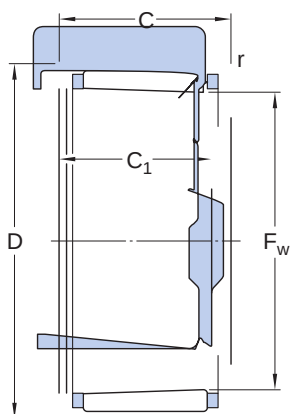


## BK 1816

Drawn cup needle roller bearings are typically used in applications where the housing bore cannot be used as a raceway for a needle roller and cage assembly, but where a very compact and economical bearing arrangement is required. Owing to the large number of rollers, the bearings have a high load carrying capacity and stiffness. The closed end makes them suitable for bearing arrangements where they are situated at the end of a shaft.



- High radial load carrying capacity
- Accommodate small axial guidance forces
- High stiffness
- Very low cross-sectional height



### Dimensions

|       |              |                                          |
|-------|--------------|------------------------------------------|
| $F_w$ | 18 mm        | Diameter under rollers                   |
| $D$   | 24 mm        | Outside diameter                         |
| $C$   | 16 mm        | Width                                    |
| $C_1$ | min. 13.3 mm | Depth of the drawn cup BK                |
| $r$   | min. 0.8 mm  | Chamfer dimension drawn cup (outer ring) |

### Calculation data

|                           |       |              |
|---------------------------|-------|--------------|
| Basic dynamic load rating | $C$   | 11.2 kN      |
| Basic static load rating  | $C_0$ | 17.6 kN      |
| Fatigue load limit        | $P_u$ | 2.04 kN      |
| Reference speed           |       | 13 000 r/min |
| Limiting speed            |       | 15 000 r/min |

### Associated products

|                      |               |
|----------------------|---------------|
| Inner ring IR series | IR 15x18x16.5 |
|----------------------|---------------|

|                                                                 |               |
|-----------------------------------------------------------------|---------------|
| Inner ring LR series                                            | LR 15x18x16.5 |
| Radial shaft seal with a low cross-sectional height, single lip | G 18x24x3     |
| Radial shaft seal with a low cross-sectional height, double lip | SD 18x24x3    |

Tolerances and clearances

GENERAL BEARING SPECIFICATIONS

- Tolerances: table

DESIGN CONSIDERATIONS

- Shaft and housing tolerances: table

AGA BEARINGS