

NKS 35

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	35 mm	Diameter under rollers
D	50 mm	Outside diameter
C	22 mm	Width
r _{1,2}	min. 0.6 mm	Chamfer dimension outer ring



Abutment dimensions		
D _a	max. 46 mm	Diameter of housing abutment
r _a	max. 0.6 mm	Fillet radius

Calculation data

AGA performance class	AGA Explorer	
Basic dynamic load rating	C	40.5 kN

Basic static load rating	C ₀	50 kN
Fatigue load limit	P _u	6.3 kN
Reference speed		11 000 r/min
Limiting speed		12 000 r/min



Associated seals

35x50x7 HMS5 RG

Radial shaft seal

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