For over a century, IKA® has been leading the way with innovative technologies and applications in the field of laboratory, analytical and process equipment.

In 1925, IKA® first produced the conventional shaker and displayed this entire product line at ACHEMA. To give our loyal customers a leading edge, IKA® has ensured that new product innovation has been introduced time and time again. And once again, IKA® has completely revamped its’ shaker line by incorporating advanced technology with unique designs. As always, we continue our 100 year old tradition of bringing design, innovation, ease of use and commitment to our customers!

IKA® already has a line of well known and proven orbital and horizontal shakers. IKA® is proud to introduce a brand new series of Rollers, Rockers and Overhead Rotators. The wide range of Rocking, Rolling, Rotating and Shaking covers the entire spectrum of motions in mixing technology. All new devices are available in a basic and digital version. IKA® has also added a sibling to its’ voluminous incubator shaker KS 4000 i control and is control. The expanded product range facilitates the use of our equipment in a wider range of applications, especially in the medical and biological field. The hallmark of IKA®, exceptional design, innovation, quality, high efficiency, smooth operation and excellent performance continues as it has for 100 years!

Protection class according to DIN EN 60529: IP 21
The brand new range of 2D and 3D Rockers provide gentle rocking/see-saw action and are used for homogenous mixing in flasks, culture flasks, Petri dishes and tubes. The compact, small footprint and dual platform saves valuable bench space and facilitates easy-handling. Even with load and voltage fluctuations, shaking speeds remain constant.

Precision in speed (available in fixed and variable) and adjustable tilt angle allow for a variety of applications.

**2D & 3D Rockers accessories**

- **TB 1 Tray**
  - 28 x for tubes 5 ml, Ø 12 mm
  - Ident. No. 4532000
  - $ 13

- **TB 2 Tray**
  - 16 x for tubes 15 ml, Ø 16 mm "standard 15 ml tubes"
  - Ident. No. 4532100
  - $ 13

- **TB 3 Tray**
  - 14 x for tubes 30 ml, Ø 25 mm "standard 50 ml tubes"
  - Ident. No. 4532200
  - $ 13

- **RD 1 Mat** *
  - 2 x for tubes 5 ml, Ø 12 mm
  - Ident. No. 4532300
  - $ 43

- **RD 2 Burled mat**
  - 14 x for tubes 30 ml, Ø 25 mm "standard 50 ml tubes"
  - Ident. No. 4532400
  - $ 43

- **A 2 Second level attachment**
  - For use with Rocker 2D, 3D basic and digital
  - Ident. No. 4532500
  - $ 43

* Special universal mat available to accommodate various kinds of vessels for maximum flexibility.

2+1 years after registering at www.ika.com/register

2D & 3D Rockers | Enhanced dimensions, Smaller footprints!
Gentle mixing applications demand smooth rocking and rolling action. Our 6 and 10 Rollers, operated at fixed and infinitely adjustable speed deliver this requirement efficiently. Easily removable attachments provide for quick cleaning in case of sample spills. Removable rollers allow for the use of larger tubes. Truly, a Rock n’ Roll experience in the laboratory!

**Rollers**

- **Smart and safe mixing!**
- **Accessories**

**Features**

- Timer display for accurate and reproducible conditions
- C/I button for choosing the counter or the timer function
- Touch keypad for easy operation

**Warranty**

2+1 years after registering at www.ika.com/register

**SH Shield**

Ident. No. 4013500

* Included in the delivery.
Loopster | Spin your Loop!

Rotate your samples smoothly and effectively, at fixed or infinitely variable speeds with freely adjustable rotary angles. Ideal for biological samples, particularly blood samples and also suitable for separating and mixing of powdered and liquid samples in multiple tube sizes as large as 50 ml conical tubes. Easily removable attachments provide for quick cleaning in case of sample spills.

Choice of tube holders to hold a number of different sized tubes
90 degree adjustable mixing angle
2+1 years after registering at www.ika.com/register

Timer display for accurate and reproducible conditions

Touch keypad for easy operation

C/T button for choosing the counter or the timer function

Rotating action

Loopster | Accessories

DS 1 Tube attachment
48 x 1.5 ml microcentrifuge tubes; Ø 10 mm
Ident. No. 4524000
$ 165

DS 2 Tube attachment
24 x 5 ml tubes; Ø 12 mm
Ident. No. 4524100
$ 165

DS 3 Tube attachment
20 x 15 ml centrifuge tubes; Ø 16 mm
Ident. No. 4524200
$ 165

DS 4 Tube attachment
12 x 30 ml, Ø 25 mm
Ident. No. 4524300
$ 165

DS 5 Tube attachment
12 x 50 ml centrifuge tubes; Ø 28 mm
Ident. No. 4524400
$ 165

DS 6 Universal disc*
Single tube attachment for holding five different kinds of tubes for greater versatility.
Ident. No. 4524500
$ 136

* Not included in the delivery

DS 6.1 Spare clips
48 x 1.5 ml, Ø 10 mm, 10 pieces
Ident. No. 4524600
$ 7

DS 6.2 Spare clips
24 x 5 ml tubes, Ø 12 mm, 10 pieces
Ident. No. 4524700
$ 7

DS 6.3 Spare clips
20 x 15 ml, Ø 16 mm, 10 pieces
Ident. No. 4524800
$ 7

DS 6.4 Spare clips
12 x 30 ml, Ø 25 mm, 10 pieces
Ident. No. 4524900
$ 7

DS 6.5 Spare clips
12 x 50 ml, Ø 28 mm, 10 pieces
Ident. No. 4525000
$ 7

Rotating action

To get customized and additional accessories, please visit www.ika.com/service
Overhead shakers with vertical rotating action for smooth and effective mixing at fixed or infinitely adjustable speed. Ideal for biological samples, particularly blood and suitable for the separating and mixing of powdered and liquid samples in tubes of up to 50 ml. Easily removable attachments provide for quick cleaning in case of sample spills.

Trayster | Swirl your way to perfect mixing!

1. **Vertical rotating action**
2. **Timer display** for accurate and reproducible conditions
3. **Timer display** for easy operation
4. **Vertical rotating action**
5. **C/T button** for choosing the counter or the timer function
6. **2+1 Year warranty**

**Accessories**

- **TR 1 Tube insert**
  - 24 x 1.5 ml microcentrifuge tubes, Ø 10 mm
  - Ident. No. 4525100
  - $48

- **TR 2 Tube insert**
  - 24 x 5 ml tubes, Ø 12 mm
  - Ident. No. 4525200
  - $48

- **TR 3 Tube insert**
  - 12 x 15 ml centrifuge tubes, Ø 16 mm
  - Ident. No. 4525300
  - $48

- **TR 4 Tube insert**
  - 6 x 50 ml centrifuge tubes, Ø 28 mm
  - Ident. No. 4525400
  - $48

*All the above accessories are included in the delivery.*
The KS 3000 series is the latest addition to the incubator shaker family. These sleek, compact, high-performance shakers are designed for safe, unattended operation in a temperature-controlled environment. Additionally, KS 3000 ic control is equipped with a built-in cooling coil for connection to an external cooling unit (available only for KS 3000 ic control). USB interface to control and document all parameters using labworldsoft® software and for updating your firmware. Wide range of attachments allows for using almost all shapes and sizes of vessels.

**Incubator shakers | KS 3000 i / ic control**

- Large LED display for speed, temperature and timer
- Assure highly accurate temperature control
- Orbital action

**Accessories | KS 3000 i / ic control**

**AS 260.1 Universal attachment**
- For various types of vessels, infinitely variable clamping rolls allow universal adaptation to the vessels.
- Included with delivery:
  - 1 x AS 1.61 Back holder
  - 4 x AS 1.61 Clamping roll
  - 8 x AS 1.5 Fastening screw

**AS 260.3 Dish attachment**
- For smooth movement for cell cultures, nutrient media in Petri dishes, culture bottles and vessels with a low center of gravity. With integrated clip-resistant foil (PP).

**AS 260.5 Separating funnel attachment**
- For shaking out, sifting out, extracting, eluting and enriching. The 3 clamping rolls (included in delivery) are height-adjustable for adaptation to different separating funnel sizes. The separating funnels are secured with O-rings (6 O-rings included).

**STICKMAX**
- Universal adhesive mat for KS 130, KS/HS 260, KS/HS 501, KS 3000 and KS 4000 shakers.

**ORBITAL ACTION**
- USB interface to control and document all parameters using labworldsoft® software and for updating your firmware.

- Built-in cooling coil for connection to an external cooling unit (available only for KS 3000 ic control).

**2+1 Years Warranty**

- 2+1 years after registering at www.ika.com/register
- 2+1 Year warranty*

**labworldsoft®**
- labworldsoft® is a multi-purpose software program for measuring, controlling and regulating laboratory devices.

**Orbital action**

**Dimensions (W x D x H)**
- 425 x 335 x 135 mm
- 320 x 320 mm
- 410 x 370 x 32 mm
- 410 x 330 x 145 mm
- 200 x 200 mm

**Set-up plate**
- 320 x 320 mm
- 320 x 320 mm
- 320 x 320 mm

**Weight**
- 1600 g
- 405 g
- 460 g
- 1290 g
- 1550 g

**Ident. No.**
- 8017400
- 3206000
- 8027500
- 3109500
- 3120800
- 3930000
- 4720000

**Price**
- $ 226
- $ 124
- $ 679
- $ 109
- $ 453
- $ 159
- $ 124
- $ 166
## 3D Shakers | Technical data

<table>
<thead>
<tr>
<th>Model</th>
<th>Technical data</th>
<th>Price</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rocker 2D basic</td>
<td>1325</td>
<td>rock</td>
</tr>
<tr>
<td>Rocker 2D digital</td>
<td>1326</td>
<td>digital</td>
</tr>
<tr>
<td>Rocker 3D basic</td>
<td>1327</td>
<td>basic</td>
</tr>
<tr>
<td>Rocker 3D digital</td>
<td>1328</td>
<td>digital</td>
</tr>
<tr>
<td>Loopster basic</td>
<td>1329</td>
<td>basic</td>
</tr>
<tr>
<td>Loopster digital</td>
<td>1330</td>
<td>digital</td>
</tr>
<tr>
<td>Trayster basic</td>
<td>1331</td>
<td>basic</td>
</tr>
<tr>
<td>Trayster digital</td>
<td>1332</td>
<td>digital</td>
</tr>
<tr>
<td>Roller 6 basic</td>
<td>1333</td>
<td>basic</td>
</tr>
<tr>
<td>Roller 6 digital</td>
<td>1334</td>
<td>digital</td>
</tr>
<tr>
<td>Roller 10 basic</td>
<td>1335</td>
<td>basic</td>
</tr>
<tr>
<td>Roller 10 digital</td>
<td>1336</td>
<td>digital</td>
</tr>
</tbody>
</table>

## Incubator shakers | Technical data

<table>
<thead>
<tr>
<th>Model</th>
<th>Technical data</th>
<th>Price</th>
</tr>
</thead>
<tbody>
<tr>
<td>KS 3000 i control</td>
<td>1337</td>
<td>control</td>
</tr>
<tr>
<td>KS 4000 i control</td>
<td>1338</td>
<td>control</td>
</tr>
</tbody>
</table>

### Technical data
- **Type of movement:**
- **Sizing diagram:**
- **Permissible shaking weight (incl. attachment):**
- **Motor rating input/output:**
- **Weight:**
- **Dimensions (W x D x H):**
- **Technical data:**

### Incubator shakers
- **Type of movement:**
- **Shaking diameter:**
- **Type of movement:**
Technical data

**MS 3 digital:** Ident. No. 3319000
Price: $449
Price: $513

- Frequency: 50/60 Hz
- Voltage: 100–240 V
- Interface: no
- Permissible relative moisture: 80%
- Permissible ambient temp.: 2.9 kg
- Dimensions (W x D x H): 148 x 205 x 63 mm
- Operating mode: timer and continuous / touch operation
- Timer display: continuous / touch operation
- Speed display: scale
- Speed range: 0 – 3000 rpm
- Motor rating input / output: 100%
- Permissible shaking weight: 0.5 kg
- Shaking diameter: 4.5 mm
- Type of movement: orbital

**MS 3 basic:** Ident. No. 3617000
Price: $281

- Frequency: 50/60 Hz
- Voltage: 115 V
- Interface: no
- Permissible relative moisture: 80%
- Permissible ambient temp.: 0.55 kg
- Dimensions (W x D x H): 100 x 70 mm (Ø 100 x H 70 mm)
- Operating mode: touch operation
- Timer display: no
- Speed display: none
- Speed range: 100%
- Motor rating input / output: 100%
- Permissible shaking weight: 0.1 kg
- Shaking diameter: 4.5 mm
- Type of movement: orbital

**MS 5 basic**
Ident. No. 3340001
Price: $574

- Frequency: 50/60 Hz
- Voltage: 115 V
- Interface: no
- Permissible relative moisture: 80%
- Permissible ambient temp.: 4.5 kg
- Dimensions (W x D x H): 127 x 149 x 136 mm
- Operating mode: timer and continuous / touch operation
- Timer display: none
- Speed display: none
- Speed range: 100%
- Motor rating input / output: 100%
- Permissible shaking weight: 0.4 kg
- Shaking diameter: 4.5 mm
- Type of movement: orbital

**VORTEX 3**
Ident. No. 4278401
Price: $2,254
Price: $2,704

- Frequency: 50/60 Hz
- Voltage: 115 V
- Interface: no
- Permissible relative moisture: 80%
- Permissible ambient temp.: 8.5 kg
- Dimensions (W x D x H): 360 x 420 x 98 mm
- Operating mode: timer and continuous operation
- Timer display: LED line
- Speed display: LED line
- Speed range: 20 – 500 rpm
- Motor rating input / output: 45 / 10 W
- Permissible shaking weight: 7.5 kg
- Shaking diameter: 10 mm
- Type of movement: orbital

**KS 130 basic**
Ident. No. 2980101
Price: $1,504
Price: $2,278

- Frequency: 50/60 Hz
- Voltage: 115 V
- Interface: no
- Permissible relative moisture: 80%
- Permissible ambient temp.: 8.8 kg
- Dimensions (W x D x H): 270 x 316 x 98 mm
- Operating mode: timer and continuous operation
- Timer display: LED line
- Speed display: LED line
- Speed range: 10 – 500 rpm
- Motor rating input / output: 45 / 10 W
- Permissible shaking weight: 7.5 kg
- Shaking diameter: 10 mm
- Type of movement: orbital

**KS 260 basic**
Ident. No. 3208001
Price: $1,318

- Frequency: 50/60 Hz
- Voltage: 115 V
- Interface: no
- Permissible relative moisture: 80%
- Permissible ambient temp.: 2.7 kg
- Dimensions (W x D x H): 185 x 320 x 105 mm
- Operating mode: timer and continuous operation
- Timer display: no
- Speed display: scale
- Speed range: 0 – 1100 rpm
- Motor rating input / output: 35 / 13.2 W
- Permissible shaking weight: 2 kg
- Shaking diameter: 4 mm
- Type of movement: orbital

**VORTEX 4 basic**
Ident. No. 4049600
Price: $574
Price: $622

- Frequency: 50/60 Hz
- Voltage: 100–240 V
- Interface: no
- Permissible relative moisture: 80%
- Permissible ambient temp.: 3 kg
- Dimensions (W x D x H): 176 x 190 x 63 mm
- Operating mode: timer and continuous / touch operation
- Timer display: no
- Speed display: digital
- Speed range: 0 – 3000 rpm
- Motor rating input / output: 10 / 8 W
- Permissible shaking weight: 0.5 kg
- Shaking diameter: 4.5 mm
- Type of movement: orbital

**VORTEX 4 basic**
Ident. No. 4050100
Price: $474
Price: $513

- Frequency: 50/60 Hz
- Voltage: 100–240 V
- Interface: no
- Permissible relative moisture: 80%
- Permissible ambient temp.: 3 kg
- Dimensions (W x D x H): 176 x 190 x 63 mm
- Operating mode: timer and continuous / touch operation
- Timer display: no
- Speed display: digital
- Speed range: 0 – 3000 rpm
- Motor rating input / output: 10 / 8 W
- Permissible shaking weight: 0.5 kg
- Shaking diameter: 4.5 mm
- Type of movement: orbital

**MTS 124 digital microtiter shaker**
Ident. No. 2819001
Price: $932

- Frequency: 50/60 Hz
- Voltage: 115 V
- Interface: no
- Permissible relative moisture: 80%
- Permissible ambient temp.: 6.1 kg
- Dimensions (W x D x H): 157 x 247 x 130 mm
- Operating mode: continuous operation
- Timer display: scale
- Speed display: scale
- Speed range: 0 – 2200 rpm
- Motor rating input / output: 35 / 13.2 W
- Permissible shaking weight: 2 kg
- Shaking diameter: 4 mm
- Type of movement: orbital

**VXR basic Vibrax ®**
Ident. No. 2817000
Price: $1917

- Frequency: 50/60 Hz
- Voltage: 115 V
- Interface: no
- Permissible relative moisture: 80%
- Permissible ambient temp.: 2.7 kg
- Dimensions (W x D x H): 185 x 320 x 105 mm
- Operating mode: timer and continuous operation
- Timer display: LED line
- Speed display: no
- Speed range: 0 – 3000 rpm
- Motor rating input / output: 10 / 8 W
- Permissible shaking weight: 2 kg
- Shaking diameter: 4 mm
- Type of movement: orbital

**KS 130 control (without end point positioning):**
Ident. No. 2980001
Price: $1,504

- Frequency: 50/60 Hz
- Voltage: 115 V
- Interface: RS 232
- Permissible relative moisture: 80%
- Permissible ambient temp.: 8.8 kg
- Dimensions (W x D x H): 270 x 316 x 98 mm
- Operating mode: timer and continuous operation
- Timer display: LED line
- Speed display: LED line
- Speed range: 10 – 500 rpm
- Motor rating input / output: 45 / 10 W
- Permissible shaking weight: 7.5 kg
- Shaking diameter: 10 mm
- Type of movement: orbital

**KS 260 control (without end point positioning):**
Ident. No. 2980201
Price: $1,504

- Frequency: 50/60 Hz
- Voltage: 115 V
- Interface: RS 232
- Permissible relative moisture: 80%
- Permissible ambient temp.: 8.8 kg
- Dimensions (W x D x H): 270 x 316 x 98 mm
- Operating mode: timer and continuous operation
- Timer display: LED line
- Speed display: LED line
- Speed range: 10 – 500 rpm
- Motor rating input / output: 45 / 10 W
- Permissible shaking weight: 7.5 kg
- Shaking diameter: 10 mm
- Type of movement: orbital

**KS 130 control:**
Ident. No. 2980301
Price: $1,504

- Frequency: 50/60 Hz
- Voltage: 115 V
- Interface: LED line
- Permissible relative moisture: 80%
- Permissible ambient temp.: 8.8 kg
- Dimensions (W x D x H): 270 x 316 x 98 mm
- Operating mode: timer and continuous operation
- Timer display: LED line
- Speed display: LED line
- Speed range: 10 – 500 rpm
- Motor rating input / output: 45 / 10 W
- Permissible shaking weight: 7.5 kg
- Shaking diameter: 10 mm
- Type of movement: orbital

**KS 260 control:**
Ident. No. 3208001
Price: $1,318

- Frequency: 50/60 Hz
- Voltage: 115 V
- Interface: LED line
- Permissible relative moisture: 80%
- Permissible ambient temp.: 8.8 kg
- Dimensions (W x D x H): 270 x 316 x 98 mm
- Operating mode: timer and continuous operation
- Timer display: LED line
- Speed display: LED line
- Speed range: 10 – 500 rpm
- Motor rating input / output: 45 / 10 W
- Permissible shaking weight: 7.5 kg
- Shaking diameter: 10 mm
- Type of movement: orbital

**MTS 124 control:**
Ident. No. 3208001
Price: $1,917

- Frequency: 50/60 Hz
- Voltage: 115 V
- Interface: LED line
- Permissible relative moisture: 80%
- Permissible ambient temp.: 8.8 kg
- Dimensions (W x D x H): 270 x 316 x 98 mm
- Operating mode: timer and continuous operation
- Timer display: LED line
- Speed display: LED line
- Speed range: 10 – 500 rpm
- Motor rating input / output: 45 / 10 W
- Permissible shaking weight: 7.5 kg
- Shaking diameter: 10 mm
- Type of movement: orbital
Shakers | Technical data

**HS 260 basic | control**
- **Type of movement**: Reciprocating
- **Shaking diameter**: 20 mm
- **Permissible shaking weight**: 7.5 kg
- **Motor rating input / output**: 100% 45 / 10 W
- **Permissible ON time**: 100% 100%
- **Speed range**: 20 – 300 rpm
- **Speed display**: Digital
- **Timer**: ∞ / 5 – 50 min
- **Timer display**: Digital
- **Operating mode**: Timer and continuous operation
- **Dimensions (W x D x H)**: 360 x 420 x 100 mm
- **Weight**: 8.5 kg
- **Permissible ambient temp.**: 5 – 50 °C
- **Permissible relative moisture**: 80%
- **Protection class acc. to DIN EN 60529**: IP 21
- **Interface**: No
- **Voltage**: 115 V
- **Frequency**: 50/60 Hz
- **Price**: $ 2,254

**HS 501 digital**
- **Type of movement**: Orbital
- **Shaking diameter**: 30 mm
- **Permissible shaking weight**: 15 kg
- **Motor rating input / output**: 100% 70 / 19 W
- **Permissible ON time**: 100% 100%
- **Speed range**: 0 – 300 rpm
- **Speed display**: Digital
- **Timer**: ∞ / 1 – 56 min
- **Timer display**: Digital
- **Operating mode**: Timer and continuous operation
- **Dimensions (W x D x H)**: 505 x 585 x 120 mm
- **Weight**: 26 kg
- **Permissible ambient temp.**: 5 – 50 °C
- **Permissible relative moisture**: 80%
- **Protection class acc. to DIN EN 60529**: IP 21
- **Interface**: No
- **Voltage**: 115 V
- **Frequency**: 50/60 Hz
- **Price**: $ 5,546

**HS 501 digital**
- **Type of movement**: Reciprocating
- **Shaking diameter**: 30 mm
- **Permissible shaking weight**: 15 kg
- **Motor rating input / output**: 100% 70 / 19 W
- **Permissible ON time**: 100% 100%
- **Speed range**: 0 – 300 rpm
- **Speed display**: Digital
- **Timer**: ∞ / 1 – 56 min
- **Timer display**: Digital
- **Operating mode**: Timer and continuous operation
- **Dimensions (W x D x H)**: 505 x 585 x 120 mm
- **Weight**: 26 kg
- **Permissible ambient temp.**: 5 – 50 °C
- **Permissible relative moisture**: 80%
- **Protection class acc. to DIN EN 60529**: IP 21
- **Interface**: No
- **Voltage**: 115 V
- **Frequency**: 50/60 Hz
- **Price**: $ 5,421

Accessories | KS 4000 i / ic control

**KS 501 digital**
- **Type of movement**: Orbital
- **Shaking diameter**: 30 mm
- **Permissible shaking weight**: 15 kg
- **Motor rating input / output**: 100% 70 / 19 W
- **Permissible ON time**: 100% 100%
- **Speed range**: 0 – 300 rpm
- **Speed display**: Digital
- **Timer**: ∞ / 1 – 56 min
- **Timer display**: Digital
- **Operating mode**: Timer and continuous operation
- **Dimensions (W x D x H)**: 470 x 447 x 135 mm
- **Weight**: 3200 g

**KS 4000 i / ic control**
- **Type of movement**: Reciprocating
- **Shaking diameter**: 40 mm
- **Permissible shaking weight**: 7.5 kg
- **Motor rating input / output**: 100% 45 / 10 W
- **Permissible ON time**: 100% 100%
- **Speed range**: 20 – 300 rpm
- **Speed display**: Digital
- **Timer**: ∞ / 5 – 50 min
- **Timer display**: Digital
- **Operating mode**: Timer and continuous operation
- **Dimensions (W x D x H)**: 470 x 447 x 135 mm
- **Weight**: 3200 g

**HS 4000.1 Universal attachment**
- **For use with various types of vessels. Infinitely variable clamping rolls allow universal adaption to the vessels.

**Included with delivery:**
- 1 x Basic holder
- 1 x Clamping roll
- 12 x Fastening screw

**Price**: $ 1,788

**AS 4000.1 Fixing clip attachment**
- **For shaking flasks, Erlenmeyer flasks and bottles with a round cross section (without fixing clips).

**Price**: $ 928

**AS 4000.2 Fixing clip attachment**
- **For shaking flasks, Erlenmeyer flasks and bottles with a round cross section (without fixing clips).

**Price**: $ 928

**AS 4000.3 Dish attachment**
- **For smooth shaking operations in the low viscosity range, e.g. for cell cultures, nutrient media in Petri dishes, culture bottles and vessels with a low center of gravity. With integrated slip-resistant foil (PP).

**Price**: $ 275

**AS 1.401 Clamping roll**
- **Spare for use with universal attachment AS 4000.1.

**Price**: $ 77

**AS 1.402 Fastening screw**
- **Spare for use with universal attachment AS 4000.1. Two AS 1.402 fastening screws are required for fastening a clamping roll onto the corresponding basic holder.

**Price**: $ 19

**AS 1.400 Basic holder**
- **Spare for use with universal attachment AS 4000.1.

**Price**: $ 631
**VX 11.1 Test tube insert**
Attachment for Eppendorf tubes or test tubes.

**VX 11.2 Test tube insert**
Attachment for test tubes.

**VX 11.3 Test tube insert**
Attachment for test tubes.

**VX 11.4 Test tube insert**
Attachment for test tubes.

**VX 1 One-hand attachment**
For shaking single, non-fixed vessels of 1 – 250 ml.

**VX 2 Test tube attachment**
For up to 36 test tubes or centrifugal tubes with a diameter of 16 mm.

**VX 2E “Eppendorf” attachment**
For intensive mixing of up to 64 "microcentrifuge" tubes (1.5 ml).

**VX 2E “Eppendorf” attachment (Micro)”**
For intensive mixing of up to 64 "microcentrifuge" tubes (1.5 ml).

**VX 2E Universal attachment**
For use with various types of vessels by means of universal, infinitely variable clamping rolls.

**VX 8 Universal attachment**
For rapid and secure clamping, e.g. 2 Erlenmeyer flasks up to 500 ml.

**VX 8 Clamping roll**
Spare for use with VX 8 universal attachment.

**VX 8.1 Clamping roll**
Spare for use with VX 8 universal attachment.

**VX 8.2 Fixing clip attachment**
For processing round flasks, measuring flasks and Erlenmeyer flasks. Please order fixing clips separately.

**VX 8.3 “Eppendorf” attachment**
For intensive mixing of up to 64 "microcentrifuge" tubes (1.5 ml).

**VX 8.4 Test tube insert**
Attachment for test tubes.
AS 260.1 Universal attachment
For various types of vessels. Infinitely variable clamping rolls allow universal adaptation to the vessels.
Included with delivery:
1 x AS 1.60 Basic holder,
4 x AS 1.61 Clamping roll,
8 x AS 1.5 Fastening screw

AS 260.2 Fixing clip attachment
For shaking flasks, Erlenmeyer flasks and bottles with a round cross-section (without fixing clips).
Accessories:
Fixing clips: AS 2.1, AS 2.2, AS 2.3, AS 2.4, AS 2.5

AS 260.3 Dish attachment
For smooth movement for cell cultures, nutrient media in Petri dishes, culture bottles and vessels with a low center of gravity. With integrated slip-resistant foil (PP).

AS 260.5 Separating funnel attachment
For shaking out, salting out, extracting, eluting and enriching. The 3 clamping rolls (included in delivery) are height-adjustable for adaption to different separating funnel sizes. The separating funnels are secured with O-rings (6 O-rings included).

AS 1.30 Basic holder
For use with universal attachment AS 260.1.
Accessories:
AS 1.31, AS 1.5
Ident. No. 3140000
$ 561

AS 1.60 Basic holder
For use with universal attachment AS 260.1.
Accessories:
AS 1.61, AS 1.5
Ident. No. 3140000
$ 319

AS 1.10 Basic holder
Accessories:
AS 1.11, AS 1.6, AS 1.7, AS 1.8, AS 1.12, AS 1.13
Ident. No. 3105010
Clamping roll
AS 1.31
AS 1.31
AS 1.11
**AS 501.1 Universal attachment**
For various types of vessels with a minimum volume of 50 ml. Ideally more than 250 ml. The clamping rolls may be adjusted to two levels.
Included with delivery:
- 1 x AS 1.10 Basic holder
- 6 x AS 1.11 Clamping roll
- 12 x AS 1.6 Fastening screw

**Dimensions (W x D x H)** 480 x 500 x 120 mm
**Set-up plate** 420 x 420 mm
**Weight** 4800 g

**Ident. No.** 8000200

$1,321

**AS 501.2 Separating funnel attachment**
For shaking out, eluting, extracting, gasping out, dissolving, obtaining, etc. Adjustment for the clamping rolls is infinitely variable, the set up height can be changed by means of clamping devices.
Included with delivery:
- 1 x AS 1.10
- 6 x AS 1.11
- 6 x AS 1.6
- 6 x AS 1.7

**Dimensions (W x D x H)** 480 x 505 x 190 mm
**Capacity** (number of separating funnels per volume, pear-shaped)
- 12 x 50 ml
- 10 x 100 ml
- 6 x 250 ml
**Weight** 3720 g

**Ident. No.** 8000300

$1,388

**AS 501.3 Separating funnel attachment**
Same features as AS 501.2.
Included with delivery:
- 1 x AS 1.10
- 4 x AS 1.11
- 4 x AS 1.6
- 4 x AS 1.7

**Dimensions (W x D x H)** 480 x 505 x 190 mm
**Capacity** (number of separating funnels per volume, pear-shaped)
- 4 x 500 ml
- 3 x 1000 ml
- 2 x 2000 ml
**Weight** 3720 g

**Ident. No.** 8000400

$1,260

**AS 501.4 Fixing clip attachment**
For shaking flasks, Erlenmeyer flasks and pear-shaped flasks (without fixing clips).
**Accessories:**
- Fixing clips: AS 2.1, AS 2.2, AS 2.3, AS 2.4, AS 2.5

**Dimensions (W x D x H)** 476 x 468 x 96 mm
**Number of fixing clips per volume**
- 110 x AS 2.1 (25 ml)
- 55 x AS 2.2 (50 ml)
- 35 x AS 2.3 (100 ml)
- 16 x AS 2.4 (250 ml)
- 12 x AS 2.5 (500 ml)
- 8 x AS 2.6 (1000 ml)
**Weight** 2440 g

**Ident. No.** 2341000

$1,260

**STICKMAX**
Universal adhesive mat for KS 130, KS/HS 260, KS/H/HS 501, KS 3000 and KS 4000 shakers.
- Ideal for frequently changing vessel types and sizes
- Self adhesive
- Devices can be easily removed by side tilting movement
- Suitable for disinfection
- Peel-away strength required: 5 N/cm²

**Dimensions (W x D x H)** 200 x 200 mm
**Permissible ambient temperature** 5 – 80 °C
**Max. speed** 300 rpm
**Number of adhesive mats per shaker**
- KS 130: 1 pcs.
- KS/HS 260: 3 pcs.
- KS/H/HS 501: 4 pcs.
- KS 3000: 2 pcs.
- KS 4000: 4 pcs.

**Ident. No.** 3920000

$109

**AS 501.5 Dish attachment**
For smoothly shaking dishes, but also for smooth mixing in vessels with a large, flat bottom (wide-necked Erlenmeyer flasks and beakers). A plastic foil with mild adhesive prevents the vessel from slipping.

**Dimensions (W x D x H)** 450 x 450 x 60 mm
**Set-up plate** 400 x 400 mm
**Weight** 1130 g

**Ident. No.** 2339600

$352

**AS 501.6 Separating funnel attachment**
Same features as AS 501.2. This attachment will hold 4 x 1000 ml separating funnels.
Included with delivery:
- 1 x AS 1.10, 4 x AS 1.6, 4 x AS 1.7, 8 x AS 1.13

**Dimensions (W x D x H)** 480 x 505 x 225 mm
**Capacity** (number of separating funnels per volume, pear-shaped)
- 4 x 1000 ml
**Weight** 5500 g

**Ident. No.** 8000500

$2,296
AS 2.6 Fixing clip
AS 2.5 Fixing clip
AS 2.4 Fixing clip
AS 2.3 Fixing clip
AS 2.2 Fixing clip
AS 2.1 Fixing clip

VG 3.1 Standard attachment
Standard attachment for magnetic glass, small vessels (continuous / touch operation), included with delivery.

VG 3.21 Test tube attachment* For test tubes Ø 21 mm (continuous operation).

VG 3.14 Test tube attachment* For test tubes Ø 14 mm, included with the minishakers MS 3 basic and MS 3 digital.

VG 3.13 Test tube attachment* For test tubes Ø 13 mm, included with the minishakers MS 3 basic and MS 3 digital.

VG 3.2 Universal attachment
Universal attachment, 150 mm, for insert/ejector (continuous operation).

VG 3.26 Erlenmeyer flask attachment* For Erlenmeyer flasks, 500 ml (continuous operation).

VG 3.36 Microtiter plate attachment* For microtiter plates, included with the minishakers MS 3 basic and MS 3 digital.

VG 3.37 Microtiter plate attachment* For microtiter plates, 100 wells. Included holder and insert.

VG 3.3 Microtiter plate attachment For microtiter plates, included with the minishakers MS 3 basic and MS 3 digital.

VG 3.1 Microtiter plate attachment* For microtiter plates up to 50 wells. Included holder and insert.

VG 3.11 Microtiter plate attachment For microtiter plates, 8 wells. Included holder and insert.

MS 3.1 Standard attachment
Universal attachment, 150 mm, for any number of bore holes. Material: ethylvinyl-acetate.

MS 3.3 Microtiter plate attachment For microtiter plates, 12 wells. Material: ethylvinyl-acetate.

MS 3.2 Microtiter plate attachment* For microtiter plates, 10 wells. Included holder and insert.

MS 3.3 Microtiter plate attachment* For test tubes Ø 13 mm. Included holder and insert.

MS 3.1 One-hand insert
For attaching the universal attachment, for 4 test tubes Ø 16 mm. Material: ethylvinyl-acetate.

MS 3.10 Test tube insert* For testing tubes in universal attachment, for 5 test tubes Ø 16 mm. Material: ethylvinyl-acetate.

MS 3.12 Test tube insert* For testing tubes in universal attachment, for 6 test tubes Ø 16 mm. Material: ethylvinyl-acetate.

MS 3.4 Test tube insert* For testing tubes in universal attachment, for any number of bore holes. Material: ethylvinyl-acetate.

MS 3.11 Test tube insert* For testing tubes in universal attachment, for 6 test tubes Ø 16 mm. Material: ethylvinyl-acetate.

MS 3.13 Test tube insert* For testing tubes in universal attachment, for 5 test tubes Ø 16 mm. Material: ethylvinyl-acetate.

MS 3.14 Test tube insert* For testing tubes in universal attachment, for 4 test tubes Ø 16 mm. Material: ethylvinyl-acetate.

MS 3.15 Test tube insert* For testing tubes in universal attachment, for 3 test tubes Ø 16 mm. Material: ethylvinyl-acetate.

MS 3.16 Test tube insert* For testing tubes in universal attachment, for 2 test tubes Ø 16 mm. Material: ethylvinyl-acetate.

MS 3.17 Test tube insert* For testing tubes in universal attachment, for 1 test tube Ø 16 mm. Material: ethylvinyl-acetate.

MS 3.18 Test tube insert* For testing tubes in universal attachment, for 0 test tubes Ø 16 mm. Material: ethylvinyl-acetate.

MS 3.19 Test tube insert* For testing tubes in universal attachment, for 0 test tubes Ø 16 mm. Material: ethylvinyl-acetate.

MS 3.20 Test tube insert* For testing tubes in universal attachment, for 0 test tubes Ø 16 mm. Material: ethylvinyl-acetate.

VG 3.1 Ground section holder
For attaching separating funnels with ground opening (e.g. for fixing a vessel which has a higher point of gravity). For basic holder AS 1.10 only.

VG 3.2 Supporting bar
Supporting bar (for basic holder AS 1.10 only).

VG 3.21 Fixing clip
For fixing the ground section holder AS 2.6 onto the corresponding basic holder. (For fixation of the Universal attachment AS 3.1.)

VG 3.22 Fixing clip
For fixing the ground section holder AS 2.5 onto the corresponding basic holder.

VG 3.23 Fixing clip
For fixing the ground section holder AS 2.4 onto the corresponding basic holder.

VG 3.24 Fixing clip
For fixing the ground section holder AS 2.3 onto the corresponding basic holder.

VG 3.25 Fixing clip
For fixing the ground section holder AS 2.2 onto the corresponding basic holder.

VG 3.26 Fixing clip
For fixing the ground section holder AS 2.1 onto the corresponding basic holder.

VG 3.27 Fixing clip
For fixing the ground section holder AS 3.11 onto the corresponding basic holder.

VG 3.28 Fixing clip
For fixing the ground section holder AS 3.10 onto the corresponding basic holder.

VG 3.29 Fixing clip
For fixing the ground section holder AS 3.9 onto the corresponding basic holder.

VG 3.30 Fixing clip
For fixing the ground section holder AS 3.8 onto the corresponding basic holder.

VG 3.31 Fixing clip
For fixing the ground section holder AS 3.7 onto the corresponding basic holder.

VG 3.32 Fixing clip
For fixing the ground section holder AS 3.6 onto the corresponding basic holder.

VG 3.33 Fixing clip
For fixing the ground section holder AS 3.5 onto the corresponding basic holder.

VG 3.34 Fixing clip
For fixing the ground section holder AS 3.4 onto the corresponding basic holder.

VG 3.35 Fixing clip
For fixing the ground section holder AS 3.3 onto the corresponding basic holder.

VG 3.36 Fixing clip
For fixing the ground section holder AS 3.2 onto the corresponding basic holder.

VG 3.37 Fixing clip
For fixing the ground section holder AS 3.1 onto the corresponding basic holder.

VG 3.38 Fixing clip
For fixing the ground section holder AS 3.7 onto the corresponding basic holder.

VG 3.39 Fixing clip
For fixing the ground section holder AS 3.6 onto the corresponding basic holder.

VG 3.40 Fixing clip
For fixing the ground section holder AS 3.5 onto the corresponding basic holder.

VG 3.41 Fixing clip
For fixing the ground section holder AS 3.4 onto the corresponding basic holder.

VG 3.42 Fixing clip
For fixing the ground section holder AS 3.3 onto the corresponding basic holder.

VG 3.43 Fixing clip
For fixing the ground section holder AS 3.2 onto the corresponding basic holder.

VG 3.44 Fixing clip
For fixing the ground section holder AS 3.1 onto the corresponding basic holder.

VG 3.45 Fixing clip
For fixing the ground section holder AS 3.7 onto the corresponding basic holder.

VG 3.46 Fixing clip
For fixing the ground section holder AS 3.6 onto the corresponding basic holder.

VG 3.47 Fixing clip
For fixing the ground section holder AS 3.5 onto the corresponding basic holder.

VG 3.48 Fixing clip
For fixing the ground section holder AS 3.4 onto the corresponding basic holder.

VG 3.49 Fixing clip
For fixing the ground section holder AS 3.3 onto the corresponding basic holder.

VG 3.50 Fixing clip
For fixing the ground section holder AS 3.2 onto the corresponding basic holder.

VG 3.51 Fixing clip
For fixing the ground section holder AS 3.1 onto the corresponding basic holder.

VG 3.52 Fixing clip
For fixing the ground section holder AS 3.7 onto the corresponding basic holder.

VG 3.53 Fixing clip
For fixing the ground section holder AS 3.6 onto the corresponding basic holder.

VG 3.54 Fixing clip
For fixing the ground section holder AS 3.5 onto the corresponding basic holder.

VG 3.55 Fixing clip
For fixing the ground section holder AS 3.4 onto the corresponding basic holder.

VG 3.56 Fixing clip
For fixing the ground section holder AS 3.3 onto the corresponding basic holder.

VG 3.57 Fixing clip
For fixing the ground section holder AS 3.2 onto the corresponding basic holder.

VG 3.58 Fixing clip
For fixing the ground section holder AS 3.1 onto the corresponding basic holder.
<table>
<thead>
<tr>
<th>Vessel capacity</th>
<th>Beakers (high form)</th>
<th>Beakers (low form)</th>
<th>Volumetric Flasks</th>
<th>Erlenmeyer Flasks</th>
<th>Shakers</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>KS 130</strong></td>
<td>15</td>
<td>11</td>
<td>4</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td><strong>KS 260</strong></td>
<td>15</td>
<td>11</td>
<td>8</td>
<td>1</td>
<td>**</td>
</tr>
<tr>
<td><strong>KS 501</strong></td>
<td>10</td>
<td>28</td>
<td>16</td>
<td>0</td>
<td>9</td>
</tr>
<tr>
<td><strong>STICKMAX</strong></td>
<td>100</td>
<td>64</td>
<td>36</td>
<td>25</td>
<td>16</td>
</tr>
<tr>
<td><strong>AS 130.1</strong></td>
<td>70</td>
<td>48</td>
<td>30</td>
<td>20</td>
<td>12</td>
</tr>
<tr>
<td><strong>AS 501.1</strong></td>
<td>70</td>
<td>48</td>
<td>42</td>
<td>30</td>
<td>20</td>
</tr>
<tr>
<td><strong>AS 130.2</strong></td>
<td>15</td>
<td>8</td>
<td>8</td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td><strong>AS 501.2</strong></td>
<td>15</td>
<td>8</td>
<td>8</td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td><strong>AS 501.4</strong></td>
<td>50</td>
<td>35</td>
<td>30</td>
<td>16</td>
<td>12</td>
</tr>
<tr>
<td><strong>AS 260.1</strong></td>
<td>31</td>
<td>28</td>
<td>15</td>
<td>8</td>
<td>6</td>
</tr>
<tr>
<td><strong>AS 260.2</strong></td>
<td>25</td>
<td>16</td>
<td>10</td>
<td>8</td>
<td>5</td>
</tr>
<tr>
<td><strong>AS 260.2</strong></td>
<td>31</td>
<td>28</td>
<td>15</td>
<td>8</td>
<td>6</td>
</tr>
<tr>
<td><strong>IKA® Shaker Attachment Combination</strong></td>
<td>25 ml</td>
<td>50 ml</td>
<td>100 ml</td>
<td>250 ml</td>
<td>500 ml</td>
</tr>
</tbody>
</table>

**IKA® Application Support**

Our Application Center spans 400 sqm and offers modern facilities for presenting and testing lab devices and processes. This brings us even closer to our customers and improves our service. Here, prospective buyers and customs can test out processes in a real laboratory setting, e.g. grinding, heating, analyzing and distilling. In addition, it also further extends the opportunities to test your own devices and to develop new models.

**IKAR® offers more**

IKAR® laboratory software labworld® is an all-inclusive software for all your laboratory needs. With the help of this software, you can network up to 64 laboratory devices via one PC. All test parameters can be documented ensuring complete automation of your laboratory experiments. Measurements and processes may be run independently. Long wait and processing times are reduced, which increases productivity.

**labworld®**

Our Application Center spans 400 sqm and offers modern facilities for presenting and testing lab devices and processes. This brings us even closer to our customers and improves our service. Here, prospective buyers and customs can test out processes in a real laboratory setting, e.g. grinding, heating, analyzing and distilling. In addition, it also further extends the opportunities to test your own devices and to develop new models.

**Comprehensive Worldwide Service!**

Our dedicated team of engineers provides comprehensive worldwide technical service. Please feel free to contact your dealers or IKAR® directly in case of any service queries. Hotline: In the event of an equipment malfunction or technical questions regarding devices and spare parts, call +1 800 733-3037.
<table>
<thead>
<tr>
<th>Type of motion</th>
<th>Description</th>
<th>Diagram</th>
<th>Shaking diameter</th>
<th>Max. Permissible shaking weight</th>
<th>Speed range</th>
<th>Recommended IKA® device</th>
<th>Applications</th>
</tr>
</thead>
<tbody>
<tr>
<td>Vortex</td>
<td>The cup generates a 'whirlpool' vortex action</td>
<td>A</td>
<td>4.5 mm</td>
<td>0.5 kg</td>
<td>0 – 3000 rpm</td>
<td>MS 3 basic</td>
<td>Suitable for shaking small vessels and microtiter plates</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>4.5 mm</td>
<td>0.5 kg</td>
<td></td>
<td>MS 3 digital</td>
<td>Ideal for use with all vessels of up to 30 mm in diameter, e.g. test tubes, centrifuge tubes and microtiter tubes</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>4.5 mm</td>
<td>max. 50 ml (1 test tube)</td>
<td>2800 rpm (fixed)</td>
<td>lab dancer</td>
<td>Suitable for mixing in test tubes, microcentrifuge tubes, reagent glasses, small vessels, Erlenmeyer and flasks and microtiter plates</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>4.5 mm</td>
<td>0.1 kg</td>
<td>1000 – 2800 rpm</td>
<td>VORTEX 1</td>
<td>Ideal for large vessels, e.g. centrifuge tubes and microtiter plates</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>4.5 mm</td>
<td>0.4 kg</td>
<td>500 – 2500 rpm</td>
<td>VORTEX 3</td>
<td>Ideal for use with all vessels of up to 30 mm in diameter, e.g. test tubes, centrifuge tubes and microtiter tubes</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>4.5 mm</td>
<td>0.5 kg</td>
<td>0 – 3000 rpm</td>
<td>VORTEX 4 basic</td>
<td>Ideal for use with all vessels of up to 30 mm in diameter, e.g. test tubes, centrifuge tubes and microtiter tubes</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>4.5 mm</td>
<td>0.5 kg</td>
<td>0 – 3000 rpm</td>
<td>VORTEX 4 digital</td>
<td>Ideal for use with all vessels of up to 30 mm in diameter, e.g. test tubes, centrifuge tubes and microtiter tubes</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>4 mm</td>
<td>2 kg</td>
<td>10 – 500 rpm</td>
<td>KS 4000 i control</td>
<td>Ideal for unattended operation in a temperature-controlled environment</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>3 mm</td>
<td>2 or 4 microtiter plates</td>
<td>0 – 1100 rpm</td>
<td>KS 4000 ic control</td>
<td>Ideal for large vessels, e.g. centrifuge tubes and microtiter plates</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>4 mm</td>
<td>2 kg</td>
<td>80 – 800 rpm</td>
<td>KS 3000 i control</td>
<td>Ideal for large vessels, e.g. centrifuge tubes and microtiter plates</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>4 mm</td>
<td>2 kg</td>
<td>80 – 800 rpm</td>
<td>KS 3000 ic control</td>
<td>Ideal for large vessels, e.g. centrifuge tubes and microtiter plates</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>10 mm</td>
<td>7.5 kg</td>
<td>0 – 3000 rpm</td>
<td>VKR basic Vibra®</td>
<td>Ideal for mixing in test tubes, microcentrifuge tubes, reagent glasses, small vessels, Erlenmeyer and flasks and microtiter plates</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>10 mm</td>
<td>7.5 kg</td>
<td></td>
<td>MTS 2/4 digital mic. shaker</td>
<td>Ideal for mixing in test tubes, microcentrifuge tubes, reagent glasses, small vessels, Erlenmeyer and flasks and microtiter plates</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>30 mm</td>
<td>15 kg</td>
<td></td>
<td>KS 130 basic</td>
<td>Ideal for mixing in test tubes, microcentrifuge tubes, reagent glasses, small vessels, Erlenmeyer and flasks and microtiter plates</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>30 mm</td>
<td>15 kg</td>
<td></td>
<td>KS 130 control</td>
<td>Ideal for mixing in test tubes, microcentrifuge tubes, reagent glasses, small vessels, Erlenmeyer and flasks and microtiter plates</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>7.5 kg</td>
<td>2 kg</td>
<td>5 – 80 rpm</td>
<td>KS 260 basic</td>
<td>Ideal for mixing in test tubes, microcentrifuge tubes, reagent glasses, small vessels, Erlenmeyer and flasks and microtiter plates</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>7.5 kg</td>
<td>2 kg</td>
<td>5 – 80 rpm</td>
<td>KS 260 control</td>
<td>Ideal for mixing in test tubes, microcentrifuge tubes, reagent glasses, small vessels, Erlenmeyer and flasks and microtiter plates</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>15 kg</td>
<td>2 kg</td>
<td>5 – 80 rpm</td>
<td>KS 501 digital</td>
<td>Ideal for mixing in test tubes, microcentrifuge tubes, reagent glasses, small vessels, Erlenmeyer and flasks and microtiter plates</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>20 mm</td>
<td>7.5 kg</td>
<td>5 – 80 rpm</td>
<td>HS 260 basic</td>
<td>Ideal for mixing in test tubes, microcentrifuge tubes, reagent glasses, small vessels, Erlenmeyer and flasks and microtiter plates</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>20 mm</td>
<td>7.5 kg</td>
<td>5 – 80 rpm</td>
<td>HS 260 control</td>
<td>Ideal for mixing in test tubes, microcentrifuge tubes, reagent glasses, small vessels, Erlenmeyer and flasks and microtiter plates</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>10 mm</td>
<td>7.5 kg</td>
<td>5 – 80 rpm</td>
<td>HS 501 digital</td>
<td>Used for homogenous mixing in flasks, culture flasks, Petri dishes and tubes</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>10 mm</td>
<td>7.5 kg</td>
<td>5 – 80 rpm</td>
<td>KS 130 control</td>
<td>Ideal for low foaming agitation, DNA extractions, staining and de-staining procedures, etc.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>20 mm</td>
<td>7.5 kg</td>
<td>20 – 300 rpm</td>
<td>Roller 2D basic</td>
<td>Recommended for mixing blood samples, viscous substances and liquid-solid suspensions where minimal aeration is required</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>20 mm</td>
<td>7.5 kg</td>
<td>20 – 300 rpm</td>
<td>Roller 2D digital</td>
<td>Ideal for keeping biological samples in suspension and for general mixing applications</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>0 – 15° (angle)</td>
<td>2 kg</td>
<td>5 – 80 rpm</td>
<td>Roller 3D basic</td>
<td>Ideal for keeping biological samples in suspension and for general mixing applications</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>0 – 15° (angle)</td>
<td>2 kg</td>
<td>5 – 80 rpm</td>
<td>Roller 3D digital</td>
<td>Ideal for keeping biological samples in suspension and for general mixing applications</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>24.5 mm (high)</td>
<td>2 kg</td>
<td>5 – 80 rpm</td>
<td>Roller 6 basic</td>
<td>Ideal for keeping biological samples in suspension and for general mixing applications</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>24.5 mm (high)</td>
<td>2 kg</td>
<td>5 – 80 rpm</td>
<td>Roller 6 digital</td>
<td>Ideal for keeping biological samples in suspension and for general mixing applications</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>24.5 mm (high)</td>
<td>2 kg</td>
<td>5 – 80 rpm</td>
<td>Roller 10 basic</td>
<td>Ideal for keeping biological samples in suspension and for general mixing applications</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>24.5 mm (high)</td>
<td>2 kg</td>
<td>5 – 80 rpm</td>
<td>Roller 10 digital</td>
<td>Ideal for keeping biological samples in suspension and for general mixing applications</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>20 mm (fixed)</td>
<td>2 kg</td>
<td>5 – 80 rpm</td>
<td>Loopster basic</td>
<td>Ideal for keeping biological samples in suspension and for general mixing applications</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>20 mm (fixed)</td>
<td>2 kg</td>
<td>5 – 80 rpm</td>
<td>Loopster digital</td>
<td>Ideal for keeping biological samples in suspension and for general mixing applications</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>20 mm (fixed)</td>
<td>2 kg</td>
<td>5 – 80 rpm</td>
<td>Trayster basic</td>
<td>Ideal for keeping biological samples in suspension and for general mixing applications</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>20 mm (fixed)</td>
<td>2 kg</td>
<td>5 – 80 rpm</td>
<td>Trayster digital</td>
<td>Ideal for keeping biological samples in suspension and for general mixing applications</td>
</tr>
</tbody>
</table>
Is it possible to operate using IKA® laboratory software?
labworldsoft® is an advanced software for all your laboratory needs. With the help of this software, you can network up to 64 laboratory devices via one PC. All test parameters can be documented ensuring complete automation of your laboratory experiments. Measurements and processes may be run independently. Long waits and processing times are reduced, which increases productivity.

Can I place my shaker in a CO₂ chamber or in an incubator?
If the relative humidity does not exceed 80% and the temperature stays within 5 – 40 °C (partially until 50 °C), the shaker can be used in a CO₂ chamber or an incubator.

Which IKA® shaker of the HS/KS series starts automatically after a power failure?
KS 130, KS 260, KS 3000 and KS 4000 start automatically in certain modes (C, C+B) after a power failure.

What kind of vortex shakers does IKA® offer?
(They should have a touch function, but also come equipped with various attachments, e.g. for microtiter plates) The Lab Dancer, MS 3 basic, digital VORTEX 4 and VORTEX 3 are the appropriate devices. MS 3 basic, digital and VORTEX Genius 3 have a variety of attachments for most variable shaking tasks.

Is it possible to shake deepwell plates with the MTS 2/4?
No, deepwell plates cannot be fixed properly; their center of gravity is simply too high.