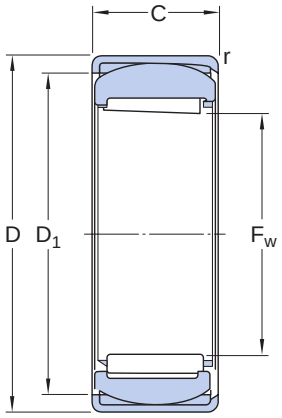
RPNA 40/55

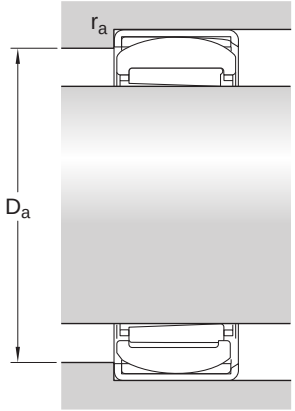
Alignment needle roller bearings are self-aligning and offer a compact solution in applications where less space is available. Owing to their large number of rollers, they have a high load carrying capacity. Their internal design, where a convex outer ring meets two concave seating rings encased in a drawn sleeve, enables the bearings to accommodate initial static misalignment. Bearings without an inner ring are an excellent choice for compact bearing arrangements, if the shaft can be hardened and ground.

- High radial load carrying capacity
- Accommodate static initial misalignment
- Low cross-sectional height
- Suitable for compact bearing arrangements



Dimensions

F_w	40 mm	Diameter under rollers
D	55 mm	Outside diameter
C	20 mm	Width
D_1	50.5 mm	Shoulder diameter sleeve
r	min. 0.8 mm	Chamfer dimension sheet steel sleeve



Abutment dimensions

D_a	min. 49.5 mm	Smallest permissible abutment diameter housing
D_a	max. 50.5 mm	Diameter of housing abutment
r_a	max. 0.8 mm	Fillet radius

Calculation data

Basic dynamic load rating	C	26.4 kN
Basic static load rating	C_0	51 kN
Fatigue load limit	P_u	6.3 kN
Reference speed		10 000 r/min
Limiting speed		11 000 r/min

Tolerances and clearances

GENERAL BEARING SPECIFICATIONS

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

DESIGN CONSIDERATIONS

- Shaft and housing tolerances: table