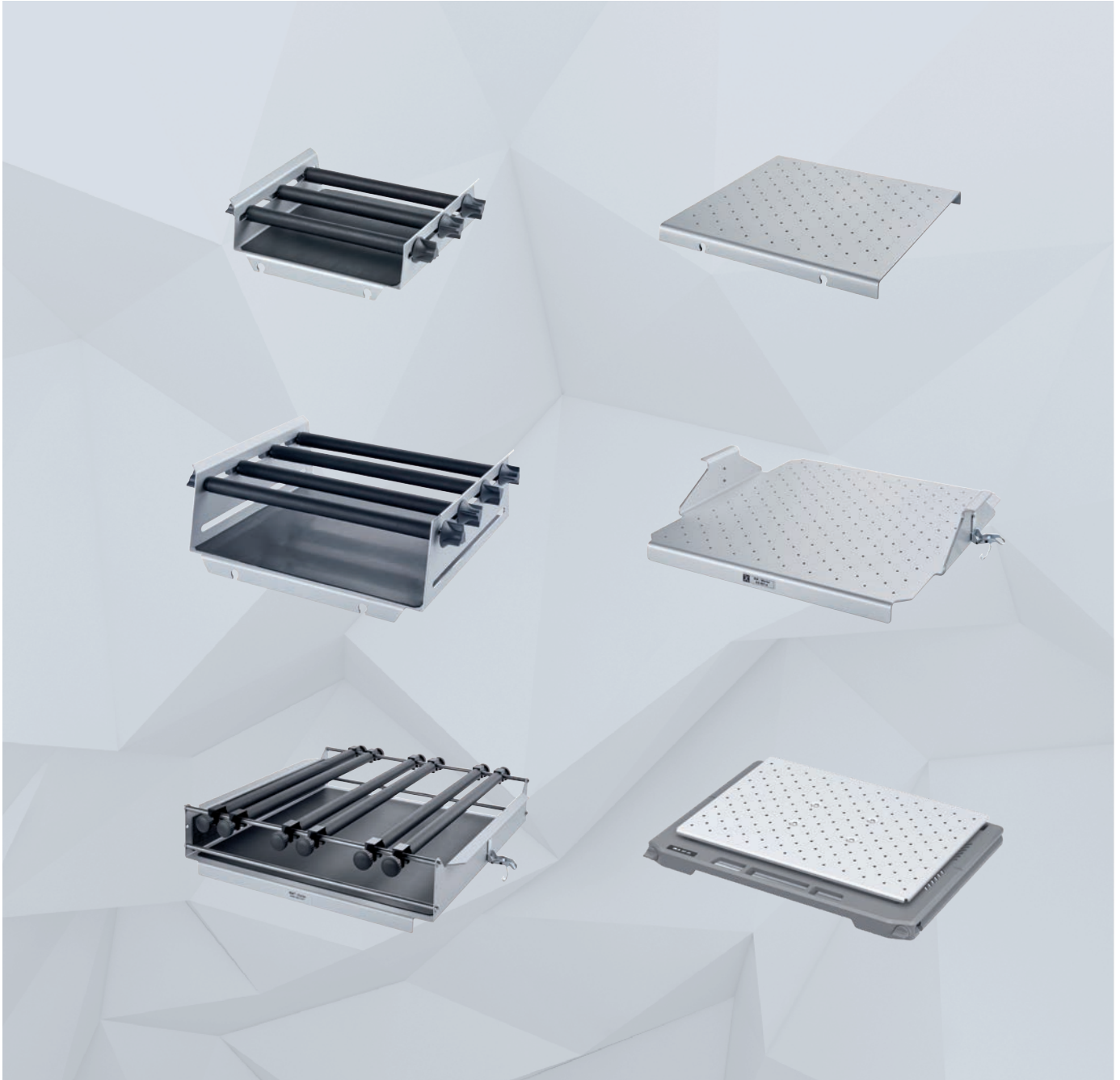


# IKA

designed for scientists

EN



## SELECTION GUIDE HOW TO FIND THE RIGHT SHAKER AND ATTACHMENTS

# Shakers

/// Finding the right attachment for your application

IKA offers the perfect lab shakers for mixing and shaking tasks. In addition to the tried and tested orbital shakers and horizontal shakers, the innovative incubator shakers are gaining popularity in laboratories. Their precise temperature control make the devices a reliable asset in every lab. They can carry various attachment combinations like fixing clip attachments, universal attachments or STICKMAX.



# How to find the right shaker

## /// Your selection guide

| Application | Shaking diameter | Max. permissible shaking weight | Speed range | Recommended IKA device |
|-------------|------------------|---------------------------------|-------------|------------------------|
|-------------|------------------|---------------------------------|-------------|------------------------|

**Vortex**  
The cup generates a 'whirlpool' vortex action

|  |        |                          |                  |   |
|--|--------|--------------------------|------------------|---|
| Suitable for shaking small vessels and microtiter plates   | 3 mm   | 0,5 kg                   | 0 – 3000 rpm     | MATRIX Orbital<br>MATRIX Orbital Delta<br>MATRIX Orbital Delta Plus |
|  | 4,5 mm | 0,5 kg                   | 0/200 – 3000 rpm | MS 3 basic   digital   control                                      |
|  | 4,5 mm | 0,5 kg                   | 2800 rpm (fixed) | Hula Dancer basic   |
| Ideal for use with all small vessels of up to 30 mm in diameter, e.g. test tubes, centrifuge tubes and microcentrifuge tubes | 4,5 mm | 0,5 kg                   | 1200 – 2800 rpm  | Hula Dancer digital   |
|  | 4,5 mm | max. 50 ml (1 test tube) | 2800 rpm (fixed) | lab dancer  |
|  | 4,5 mm | 0,1 kg                   | 1000 – 2800 rpm  | VORTEX 1  |
|  | 4 mm   | 0,4 kg                   | 500 – 2500 rpm   | VORTEX 2  |
| Suitable for mixing in test tubes, microcentrifuge tubes, reagent glasses / small vessels, and microtiter plates             | 4 mm   | 0,4 kg                   | 500 – 2500 rpm   | VORTEX 3  |
|  | 4 mm   | 2 kg                     | 100 – 2200 rpm   | VXR basic Vibrax®   |
|  | 3 mm   | 2 or 4 microtiter plates | 50 – 1100 rpm    | MTS 2/4 digital microtiter shaker                                   |

**Orbital**  
The platform moves in a circular orbit

|   |       |        |              |                                |
|---|-------|--------|--------------|--------------------------------|
| Ideal for unattended operation in a temperature-controlled environment  | 20 mm | 20 kg  | 10 – 500 rpm | KS 4000 i control   ic control |
|   | 20 mm | 7,5 kg | 10 – 500 rpm | KS 3000 i control   ic control |
| Ideal for mixing in test tubes, microtiter plates, bottles, flasks and beakers. A wide range of attachment combinations allows for using almost all shapes and sizes of vessels | 4 mm  | 2 kg   | 80 – 800 rpm | KS 130 basic   control         |
|   | 10 mm | 7,5 kg | 50 – 500 rpm | KS 260 basic                   |
|   | 10 mm | 7,5 kg | 10 – 500 rpm | KS 260 control                 |
|   | 30 mm | 15 kg  | 0 – 300 rpm  | KS 501 digital                 |
| Ideal for cell cultivation and other microbiological applications in the field of Life Sciences: for microbiological tests, stability studies or cell cultivation               | 20 mm | 7,5 kg | 10 – 300 rpm | INC 125 FS digital (SP20)      |
|   | 25 mm | 7,5 kg | 10 – 300 rpm | INC 125 FS digital (SP25)      |



MATRIX Orbital



lab dancer



VORTEX 3



KS 3000 i control



INC 125 FS digital

# How to find the right shaker

## /// Your selection guide

| Application  | Shaking diameter                       | Max. permissible shaking weight | Speed range    | Recommended IKA device |
|--|--|---------------------------------|----------------|------------------------|
| <b>Reciprocating</b><br>The platform moves back and forth horizontally   |  |                                 |                |                        |
| Ideal for shaking out, eluting, extracting, gassing out, dissolving, enriching, etc.                                     | 20 mm                                  | 7,5 kg                          | 20 – 300 rpm   | HS 260 basic           |
|  | 20 mm                                  | 7,5 kg                          | 10 – 300 rpm   | HS 260 control         |
|  | 30 mm                                  | 15 kg                           | 0 – 300 rpm    | HS 501 digital         |
| <b>Rocking (See-saw action)</b><br>The platform rocks on a central pivot   |  |                                 |                |                        |
| Used for homogenous mixing in flasks, culture flasks, Petri dishes and tubes   | 8° (angle)                             | 2 kg                            | 5 – 80 rpm     | ROCKER 2D basic        |
|  | 0 – 15° (angle)                        | 2 kg                            | 5 – 80 rpm     | ROCKER 2D digital      |
| <b>Rocking (3D Tumbling motion)</b><br>The platform moves in a three-dimensional motion                                  |  |                                 |                |                        |
| Ideal for low foaming agitation, DNA extractions, staining and de-staining procedures, etc.                              | 8° (angle)                             | 2 kg                            | 30 rpm (fixed) | ROCKER 3D basic        |
|  | 0 – 15° (angle)                        | 2 kg                            | 0 – 80 rpm     | ROCKER 3D digital      |
| <b>Rocking and Rolling</b><br>The platform rocks on a central pivot as well as revolves around a fixed point             |  |                                 |                |                        |
| Recommended for mixing blood samples, viscous substances and liquid-solid suspensions where minimum aeration is required | 24,5 mm (high)                         | 2 kg                            | 30 rpm (fixed) | ROLLER 6 basic         |
|  | 24,5 mm (high)                         | 2 kg                            | 0 – 80 rpm     | ROLLER 6 digital       |
|  | 24,5 mm (high)                         | 2 kg                            | 30 rpm (fixed) | ROLLER 10 basic        |
|  | 24,5 mm (high)                         | 2 kg                            | 0 – 80 rpm     | ROLLER 10 digital      |
| <b>Rotating</b><br>Platform revolves at a tilted angle   |  |                                 |                |                        |
| Ideal for keeping biological samples in suspension and for general mixing applications                                   | Adjustable from horizontal to vertical | 2 kg                            | 20 rpm (fixed) | Loopster basic         |
|  | Adjustable from horizontal to vertical | 2 kg                            | 0 – 80 rpm     | Loopster digital       |
|  | Vertical or horizontal                 | 2 kg                            | 20 rpm (fixed) | Trayster basic         |
|  | Vertical or horizontal                 | 2 kg                            | 0 – 80 rpm     | Trayster digital       |



ROCKER 3D digital



ROLLER 6 digital



Loopster digital



Trayster digital



# Shaker attachments and their vessel capacities

/// Recommendations for various vessel sizes

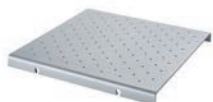
| IKA shaker   | Attachment combination   | 25 ml | 50 ml | 100 ml | 200 ml | 250 ml | 500 ml | 1000 ml | 2000 ml | 3000 ml | 5000 ml |
|--|--|-------|-------|--------|--------|--------|--------|---------|---------|---------|---------|
| <b>ERLENMEYER FLASKS</b>   |  |       |       |        |        |        |        |         |         |         |         |
| KS 130 basic<br>KS 130 digital                                   | STICKMAX   | 25    | 16    | 9      | -      | 5      | 4      | 2       | 1       | 1       | -       |
|  | AS 130.1 Universal attachment  | 15    | 12    | 6      | -      | 2      | 2      | 1       | 1       | 1       | -       |
|  | required clamping rolls for AS 130.1   | 4     | 4     | 3      | -      | 2      | 2      | 2       | 2       | 2       | -       |
|  | AS 130.2 Fixing clip attachment  | 12    | 12    | 9      | -      | 4      | 4      | -       | -       | -       | -       |
| KS 260 basic<br>KS 260 digital<br>HS 260 basic<br>HS 260 control | STICKMAX   | 44    | 36    | 25     | -      | 9      | 9      | 4       | 2       | 2       | 1       |
|  | AS 260.1 Universal attachment  | 28    | 24    | 15     | -      | 6      | 6      | 2       | 1       | 1       | 1       |
|  | required clamping rolls for AS 260.1   | 5     | 5     | 4      | -      | 3      | 3      | 2       | 2       | 2       | 2       |
|  | AS 260.2 Fixing clip attachment  | 31    | 28    | 17     | -      | 10     | 9      | 5       | 4       | -       | -       |
| KS 501 digital<br>HS 501 digital                                 | STICKMAX   | 100   | 64    | 36     | -      | 25     | 16     | 9       | 4       | 4       | 2       |
|  | AS 501.1 Universal attachment  | 70    | 48    | 30     | -      | 20     | 12     | 9       | 4       | 4       | 1       |
|  | required clamping rolls for AS 501.1   | 7     | 6     | 5      | -      | 4      | 3      | 6       | 3       | 3       | 2       |
|  | AS 501.4 Fixing clip support   | 55    | 50    | 30     | -      | 12     | 11     | 8       | 5       | -       | -       |
| KS 3000 i control<br>KS 3000 ic control                          | STICKMAX   | 44    | 36    | 25     | -      | 9      | 9      | 4       | 2       | -       | -       |
|  | AS 260.1 Universal attachment  | 28    | 24    | 15     | -      | 6      | 6      | 2       | -       | -       | -       |
|  | required clamping rolls for AS 260.1   | 5     | 5     | 4      | -      | 3      | 3      | 2       | -       | -       | -       |
|  | AS 260.2 Fixing clip attachment  | 31    | 28    | 17     | -      | 10     | 9      | 5       | -       | -       | -       |
| KS 4000 i control<br>KS 4000 ic control                          | STICKMAX   | 81    | 49    | 36     | -      | 16     | 9      | 9       | 4       | 2       | -       |
|  | AS 4000.1 Universal attachment   | 54    | 35    | 24     | -      | 12     | 9      | 6       | 4       | 2       | -       |
|  | required clamping rolls for AS 4000.1  | 7     | 6     | 5      | -      | 4      | 4      | 3       | 3       | 2       | -       |
|  | AS 4000.2 Fixing clip attachment   | 55    | 52    | 25     | -      | 16     | 11     | 7       | 4       | -       | -       |
| INC 125 FS digital   | STICKMAX   | 111   | 66    | 36     | 20     | 20     | 12     | 8       | 6       | -       | -       |
|  | required fixing clips for IO SP 20 / IO SP 25 Shaker platform                        | 39    | 39    | 24     | 12     | 12     | 12     | 6       | 2       | -       | -       |
| <b>VOLUMETRIC FLASKS</b>   |  |       |       |        |        |        |        |         |         |         |         |
| KS 130 basic<br>KS 130 digital                                   | STICKMAX   | 25    | 16    | 9      | 6      | 6      | 4      | 2       | **      | -       | -       |
|  | AS 130.1 Universal attachment  | 20    | 12    | 6      | 6      | 2      | 2      | -       | -       | -       | -       |
|  | required clamping rolls for AS 130.1   | 5     | 4     | 3      | 3      | 2      | 2      | -       | -       | -       | -       |
|  | AS 130.2 Fixing clip attachment  | 18    | 9     | 8      | 4      | 4      | 4      | -       | -       | -       | -       |
| KS 260 basic<br>KS 260 digital<br>HS 260 basic<br>HS 260 control | STICKMAX   | 49    | 36    | 25     | 16     | 9      | 9      | 4       | **      | -       | -       |
|  | AS 260.1 Universal attachment  | 32    | 24    | 15     | 8      | 8      | 6      | 2       | **      | -       | -       |
|  | required clamping rolls for AS 260.1   | 5     | 5     | 4      | 3      | 3      | 4      | 2       | **      | -       | -       |
|  | AS 260.2 Fixing clip attachment  | 30    | 30    | 23     | 9      | 9      | 9      | 5       | 4       | -       | -       |
| KS 501 digital<br>HS 501 digital                                 | STICKMAX   | 100   | 64    | 36     | 25     | 16     | 9      | 9       | **      | -       | -       |
|  | AS 501.1 Universal attachment + 10 AS 1.11 Clamping roll + 20 AS 1.6 Clamping device | 70    | 48    | 30     | 20     | 20     | 12     | 9       | **      | -       | -       |
|  | required clamping rolls for AS 501.1   | 7     | 6     | 5      | 4      | 4      | 3      | 3       | **      | -       | -       |
|  | AS 501.2 Separating funnel attachment  | 55    | 54    | 35     | 19     | 19     | 11     | 8       | 5       | -       | -       |
| KS 3000 i control<br>KS 3000 ic control                          | STICKMAX   | 49    | 36    | 25     | 16     | 9      | 6      | -       | -       | -       | -       |
|  | AS 260.1 Universal attachment  | 32    | 24    | 15     | 8      | 8      | 6      | -       | -       | -       | -       |
|  | required clamping rolls for AS 260.1   | 5     | 5     | 4      | 3      | 3      | 4      | -       | -       | -       | -       |
|  | AS 260.2 Fixing clip attachment  | 30    | 30    | 23     | 9      | 9      | 5      | -       | -       | -       | -       |
| KS 4000 i control<br>KS 4000 ic control                          | STICKMAX   | 100   | 64    | 36     | 25     | 25     | 16     | 6       | -       | -       | -       |
|  | AS 4000.1 Universal attachment   | 60    | 40    | 24     | 20     | 15     | 12     | 6       | -       | -       | -       |
|  | required clamping rolls for AS 4000.1  | 7     | 6     | 5      | 5      | 5      | 6      | 4       | -       | -       | -       |
|  | AS 4000.2 Fixing clip attachment   | 55    | 55    | 32     | 21     | 21     | 12     | 5       | -       | -       | -       |

Subject to technical changes

\* Limited recommendation! \*\* Not recommended! \*\*\* 4 = only up; 10 = up + down



AS 130.2



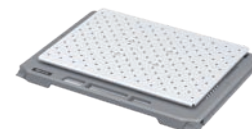
AS 260.2



AS 501.4



AS 4000.2



IO SP 20 / IO SP 25

# Shaker attachments and their vessel capacities

/// Recommendations for various vessel sizes

| IKA shaker   | Attachment combination  | 25 ml   | 50 ml   | 100 ml  | 150 ml  | 250 ml  | 400 ml  | 600 ml  | 800 ml  | 1000 ml | 2000 ml | 3000 ml | 5000 ml | 10 000 ml |
|--|---|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|-----------|
| <b>BEAKERS (HIGH FORM)</b>                                       |   |         |         |         |         |         |         |         |         |         |         |         |         |           |
| KS 130 basic<br>KS 130 digital                                   | STICKMAX  | 36      | 16      | 9       | 9       | 9       | 5       | 4       | 4       | 4       | 1       | 1       | -       | -         |
|  | AS 130.1 Universal attachment<br>required clamping rolls for AS 130.1   | 18<br>4 | 15<br>4 | 8<br>3  | 6<br>3  | 6<br>3  | 4<br>3  | 2<br>2  | 2<br>2  | 2<br>2  | 1<br>2  | 1<br>2  | -       | -         |
| KS 260 basic<br>KS 260 digital<br>HS 260 basic<br>HS 260 control | STICKMAX  | 81      | 49      | 25      | 25      | 16      | 16      | 9       | 9       | 9       | 4       | 4       | -       | -         |
|  | AS 260.1 Universal attachment<br>required clamping rolls for AS 260.1   | 45<br>6 | 28<br>5 | 18<br>4 | 15<br>4 | 15<br>4 | 8<br>3  | 6<br>3  | 6<br>3  | 6<br>3  | 2<br>2  | 2<br>2  | -       | -         |
| KS 501 digital<br>HS 501 digital                                 | STICKMAX  | 121     | 81      | 49      | 36      | 36      | 25      | 16      | 16      | 9       | 9       | 4       | -       | -         |
|  | AS 501.1 Universal attachment<br>required clamping rolls for AS 501.1   | 96<br>8 | 63<br>7 | 42<br>6 | 36<br>5 | 30<br>5 | 25<br>4 | 16<br>4 | 12<br>3 | 12<br>3 | 9<br>3  | 4<br>2  | -       | -         |
| KS 3000 i control<br>KS 3000 ic control                          | STICKMAX  | 81      | 49      | 25      | 25      | 25      | 16      | 9       | 9       | 9       | 4       | -       | -       | -         |
|  | AS 260.1 Universal attachment<br>required clamping rolls for AS 260.1   | 45<br>6 | 28<br>5 | 18<br>4 | 15<br>4 | 15<br>3 | 8<br>3  | 6<br>3  | 6<br>3  | 6<br>3  | 2<br>2  | -       | -       | -         |
| KS 4000 i control<br>KS 4000 ic control                          | STICKMAX  | 121     | 81      | 49      | 36      | 36      | 25      | 16      | 16      | 9       | 9       | 4       | -       | -         |
|  | AS 4000.1 Universal attachment<br>required clamping rolls for AS 4000.1 | 84<br>8 | 48<br>7 | 35<br>6 | 24<br>5 | 20<br>5 | 20<br>5 | 12<br>4 | 12<br>4 | 12<br>4 | 6<br>3  | 4<br>3  | -       | -         |
| <b>BEAKERS (LOW FORM)</b>  |   |         |         |         |         |         |         |         |         |         |         |         |         |           |
| KS 130 basic<br>KS 130 digital                                   | STICKMAX  | 25      | 16      | 9       | 9       | 5       | 4       | 4       | 4       | 4       | 1       | 1*      | 1*      | **        |
|  | AS 130.1 Universal attachment<br>required clamping rolls for AS 130.1   | 15<br>4 | 8<br>3  | 8<br>3  | 6<br>3  | 3<br>3  | 2<br>2  | 2<br>2  | 2<br>2  | 2<br>2  | 1<br>2  | 1*      | -       | -         |
| KS 260 basic<br>KS 260 digital<br>HS 260 basic<br>HS 260 control | STICKMAX  | 64      | 49      | 25      | 25      | 16      | 9       | 9       | 5       | 5       | 4       | 2       | 1       | 1*        |
|  | AS 260.1 Universal attachment<br>required clamping rolls for AS 260.1   | 32<br>5 | 24<br>5 | 15<br>4 | 12<br>4 | 8<br>3  | 6<br>3  | 6<br>3  | 6<br>3  | 4<br>3  | 2<br>2  | 2<br>2  | 1<br>2  | 1*        |
| KS 501 digital<br>HS 501 digital                                 | STICKMAX  | 100     | 64      | 49      | 36      | 25      | 16      | 16      | 9       | 9       | 9       | 4       | 4       | 1         |
|  | AS 501.1 Universal attachment<br>required clamping rolls for AS 501.1   | 70<br>7 | 48<br>6 | 42<br>6 | 30<br>5 | 20<br>4 | 16<br>4 | 12<br>3 | 12<br>3 | 9<br>3  | 6<br>2  | 4<br>2  | 1<br>2  | 1         |
| KS 3000 i control<br>KS 3000 ic control                          | STICKMAX  | 64      | 49      | 25      | 25      | 16      | 9       | 9       | 5       | 5       | 4       | -       | -       | -         |
|  | AS 260.1 Universal attachment<br>required clamping rolls for AS 260.1   | 32<br>5 | 24<br>5 | 15<br>4 | 12<br>4 | 8<br>3  | 6<br>3  | 6<br>3  | 4<br>3  | 4<br>4  | 2<br>2  | 2<br>1  | -       | -         |
| KS 4000 i control<br>KS 4000 ic control                          | STICKMAX  | 100     | 64      | 49      | 36      | 25      | 16      | 16      | 10      | 10      | 9       | 4       | 2       | -         |
|  | AS 4000.1 Universal attachment<br>required clamping rolls for AS 4000.1 | 66<br>7 | 40<br>6 | 35<br>6 | 20<br>5 | 20<br>5 | 12<br>4 | 12<br>4 | 9<br>4  | 6<br>4  | 4<br>3  | 4<br>3  | 2<br>2  | -         |

Subject to technical changes

\* Limited recommendation! \*\* Not recommended! + recommended!



AS 130.1



AS 260.1



AS 501.1



AS 4000.1