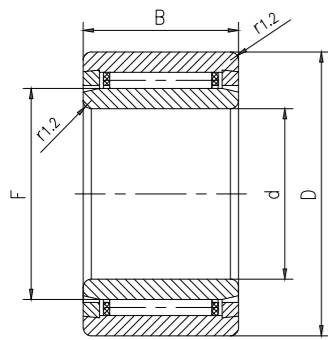


## Suffixes of available designs

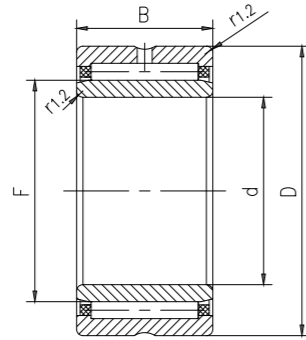
| Suffix  | Meaning   |
|---------|---|
| BF      | Needle roller with lat ends   |
| D       | Deviating or modified internal design with the same boundary dimensions<br>Example: K 40x45x17 D (Needle roller and cage assembly with a double split cage)   |
| DS      | Single split needle roller and cage assembly  |
| EGS     | Inner ring with a non-directionally ground raceway  |
| VGS     | Inner ring with a pre-ground raceway and a machining allowance  |
| ZW      | Double row needle roller and cage assembly (double row cage)  |
| AS..    | Outer ring with lubrication hole(s), the number following indicates the number of holes   |
| ASR..   | Outer ring with annular groove and lubrication hole(s), the number following indicates the number of holes  |
| IS      | Inner ring with lubrication hole(s), the number following indicates the number of holes   |
| ISR..   | Inner ring with annular groove and lubrication hole(s), the number following indicates the number of holes  |
| RS..2RS | Contact seal on one or both sides, respectively<br>• NBR or FKM or PUR for a drawn cup needle roller bearing<br>• NBR for a machined needle roller bearing  |
| Z       | lubrication holes over the outside diameter   |
| TN      | Glass fibre reinforced PA66 cage  |
| ISORT.. | Tolerance grade of needle rollers of a needle roller and cage assembly, the numbers following identify the actual limits in $\mu\text{m}$ , e.g. /SORT-2-4  |
| CN      | Normal radial internal clearance;<br>only used together with an additional letter that identifies a reduced or displaced clearance range<br>H Reduced clearance range corresponding to the upper half of the actual clearance range<br>L Reduced clearance range corresponding to the lower half of the actual clearance range<br>M Reduced clearance range corresponding to the two middle quarters of the actual clearance range<br>P Displaced clearance range comprising the upper half of the actual clearance range plus the lower half of the next larger clearance range<br>R Normal clearance range in accordance with the withdrawn DIN 620-4<br>The above letters H, L, M and P are also used together with the clearance classes C2, C3, C4 |

| Suffix  | Meaning  |
|---------|--|
| C2      | Radial internal clearance smaller than Normal  |
| C3      | Radial internal clearance greater than Normal  |
| C4      | Radial internal clearance greater than C3  |
| G2      | Needle roller in accordance with ISO 3096 Grade 2  |
| H..     | Bearing without an inner ring and reduced inside diameter (under rollers) tolerance, the numbers following indicate the tolerance limits in $\mu\text{m}$ , e.g. H+27+20 |
| M../M.. | Diameter tolerance of needle rollers, e.g. M2/M4 indicates diameter tolerance $-2$ to $-4 \mu\text{m}$   |
| NM..    | Diameter tolerance of needle rollers, e.g. NM2 indicates diameter tolerance $0$ to $-2 \mu\text{m}$  |
| P5      | Dimensional and geometrical tolerances to class P5   |
| P6      | Dimensional and geometrical tolerances to class P6   |
| P62     | P6 + C2  |
| P63     | P6 + C3  |
| P6CNR   | P6 + CNR   |
| ..S     | Matched bearings for an equal load distribution. The number preceding indicates the number of bearings, e.g. NK 50/25 TN/2S  |
| S0      | Bearing or inner ring heat stabilized for operating temperatures $\leq 150 \text{ }^\circ\text{C}$ ( $300 \text{ }^\circ\text{F}$ )                                      |
| S1      | Bearing or inner ring heat stabilized for operating temperatures $\leq 200 \text{ }^\circ\text{C}$ ( $390 \text{ }^\circ\text{F}$ )                                      |
| S2      | Bearing or inner ring heat stabilized for operating temperatures $\leq 250 \text{ }^\circ\text{C}$ ( $480 \text{ }^\circ\text{F}$ )                                      |
| S3      | Bearing or inner ring heat stabilized for operating temperatures $\leq 300 \text{ }^\circ\text{C}$ ( $570 \text{ }^\circ\text{F}$ )                                      |
| SM..    | Special grease, two numbers following identify the grease  |
| VG052   | Single split PES (polyethersulfone) cage   |

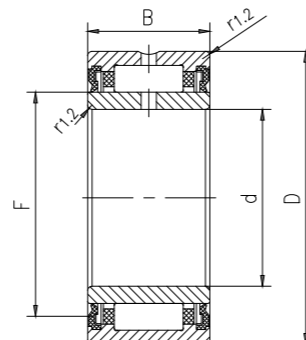
## Needle roller bearings with machined rings with langes, with an inner ring



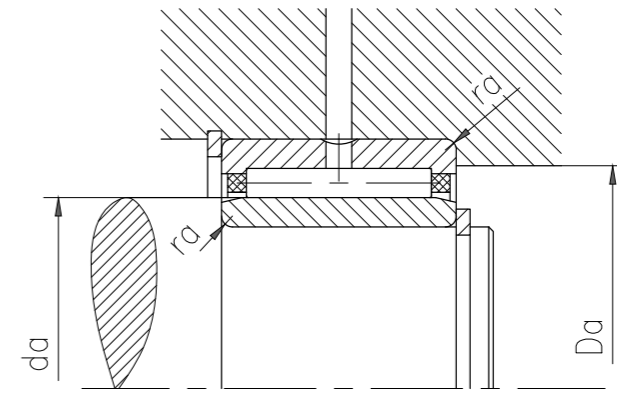
NKI ( $d \leq 7 \text{ mm}$ )



NKI(S) ( $d \geq 9 \text{ mm}$ ) NA 49 / NA 69



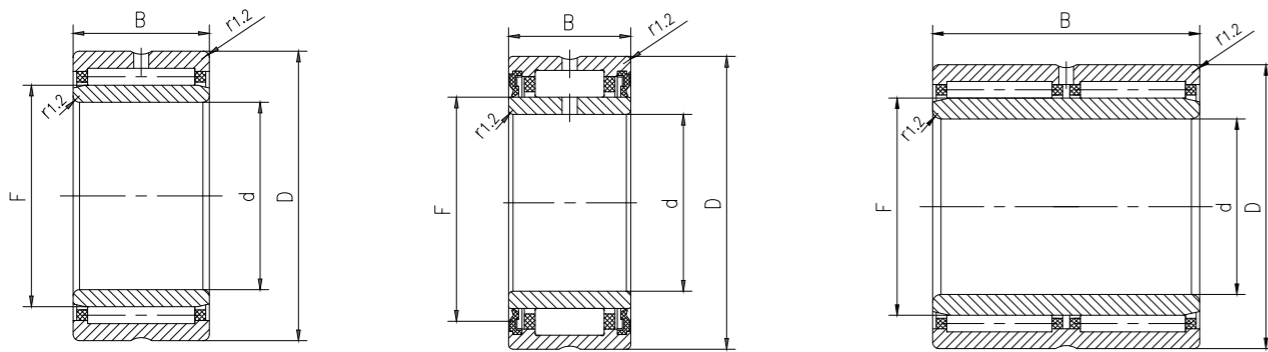
NA 49 2RS



| Type       | Main dimensions |    |    |    | Dimensions |                       |        | Shoulder and chamfer dimensions |                     |                     |
|------------|-----------------|----|----|----|------------|-----------------------|--------|---------------------------------|---------------------|---------------------|
|            | d               | D  | B  | C  | F          | r <sub>1,2</sub> min. | s max. | d <sub>a</sub> min.             | D <sub>a</sub> max. | r <sub>a</sub> max. |
| -          | mm              |    |    |    | mm         |                       |        | mm                              |                     |                     |
| NKI5/12TN  | 5               | 15 | 12 | -  | 8          | 0.3                   | 1.5    | 7                               | 13                  | 0.3                 |
| NKI5/16TN  | 5               | 15 | 16 | -  | 8          | 0.3                   | 2      | 7                               | 13                  | 0.3                 |
| NKI6/12TN  | 6               | 16 | 12 | -  | 9          | 0.3                   | 1.5    | 8                               | 14                  | 0.3                 |
| NKI6/16TN  | 6               | 16 | 16 | -  | 9          | 0.3                   | 2      | 8                               | 14                  | 0.3                 |
| NKI7/12TN  | 7               | 17 | 12 | -  | 10         | 0.3                   | 1.5    | 9                               | 15                  | 0.3                 |
| NKI7/16TN  | 7               | 17 | 16 | -  | 10         | 0.3                   | 2      | 9                               | 15                  | 0.3                 |
| NKI9/12    | 9               | 19 | 12 | -  | 12         | 0.3                   | 1.5    | 11                              | 17                  | 0.3                 |
| NKI9/16    | 9               | 19 | 16 | -  | 12         | 0.3                   | 2      | 11                              | 17                  | 0.3                 |
| NA4900     | 10              | 22 | 13 | -  | 14         | 0.3                   | 0.5    | 12                              | 20                  | 0.3                 |
| NA4900.2RS | 10              | 22 | 14 | 13 | 14         | 0.3                   | 0.5    | 12                              | 20                  | 0.3                 |
| NKI10/16   | 10              | 22 | 16 | -  | 14         | 0.3                   | 0.5    | 12                              | 20                  | 0.3                 |
| NKI10/20   | 10              | 22 | 20 | -  | 14         | 0.3                   | 0.5    | 12                              | 20                  | 0.3                 |
| NA4901     | 12              | 24 | 13 | -  | 16         | 0.3                   | 0.5    | 14                              | 22                  | 0.3                 |
| NA4901.2RS | 12              | 24 | 14 | 13 | 16         | 0.3                   | 0.5    | 14                              | 22                  | 0.3                 |
| NKI12/16   | 12              | 24 | 16 | -  | 16         | 0.3                   | 0.5    | 14                              | 22                  | 0.3                 |
| NKI12/20   | 12              | 24 | 20 | -  | 16         | 0.3                   | 0.5    | 14                              | 22                  | 0.3                 |
| NA6901     | 12              | 24 | 22 | -  | 16         | 0.3                   | 1      | 14                              | 22                  | 0.3                 |
| NKI15/16   | 15              | 27 | 16 | -  | 19         | 0.3                   | 0.5    | 17                              | 25                  | 0.3                 |
| NKI15/20   | 15              | 27 | 20 | -  | 19         | 0.3                   | 0.5    | 17                              | 25                  | 0.3                 |
| NA4902     | 15              | 28 | 13 | -  | 20         | 0.3                   | 0.5    | 17                              | 26                  | 0.3                 |
| NA4902.2RS | 15              | 28 | 14 | 13 | 20         | 0.3                   | 0.5    | 17                              | 26                  | 0.3                 |
| NA6902     | 15              | 28 | 23 | -  | 20         | 0.3                   | 1      | 17                              | 26                  | 0.3                 |
| NKIS15     | 15              | 35 | 20 | -  | 22         | 0.6                   | 0.5    | 19                              | 31                  | 0.6                 |
| NKI17/16   | 17              | 29 | 16 | -  | 21         | 0.3                   | 0.5    | 19                              | 27                  | 0.3                 |
| NKI17/20   | 17              | 29 | 20 | -  | 21         | 0.3                   | 0.5    | 19                              | 27                  | 0.3                 |
| NA4903     | 17              | 30 | 13 | -  | 22         | 0.3                   | 0.5    | 19                              | 28                  | 0.3                 |
| NA4903.2RS | 17              | 30 | 14 | 13 | 22         | 0.3                   | 0.5    | 19                              | 28                  | 0.3                 |
| NA6903     | 17              | 30 | 23 | -  | 22         | 0.3                   | 1      | 19                              | 28                  | 0.3                 |
| NKIS17     | 17              | 37 | 20 | -  | 24         | 0.6                   | 0.5    | 21                              | 33                  | 0.6                 |
| NKI20/16   | 20              | 32 | 16 | -  | 24         | 0.3                   | 0.5    | 22                              | 30                  | 0.3                 |
| NKI20/20   | 20              | 32 | 20 | -  | 24         | 0.3                   | 0.5    | 22                              | 30                  | 0.3                 |
| NA4904     | 20              | 37 | 17 | -  | 25         | 0.3                   | 0.8    | 22                              | 35                  | 0.3                 |
| NA4904.2RS | 20              | 37 | 18 | 17 | 25         | 0.3                   | 0.5    | 22                              | 35                  | 0.3                 |
| NA6904     | 20              | 37 | 30 | -  | 25         | 0.3                   | 1      | 22                              | 35                  | 0.3                 |
| NKIS20     | 20              | 42 | 20 | -  | 28         | 0.6                   | 0.5    | 24                              | 38                  | 0.6                 |
| NKI22/16   | 22              | 34 | 16 | -  | 26         | 0.3                   | 0.5    | 24                              | 32                  | 0.3                 |
| NKI22/20   | 22              | 34 | 20 | -  | 26         | 0.3                   | 0.5    | 24                              | 32                  | 0.3                 |
| NA49/22    | 22              | 39 | 17 | -  | 28         | 0.3                   | 0.8    | 24                              | 37                  | 0.3                 |

| Type       | Weight | Basic load rating |                       | Fatigue load limit P <sub>u</sub> | Rated speed     |               |
|------------|--------|-------------------|-----------------------|-----------------------------------|-----------------|---------------|
|            |        | Dynamic C         | Static C <sub>0</sub> |                                   | reference speed | Maximum speed |
| -          | kg     | kN                |                       | kN                                | r/min           |               |
| NKI5/12TN  | 0.012  | 3.99              | 4.4625                | 0.48825                           | 33600           | 37800         |
| NKI5/16TN  | 0.015  | 5.2605            | 6.1425                | 0.7035                            | 33600           | 37800         |
| NKI6/12TN  | 0.014  | 4.62              | 5.46                  | 0.5985                            | 31500           | 35700         |
| NKI6/16TN  | 0.017  | 6.006             | 7.56                  | 0.85575                           | 31500           | 35700         |
| NKI7/12TN  | 0.014  | 4.7985            | 5.985                 | 0.6615                            | 29400           | 33600         |
| NKI7/16TN  | 0.018  | 6.237             | 8.4                   | 0.945                             | 29400           | 33600         |
| NKI9/12    | 0.017  | 7.0455            | 8.5575                | 1.01325                           | 27300           | 31500         |
| NKI9/16    | 0.022  | 9.5865            | 12.6                  | 1.5015                            | 27300           | 31500         |
| NA4900     | 0.024  | 9.24              | 10.92                 | 1.281                             | 25200           | 29400         |
| NA4900.2RS | 0.025  | 7.7385            | 8.5575                | 1.01325                           | -               | 12600         |
| NKI10/16   | 0.029  | 10.71             | 13.125                | 1.575                             | 25200           | 29400         |
| NKI10/20   | 0.037  | 13.44             | 17.43                 | 2.1                               | 25200           | 29400         |
| NA4901     | 0.026  | 10.395            | 12.81                 | 1.533                             | 23100           | 27300         |
| NA4901.2RS | 0.028  | 8.4945            | 10.1325               | 1.197                             | -               | 11550         |
| NKI12/16   | 0.033  | 12.285            | 16.065                | 1.89                              | 23100           | 27300         |
| NKI12/20   | 0.042  | 15.225            | 21                    | 2.52                              | 23100           | 27300         |
| NA6901     | 0.046  | 16.905            | 24.36                 | 2.8875                            | 23100           | 27300         |
| NKI15/16   | 0.039  | 14.07             | 19.95                 | 2.394                             | 21000           | 25200         |
| NKI15/20   | 0.049  | 17.325            | 26.775                | 3.2025                            | 21000           | 25200         |
| NA4902     | 0.034  | 11.76             | 16.065                | 1.9215                            | 19950           | 23100         |
| NA4902.2RS | 0.037  | 9.5865            | 12.6                  | 1.5015                            | -               | 9975          |
| NA6902     | 0.064  | 18.06             | 28.35                 | 3.5175                            | 19950           | 23100         |
| NKIS15     | 0.092  | 25.83             | 31.5                  | 3.8325                            | 16800           | 19950         |
| NKI17/16   | 0.042  | 14.49             | 21.42                 | 2.5725                            | 19950           | 23100         |
| NKI17/20   | 0.053  | 18.06             | 28.35                 | 3.5175                            | 19950           | 23100         |
| NA4903     | 0.038  | 11.97             | 17.115                | 2.058                             | 18900           | 21000         |
| NA4903.2RS | 0.04   | 9.996             | 13.545                | 1.6065                            | -               | 9450          |
| NA6903     | 0.072  | 19.635            | 32.025                | 3.9375                            | 18900           | 21000         |
| NKIS17     | 0.098  | 27.3              | 35.175                | 4.2                               | 15750           | 17850         |
| NKI20/16   | 0.048  | 16.17             | 25.725                | 3.045                             | 16800           | 19950         |
| NKI20/20   | 0.06   | 19.95             | 34.125                | 4.2                               | 16800           | 19950         |
| NA4904     | 0.075  | 22.68             | 29.4                  | 3.5175                            | 15750           | 17850         |
| NA4904.2RS | 0.08   | 20.37             | 23.52                 | 2.7825                            | -               | 7875          |
| NA6904     | 0.14   | 36.96             | 55.65                 | 6.8775                            | 15750           | 17850         |
| NKIS20     | 0.13   | 30.03             | 40.95                 | 4.9875                            | 13650           | 15750         |
| NKI22/16   | 0.052  | 16.485            | 27.3                  | 3.255                             | 15750           | 17850         |
| NKI22/20   | 0.065  | 20.37             | 36.225                | 4.4625                            | 15750           | 17850         |
| NA49/22    | 0.08   | 24.465            | 33.6                  | 4.095                             | 14700           | 15750         |

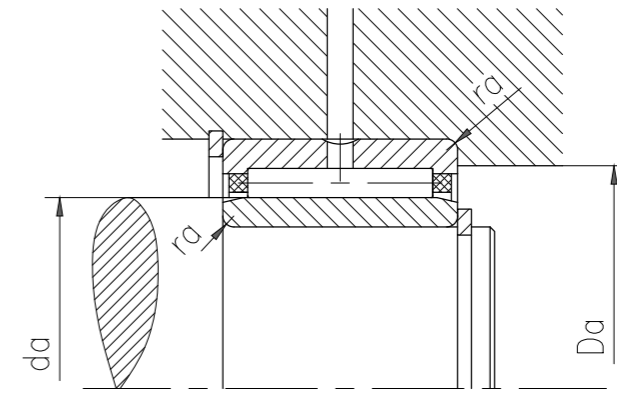
## Needle roller bearings with machined rings with langes, with an inner ring



NKI(S) (d ≥ 9 mm) NA 49 / NA 69

NA 49 2RS

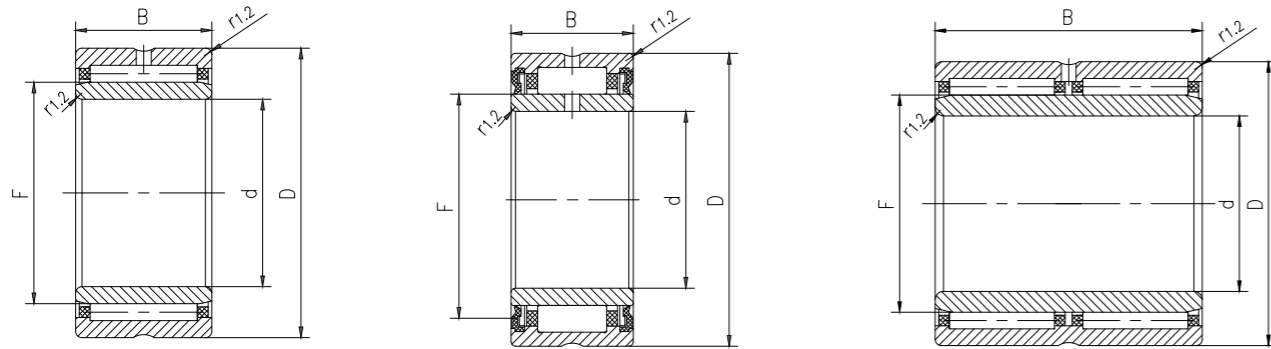
NA 69 (d > 32 mm)



| Type       | Main dimensions |    |    |    | Dimensions |                       |        | Shoulder and chamfer dimensions |                     |                     |
|------------|-----------------|----|----|----|------------|-----------------------|--------|---------------------------------|---------------------|---------------------|
|            | d               | D  | B  | C  | F          | r <sub>1,2</sub> min. | s max. | d <sub>a</sub> min.             | D <sub>a</sub> max. | r <sub>a</sub> max. |
| -          | mm              |    |    |    | mm         |                       |        | mm                              |                     |                     |
| NA69/22    | 22              | 39 | 30 | -  | 28         | 0.3                   | 0.5    | 24                              | 37                  | 0.3                 |
| NKI25/20TN | 25              | 38 | 20 | -  | 29         | 0.3                   | 1      | 27                              | 36                  | 0.3                 |
| NKI25/30   | 25              | 38 | 30 | -  | 29         | 0.3                   | 1.5    | 27                              | 36                  | 0.3                 |
| NA4905     | 25              | 42 | 17 | -  | 30         | 0.3                   | 0.8    | 27                              | 40                  | 0.3                 |
| NA4905.2RS | 25              | 42 | 18 | 17 | 30         | 0.3                   | 0.5    | 27                              | 40                  | 0.3                 |
| NA6905     | 25              | 42 | 30 | -  | 30         | 0.3                   | 1      | 27                              | 40                  | 0.3                 |
| NKIS25     | 25              | 47 | 22 | -  | 32         | 0.6                   | 1      | 29                              | 43                  | 0.6                 |
| NKI28/20TN | 28              | 42 | 20 | -  | 32         | 0.3                   | 1      | 30                              | 40                  | 0.3                 |
| NKI28/30   | 28              | 42 | 30 | -  | 32         | 0.3                   | 1.5    | 30                              | 40                  | 0.3                 |
| NA49/28    | 28              | 45 | 17 | -  | 32         | 0.3                   | 0.8    | 30                              | 43                  | 0.3                 |
| NA69/28    | 28              | 45 | 30 | -  | 32         | 0.3                   | 1      | 30                              | 43                  | 0.3                 |
| NKI30/20TN | 30              | 45 | 20 | -  | 35         | 0.3                   | 0.5    | 32                              | 43                  | 0.3                 |
| NKI30/30TN | 30              | 45 | 30 | -  | 35         | 0.3                   | 1      | 32                              | 43                  | 0.3                 |
| NA4906     | 30              | 47 | 17 | -  | 35         | 0.3                   | 0.8    | 32                              | 45                  | 0.3                 |
| NA4906.2RS | 30              | 47 | 18 | 17 | 35         | 0.3                   | 0.5    | 32                              | 45                  | 0.3                 |
| NA6906     | 30              | 47 | 30 | -  | 35         | 0.3                   | 1      | 32                              | 45                  | 0.3                 |
| NKIS30     | 30              | 52 | 22 | -  | 37         | 0.6                   | 1      | 34                              | 48                  | 0.6                 |
| NKI32/20   | 32              | 47 | 20 | -  | 37         | 0.3                   | 0.5    | 34                              | 45                  | 0.3                 |
| NKI32/30   | 32              | 47 | 30 | -  | 37         | 0.3                   | 1      | 34                              | 45                  | 0.3                 |
| NA49/32    | 32              | 52 | 20 | -  | 40         | 0.6                   | 0.8    | 36                              | 48                  | 0.6                 |
| NA69/32    | 32              | 52 | 36 | -  | 40         | 0.6                   | 0.5    | 36                              | 48                  | 0.6                 |
| NKI35/20TN | 35              | 50 | 20 | -  | 40         | 0.3                   | 0.5    | 37                              | 48                  | 0.3                 |
| NKI35/30   | 35              | 50 | 30 | -  | 40         | 0.3                   | 1      | 37                              | 48                  | 0.3                 |
| NA4907     | 35              | 55 | 20 | -  | 42         | 0.6                   | 0.8    | 39                              | 51                  | 0.6                 |
| NA4907.2RS | 35              | 55 | 21 | 20 | 42         | 0.6                   | 0.5    | 39                              | 51                  | 0.6                 |
| NA6907     | 35              | 55 | 36 | -  | 42         | 0.6                   | 0.5    | 39                              | 51                  | 0.6                 |
| NKIS35     | 35              | 58 | 22 | -  | 43         | 0.6                   | 0.5    | 39                              | 53                  | 0.6                 |
| NKI38/20   | 38              | 53 | 20 | -  | 43         | 0.3                   | 0.5    | 40                              | 51                  | 0.3                 |
| NKI38/30   | 38              | 53 | 30 | -  | 43         | 0.3                   | 1      | 40                              | 51                  | 0.3                 |
| NKI40/20TN | 40              | 55 | 20 | -  | 45         | 0.3                   | 0.5    | 42                              | 53                  | 0.3                 |
| NKI40/30TN | 40              | 55 | 30 | -  | 45         | 0.3                   | 1      | 42                              | 53                  | 0.3                 |
| NA4908     | 40              | 62 | 22 | -  | 48         | 0.6                   | 1      | 44                              | 58                  | 0.6                 |
| NA4908.2RS | 40              | 62 | 23 | 22 | 48         | 0.6                   | 0.5    | 44                              | 58                  | 0.6                 |
| NA6908     | 40              | 62 | 40 | -  | 48         | 0.6                   | 0.5    | 44                              | 58                  | 0.6                 |
| NKIS40     | 40              | 65 | 22 | -  | 50         | 1                     | 0.5    | 45                              | 60                  | 1                   |
| NKI42/20   | 42              | 57 | 20 | -  | 47         | 0.3                   | 0.5    | 44                              | 55                  | 0.3                 |
| NKI42/30   | 42              | 57 | 30 | -  | 47         | 0.3                   | 1      | 44                              | 55                  | 0.3                 |
| NKI45/25TN | 45              | 62 | 25 | -  | 50         | 0.6                   | 1.5    | 49                              | 58                  | 0.6                 |

| Type       | Weight | Basic load rating |                       | Fatigue load limit P <sub>u</sub> | Rated speed     |               |
|------------|--------|-------------------|-----------------------|-----------------------------------|-----------------|---------------|
|            |        | Dynamic C         | Static C <sub>0</sub> |                                   | reference speed | Maximum speed |
| -          | kg     | kN                |                       | kN                                | r/min           |               |
| NA69/22    | 0.15   | 38.745            | 59.85                 | 7.56                              | 14700           | 15750         |
| NKI25/20TN | 0.08   | 25.83             | 44.625                | 5.46                              | 14700           | 15750         |
| NKI25/30   | 0.12   | 33.495            | 63                    | 7.875                             | 14700           | 15750         |
| NA4905     | 0.088  | 25.41             | 36.225                | 4.3575                            | 13650           | 15750         |
| NA4905.2RS | 0.09   | 22.68             | 28.875                | 3.4125                            | -               | 6615          |
| NA6905     | 0.16   | 39.9              | 65.1                  | 8.0325                            | 13650           | 15750         |
| NKIS25     | 0.16   | 35.805            | 48.825                | 5.985                             | 12600           | 13650         |
| NKI28/20TN | 0.092  | 27.72             | 50.4                  | 6.3                               | 12600           | 14700         |
| NKI28/30   | 0.14   | 35.805            | 68.775                | 8.715                             | 12600           | 14700         |
| NA49/28    | 0.098  | 26.355            | 38.325                | 4.62                              | 12600           | 14700         |
| NA69/28    | 0.18   | 41.58             | 68.775                | 8.715                             | 12600           | 14700         |
| NKI30/20TN | 0.11   | 28.875            | 54.6                  | 6.8775                            | 11550           | 13650         |
| NKI30/30TN | 0.17   | 42.21             | 89.25                 | 11.13                             | 11550           | 13650         |
| NA4906     | 0.1    | 26.775            | 40.95                 | 4.8825                            | 11550           | 13650         |
| NA4906.2RS | 0.1    | 24.465            | 33.6                  | 3.99                              | -               | 5880          |
| NA6906     | 0.19   | 45.045            | 78.75                 | 9.765                             | 11550           | 13650         |
| NKIS30     | 0.18   | 38.745            | 56.7                  | 6.8775                            | 10500           | 12600         |
| NKI32/20   | 0.11   | 26.355            | 48.825                | 6.1425                            | 11550           | 12600         |
| NKI32/30   | 0.17   | 38.745            | 80.325                | 9.975                             | 11550           | 12600         |
| NA49/32    | 0.16   | 32.34             | 53.55                 | 6.615                             | 10500           | 11550         |
| NA69/32    | 0.29   | 49.665            | 94.5                  | 11.34                             | 10500           | 11550         |
| NKI35/20TN | 0.12   | 31.185            | 63                    | 7.875                             | 10500           | 11550         |
| NKI35/30   | 0.19   | 39.9              | 87.15                 | 10.92                             | 10500           | 11550         |
| NA4907     | 0.17   | 33.495            | 56.7                  | 7.035                             | 9975            | 11550         |
| NA4907.2RS | 0.18   | 28.35             | 45.15                 | 5.565                             | -               | 5040          |
| NA6907     | 0.31   | 50.82             | 97.65                 | 11.97                             | 9975            | 11550         |
| NKIS35     | 0.22   | 41.055            | 64.05                 | 7.875                             | 9450            | 10500         |
| NKI38/20   | 0.13   | 28.875            | 57.75                 | 7.14                              | 9975            | 11550         |
| NKI38/30   | 0.21   | 42.21             | 94.5                  | 11.76                             | 9975            | 11550         |
| NKI40/20TN | 0.14   | 32.97             | 68.775                | 8.715                             | 9450            | 10500         |
| NKI40/30TN | 0.22   | 47.985            | 113.4                 | 14.385                            | 9450            | 10500         |
| NA4908     | 0.23   | 45.045            | 74.55                 | 9.24                              | 8400            | 9975          |
| NA4908.2RS | 0.25   | 38.745            | 61.425                | 7.455                             | -               | 4200          |
| NA6908     | 0.43   | 70.455            | 131.25                | 16.065                            | 8400            | 9975          |
| NKIS40     | 0.28   | 45.045            | 75.6                  | 9.24                              | 8400            | 9450          |
| NKI42/20   | 0.14   | 30.66             | 64.05                 | 8.0325                            | 8925            | 10500         |
| NKI42/30   | 0.22   | 43.89             | 102.9                 | 13.125                            | 8925            | 10500         |
| NKI45/25TN | 0.22   | 45.045            | 96.075                | 11.76                             | 8400            | 9450          |

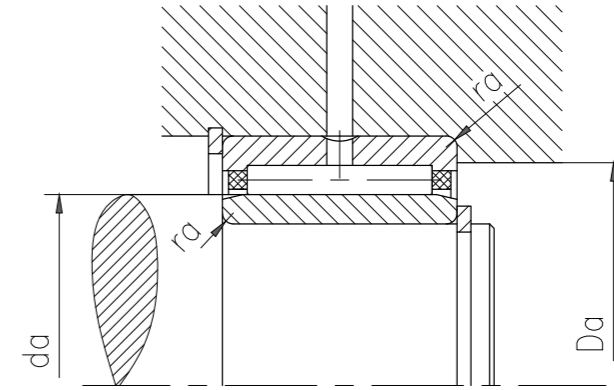
## Needle roller bearings with machined rings with langes, with an inner ring



NKI(S) (d ≥ 9 mm) NA 49 / NA 69

NA 49 2RS

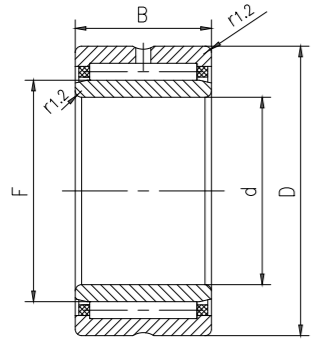
NA 69(d > 32 mm)



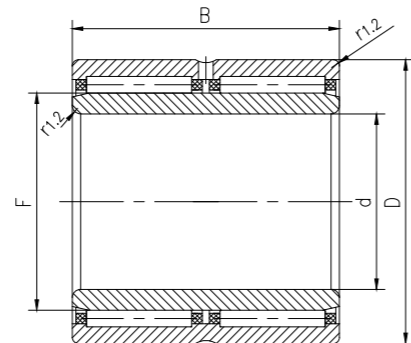
| Type       | Main dimensions |     |    |    | Dimensions |                       |        | Shoulder and chamfer dimensions |                     |                     |
|------------|-----------------|-----|----|----|------------|-----------------------|--------|---------------------------------|---------------------|---------------------|
|            | d               | D   | B  | C  | F          | r <sub>1,2</sub> min. | s max. | d <sub>a</sub> min.             | D <sub>a</sub> max. | r <sub>a</sub> max. |
| -          | mm              |     |    |    | mm         |                       |        | mm                              |                     |                     |
| NKI45/35TN | 45              | 62  | 35 | -  | 50         | 0.6                   | 2      | 49                              | 58                  | 0.6                 |
| NA4909     | 45              | 68  | 22 | -  | 52         | 0.6                   | 1      | 49                              | 64                  | 0.6                 |
| NA4909.2RS | 45              | 68  | 23 | 22 | 52         | 0.6                   | 0.5    | 49                              | 64                  | 0.6                 |
| NA6909     | 45              | 68  | 40 | -  | 52         | 0.6                   | 0.5    | 49                              | 64                  | 0.6                 |
| NKIS45     | 45              | 72  | 22 | -  | 55         | 1                     | 0.5    | 50                              | 67                  | 1                   |
| NKI50/25   | 50              | 68  | 25 | -  | 55         | 0.6                   | 1.5    | 54                              | 64                  | 0.6                 |
| NKI50/35   | 50              | 68  | 35 | -  | 55         | 0.6                   | 2      | 54                              | 64                  | 0.6                 |
| NA4910     | 50              | 72  | 22 | -  | 58         | 0.6                   | 1      | 54                              | 68                  | 0.6                 |
| NA4910.2RS | 50              | 72  | 23 | 22 | 58         | 0.6                   | 0.5    | 54                              | 68                  | 0.6                 |
| NA6910     | 50              | 72  | 40 | -  | 58         | 0.6                   | 0.5    | 54                              | 68                  | 0.6                 |
| NKIS50     | 50              | 80  | 28 | -  | 60         | 1.1                   | 2      | 56.5                            | 73.5                | 1                   |
| NKI55/25TN | 55              | 72  | 25 | -  | 60         | 0.6                   | 1.5    | 59                              | 68                  | 0.6                 |
| NKI55/35   | 55              | 72  | 35 | -  | 60         | 0.6                   | 2      | 59                              | 68                  | 0.6                 |
| NA4911     | 55              | 80  | 25 | -  | 63         | 1                     | 1.5    | 60                              | 75                  | 1                   |
| NA6911     | 55              | 80  | 45 | -  | 63         | 1                     | 1.5    | 60                              | 75                  | 1                   |
| NKIS55     | 55              | 85  | 28 | -  | 65         | 1.1                   | 2      | 61.5                            | 78.5                | 1                   |
| NKI60/25   | 60              | 82  | 25 | -  | 68         | 0.6                   | 1      | 64                              | 78                  | 0.6                 |
| NKI60/35   | 60              | 82  | 35 | -  | 68         | 0.6                   | 1      | 64                              | 78                  | 0.6                 |
| NA4912     | 60              | 85  | 25 | -  | 68         | 1                     | 1.5    | 65                              | 80                  | 1                   |
| NA6912     | 60              | 85  | 45 | -  | 68         | 1                     | 1.5    | 65                              | 80                  | 1                   |
| NKIS60     | 60              | 90  | 28 | -  | 70         | 1.1                   | 2      | 66.5                            | 83.5                | 1                   |
| NKI65/25   | 65              | 90  | 25 | -  | 73         | 1                     | 1      | 70                              | 85                  | 1                   |
| NA4913     | 65              | 90  | 25 | -  | 72         | 1                     | 1.5    | 70                              | 85                  | 1                   |
| NKI65/35   | 65              | 90  | 35 | -  | 73         | 1                     | 1      | 70                              | 85                  | 1                   |
| NA6913     | 65              | 90  | 45 | -  | 72         | 1                     | 1.5    | 70                              | 85                  | 1                   |
| NKIS65     | 65              | 95  | 28 | -  | 75         | 1.1                   | 2      | 71.5                            | 88.5                | 1                   |
| NKI70/25   | 70              | 95  | 25 | -  | 80         | 1                     | 0.8    | 75                              | 90                  | 1                   |
| NKI70/35   | 70              | 95  | 35 | -  | 80         | 1                     | 0.8    | 75                              | 90                  | 1                   |
| NA4914     | 70              | 100 | 30 | -  | 80         | 1                     | 1.5    | 75                              | 95                  | 1                   |
| NA6914     | 70              | 100 | 54 | -  | 80         | 1                     | 1      | 75                              | 95                  | 1                   |
| NKI75/25   | 75              | 105 | 25 | -  | 85         | 1                     | 1      | 80                              | 100                 | 1                   |
| NA4915     | 75              | 105 | 30 | -  | 85         | 1                     | 1.5    | 80                              | 100                 | 1                   |
| NKI75/35   | 75              | 105 | 35 | -  | 85         | 1                     | 1      | 80                              | 100                 | 1                   |
| NA6915     | 75              | 105 | 54 | -  | 85         | 1                     | 1      | 80                              | 100                 | 1                   |
| NKI80/25   | 80              | 110 | 25 | -  | 90         | 1                     | 1      | 85                              | 105                 | 1                   |
| NA4916     | 80              | 110 | 30 | -  | 90         | 1                     | 1.5    | 85                              | 105                 | 1                   |
| NKI80/35   | 80              | 110 | 35 | -  | 90         | 1                     | 1      | 85                              | 105                 | 1                   |
| NA6916     | 80              | 110 | 54 | -  | 90         | 1                     | 1      | 85                              | 105                 | 1                   |

| Type       | Weight | Basic load rating |                       | Fatigue load limit P <sub>u</sub> | Rated speed     |               |
|------------|--------|-------------------|-----------------------|-----------------------------------|-----------------|---------------|
|            |        | Dynamic C         | Static C <sub>0</sub> |                                   | reference speed | Maximum speed |
| -          | kg     | kN                |                       | kN                                | r/min           |               |
| NKI45/35TN | 0.31   | 61.215            | 143.85                | 17.85                             | 8400            | 9450          |
| NA4909     | 0.27   | 47.985            | 81.9                  | 10.1325                           | 7875            | 8925          |
| NA4909.2RS | 0.29   | 41.055            | 67.2                  | 8.19                              | -               | 3990          |
| NA6909     | 0.5    | 73.92             | 143.85                | 17.85                             | 7875            | 8925          |
| NKIS45     | 0.34   | 46.83             | 81.9                  | 10.29                             | 7350            | 8400          |
| NKI50/25   | 0.26   | 42.21             | 92.4                  | 11.34                             | 7875            | 8925          |
| NKI50/35   | 0.36   | 54.915            | 128.1                 | 16.065                            | 7875            | 8925          |
| NA4910     | 0.27   | 49.665            | 89.25                 | 11.13                             | 7350            | 8400          |
| NA4910.2RS | 0.3    | 42.21             | 72.975                | 8.925                             | -               | 3570          |
| NA6910     | 0.52   | 77.385            | 157.5                 | 19.53                             | 7350            | 8400          |
| NKIS50     | 0.52   | 65.835            | 109.2                 | 13.86                             | 6615            | 7875          |
| NKI55/25TN | 0.26   | 49.14             | 115.5                 | 14.07                             | 7035            | 7875          |
| NKI55/35   | 0.36   | 57.75             | 140.7                 | 17.85                             | 7035            | 7875          |
| NA4911     | 0.39   | 60.06             | 111.3                 | 13.86                             | 6615            | 7350          |
| NA6911     | 0.78   | 94.185            | 199.5                 | 24.36                             | 6615            | 7350          |
| NKIS55     | 0.56   | 69.3              | 119.7                 | 15.33                             | 6300            | 7035          |
| NKI60/25   | 0.39   | 46.2              | 99.75                 | 12.39                             | 6300            | 7035          |
| NKI60/35   | 0.55   | 63.525            | 153.3                 | 19.215                            | 6300            | 7035          |
| NA4912     | 0.43   | 63.525            | 119.7                 | 15.015                            | 6300            | 7035          |
| NA6912     | 0.81   | 98.175            | 214.2                 | 26.25                             | 6300            | 7035          |
| NKIS60     | 0.56   | 71.61             | 126                   | 16.065                            | 5880            | 6615          |
| NKI65/25   | 0.46   | 55.44             | 111.3                 | 13.86                             | 5880            | 6615          |
| NA4913     | 0.46   | 64.68             | 126                   | 15.33                             | 5880            | 6615          |
| NKI65/35   | 0.66   | 77.385            | 171.15                | 21.42                             | 5880            | 6615          |
| NA6913     | 0.83   | 99.96             | 222.6                 | 27.3                              | 5880            | 6615          |
| NKIS65     | 0.64   | 73.92             | 138.6                 | 17.43                             | 5565            | 6300          |
| NKI70/25   | 0.51   | 58.905            | 133.35                | 16.38                             | 5250            | 5880          |
| NKI70/35   | 0.72   | 80.325            | 199.5                 | 25.2                              | 5250            | 5880          |
| NA4914     | 0.73   | 88.41             | 171.15                | 21.84                             | 5250            | 5880          |
| NA6914     | 1.35   | 134.4             | 299.25                | 37.8                              | 5250            | 5880          |
| NKI75/25   | 0.64   | 72.765            | 138.6                 | 17.43                             | 5040            | 5565          |
| NA4915     | 0.78   | 88.41             | 178.5                 | 22.68                             | 5040            | 5565          |
| NKI75/35   | 0.91   | 101.64            | 210                   | 27.3                              | 5040            | 5565          |
| NA6915     | 1.45   | 136.5             | 304.5                 | 39.375                            | 5040            | 5565          |
| NKI80/25   | 0.68   | 75.705            | 147                   | 18.9                              | 4725            | 5250          |
| NA4916     | 0.88   | 92.4              | 192.15                | 24.36                             | 4725            | 5250          |
| NKI80/35   | 0.96   | 106.05            | 226.8                 | 29.4                              | 4725            | 5250          |
| NA6916     | 1.5    | 140.7             | 330.75                | 42                                | 4725            | 5250          |

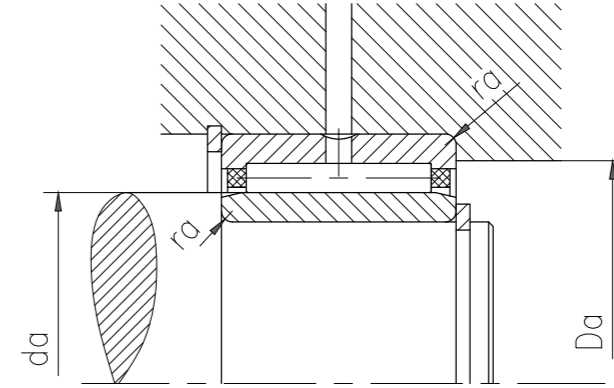
## Needle roller bearings with machined rings with langes, with an inner ring



NKI(S) ( $d \geq 9$  mm) NA 49 / NA 69



NA 69 ( $d > 32$  mm)



| Type      | Main dimensions |     |     |   | Dimensions |                       |        | Shoulder and chamfer dimensions |                     |                     |
|-----------|-----------------|-----|-----|---|------------|-----------------------|--------|---------------------------------|---------------------|---------------------|
|           | d               | D   | B   | C | F          | r <sub>1,2</sub> min. | s max. | d <sub>a</sub> min.             | D <sub>a</sub> max. | r <sub>a</sub> max. |
| -         | mm              |     |     |   | mm         |                       |        | mm                              |                     |                     |
| NKI85/26  | 85              | 115 | 26  | - | 95         | 1                     | 1.5    | 90                              | 110                 | 1                   |
| NKI85/36  | 85              | 115 | 36  | - | 95         | 1                     | 1.5    | 90                              | 110                 | 1                   |
| NA4917    | 85              | 120 | 35  | - | 100        | 1.1                   | 1      | 91.5                            | 113.5               | 1                   |
| NA6917    | 85              | 120 | 63  | - | 100        | 1.1                   | 1      | 91.5                            | 113.5               | 1                   |
| NKI90/26  | 90              | 120 | 26  | - | 100        | 1                     | 1.5    | 95                              | 115                 | 1                   |
| NKI90/36  | 90              | 120 | 36  | - | 100        | 1                     | 1.5    | 95                              | 115                 | 1                   |
| NA4918    | 90              | 125 | 35  | - | 105        | 1.1                   | 1      | 96.5                            | 118.5               | 1                   |
| NA6918    | 90              | 125 | 63  | - | 105        | 1.1                   | 1      | 96.5                            | 118.5               | 1                   |
| NKI95/26  | 95              | 125 | 26  | - | 105        | 1                     | 1.5    | 100                             | 120                 | 1                   |
| NKI95/36  | 95              | 125 | 36  | - | 105        | 1                     | 1.5    | 100                             | 120                 | 1                   |
| NA4919    | 95              | 130 | 35  | - | 110        | 1.1                   | 1      | 101.5                           | 123.5               | 1                   |
| NA6919    | 95              | 130 | 63  | - | 110        | 1.1                   | 1      | 101.5                           | 123.5               | 1                   |
| NKI100/30 | 100             | 130 | 30  | - | 110        | 1.1                   | 1.5    | 106.5                           | 123.5               | 1                   |
| NKI100/40 | 100             | 130 | 40  | - | 110        | 1.1                   | 2      | 106.5                           | 123.5               | 1                   |
| NA4920    | 100             | 140 | 40  | - | 115        | 1.1                   | 2      | 106.5                           | 133.5               | 1                   |
| NA4822    | 110             | 140 | 30  | - | 120        | 1                     | 0.8    | 115                             | 135                 | 1                   |
| NA4922    | 110             | 150 | 40  | - | 125        | 1.1                   | 2      | 116.5                           | 143.5               | 1                   |
| NA4824    | 120             | 150 | 30  | - | 130        | 1                     | 0.8    | 125                             | 145                 | 1                   |
| NA4924    | 120             | 165 | 45  | - | 135        | 1.1                   | 2      | 126.5                           | 158.5               | 1                   |
| NA4826    | 130             | 165 | 35  | - | 145        | 1.1                   | 1      | 136.5                           | 158.5               | 1                   |
| NA4926    | 130             | 180 | 50  | - | 150        | 1.5                   | 1.5    | 138                             | 172                 | 1.5                 |
| NA4828    | 140             | 175 | 35  | - | 155        | 1.1                   | 1      | 146.5                           | 168.5               | 1                   |
| NA4928    | 140             | 190 | 50  | - | 160        | 1.5                   | 1.5    | 148                             | 182                 | 1.5                 |
| NA4830    | 150             | 190 | 40  | - | 165        | 1.1                   | 1.5    | 156.5                           | 183.5               | 1                   |
| NA4832    | 160             | 200 | 40  | - | 175        | 1.1                   | 1.5    | 166.5                           | 193.5               | 1                   |
| NA4834    | 170             | 215 | 45  | - | 185        | 1.1                   | 1.5    | 176.5                           | 208.5               | 1                   |
| NA4836    | 180             | 225 | 45  | - | 195        | 1.1                   | 1.5    | 186.5                           | 218.5               | 1                   |
| NA4838    | 190             | 240 | 50  | - | 210        | 1.5                   | 1.5    | 198                             | 232                 | 1.5                 |
| NA4840    | 200             | 250 | 50  | - | 220        | 1.5                   | 1.5    | 208                             | 242                 | 1.5                 |
| NA4844    | 220             | 270 | 50  | - | 240        | 1.5                   | 1.5    | 228                             | 262                 | 1.5                 |
| NA4848    | 240             | 300 | 60  | - | 265        | 2                     | 2      | 249                             | 291                 | 2                   |
| NA4852    | 260             | 320 | 60  | - | 285        | 2                     | 2      | 269                             | 311                 | 2                   |
| NA4856    | 280             | 350 | 69  | - | 305        | 2                     | 2.5    | 289                             | 341                 | 2                   |
| NA4860    | 300             | 380 | 80  | - | 330        | 2.1                   | 2      | 311                             | 369                 | 2                   |
| NA4864    | 320             | 400 | 80  | - | 350        | 2.1                   | 2      | 331                             | 389                 | 2                   |
| NA4868    | 340             | 420 | 80  | - | 370        | 2.1                   | 2      | 351                             | 409                 | 2                   |
| NA4872    | 360             | 440 | 80  | - | 390        | 2.1                   | 2      | 371                             | 429                 | 2                   |
| NA4876    | 380             | 480 | 100 | - | 415        | 2.1                   | 2      | 391                             | 469                 | 2                   |

| Type      | Weight | Basic load rating |                       | Fatigue load limit P <sub>u</sub> | Rated speed     |               |
|-----------|--------|-------------------|-----------------------|-----------------------------------|-----------------|---------------|
|           |        | Dynamic C         | Static C <sub>0</sub> |                                   | reference speed | Maximum speed |
| -         | kg     | kN                |                       | kN                                | r/min           |               |
| NKI85/26  | 0.74   | 77.385            | 153.3                 | 19.53                             | 4515            | 5040          |
| NKI85/36  | 1.05   | 110.25            | 243.6                 | 31.5                              | 4515            | 5040          |
| NA4917    | 1.25   | 113.4             | 262.5                 | 32.55                             | 4200            | 4725          |
| NA6917    | 2.2    | 173.25            | 446.25                | 55.65                             | 4200            | 4725          |
| NKI90/26  | 0.78   | 80.325            | 163.8                 | 20.58                             | 4200            | 4725          |
| NKI90/36  | 1.1    | 113.4             | 262.5                 | 32.55                             | 4200            | 4725          |
| NA4918    | 1.3    | 117.6             | 278.25                | 34.125                            | 3990            | 4515          |
| NA6918    | 2.3    | 180.6             | 472.5                 | 57.75                             | 3990            | 4515          |
| NKI95/26  | 0.82   | 82.005            | 174.3                 | 21.42                             | 3990            | 4515          |
| NKI95/36  | 1.15   | 117.6             | 278.25                | 34.125                            | 3990            | 4515          |
| NA4919    | 1.35   | 119.7             | 283.5                 | 35.175                            | 3780            | 4200          |
| NA6919    | 2.5    | 180.6             | 488.25                | 58.8                              | 3780            | 4200          |
| NKI100/30 | 0.99   | 101.64            | 231                   | 28.35                             | 3780            | 4200          |
| NKI100/40 | 1.35   | 129.15            | 320.25                | 39.375                            | 3780            | 4200          |
| NA4920    | 1.9    | 131.25            | 294                   | 35.7                              | 3570            | 4200          |
| NA4822    | 1.1    | 98.175            | 243.6                 | 28.35                             | 3570            | 3990          |
| NA4922    | 2.05   | 136.5             | 315                   | 37.275                            | 3360            | 3780          |
| NA4824    | 1.15   | 103.95            | 267.75                | 30.45                             | 3360            | 3780          |
| NA4924    | 2.85   | 184.8             | 425.25                | 51.45                             | 3150            | 3570          |
| NA4826    | 1.8    | 124.95            | 341.25                | 38.325                            | 2940            | 3360          |
| NA4926    | 3.9    | 207.9             | 504                   | 59.85                             | 2730            | 3150          |
| NA4828    | 1.9    | 127.05            | 362.25                | 39.375                            | 2730            | 3150          |
| NA4928    | 4.15   | 215.25            | 535.5                 | 63                                | 2520            | 2940          |
| NA4830    | 2.7    | 154.35            | 435.75                | 48.825                            | 2520            | 2940          |
| NA4832    | 2.85   | 164.85            | 472.5                 | 51.45                             | 2310            | 2730          |
| NA4834    | 3.95   | 187.95            | 546                   | 58.8                              | 2310            | 2520          |
| NA4836    | 4.2    | 199.5             | 598.5                 | 63                                | 2100            | 2520          |
| NA4838    | 5.55   | 231               | 745.5                 | 77.175                            | 1995            | 2310          |
| NA4840    | 5.8    | 235.2             | 771.75                | 78.75                             | 1890            | 2100          |
| NA4844    | 6.35   | 249.9             | 855.75                | 85.575                            | 1785            | 1995          |
| NA4848    | 9.9    | 364.35            | 1176                  | 117.6                             | 1575            | 1785          |
| NA4852    | 10.5   | 375.9             | 1260                  | 123.9                             | 1470            | 1575          |
| NA4856    | 15.5   | 450.45            | 1386                  | 135.45                            | 1365            | 1470          |
| NA4860    | 22     | 623.7             | 1890                  | 181.65                            | 1155            | 1365          |
| NA4864    | 23     | 635.25            | 1995                  | 184.8                             | 1155            | 1260          |
| NA4868    | 24     | 646.8             | 2058                  | 192.15                            | 1050            | 1260          |
| NA4872    | 25.5   | 658.35            | 2142                  | 195.3                             | 997.5           | 1155          |
| NA4876    | 42.5   | 1016.4            | 3150                  | 283.5                             | 945             | 1050          |