

NK 45/30

Single row needle roller bearings without an inner ring consist of an outer ring with a needle roller and cage assembly. They are an excellent choice for compact bearing arrangements in applications where hardened and ground raceways can be provided on the shaft. The outer ring includes two integral flanges to guide the bearing axially and an annular groove with one or more lubrication holes to facilitate relubrication.



- High radial load carrying capacity
- High stiffness
- Low cross-sectional height
- Accommodate axial displacement in both directions



Dimensions		
F _w	45 mm	Diameter under rollers
D	55 mm	Outside diameter
C	30 mm	Width
r _{1,2}	min. 0.3 mm	Chamfer dimension outer ring

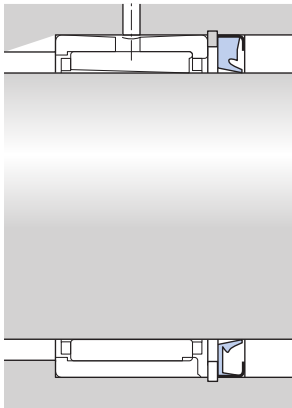


Abutment dimensions		
D _a	max. 53 mm	Diameter of housing abutment
r _a	max. 0.3 mm	Fillet radius

Calculation data

AGA performance class	AGA Explorer	
Basic dynamic load rating	C	46.5 kN

Basic static load rating	C_0	93 kN
Fatigue load limit	P_u	11.6 kN
Reference speed		9 000 r/min
Limiting speed		10 000 r/min



Associated seals

G 45x55x4

Radial shaft seal
with a low cross-
sectional height,
single lip

SD 45x55x4

Radial shaft seal
with a low cross-
sectional height,
double lip

Tolerances and clearances

GENERAL BEARING SPECIFICATIONS

- Tolerances: Normal, P6, P5, ISO - F6 (F_w)
- Radial internal clearance: table

DESIGN CONSIDERATIONS

- Housing tolerances: table
- Shaft tolerances: Operating clearance