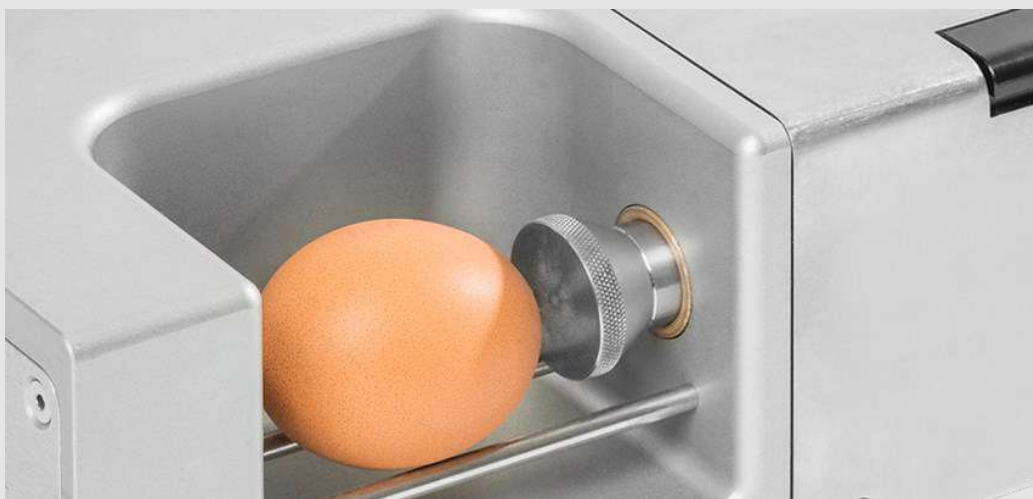




BRÖRING
INFORMATIONSTECHNOLOGIE



Catalogue 2021

Measurement technology for the poultry industry for over 20 years

Dear Ladies and Gentlemen,

We present you our catalogue for 2021.

For more than 25 years we have been supplying measurement technology for the poultry industry.

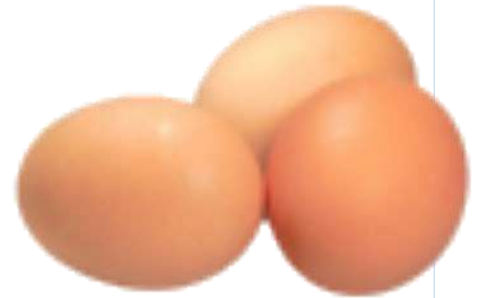
Our devices are used worldwide on:

- Poultry farms
- Egg producers
- Egg processing plants
- Feed mills
- Universities
- State testing laboratories

During these years, we have continued to develop and optimise our products for and together with our customers.

We thank all our customers for their loyal partnership and the good cooperation and look forward to the years to come.

Your Dr.- Ing. Stefan Bröring and Team



Our world revolves around eggs

Since 1994, the Bröring IT company has been
in the egg industry worldwide.

We develop high-quality measuring instruments and
software for the quality inspection of eggs.

From the very beginning, the quality of our products
has been our most important concern .

On the following pages we present our measuring instruments for the examination of chicken eggs,
as well as poultry scales and accessories.

Table of contents

Poultry scale	4
Breaking strength / FEST device	6
Egg freshness / Haugh Units	8
Yolk colour meter	9
Shell thickness	10
Complete packages	11
Replacement units and accessories for Bröring EggQuality 3.0	16
Accessories for poultry scales BIT PS 3.0	21
Software	22



Poultry scale

Poultry Scale BRÖRING BIT PS 3.0 / Bluetooth - Innovative solution for manually weighing your animals

Here we present our new product - **poultry scale Bröring BIT PS 3.0**, which we have developed in cooperation with users over the last few years:

Portable, handy poultry scale

- Storage capacity : 240,000 records
- For pullets, laying hens and fattening poultry
- Operation via touchscreen or smartphone / tablet
- Display of individual weight, average, uniformity, min./max. and count
- incl. Android app and Windows software, USB charging adapter for 230 V and 12V (car connection), transport case
- Weighing range for chickens max. 10 kg
- Weighing range for turkeys max. 40 kg
- Resolution: 1g, battery life: up to 20 hours
- PC connection: USB / Android App
- Data processing: App / BIT PS 3.0 PC software
- Languages: German, English, Russian, Polish, French, Dutch



Our biggest advantages are: Bluetooth connection to smartphone app and Excel data export

Our newly developed poultry scale greatly reduces your workload. The handy design and user-friendly handling will inspire you. Large illuminated colour display with touch screen is very easy to read and handle.

In Life mode, the scale shows simple statistics on the display. The readings are not stored on the scale in this mode. The measured values are continuously transmitted via the Bluetooth interface and can be received and saved with an app on an Android device.

In save-on-scale mode, as the name suggests, the measured weights can be saved on the scale and statistical data is shown on the display at the same time. Using the Bluetooth function and the free Android app for your Android smartphone or tablet, all data can be saved easily, quickly and in an orderly manner and sent after the measurements have been completed.

Forget about calculating anything on your own and transferring the data manually into Excel spreadsheets. The powerful Bröring BIT PS 3.0 app automatically displays statistics and histograms of all your flock.

No matter how many farms you have and how many scales you use, this app will display all data such as quantity / min / max / average / uniformity in an understandable and clear way

Scope of delivery:

Poultry scale BIT PS 3.0

Robust transport case

USB charging cable for 230 V and 12 V (car adapter)

Software

Manual



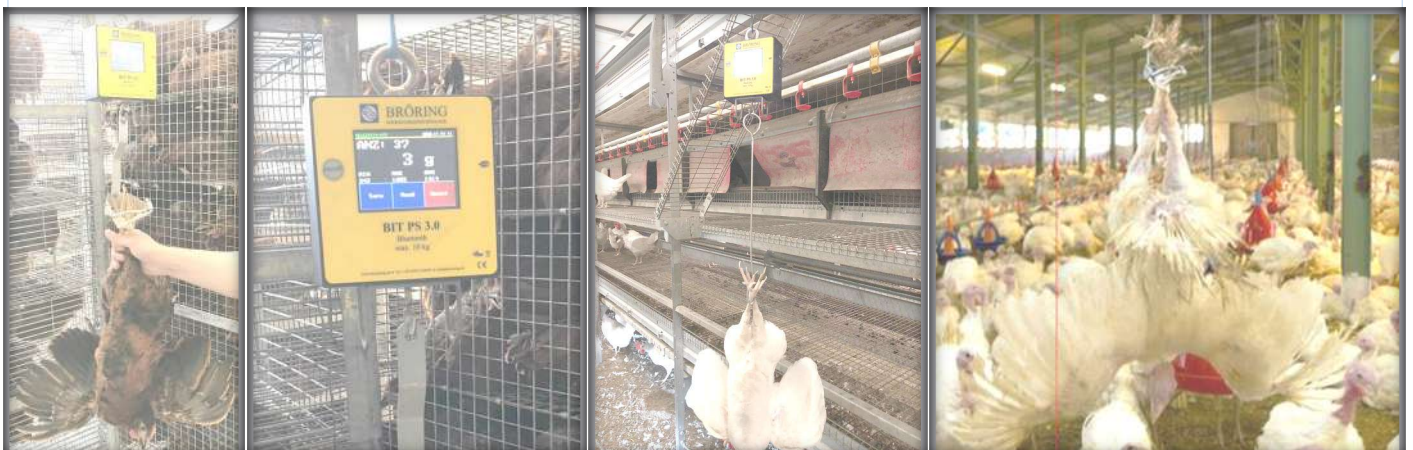
Poultry scale BIT PS 3.0 with Bluetooth and USB

The individual weights are stored on the scale and can then be transferred either via USB interface to a PC or via Bluetooth to an Android smartphone. On the smartphone or PC, documents can be generated from the data in PDF format or as Excel files (CSV), which can then be sent by e-mail. In addition, the data can be transferred to an online database. Via a web server, the data can be displayed on any end device, e.g. Android, Apple or PC.

The data can optionally be stored on a database server of the customer, where they are protected from external access.



... in use with our customers



Breaking strength

Fast Egg Shell Tester to measure the egg shell breaking strength.

The stability of the eggshell is one of the most important parameters for egg quality.

With our breaking strength measuring device, the breaking strength of eggs can be determined easily and quickly. The FEST device has a very robust metal housing and can be operated quickly and easily with two buttons.

The breaking strength of the eggshell can be displayed either in Newton or gram.

A measurement takes only approx. 2-3 sec. and means a very small expenditure of time. The display is illuminated and easy to read. The FEST device optionally can be connected to components such as a PC incl. software or a printer for data acquisition. For mobile use, e.g. for field staff of feed manufacturers, there is an optional battery module for wireless operation as well as a Bluetooth function with an app for data collection in an Android device such as a tablet or smartphone. The data can then be sent via WhatsApp or sent by e-mail.



Options for Bröring breaking strength measuring system FEST (Fast Egg Shell Tester)

1101 Bröring EggQuality System 3.0 FEST

inclusive :

Power supply unit

Calibration weight 1000 g

Carrying case (Art.-No.:6003a)

Dimensions (case, 350 x 150 x 290 mm (W*H*D)

Weight: 8,8 kg (incl. accessories and case)



1102 Bröring EggQuality System 3.0 FEST

with **Bluetooth**

incl. power supply unit, calibration weight 1000 g, carrying case



1103 Bröring EggQuality System 3.0 FEST

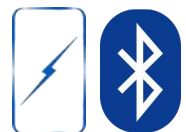
with battery and charger

incl. power supply unit, calibration weight 1000 g, carrying case



1104 Bröring EggQuality System 3.0 FEST
with battery and charger and **Bluetooth**

incl. power supply unit, calibration weight 1000 g, carrying case



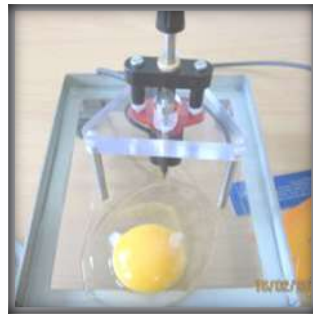
Egg freshness / Haugh Units

Today, the Haugh unit is considered the gold standard for egg quality testing.

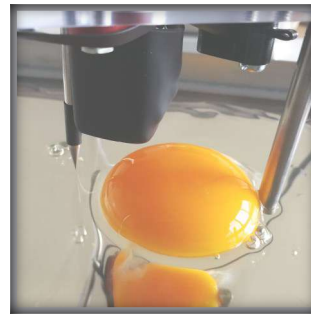
With our albumen height gauge, you can determine the egg freshness in just a few seconds.
The process works as follows:



weighing



crack the egg



measure



reading

1. Weigh the egg
2. Crack the egg onto a level glass plate
3. Position the albumen height gauge over the egg white so that the measuring needle is above the egg white at a distance of approx. 1 cm from the edge of the yolk
4. Press down the needle
5. The value is automatically calculated and displayed in the software.

The calculation is done automatically in our software.

Guide values for the quality of egg freshness:

- 100 - the highest and best quality
- 90 - excellent
- 80 - very good
- 75 - good
- 70 - acceptable
- 65 - borderline
- 60 - critical consumer level
- 55 - too low
- 50 - unacceptable
- 40 - poor
- 30 - very poor
- 20 - lowest / worst quality

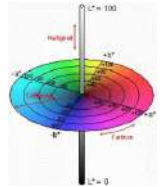
However, the internal quality of a fresh egg can also be negatively influenced by a disease (e.g. I.B.) in a flock. In the case of a fresh egg from a sick hen, this can be seen by a sudden sharp reduction in the height of the albumen.



Yolk colour meter



Our measuring devices work with an RGB sensor whose filter curves correspond to the human eye (3-range method). From the red, green and blue components, we calculate the $L^*a^*b^*$ values, from which the Roche value is then calculated. In our software, both the $L^*a^*b^*$ values and the Roche values are stored.



The name "Roche" refers to the company Roche, which published the colour fan shown here on the right a few years ago. A few years ago, Roche was taken over by DSM Nutrition Products GmbH.



The colour of the egg yolk is traditionally indicated in "Roche values" from 1 to 15.

For our Egg Quality 3.0 system, we offer a colour sensor that is integrated into the worktable. This enables a quick and clean determination of the yolk colour.

For the measurement, the egg is broken on the worktable. If necessary, the albumen height is then measured. Then the yolk is positioned over the sensor and the measurement is triggered on the PC. The device has a USB port and can be connected directly to the PC.



Shell thickness

The shell thickness is determined with a special measuring probe. A "normal" micrometer probe has two parallel measuring surfaces. These are unsuitable for determining the shell thickness because of a curvature of the eggshell.

We supply a special measuring probe with a rounded contact surface and offer a convenient holder to match the measuring probe.

The measuring probe is available with or without data cable.

The measuring probe can be connected directly to your computer.



Complete packages

We offer complete packages with all necessary components for your applications

Bröring EggQuality 3.0-the cost-efficient introduction into the measurement of egg freshness (Haugh units)

This package contains all individual components necessary for the recording of Haugh units.

Prerequisite: PC with Windows operating system (Windows 7 - 10) and USB or RS232 interface.

4001 **Bröring EggQuality 3.0 basic equipment (Haugh-Units)** consists of the following individual components:

5001 Software, suitable for Windows systems 7 - 10 	1002 Mini data collector 	1201 Albumen height gauge 	1501 Laboratory balance Kern 440-43N, 400 g max. 
2101 Connecting cable from laboratory balance to the mini data collector (DB9 - M8) 	2001 Calibration plate for album- en height gauge 	2005 Work table (normal size) 	2050 Set with collecting tray, plastic spatula, colour fan, egg cup 

4002 **Bröring EggQuality 3.0 basic equipment (Haugh-Units), incl. Shell thickness and egg shape index** consists of the following individual components:

1505 BIT micrometre with modi- fied surfaces for shell thickness 	5001 Software 	1002 	1201 	1501 
1506 BIT Bröring calliper for egg shape index 150 mm 	2101 	2001 	2005 	2050 

4101 *Bröring EggQuality 3.0 Bluetooth*
consists of the following individual components:

1202 Bluetooth albumen height gauge 	1501 Bluetooth Laboratory balance Kern 440-43N, 400 g max. 	2001 Calibration plate for album- en height gauge 	2005 Work table (normal size) 
2050 Set with collecting tray, plastic spatula, colour fan, egg cup 	3008 Holding frame for tablet 	3008 Tablet Samsung 7" o. 8" Model depending on availability 	EggQuality 3.0 Mobile in GooglePlay Store free download 

4004 *Bröring EggQuality 3.0 basic equipment (Haugh-Units), incl. FEST*
consists of the following individual components:

1101 Fast Egg Shell Tester 	5001 Software 	1002 	1201 	1501 
	2101 	2001 	2005 	2050 

4005 *Bröring EggQuality 3.0 basic equipment (Haugh-Units), incl. Yolk colour meter*
consists of the following individual components:

1112 Yolk colour meter 	5001 Software 	1002 	1201 	1501 
	2101 	2001 	2050 	

4006 Bröring EggQuality 3.0 basic equipment (Haugh-Units), incl. Yolk colour meter, FEST consists of the following individual components:

1101 	5001 Software 	1002 	1201 	1501 
1112 	2101 	2001 	2050 	

4006BT Bröring EggQuality 3.0 basic equipment (Haugh-Units), incl. Yolk colour meter, , FEST (BT) and EggQuality 3.0 Mobile consists of the following individual components:

1101 BT 	5001 Software 	1002 	1201 BT 	1501 BT 
1112 	2101 	2001 	2050 	EggQuality 3.0 Mobile in GooglePlay Store, free download 

4007 *Bröring EggQuality 3.0 complete*
consists of the following individual components:

<div>1505</div> <div>BIT micrometre with modified surfaces for shell thickness</div> <div></div>	<div>1506</div> <div>BIT Bröring calliper for egg shape index 150 mm</div> <div></div>	<div>1101</div> <div>Fast Egg Shell Tester</div> <div></div>	
<div>5001</div> <div>Software </div>	<div>1002</div> <div></div>	<div>1201</div> <div></div>	<div>1501</div> <div></div>
<div>2101</div> <div></div>	<div>2001</div> <div></div>	<div>2005</div> <div></div>	<div>2050</div> <div></div>

4007 CR *Bröring EggQuality 3.0 complete incl. BIT CR 3.0*
consists of the following individual components:

1505 BIT micrometre with modified surfaces for shell thickness 	1506 BIT Bröring calliper for egg shape index 150 mm 	1101 Fast Egg Shell Tester 	1112 BIT CR 3.0 Yolk colour meter 
5001 Software 	1002 	1201 	1501 
2101 	2001 	2050 	

4008 BT Bröring EggQuality 3.0 basic equipment (Haugh-Units) BLUETOOTH with EggQuality 3.0 Mobile in Google PlayStore / free Download consists of the following individual components:

<p>1202 BT albumen height gauge</p> 	<p>1501 BT Laboratory balance Kern 440-43N, 400 g max.</p> 	<p>2001 Calibration plate for albumen height gauge</p> 	<p>2005 Work table (normal size)</p> 
<p>2050 Set with collecting tray, plastic spatula, colour fan, egg cup</p> 	<p>3008 Holding frame for tablet</p> 	<p>1102 Fast Egg Shell Tester</p> 	<p>Tablet Samsung 7" o. 8" Model depending on availability</p> 



EggQuality 3.0 BT

Replacement units and accessories for Bröring EggQuality 3.0

1002

Mini data collector, RS232 port



1201

albumen height gauge



1202 BT

albumen height gauge



1501

Laboratory balance KERN 440-43N, max . 400 g



1501 BT

Laboratory balance KERN 440-43N, max . 400 g



1502

Laboratory balance KERN 440-47N, max. 2000 g



1503

Laboratory balance KERN EW420-3NM calibratable
Note: Calibration only against surcharge



1504

Citizen receipt printer
incl. connection cable



Replacement units and accessories for Bröring EggQuality 3.0

1505

BIT micrometre with modified surfaces for shell thickness



1506

Bröring calliper for egg shape index 150 mm incl. RS232 adapter



1517

Calibration weight 500 g (single as spare part)



2001

Calibration plate for albumen height gauge (included in all Haugh-Unit packages)



2005

*Bröring work table type I (normal size)
LxWxH = 300x190x120 mm*



2006

*Bröring work table Typ II
(small size) LxWxH = 235x160x60 mm*



2007

*Bröring worktable type IV
Design for the installation of the yolk colour measuring device*



2008

Plug-in power supply for data collector V2.0 and Yolk colour meter



Replacement units and accessories for Bröring EggQuality 3.0

2011

Power supply 12V, 1A DC, input voltage 100V - 250V AC, (single as spare part)



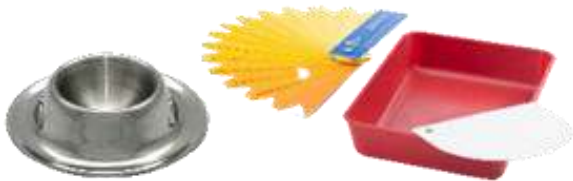
2016

Calibration weight 1000 g (single as spare part)



2050

Set with collecting tray, plastic spatula, colour fan, egg cup



2101

Connecting cable from laboratory balance to the mini data collector (DB9 - M8)



2102

Adapter cable from old egg white altimeter to new data collector (DIN to M8)



2104

USB adapter for connecting RS232 to a PC without integrated RS232 port



3001

Licefa work tray A4-3, base 210 x 150 mm, 40 mm deep, top edge 260 x 200 mm



3002

Licefa work tray A4-1, base 175 x 100 mm, 34 mm deep, top edge 205 x 125 mm



Replacement units and accessories for Bröring EggQuality 3.0

3003

Plastic spatula, Dr. Oetker 1635
Dough scraper 12 cm



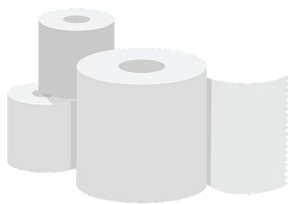
3004

Ribbon for receipt printer



3005

Printer paper for Citizen receipt printers
57 x 50 x 12 diameter 63 mm (5 rolls/pck.)



3006

Polystyrene egg cups (100 pcs / pack)



3007

Stainless steel egg cups



3008

Holder for tablet,
43 x 26 x 21 cm (H x B x T)
Up to 21 cm reach
(without tablet)



3009

Yolk Color Ring stainless steel, 4 x 5 x 5 cm 260 g



3010

Plastic air chamber measuring card



Replacement units and accessories for Bröring EggQuality 3.0

7010

Bröring positioning support



7010

Bröring BIT EL 3.0 Egg Lifter



Accessories for poultry scales BIT PS 3.0

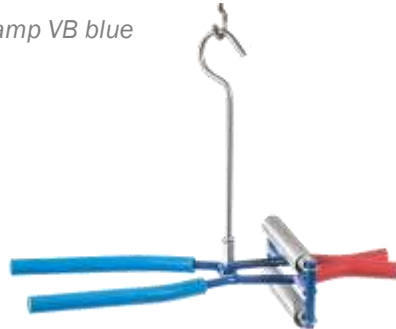
6004

MO wing clamp



6004a

Wing clamp VB blue



6005

Advanced Hook



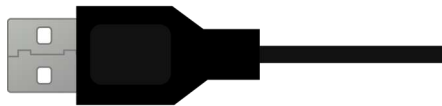
6006

Hook weight by Kern & Sohn
for calibration, 1000 gram



6007

USB power supply, incl. USB type B cable, 150 cm



6008

Car charger adapter,
incl. USB type B cable
150 cm



6009

Stainless steel tare tray,
for day-old chicks,
maximum load 30 kg,
290 x 240 x 340 mm



6010

Turkey Weighing Hook BIT 1
Use for turkeys



Accessories for poultry scales BIT PS 3.0

6011

Turkey Weighing Hook BIT 2
Use for turkeys



6012

Turkey Weighing Hook BIT 3
Use for turkeys



6014

Hanging plate with telescopic rod
40x40 cm



6013


Weighing hopper




BIT QP 3.0 Software

Weight and quality check of eggs according to KAT Guidelines Version/No. 2020.01 with a calibrated laboratory scale and with data export to Excel or as PDF document


7001 Bröring BIT QP 3.0 software, incl. calibrated Kern laboratory balance.
Prerequisite: PC with Windows operating system (Windows 7 - 10) and USB or RS232 interface.






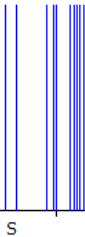
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Qualitätsprüfung - Bröring IT Tel. 04442 910436

Einstellungen

Status Ei Abnahme: Fertig mit 1 Chargen. Fortfahren?

BRÖRING
INFORMATIONSTECHNOLOGIE

Chargenbezeichnung	Test	Gewichtsklasse M	Chargennr.:1	Chargenanzahl:18
Anzahl Eier	: 10	Anzahl Eier gewogen	: 10	
Horde Gewicht	: 45,7g	Variationskoeffizient	: 6,73%	
Gewicht der Eier	: 531,9g	Standartabweichung	: 3,57g	
Durchschnitt pro Ei	: 53,2g	Mittelwert	: 53,00g	
Gesamtgewicht	: 577,5g	Uniformität	: 90,00%	
Luftkammer 	Sauberkeit 	Knick 	Lichtsprung 	Oberfläche 
Taste 1	Taste 2	Taste 3	Taste 4	Taste 5
4. 52,7 S 5. 55,7 M 6. 56,0 M 7. 47,7 S 8. 46,2 S 9. 53,1 M 10. 51,8 S		1. Charge 		
<div> Tara Neustart CSV Drucken Beenden </div>				

Version 1.0.0.0 - vom 01.09.2020
Thomas Horn

BIT QW 3.0 Software

The program BIT QW 3.0 offers a fast weight measurement of eggs in different tray sizes. A Kern laboratory balance is used. Data export to Excel is possible via CSV.

7002 Bröring BIT QW 3.0 software, incl. calibrated Kern laboratory balance.
Prerequisite: PC with Windows operating system (Windows 7 - 10) and USB or RS232 interface.

The screenshot shows the 'Hordenscale' software window. At the top, it says 'Einstellungen' and 'Ei Nr 30 gewogen'. The 'Bröring INFORMATIONSTECHNOLOGIE' logo is in the top right. Below the title bar, there is a section for 'Hordenbezeichnung' with a text box containing 'Test'. This is followed by two columns of data: 'Anzahl Eier : 30', 'Horde Gewicht : 144,0g', 'Gewicht der Eier : 1856,0g', 'Durchschnitt pro Ei : 61,9g', 'Gesamtgewicht : 2000,0g' on the left, and 'Anzahl Eier gewogen : 30', 'Variationskoeffizient : 5,91%', 'Standartabweichung : 3,78g', 'Mittelwert : 64,03g', 'Uniformität : 100,00%' on the right. Below this is a list of 30 individual egg weights, with the first 10 visible: 21. 69,00, 22. 58,00, 23. 63,00, 24. 61,00, 25. 69,00, 26. 58,00, 27. 66,00, 28. 63,00, 29. 69,00, 30. 69,00. At the bottom, there are three buttons: 'Reset Tara', 'Speichern', and 'Beenden'. The footer shows 'Version 1.0.0.0 - vom 19.01.2021' and 'Thomas Horn'.

Hordenbezeichnung: Test	
Anzahl Eier : 30	Anzahl Eier gewogen : 30
Horde Gewicht : 144,0g	Variationskoeffizient : 5,91%
Gewicht der Eier : 1856,0g	Standartabweichung : 3,78g
Durchschnitt pro Ei : 61,9g	Mittelwert : 64,03g
Gesamtgewicht : 2000,0g	Uniformität : 100,00%

Ei Nr	Gewicht (g)
21.	69,00
22.	58,00
23.	63,00
24.	61,00
25.	69,00
26.	58,00
27.	66,00
28.	63,00
29.	69,00
30.	69,00

Buttons: Reset Tara, Speichern, Beenden

Version 1.0.0.0 - vom 19.01.2021 | Thomas Horn

The difference to the BIT QP 3.0 software is that it is specifically designed for weighing, without the quality check according to KAT guide version/no 2020.01.

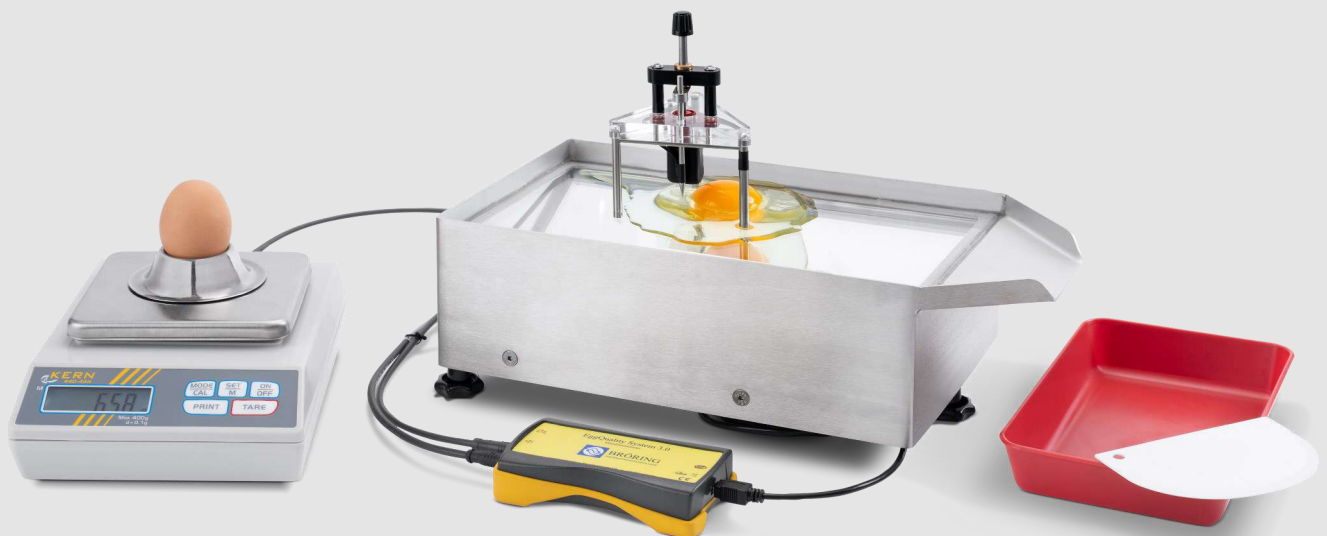
An extension for a printout and PDF is possible.

Distrubutor

For your notes ...



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INFORMATIONSTECHNOLOGIE



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