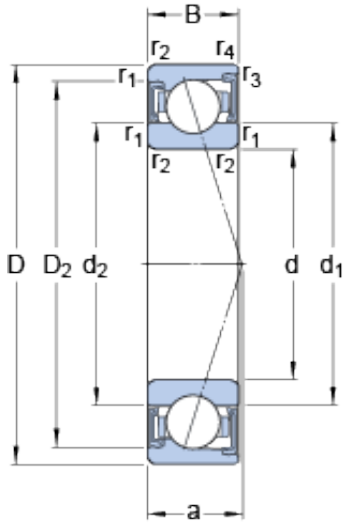




# NTA PRECISION AXLE CORP.



25 mm x 42 mm x 9 mm SKF S71905 ACD/P4A  
angular contact ball bearings

Bearing No. S71905 ACD/P4A

S71905 ACD/P4A Bearing 2D drawings and 3D CAD models

Size	25x42x9 mm
Bore Diameter	25 mm
Outer Diameter	42 mm
Width	9 mm
d	25 mm
D	42 mm
B	9 mm
d <sub>1</sub>	30.6 mm
d <sub>2</sub>	30.6 mm
D <sub>2</sub>	39.15 mm
r <sub>1,2</sub> - min.	0.3 mm
r <sub>3,4</sub> - min.	0.2 mm
a	12.4 mm
d <sub>a</sub> - min.	27 mm
d <sub>a</sub> - max.	30.1 mm
d <sub>b</sub> - min.	27 mm
d <sub>b</sub> - max.	30.1 mm
D <sub>a</sub> - max.	40 mm
D <sub>b</sub> - max.	40.6 mm
r <sub>a</sub> - max.	0.3 mm
r <sub>b</sub> - max.	0.2 mm
Basic dynamic load rating - C	6.4 kN
Basic static load rating - C <sub>0</sub>	3.8 kN
Fatigue load limit - P <sub>u</sub>	0.16 kN



## NTA PRECISION AXLE CORP.

Limiting speed for grease lubrication	32000 r/min
Ball - $D_w$	4.762 mm
Ball - $z$	18
Calculation factor - $e$	0.68
Calculation factor - $Y_2$	0.87
Calculation factor - $Y_0$	0.38
Calculation factor - $X_2$	0.41
Calculation factor - $Y_1$	0.92
Calculation factor - $Y_2$	1.41
Calculation factor - $Y_0$	0.76
Calculation factor - $X_2$	0.67
Preload class A - $G_A$	40 N
Preload class B - $G_B$	80 N
Preload class C - $G_C$	160 N
Preload class D - $G_D$	320 N
Calculation factor - $f$	1.07
Calculation factor - $f_1$	0.98
Calculation factor - $f_{2A}$	1
Calculation factor - $f_{2B}$	1.04
Calculation factor - $f_{2C}$	1.08
Calculation factor - $f_{2D}$	1.14
Calculation factor - $f_{HC}$	1
Preload class A	60 N/micron
Preload class B	78 N/micron
Preload class C	101 N/micron
Preload class D	134 N/micron
$d_1$	30.6 mm
$d_2$	30.6 mm
$D_2$	39.15 mm



## NTA PRECISION AXLE CORP.

$r_{1,2}$ min.	0.3 mm
$r_{3,4}$ min.	0.2 mm
$d_a$ min.	27 mm
$d_a$ max.	30.1 mm
$d_b$ min.	27 mm
$d_b$ max.	30.1 mm
$D_a$ max.	40 mm
$D_b$ max.	40.6 mm
$r_a$ max.	0.3 mm
$r_b$ max.	0.2 mm
Basic dynamic load rating C	6.37 kN
Basic static load rating $C_0$	3.8 kN
Fatigue load limit $P_u$	0.16 kN
Attainable speed for grease lubrication	32000 r/min
Ball diameter $D_w$	4.762 mm
Number of balls z	18
Preload class A $G_A$	40 N
Static axial stiffness, preload class A	60 N/ $\mu$ m
Preload class B $G_B$	80 N
Static axial stiffness, preload class B	78 N/ $\mu$ m
Preload class C $G_C$	160 N
Static axial stiffness, preload class C	101 N/ $\mu$ m
Preload class D $G_D$	320 N
Static axial stiffness, preload class D	134 N/ $\mu$ m
Calculation factor f	1.07
Calculation factor $f_1$	0.98
Calculation factor $f_{2A}$	1
Calculation factor $f_{2B}$	1.04
Calculation factor $f_{2C}$	1.08



## NTA PRECISION AXLE CORP.

Calculation factor $f_{2D}$	1.14
Calculation factor $f_{HC}$	1
Calculation factor $e$	0.68
Calculation factor (single, tandem) $Y_2$	0.87
Calculation factor (single, tandem) $Y_0$	0.38
Calculation factor (single, tandem) $X_2$	0.41
Calculation factor (back-to-back, face-to-face) $Y_1$	0.92
Calculation factor (back-to-back, face-to-face) $Y_2$	1.41
Calculation factor (back-to-back, face-to-face) $Y_0$	0.76
Calculation factor (back-to-back, face-to-face) $X_2$	0.67
Mass bearing	0.043 kg