened bulb, accessories: cork stopper (art. no. 3872), or rubber stopper (art. no. 3310)
**Wooden stand:** for 12 extraction tubes according to Mojonnier

**ADPI solubility index tube:** 50 ml, graduated from 0-20 ml and mark at 50 ml (see SuperVario-N (3680)), external Ø: 30 mm, L: 138 mm

**Special solubility index tubes:** for determining the solubility of milk powder, fitting into the butyrometer tubes (art. no. 3641) for use in the „Nova Safety“ bench centrifuge (art. no. 3670)

- Suitable rubber stoppers, see art. no. 3050
- Matching stand, see art. no. 3331
  - external Ø: 24 mm, H: 180 mm

### Lactodensimeter

- **For milk according to GERBER’s method, large model:** negative scale, with thermometer in stem, 1.020-1.040: 0.0005 g/ml, T= 20 °C, 10-40 °C, approx. (300 x 28) mm, normal design/standard model
- **For milk according to GERBER’s method, small model:** with thermometer in the body, 1.020-1.035: 0.0005 g/ml, T= 20 °C, 0-40 °C, approx. (210 x 17) mm, normal design / standard model
- **For milk according to Quevenne’s method, coloured triple scale:** 1.015-1.040: 0.001g/ml, T= 20 °C without thermometer, approx. (210 x 22) mm
- **For milk according to Quevenne’s method, coloured triple scale:** 1.015-1.040: 0.001g/ml, T= 15 °C without thermometer, approx. (210 x 22) mm

### Hydrometer

- **For milk:** according to former DIN 10290, without thermometer, 1.020-1.045: 0.0005 g/ml, T= 20 °C, approx. (350 x 25) mm, standard version
- **For butter milk serum:** DIN 10293, without thermometer, 1.014-1.030: 0.0002 g/ml, T= 20 °C, standard model, approx. (240 x 21) mm
- **For condensed milk (reading at the top):** 1.000-1.240: 0.002 g/ml, T= 20 °C, approx. (310x19) mm
- **For condensed milk (reading at the top):** 1.040-1.080: 0.001 g/ml, T= 20 °C, approx. (230x21) mm
Dairy thermometer (with loop): special red filling, (0-100) °C: 1 °C approx. (250x17) mm

Dairy thermometer: in plastic case with loop, boil and impact-proof, floatable, special red filling, (0-100)°C: 1 °C approx. (280x28) mm

Dairy thermometer: special red filling, as a replacement for no. 7031, approx. (250x17) mm

Universal thermometer: special red filling, (-10-100) °C: 1.0, approx. (260x8) mm

Digital second thermometer 926: for daily temperature measurements in the food industry, for laboratory use, ISO calibration certificate for an extra charge, measurement range (-50 to +400)° C: 0.1 °C (1 °C from 200°C), accuracy ± 0.3 °C

Insertion/precision sensor: for 7120, diameter 4 mm, L: 110 mm
OTHER LABORATORY ARTICLES

Diagnostic dipsticks (detection of: pH, calcium, carbonate hardness, chlorine, chloride, iron, total hardness, magnesium, manganese, nitrate, phosphate, residual hardness, sulphate, peroxide),

Laboratory glassware (beaker, Erlenmeyer flasks, measuring cylinder, laboratory bottles, volumetric flask, funnel, beakers, test tubes, burettes, Soxhlet apparatus),

Pipettes (measuring pipettes, volumetric pipettes), samplers, cheese triers, butter triers, magnetic stirrers, stands, Bunsen burners, Petri dishes, sample bottles, brushes, proportioning devices etc.,

can be found in our complete list at www.funke-gerber.de
Funke - Dr. N. Gerber Labortechnik GmbH
Ringstraße 42
12105 Berlin

Tel. +49 (0)30 702 006 - 0
Fax +49 (0)30 702 006 - 66
kontakt@funke-gerber.de
www.funke-gerber.de