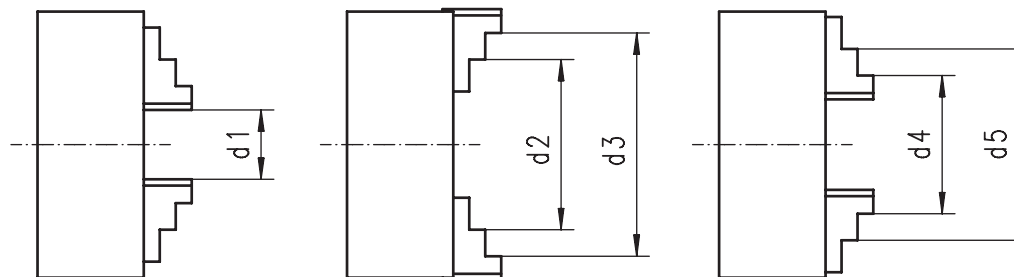


# SPANNBEREICHE CLAMPING RANGES

- Beachten Sie die maximal zulässigen Spannbereiche!
- Do not exceed the maximum allowable clamping ranges!



32\*\*, 35\*\*, 36\*\*, 37\*\*

| Futtergröße [mm]<br>Chuck size [mm] | Harte, einteilige Backen<br>Hard solid jaws |         |         |         |         | Harte, geteilte Backen<br>Hard 2-piece jaws |          |          |          |          | Max. Umlaufdurchmesser<br>[mm]<br>Max. swing diameter [mm] |
|-------------------------------------|---------------------------------------------|---------|---------|---------|---------|---------------------------------------------|----------|----------|----------|----------|------------------------------------------------------------|
|                                     | d1                                          | d2      | d3      | d4      | d5      | d1                                          | d2       | d3       | d4       | d5       |                                                            |
| 80                                  | 2-27                                        | 25-50   | 48-71   | 22-46   | 45-69   | -                                           | -        | -        | -        | -        | 90                                                         |
| 100                                 | 3-33                                        | 32-62   | 62-93   | 25-56   | 56-87   | -                                           | -        | -        | -        | -        | 117                                                        |
| 125                                 | 3-50                                        | 39-83   | 80-125  | 34-74   | 72-115  | 3-50                                        | 52-96    | 95-125   | 34-76    | 75-118   | 151                                                        |
| 160                                 | 3-64                                        | 50-107  | 98-160  | 42-100  | 94-154  | 3-64                                        | 62-121   | 115-160  | 42-97    | 88-146   | 204                                                        |
| 200                                 | 4-90                                        | 60-145  | 130-200 | 52-135  | 120-202 | 4-90                                        | 72-156   | 133-200  | 50-130   | 105-190  | 246                                                        |
| 250                                 | 5-118                                       | 77-188  | 160-250 | 62-174  | 145-256 | 5-118                                       | 86-197   | 160-250  | 58-165   | 125-235  | 306                                                        |
| 315                                 | 10-131                                      | 90-215  | 190-315 | 78-200  | 172-299 | 10-131                                      | 103-226  | 190-315  | 65-182   | 145-265  | 384                                                        |
| 400                                 | 10-180                                      | 103-272 | 230-400 | 85-252  | 210-380 | 10-180                                      | 127-294  | 230-400  | 72-228   | 165-329  | 472                                                        |
| 500                                 | 20-235                                      | 140-357 | 276-500 | 120-335 | 245-476 | 20-235                                      | 110-400  | 190-500  | 120-410  | 200-485  | 600                                                        |
| 630                                 | 30-335                                      | 180-487 | 345-630 | 160-465 | 325-630 | 30-335                                      | 120-570  | 200-630  | 140-590  | 210-630  | 770                                                        |
| 800                                 | 150-482                                     | 302-634 | 468-800 | 282-614 | 448-780 | 150-482                                     | 240-724  | 316-800  | 252-736  | 328-800  | 940                                                        |
| 1000                                | -                                           | -       | -       | -       | -       | 100-600                                     | 350-880  | 430-1000 | 425-900  | 500-1000 | 1140                                                       |
| 1250                                | -                                           | -       | -       | -       | -       | 480-1000                                    | 585-1090 | 740-1250 | 580-1070 | 750-1250 | 1390                                                       |
| 1400                                | -                                           | -       | -       | -       | -       | 480-1150                                    | 585-1240 | 750-1400 | 580-1220 | 750-1400 | 1540                                                       |
| 1600                                | -                                           | -       | -       | -       | -       | 480-1330                                    | 585-1420 | 750-1600 | 580-1400 | 750-1600 | 1740                                                       |
| 1800                                | -                                           | -       | -       | -       | -       | 480-1530                                    | 585-1620 | 750-1800 | 580-1600 | 750-1800 | 1950                                                       |
| 2000                                | -                                           | -       | -       | -       | -       | 480-1725                                    | 585-1815 | 750-2000 | 580-1800 | 750-2000 | 2150                                                       |

3864, 3865

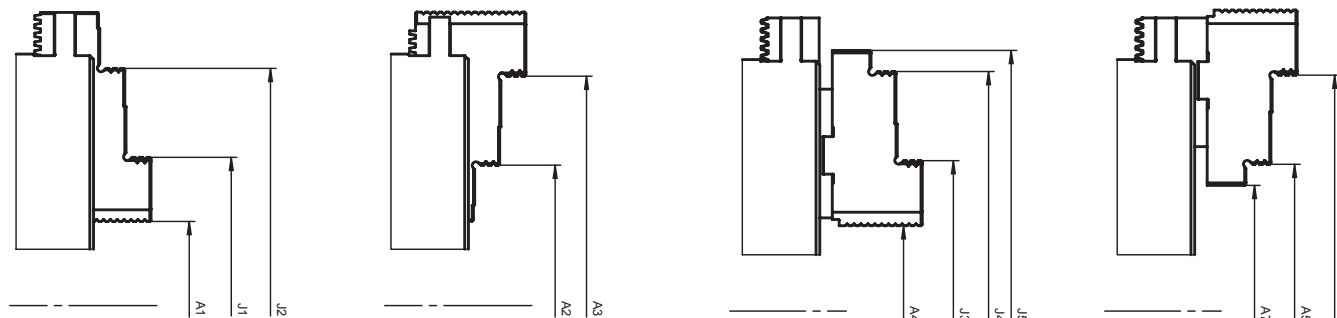
| Futtergröße [mm]<br>Chuck size [mm] | Harte, einteilige Backen<br>Hard solid jaws |         |         |         |         | Harte, geteilte Backen<br>Hard 2-piece jaws |          |          |          |          | Max. Umlaufdurchmesser<br>[mm]<br>Max. swing diameter [mm] |
|-------------------------------------|---------------------------------------------|---------|---------|---------|---------|---------------------------------------------|----------|----------|----------|----------|------------------------------------------------------------|
|                                     | d1                                          | d2      | d3      | d4      | d5      | d1                                          | d2       | d3       | d4       | d5       |                                                            |
| 125                                 | 6-43                                        | 42-78   | 83-120  | 34-68   | 74-110  | 6-43                                        | 50-87    | 94-125   | 33-70    | 76-119   | 151                                                        |
| 160                                 | 8-64                                        | 52-107  | 102-160 | 47-100  | 98-154  | 8-64                                        | 67-121   | 118-160  | 45-97    | 92-146   | 204                                                        |
| 200                                 | 8-90                                        | 64-145  | 132-200 | 55-135  | 121-202 | 8-90                                        | 74-156   | 134-200  | 52-130   | 109-190  | 246                                                        |
| 250                                 | 12-118                                      | 82-188  | 165-250 | 68-174  | 150-256 | 12-118                                      | 82-188   | 164-250  | 68-174   | 150-256  | 306                                                        |
| 315                                 | 12-131                                      | 95-215  | 192-315 | 82-200  | 178-299 | 12-131                                      | 108-226  | 153-315  | 68-182   | 150-265  | 384                                                        |
| 400                                 | 15-202                                      | 140-308 | 232-400 | 95-280  | 213-400 | 15-202                                      | 132-296  | 236-400  | 73-252   | 169-352  | 472                                                        |
| 500                                 | 30-235                                      | 152-361 | 291-500 | 132-335 | 270-474 | 30-235                                      | 121-402  | 197-478  | 135-413  | 210-489  | 600                                                        |
| 630                                 | 40-335                                      | 192-487 | 358-630 | 175-467 | 340-630 | 40-335                                      | 132-555  | 210-630  | 150-585  | 220-630  | 770                                                        |
| 800                                 | -                                           | -       | -       | -       | -       | 180-482                                     | 290-644  | 420-800  | 285-635  | 440-800  | 940                                                        |
| 1000                                | -                                           | -       | -       | -       | -       | 310-600                                     | 410-950  | 580-1000 | 415-840  | 530-1000 | 1140                                                       |
| 1250                                | -                                           | -       | -       | -       | -       | 480-1000                                    | 585-1090 | 740-1250 | 580-1070 | 770-1250 | 1390                                                       |
| 1400                                | -                                           | -       | -       | -       | -       | 480-1150                                    | 585-1240 | 750-1400 | 580-1220 | 770-1400 | 1540                                                       |
| 1600                                | -                                           | -       | -       | -       | -       | 480-1330                                    | 585-1420 | 750-1600 | 580-1400 | 770-1600 | 1740                                                       |
| 1800                                | -                                           | -       | -       | -       | -       | 480-1530                                    | 585-1620 | 750-1800 | 580-1600 | 770-1800 | 1950                                                       |
| 2000                                | -                                           | -       | -       | -       | -       | 480-1725                                    | 585-1815 | 750-2000 | 580-1800 | 770-2000 | 2150                                                       |

43\*\*

| Futtergröße [mm]<br>Chuck size [mm] | d1 min. | d3 max. | Max. Umlaufdurchmesser<br>[mm]<br>Max. swing diameter [mm] |
|-------------------------------------|---------|---------|------------------------------------------------------------|
| 85                                  | 3       | 85      | 101                                                        |
| 100                                 | 3       | 10      | 116                                                        |
| 125                                 | 8       | 125     | 150                                                        |
| 160                                 | 8       | 160     | 185                                                        |
| 200                                 | 10      | 200     | 235                                                        |
| 250                                 | 10      | 250     | 296                                                        |
| 315                                 | 15      | 315     | 369                                                        |
| 350                                 | 15      | 350     | 404                                                        |
| 400                                 | 20      | 400     | 465                                                        |
| 500                                 | 45      | 500     | 570                                                        |
| 630                                 | 50      | 630     | 720                                                        |
| 800                                 | 50      | 800     | 900                                                        |
| 1000                                | 170     | 1000    | 1090                                                       |
| 1250                                | 170     | 1250    | 1340                                                       |
| 1400                                | 470     | 1400    | 1515                                                       |
| 1600                                | 470     | 1600    | 1715                                                       |
| 1800                                | 470     | 1800    | 1920                                                       |
| 2000                                | 470     | 2000    | 2120                                                       |

4505, 4605, 4705, 4805

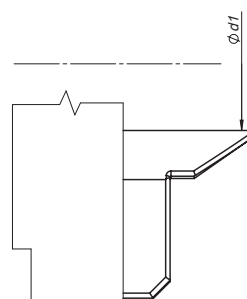
| Futtergröße [mm]<br>Chuck size [mm] | d1 min. | d3 max. | Max. Umlaufdurchmesser<br>[mm]<br>Max. swing diameter [mm] |
|-------------------------------------|---------|---------|------------------------------------------------------------|
| 200                                 | 4       | 200     | 240                                                        |
| 250                                 | 5       | 250     | 300                                                        |
| 315                                 | 10      | 315     | 370                                                        |
| 400                                 | 15      | 400     | 470                                                        |
| 500                                 | 20      | 500     | 575                                                        |
| 630                                 | 30      | 630     | 725                                                        |
| 800                                 | 50      | 800     | 950                                                        |
| 1000                                | 175     | 1000    | 1180                                                       |
| 1250                                | 350     | 1250    | 1345                                                       |
| 1400                                | 350     | 1400    | 1520                                                       |
| 1600                                | 350     | 1600    | 1725                                                       |
| 1800                                | 350     | 1800    | 1925                                                       |
| 2000                                | 350     | 2000    | 2130                                                       |



**SPANNBEREICHE**  
CLAMPING RANGES

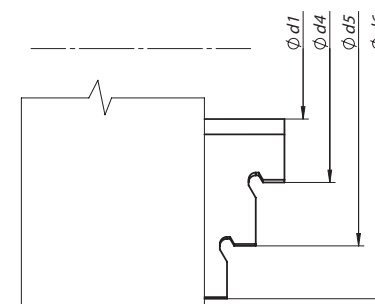
34\*\*

| Futtergröße [mm]<br>Chuck size [mm] | Harte, einteilige Backen<br>Hard solid jaws |         |         |         |         | Harte, geteilte Backen<br>Hard 2-piece jaws |          |          |          |          |         |        |
|-------------------------------------|---------------------------------------------|---------|---------|---------|---------|---------------------------------------------|----------|----------|----------|----------|---------|--------|
|                                     | A1                                          | J1      | J2      | A2      | A3      | A4                                          | J3       | J4       | A5       | A6       | J5      | A7     |
| 125                                 | 4-29                                        | 28-53   | 100-125 | 38-63   | 100-125 | 10-25                                       | 38-80    | 107-125  | 27-62    | 90-125   | 72-110  | 60-95  |
| 160                                 | 4-90                                        | 34-120  | 90-160  | 61-150  | 90-160  | 10-39                                       | 60-134   | 86-160   | 100-147  | 120-160  | 132-160 | 35-88  |
| 200                                 | 5-105                                       | 49-149  | 100-200 | 70-170  | 100-200 | 10-50                                       | 70-184   | 103-200  | 100-174  | 120-200  | 152-200 | 45-124 |
| 250                                 | 8-130                                       | 66-188  | 128-250 | 81-170  | 120-250 | 10-64                                       | 94-170   | 174-250  | 80-154   | 160-235  | 195-250 | 60-185 |
| 315                                 | 10-155                                      | 74-200  | 142-315 | 95-189  | 152-315 | 24-88                                       | 108-210  | 214-315  | 100-215  | 145-315  | 236-315 | 80-195 |
| 400                                 | 10-174                                      | 120-276 | 258-400 | 118-278 | 260-413 | 15-168                                      | 124-272  | 263-412  | 115-268  | 260-410  | -       | -      |
| 500                                 | 52-254                                      | 158-358 | 290-500 | 165-360 | 306-500 | 64-256                                      | 166-360  | 306-502  | 165-360  | 305-500  | -       | -      |
| 630                                 | -                                           | -       | -       | -       | -       | 25-326                                      | 165-490  | 335-630  | 210-512  | 352-654  | -       | -      |
| 800                                 | -                                           | -       | -       | -       | -       | 170-410                                     | 335-573  | 475-715  | 368-660  | 510-800  | -       | -      |
| 1000                                | -                                           | -       | -       | -       | -       | 300-630                                     | 480-860  | 620-1000 | 570-860  | 715-1000 | -       | -      |
| 1200                                | -                                           | -       | -       | -       | -       | 480-895                                     | 645-1060 | 785-1200 | 770-1060 | 910-1200 | -       | -      |



3868

| Futtergröße [mm]<br>Chuck size [mm] | Ø d1   |
|-------------------------------------|--------|
| 3868-85                             | 1,5-25 |



3286

| Futtergröße [mm]<br>Chuck size [mm] | Ø d1   | Ø d2  | Ø d3  | Ø d4  | Ø d5  | Ø d6  | Ø d7 |
|-------------------------------------|--------|-------|-------|-------|-------|-------|------|
| 3286-49-M12x1                       | 0,5-32 | 17-39 | 35-57 | 20-27 | 37-63 | 50-75 | 5-14 |
| 3286-60-M16x1                       | 0,5-35 | 20-42 | 38-60 | 20-52 | 37-70 | 61-85 | 5-20 |

# MAXIMAL ZULÄSSIGE DREHZAHLN (MAX. U/MIN) MAXIMUM PERMISSIBLE ROTATION SPEEDS (RPM)

Die zulässige Drehzahl des Futters ist von vielen Faktoren abhängig, wie z.B. Drehparameter, Werkstückgewicht und dessen Unwucht, Typ der Bearbeitung (Dauer- oder Aussetzbetrieb) usw.

Die maximalen zulässigen Drehzahlen, die in den nachfolgenden Tabellen angegeben sind, dürfen keine Spannkraftminderung auf die Hälfte des Anfangswertes verursachen. Bei Arbeiten unter normalen/stabilen Bedingungen (Werkstück, Werkzeuge, Arbeitsbedingungen) ist eine Spannkraftminderung auf bis zu 67% des Anfangswertes zulässig.

Dies bezieht sich auf Futter mit Standardbacken, die nicht über den äußeren Durchmesser des Futters hinausgehen und gleichzeitiger Beibehaltung der Wuchtgüte des „bearbeiteten Werkstück“ (nicht mehr als 20gmm/kg). Futter und Backen müssen einen guten technischen Zustand aufweisen. In anderen Fällen siehe den in der PN-M-60650 angegebenen Berechnungen.

Admissible revolutions of the chuck depend on many factors, such as cutting parameters, weight of the workpiece and its balance or type of machining (interrupted or continuous turning) etc.

The max. speeds as indicated in the table below should not cause a decrease of the clamping force to the half of its initial value. When machining in the stable conditions (machining material, tools, working conditions), the clamping force may be reduced by up to 67% of its initial value.

This relates to the chuck equipped with standard jaws, that do not protrude beyond the outer diameter of the chuck and the unbalance condition of the 'chuck-machining workpiece' is maintained (not exceeding 20gmm/kg). The chuck and jaws must be in good condition. Otherwise, refer to the calculations as indicated in the PN-M-60650.

## 3105, 32\*\*, 35\*\*, 36\*\*, 37\*\*, 38\*\*

| Futtergröße<br>[mm] | Max. U/min       |            |                     |       |
|---------------------|------------------|------------|---------------------|-------|
|                     | Max. rpm         |            |                     |       |
|                     | Stahlkörper      |            | Gusskörper          |       |
|                     | Steel body       |            | Cast iron body      |       |
| Chuck size<br>[mm]  | 35**, 356*, 37** | 38**, 386* | 3105, 32**,<br>36** | 38**  |
| 80                  | 7.000            | -          | 5.000               | -     |
| 100                 | 6.300            | -          | 4.500               | -     |
| 125                 | 5.500            | 3.800      | 4.000               | -     |
| 160                 | 4.600            | 3.200      | 3.600               | -     |
| 200                 | 4.000            | 2.800      | 3.000               | 2.000 |
| 250                 | 3.500            | 2.400      | 2.500               | 1.500 |
| 315                 | 2.800            | 1.900      | 2.000               | 1.200 |
| 400                 | 2.000            | 1.400      | 1.600               | 800   |
| 500                 | 1.300            | 900        | 1.000               | 600   |
| 630                 | 1.000            | 700        | 800                 | 500   |
| 800                 | 800              | 560        | 600                 | 400   |
| 1000                | 600              | 400        | 400                 | -     |
| 1250                | 500              | 350        | 300                 | -     |
| 1400                | 440              | -          | 250                 | -     |
| 1600                | 380              | -          | 220                 | -     |
| 1800                | 340              | -          | 190                 | -     |
| 2000                | 300              | -          | 170                 | -     |

## 43\*\*

| Futtergröße [mm] | Max. U/min  |                |
|------------------|-------------|----------------|
|                  | Max. rpm    |                |
|                  | Stahlkörper | Gusskörper     |
|                  | Steel body  | Cast iron body |
| Chuck size [mm]  |             |                |
| 80               | 7.640       | -              |
| 85               | 7.190       | -              |
| 100              | 6.120       | -              |
| 125              | 4.890       | -              |
| 140              | 4.370       | -              |
| 160              | 3.820       | -              |
| 200              | 3.060       | 1.800          |
| 250              | 2.450       | 1.500          |
| 315              | 1.940       | 1.200          |
| 400              | 1.530       | 860            |
| 500              | 1.220       | 690            |
| 630              | 970         | 550            |
| 800              | 760         | 430            |
| 1000             | 610         | 340            |
| 1250             | 490         | 280            |
| 1400             | 440         | 250            |
| 1600             | 380         | 220            |
| 1800             | 340         | 190            |
| 2000             | 300         | 170            |

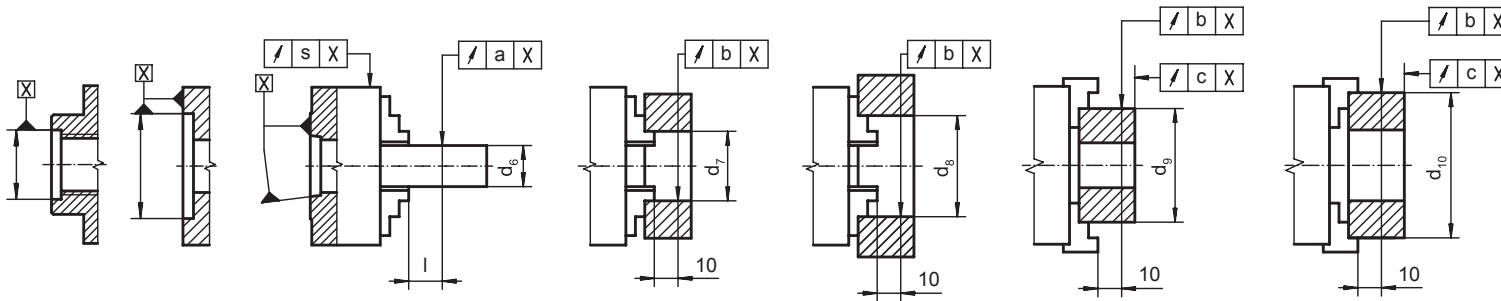
## 4505, 4605, 4705, 4805

| Futtergröße<br>[mm] | Max. U/min      |       |       |       |
|---------------------|-----------------|-------|-------|-------|
|                     | Max. rpm        |       |       |       |
|                     | 4505            | 4605  | 4705  | 4805  |
|                     | Chuck size [mm] |       |       |       |
| 200                 | 2.500           | 2.000 | 3.000 | 2.500 |
| 250                 | 2.000           | 1.800 | 2.500 | 2.000 |
| 315                 | 1.500           | 1.200 | 2.000 | 1.700 |
| 400                 | 1.000           | 800   | 1.500 | 1.300 |
| 500                 | 700             | 600   | 1.000 | 800   |
| 630                 | 540             | 480   | 750   | 660   |
| 800                 | 420             | 360   | 600   | 520   |
| 1000                | 280             | 240   | 380   | 330   |
| 1250                | 210             | 170   | -     | -     |

## 34\*\*

| Futtergröße [mm] | Max. U/min |
|------------------|------------|
| Chuck size [mm]  | Max. rpm   |
| 125              | 6.000      |
| 160              | 5.400      |
| 200              | 4.600      |
| 250              | 4.200      |
| 315              | 3.300      |
| 400              | 2.400      |
| 500              | 1.500      |
| 630              | 1.200      |
| 800              | 960        |
| 915              | 840        |
| 1000             | 720        |
| 1250             | 600        |

1  
2  
3  
4  
5  
6



**RUNDLAUFGENAUIGKEIT**  
CENTERING ACCURACY

32\*\*, 35\*\*, 36\*\*, 37\*\*, 38\*\*

| Futtergröße [mm]<br>Chuck size [mm] | l   | d <sub>6</sub> |     |     |     | d <sub>7</sub> | d <sub>8</sub> | d <sub>9</sub> | d <sub>10</sub>                             |                                             | Rundlaufgenauigkeit [mm] |       |       |       |                  |       |       |       |            |       |       |       |            |       |       |       |
|-------------------------------------|-----|----------------|-----|-----|-----|----------------|----------------|----------------|---------------------------------------------|---------------------------------------------|--------------------------|-------|-------|-------|------------------|-------|-------|-------|------------|-------|-------|-------|------------|-------|-------|-------|
|                                     |     |                |     |     |     |                |                |                |                                             |                                             | Centering accuracy [mm]  |       |       |       |                  |       |       |       |            |       |       |       |            |       |       |       |
|                                     |     |                |     |     |     |                |                |                |                                             |                                             | 35** PREMIUM             |       |       |       | 35**, 37**, 38** |       |       |       | 32**, 36** |       |       |       | 3284, 3285 |       |       |       |
|                                     |     |                |     |     |     |                |                |                | Harte, einteilige Backen<br>Hard solid jaws | Harte, geteilte Backen<br>Hard 2-piece jaws | a                        | b     | c     | s     | a                | b     | c     | s     | a          | b     | c     | s     | a          | b     | c     | s     |
| 80                                  | 40  | 10             | -   | 14  | 40  | 60             | 35             | 63             | -                                           | -                                           | 0,010                    | 0,013 | 0,008 | 0,010 | 0,020            | 0,025 | 0,015 | 0,020 | 0,030      | 0,025 | 0,015 | 0,020 | 0,050      | 0,075 | 0,040 | 0,050 |
| 100                                 | 40  | 10             | 14  | 18  | 40  | 75             | 50             | 80             | -                                           | -                                           | 0,010                    | 0,013 | 0,008 | 0,010 | 0,020            | 0,025 | 0,015 | 0,020 | 0,030      | 0,025 | 0,015 | 0,020 | 0,050      | 0,075 | 0,040 | 0,050 |
| 125                                 | 60  | 18             | 25  | 30  | 50  | 100            | 62             | 100            | 120                                         | 120                                         | 0,015                    | 0,018 | 0,010 | 0,015 | 0,030            | 0,035 | 0,020 | 0,030 | 0,030      | 0,035 | 0,020 | 0,030 | 0,050      | 0,075 | 0,040 | 0,050 |
| 160                                 | 60  | 18             | 30  | 40  | 50  | 135            | 88             | 100            | 150                                         | 150                                         | 0,015                    | 0,018 | 0,010 | 0,015 | 0,030            | 0,035 | 0,020 | 0,030 | 0,030      | 0,035 | 0,020 | 0,030 | 0,050      | 0,075 | 0,040 | 0,050 |
| 200                                 | 80  | 30             | 40  | 53  | 80  | 162            | 96             | 160            | 185                                         | 185                                         | 0,020                    | 0,023 | 0,013 | 0,020 | 0,040            | 0,045 | 0,025 | 0,040 | 0,040      | 0,045 | 0,025 | 0,040 | 0,050      | 0,075 | 0,040 | 0,050 |
| 250                                 | 80  | 30             | 53  | 75  | 80  | 200            | 150            | 160            | 225                                         | 225                                         | 0,020                    | 0,023 | 0,013 | 0,020 | 0,040            | 0,045 | 0,025 | 0,040 | 0,040      | 0,045 | 0,025 | 0,040 | 0,080      | 0,075 | 0,070 | 0,080 |
| 315                                 | 120 | 53             | 75  | 100 | 125 | 252            | 210            | 250            | 300                                         | 300                                         | 0,025                    | 0,028 | 0,015 | 0,025 | 0,050            | 0,055 | 0,030 | 0,050 | 0,050      | 0,055 | 0,030 | 0,050 | 0,080      | 0,075 | 0,070 | 0,080 |
| 400                                 | 120 | 53             | 100 | 125 | 125 | 282            | 250            | 250            | 350                                         | 350                                         | 0,030                    | 0,033 | 0,015 | 0,030 | 0,060            | 0,065 | 0,030 | 0,060 | 0,060      | 0,065 | 0,030 | 0,060 | -          | -     | -     | -     |
| 500                                 | 160 | 75             | 100 | 125 | 200 | 282            | 300            | 400            | 400                                         | 400                                         | 0,050                    | 0,055 | 0,030 | 0,050 | 0,100            | 0,075 | 0,050 | 0,100 | 0,100      | 0,100 | 0,050 | 0,100 | -          | -     | -     | -     |
| 630                                 | 160 | 75             | 125 | 160 | 200 | 325            | 400            | 400            | 400                                         | 400                                         | 0,070                    | 0,075 | 0,050 | 0,070 | 0,100            | 0,100 | 0,050 | 0,100 | 0,100      | 0,100 | 0,050 | 0,100 | -          | -     | -     | -     |
| 800                                 | 160 | 160            | 200 | 250 | 325 | 500            | 400            | 500            | 500                                         | 500                                         | 0,100                    | 0,100 | 0,050 | 0,100 | 0,150            | 0,150 | 0,060 | 0,150 | 0,150      | 0,150 | 0,060 | 0,150 | -          | -     | -     | -     |
| 1000                                | 160 | 250            | 315 | 400 | 500 | 630            | 500            | -              | 630                                         | 630                                         | 0,120                    | 0,120 | 0,060 | 0,120 | 0,150            | 0,150 | 0,080 | 0,150 | 0,150      | 0,150 | 0,080 | 0,150 | -          | -     | -     | -     |
| 1250                                | 200 | -              | -   | 500 | 800 | 800            | 1000           | -              | 1000                                        | 1000                                        | 0,120                    | 0,120 | 0,060 | 0,120 | 0,150            | 0,150 | 0,080 | 0,150 | 0,150      | 0,150 | 0,080 | 0,150 | -          | -     | -     | -     |
| 1400                                | 200 | -              | -   | 500 | 800 | 800            | 1000           | -              | 1000                                        | 1000                                        | 0,120                    | 0,120 | 0,060 | 0,120 | 0,150            | 0,150 | 0,100 | 0,150 | 0,180      | 0,180 | 0,120 | 0,180 | -          | -     | -     | -     |
| 1600                                | 200 | -              | -   | 500 | 800 | 800            | 1000           | -              | 1000                                        | 1000                                        | 0,150                    | 0,150 | 0,080 | 0,150 | 0,180            | 0,180 | 0,120 | 0,180 | 0,200      | 0,200 | 0,160 | 0,200 | -          | -     | -     | -     |
| 1800                                | 200 | -              | -   | 500 | 800 | 800            | 1000           | -              | 1000                                        | 1000                                        | 0,200                    | 0,200 | 0,120 | 0,200 | 0,220            | 0,220 | 0,160 | 0,220 | 0,250      | 0,250 | 0,200 | 0,250 | -          | -     | -     | -     |
| 2000                                | 200 | -              | -   | 500 | 800 | 800            | 1000           | -              | 1000                                        | 1000                                        | 0,200                    | 0,200 | 0,120 | 0,200 | 0,220            | 0,220 | 0,160 | 0,220 | 0,250      | 0,250 | 0,200 | 0,250 | -          | -     | -     | -     |

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| Futtergröße [mm]<br>Chuck size [mm] | l   | d <sub>6</sub> |     |     |     | d <sub>7</sub> | d <sub>8</sub> | d <sub>9</sub> | d <sub>10</sub> | Rundlaufgenauigkeit [mm] |       |       |       |
|-------------------------------------|-----|----------------|-----|-----|-----|----------------|----------------|----------------|-----------------|--------------------------|-------|-------|-------|
|                                     |     |                |     |     |     |                |                |                |                 | Centering accuracy [mm]  |       |       |       |
|                                     |     |                |     |     |     |                |                |                |                 | a                        | b     | c     | s     |
| 125                                 | 60  | 14             | 20  | 29  | 50  | 100            | 95             | 125            | 125             | 0,015                    | 0,015 | 0,010 | 0,020 |
| 160                                 | 60  | 14             | 20  | 38  | 50  | 135            | 100            | 160            | 160             | 0,020                    | 0,015 | 0,010 | 0,020 |
| 200                                 | 80  | 14             | 22  | 50  | 80  | 162            | 150            | 200            | 200             | 0,020                    | 0,020 | 0,010 | 0,020 |
| 250                                 | 80  | 15             | 32  | 64  | 80  | 200            | 180            | 250            | 250             | 0,020                    | 0,020 | 0,010 | 0,020 |
| 315                                 | 120 | 20             | 64  | 89  | 125 | 252            | 225            | 290            | 290             | 0,025                    | 0,025 | 0,010 | 0,025 |
| 400                                 | 120 | 53             | 100 | 125 | 125 | 282            | 250            | 300            | 300             | 0,030                    | 0,030 | 0,015 | 0,030 |
| 500                                 | 160 | 75             | 100 | 125 | 200 | 325            | 300            | 400            | 400             | 0,050                    | 0,050 | 0,030 | 0,050 |
| 630                                 | 160 | 75             | 125 | 160 | 200 | 400            | 400            | 400            | 400             | 0,070                    | 0,070 | 0,050 | 0,070 |
| 800                                 | 160 | 200            | 250 | 282 | 400 | 500            | 400            | 630            | 630             | 0,100                    | 0,10  | 0,050 | 0,100 |
| 1000                                | 160 | 325            | 400 | 500 | 500 | 630            | 630            | 800            | 800             | 0,120                    | 0,120 | 0,060 | 0,120 |
| 1200                                | 160 | 500            | 630 | -   | 700 | 800            | 800            | 1000           | 1000            | 0,160                    | 0,160 | 0,080 | 0,160 |

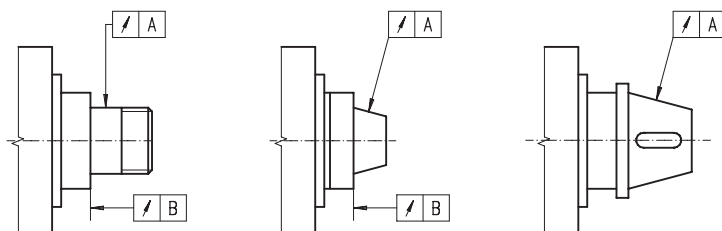
# **RUNDLAUFGENAUIGKEIT DER SPINDELNASE** SPINDLE NOSE CENTERING ACCURACY

Für die Messung der Rundlaufgenauigkeit eines Futters ist zu beachten, dass

- 1) der Rundlauffehler der Maschinenspindel den unten angegebenen Angaben entspricht
- 2) das Futter ordnungsgemäß auf der Spindel Nase montiert wurde.

To obtain the specified centering accuracy of a chuck mounted on a machine tool it is necessary:

- 1) to ensure the machine spindle nose run-out does not exceed the values specified,
- 2) to meet the basic requirements for correct mounting of the chuck on the spindle nose, according to the operations manual.



A · B

35\*\*

32\*\*, 36\*\*, 37\*\*

|             |         |             |         |
|-------------|---------|-------------|---------|
| Ø 80 - 400  | 0,003mm | Ø 80 - 160  | 0,003mm |
| Ø 500 - 630 | 0,005mm | Ø 200 - 800 | 0,005mm |

# **UNWUCHTWERTE FÜR DREHFUTTER** BALANCE VALUE

35\*\*, 37\*\*

| Futtergröße [mm]<br>Chuck size [mm] | gcm |
|-------------------------------------|-----|
| 80                                  | 11  |
| 100                                 | 16  |
| 125                                 | 23  |
| 160                                 | 32  |
| 200                                 | 45  |
| 250                                 | 63  |
| 315                                 | 90  |
| 400                                 | 140 |
| 500                                 | 300 |
| 630                                 | 640 |

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| Futtergröße [mm]<br>Chuck size [mm] | gcm |
|-------------------------------------|-----|
| 125                                 | 16  |
| 160                                 | 32  |
| 200                                 | 63  |
| 250                                 | 125 |
| 315                                 | 250 |

# **MAX. SPANNKRAFT** TOTAL GRIPPING FORCE

- Die max. Spannkraft ist die Summe aller Kräfte der Backen, die radial auf das stationäre Werkstück wirken. Die angegebenen Spannkraften sind Näherungswerte.
- Voraussetzung hierfür ist ein einwandfreier Zustand des Futters sowie eine ausreichende Schmierung gemäß der Bedienungsanleitung.
- The gripping force is the total sum of all jaws acting radially on the stationary, nonrotating workpiece.
- The data refer to a chuck in good condition lubricated with grease as recommended in the chuck manual.

3105, 32\*\*, 35\*\*, 36\*\*, 37\*\*, 38\*\*,  
45\*\*, 46\*\*, 47\*\*, 48\*\*

| Futtergröße [mm]<br>Chuck size [mm] | Anzugsmoment [Nm]<br>Torque on wrench [Nm] | Spannkraft [daN]<br>Total gripping force [daN] |
|-------------------------------------|--------------------------------------------|------------------------------------------------|
| 80                                  | 35                                         | 1.000                                          |
| 100                                 | 50                                         | 1.700                                          |
| 125                                 | 75                                         | 2.400                                          |
| 160                                 | 120                                        | 3.100 (2.400*)                                 |
| 200                                 | 160                                        | 3.700 (2.900*)                                 |
| 250                                 | 180                                        | 4.600 (3.600*)                                 |
| 315                                 | 200                                        | 5.500 (4.400*)                                 |
| 400                                 | 280                                        | 6.500 (4.900*)                                 |
| 500                                 | 360                                        | 7.200                                          |
| 630                                 | 460                                        | 8.000                                          |
| 800                                 | 500                                        | 9.000                                          |
| 1000                                | 500                                        | 11.500                                         |
| 1250                                | 500                                        | 12.500                                         |
| 1400                                | 500                                        | 12.500                                         |
| 1600                                | 500                                        | 12.500                                         |
| 1800                                | 500                                        | 12.500                                         |
| 2000                                | 500                                        | 12.500                                         |

\* Für Typ 3105 • For Type 3105

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| Futtergröße [mm]<br>Chuck size [mm] | Anzugsmoment [Nm]<br>Torque on wrench [Nm] | Spannkraft [daN]<br>Total gripping force [daN] |
|-------------------------------------|--------------------------------------------|------------------------------------------------|
| 125                                 | 40                                         | 3.000                                          |
| 160                                 | 100                                        | 6.000                                          |
| 200                                 | 160                                        | 8.500                                          |
| 250                                 | 200                                        | 11.000                                         |
| 315                                 | 250                                        | 13.000                                         |
| 400                                 | 280                                        | 20.000                                         |
| 500                                 | 320                                        | 23.000                                         |
| 630                                 | 350                                        | 25.000                                         |
| 800                                 | 350                                        | 25.000                                         |
| 1000                                | 350                                        | 25.000                                         |
| 1200                                | 350                                        | 25.000                                         |