



# Off-the-shelf SKF shaft Co., Ltd



71804 CD/HCP4 Bearing 2D drawings and 3D CAD models

## 20 mm x 32 mm x 7 mm SKF 71804 CD/HCP4 Work Head Spindle bearing

Bearing No. 71804 CD/HCP4

Size	32x20x7 mm
Bore Diameter	32 mm
Outer Diameter	20 mm
Width	7 mm
d	20 mm
D	32 mm
B	7 mm
d <sub>1</sub>	24.1 mm
d <sub>2</sub>	24.1 mm
D <sub>1</sub>	28.1 mm
r <sub>1,2</sub> - min.	0.3 mm
r <sub>3,4</sub> - min.	0.15 mm
a	7 mm
d <sub>a</sub> - min.	22 mm
d <sub>b</sub> - min.	22 mm
D <sub>a</sub> - max.	30 mm
D <sub>b</sub> - max.	31.2 mm
r <sub>a</sub> - max.	0.3 mm
r <sub>b</sub> - max.	0.15 mm
d <sub>n</sub>	24.5 mm
Basic dynamic load rating - C	3.9 kN
Basic static load rating - C <sub>0</sub>	2.6 kN
Fatigue load limit - P <sub>u</sub>	0.112 kN
Limiting speed for grease	53000 r/min



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Lubrication	
Limiting speed for oil lubrication	80000 mm/min
Ball - $D_w$	3.175 mm
Ball - $z$	17
$G_{ref}$	0.18 cm <sup>3</sup>
Calculation factor - $f_0$	16
Preload class A - $G_A$	20 N
Preload class B - $G_B$	60 N
Preload class C - $G_C$	120 N
Calculation factor - $f$	1.08
Calculation factor - $f$	1
Calculation factor - $f_{2A}$	1
Calculation factor - $f_{2B}$	1.1
Calculation factor - $f_{2C}$	1.18
Calculation factor - $f_{HC}$	1.02
Preload class A	25 N/micron
Preload class B	42 N/micron
Preload class C	61 N/micron
$d_1$	24.1 mm
$d_2$	24.1 mm
$D_1$	28.1 mm
$r_{1,2}$ min.	0.3 mm
$r_{3,4}$ min.	0.15 mm
$d_a$ min.	22 mm
$d_b$ min.	22 mm
$D_a$ max.	30 mm
$D_b$ max.	31.2 mm
$r_a$ max.	0.3 mm
$r_b$ max.	0.15 mm
$d_n$	24.5 mm



## Off-the-shelf SKF shaft Co., Ltd

Basic dynamic load rating C	3.9 kN
Basic static load rating $C_0$	2.65 kN
Fatigue load limit $P_u$	0.112 kN
Attainable speed for grease lubrication	53000 r/min
Attainable speed for oil-air lubrication	80000 r/min
Ball diameter $D_w$	3.175 mm
Number of balls z	17
Reference grease quantity $G_{ref}$	0.18 cm <sup>3</sup>
Preload class A $G_A$	20 N
Static axial stiffness, preload class A	25 N/ $\mu$ m
Preload class B $G_B$	60 N
Static axial stiffness, preload class B	42 N/ $\mu$ m
Preload class C $G_C$	120 N
Static axial stiffness, preload class C	61 N/ $\mu$ m
Calculation factor f	1.08
Calculation factor $f_1$	1
Calculation factor $f_{2A}$	1
Calculation factor $f_{2B}$	1.1
Calculation factor $f_{2C}$	1.18
Calculation factor $f_{HC}$	1.02
Calculation factor $f_0$	16
Mass bearing	0.017 kg