



WINKEL radial Bearing | Article No.: 205.064.000

Technical dimensions

Type	D -0.1 [mm]	T [mm]	d -0.05 [mm]	H [mm]	h [mm]	B [mm]	A [mm]	α
2.058	88,4	59	45	54,0	41,0	30,0	68	20°

D = Outer diameter, with Tolerance, T = Flange diameter, d = bolt diameter, with Tolerance, H = Overall height, h = Installation dimension, B = Overall width, A = Cover diameter, α = lead-in chamfer

Load capacity

Type	F_R [kN]	C [kN]	C_o [kN]	Weight in kg	Flange Plates	Guide Profiles
2.058	22,40	68,0	72,0	1,70	AP 3.1 AP 3.1-LUB AP 3-Q	Standard 3 NbV PG 3 NbV

F_R = Load capacity radial bearing max. allowable force between bearing and profile, C = Dynamic load capacity radial bearing (ISO 281/1), C_o = Static load capacity radial bearing (ISO 76),



Technical characteristics WINKEL radial Bearing

- Outer rings are made from case-hardened steel 20 CrMnTi hardened at 58-62HRC
- Inner rings are made from bearing steel 100 Cr 6 hardened at 58-62 HRC
- Cylindrical rollers have flat ground heads, made of 100 Cr 6 steel hardened at 60 – 65 HRC
- Welding bolts are made of C20 (Material no. 1.1151)
- bolt tolerance -0.05 mm
- bearings from 2.054 to 2.063 are relubricateable
- bearings are lubricated with grease grade 3 (z.B. Shell Gadus S2 V 100 3)



General Advice WINKEL Bearings

With our WINKEL Bearings vertical and horizontal movements on machines and lifting devices can be solved economically.

Advantage of the WINKEL Bearing system:

- Reduces your designing and production costs
- Can take up high radial and axial loads
- Strong profiles for high stat. and dynamic loads
- Best dispersion of forces in the profiles
- Longer lifetime for bearings and profiles
- Economical assembling by welding bolt
- Bearing components are easily exchangeable

Dimensions

- For the dimension of bearing and profile, the maximum allowable load F [N] max. stat. should be confirmed. See here [Calculation of of the bearing forces with configurator](#).

Relubrication

- Our Winkel bearings are full complement cylindrical rollers which are lifetime lubricated for one shift and unsteady operation. Due to many years of experience we can assure you that for these kinds of use there will be no reduction of lifetime at normal applications.
- For applications such as for example in warehouses and machine halls a light surface conservation with commercial spray oil will be sufficient and in addition, a regular relubrication every 6 months.
- For extension of life-time the Winkel bearings 4.054 up to 4.064 are relubricateable. Generally, the relubrication holes are closed with threaded plugs M6. The bearings are delivered without grease nipple.
- In case of special environmental conditions such as dust, incur of dirt, moisture, outdoor operations, temperatures over 40 degrees, frequent load changes (continuous operation) and heavy duty the bearings should be relubricated at least one time per month. For this we would recommend to you to use our [lubrication system Winkel Combi-Lub 1](#) or a central lubrication system.
- Bearings are lubricated with grease grade 3 (e.g. Shell Gadus S2 V100 3)

Working up

- For welding operations on WINKEL Bearings with a diameter less than 100 mm, all bearing components must be disassembled.
- WINKEL Bearings with an outer diameter more than 130 mm should be welded on both sides of the bolt.
- After the assembling of the bearings, or after the adjusting operation, the front side screws should be secured with loctite.
- To avoid cracks in the welded joints please use welding electrodes and cored wire for unalloyed steel. For example electrode: E 42 5 B 42 H 10 according DIN EN 499. For example cored wire: T 42 4 B C 3 H5 / 7 42 4 B M 3 H5 according DIN EN 758.
- The guide ways in the profiles should be lightly greased and not painted.

Special designs

- Special bolts are available for WINKEL Bearings of type (PR) 4.072 (P) to (PR) 4.080 (P).

System solutions

- We construct and manufacture complete lift- and handling units according to customer needs. Constructions with CAD and a progressive production enables high flexibility in achieving complete solutions in the field of handling systems and automation.

Tolerances

- For all not tolerated dimensions counts ISO 2768 - m