



SKF 31311/DF

Matched tapered roller bearings arranged face-to-face

Matched tapered roller bearings arranged face-to-face (X-arrangement, load lines diverge towards the bearing axis) accommodate high radial loads and axial loads in both directions. The precision manufactured intermediate ring between the outer rings enables a defined internal clearance or preload to be achieved when mounted. Matched tapered roller bearings are typically used in gearboxes, hoisting equipment, rolling mills, and machines in the mining industry.

Technical specifications

Dimensions	
Bore diameter	55 mm
Outside diameter	120 mm
Total width	63 mm
Width of inner rings	58 mm
Width of lubrication groove	10 mm
Diameter of lubrication hole	7.5 mm
Chamfer dimension	2 mm
Chamfer dimension	0.6 mm
Width, total	63 mm
Width, inner ring	58 mm
Width, outer ring	63 mm
Contact angle	28.8 °

Abutment dimensions	
Diameter of shaft abutment	68 mm
Diameter of housing abutment	94 mm
Diameter of housing abutment	111 mm
Minimum width of space required in housing on large side face	4 mm
Radius of fillet	2.5 mm
Radius of fillet	0.6 mm

Calculation data	
SKF performance class	SKF Explorer
Basic dynamic load rating	256 kN
Basic static load rating	275 kN
Fatigue load limit	33.5 kN
Reference speed	3400 r/min
Limiting speed	5600 r/min
Limiting value	0.83
Calculation factor	0.81
Calculation factor	1.2
Calculation factor	0.8

Performance	
Basic dynamic load rating	256 kN
Basic static load rating	275 kN
Reference speed	3400 r/min
Limiting speed	5600 r/min
SKF performance class	SKF Explorer

Properties	
Bearing part	Complete bearing
Number of rows	2
Locating feature, bearing outer ring	Without
Bore type	Cylindrical
Cage	Sheet metal
Matched arrangement	Face-to-face (X)

Number of bearings in matched set	2
Coating	Without
Sealing	Without
Lubricant	None
Relubrication feature	With
Indicative carbon footprint for new product	11.7 kg CO ₂ e

Logistics	
Product net weight	3.24 kg
eClass code	23-05-09-10

SKF drawings