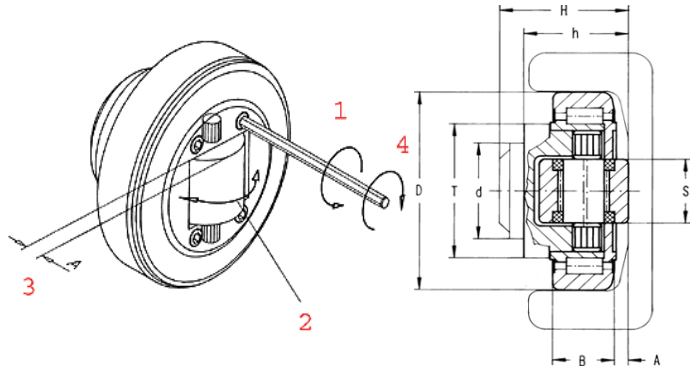


Adjustment instructions for Winkel Combined Bearings

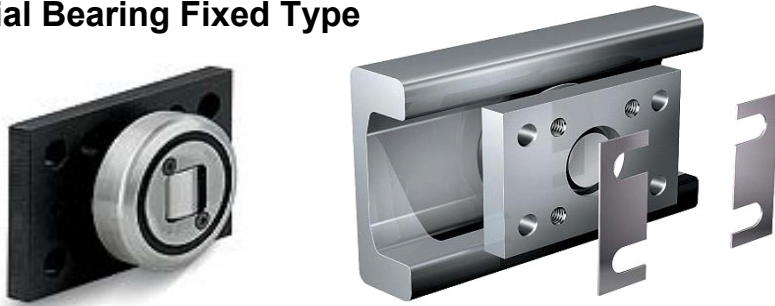
Axial Bearing Eccentric Adjustable Type



Adjustment Procedure:

1. Loosen cover plate screws and remove plate.
2. Remove and rotate the eccentric axle (This adjusts the face roller in or out).
3. Check measurement A (repeat step 2 if necessary, axial space between axial bearing and profile = 0.5 mm or less).
4. Re-apply loctite to cover screws and re-tighten screws

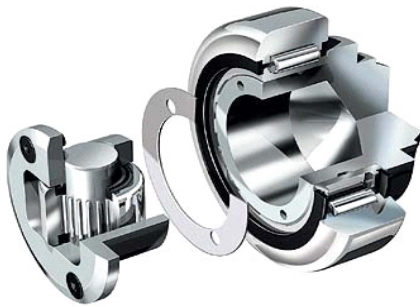
Axial Bearing Fixed Type



Adjustment Procedure:

1. Insert 0.5 mm or 1.0 mm shims as needed to minimize axial spacing between axial thrust roller and profile rail. (Axial space maximum suggested = 0.5 mm or smaller)
2. Insure profile and flange bolts are secure.

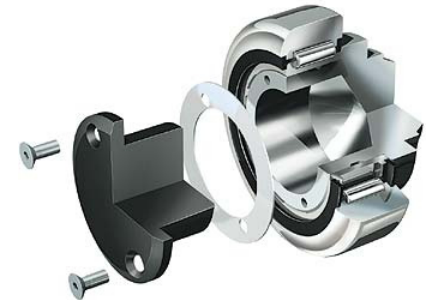
Axial Bearing Adjustable Type or with Polyamide Insert



Axial Bearing Adjustable

Adjustment Procedure:

Install a washers/spacer (standard sizes include 0.5 mm or 1.0 mm) behind the removable insert as shown above. To remove insert, loosen and remove the face screws. The insert must be removed to allow for spacer installation. Once desired adjustment is reached, re-apply a small amount of loctite to when securing face screws. (Axial space maximum suggested = 0.5 mm or less).



Combined Bearing with Polyamide Insert

JC Adjusting Units



Adjustment Procedure:

The Winkel JC Adjusting Unit will limit radial clearance between the profile and the radial bearing of the combined bearing.

1. Secure the flange plate to the frame and within the profile.
2. The position of the adjustable bearing must be opposite the direction of the load. So main forces should be on the radial bearing of the combined bearing.
3. Set the adjustable bearing at the OD with a clearance of 0.05 to 0.10mm
4. Secure the adjustable bearing with the locknut to fix the bearing once adjusted properly.

Welding Instructions for Winkel Bearings

For welding operations (stub shafts to frame) on Winkel Combined Bearings that are less than 100 mm in diameter, all bearing components must be disassembled to avoid damage to the bearing and seals. Loosen the faceplate screws and carefully remove the bearing components. Be sure to orient the faceplate bearing so it will roll within the profile.

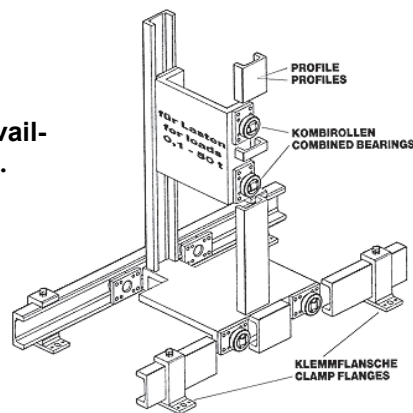
After welding, seals must be carefully re-assembled to avoid damage. All components should re-assemble easily. Some seals snap into grooves, and light pressure on the seal to help compress it may be necessary. During re-assembly, faceplate screws should be secured with loctite.

Maintenance & Re- Lubrication

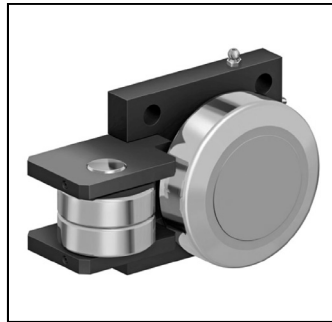
Profiles should remain as clean as possible to minimize contaminants on load surfaces or near combined bearings. Winkel standard Combined Bearings are initially lubricated with a lithium NLGI Grade 3 grease. Some units are lubed for life and have no provision for re-lube. Most have a lube plug or an M6 fitting for re-lubrication. For those which can be re-lubricated, a recommended re-lube period is at least once a year. Influences of dust, dirt, outside use, temperatures above 40°C or frequent load changes require more frequent lubrication. Add grease slowly while rotating the bearing if possible. A small amount of lubricant at frequent intervals is preferred to a large quantity at infrequent periods. A slight showing of grease at the seals is normal after lubrication. The bearing will retain only the amount of lubricant it requires. The rest will be purged during normal operation thru the seal area.

Experience is certainly the best guide to frequency. Extended lubrication lines allows easier access to the bearing grease fittings.

System analysis available on request.



Other Winkel Products



Heavy Duty Combined Bearings



Wide Assortment of Combined Bearings



Quiet running Vulkollan coated Bearings including Stainless units (INOX) & treated profiles also available.



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Warning: Because of the possible danger to person(s) or property from accidents which may result from the improper use of products, it is important that correct procedures be followed. Products must be in accordance with the engineering information specified in the catalog. Proper installation, maintenance and operation procedures must be observed. The instructions in the instruction manuals must be followed. Inspections should be made as necessary to assure safe operation under prevailing conditions. Proper guards and other suitable safety devices or procedures as may be desirable or as may be specified in safety codes should be provided, and are neither provided by P.T. International, nor are the responsibility of P.T. International. This unit and associated equipment in the system must be installed, adjusted and maintained by qualified personnel who are familiar with the construction and operation of all equipment and in the system and the potential hazards involved. When risk to persons or property may be invoked, a holding device must be an integral part of the driven equipment beyond the speed reducer output shaft.