Detailed product description

Roller bearings of the CZF series are manufactured in various designs depending on the task to be solved. Optionally, they can be equipped with an automatic anti-drift system.

Description of anti-drift system or automatic shear resistance system

Welding, grinding, and inspection operations on cylindrical work pieces are often performed using a rotating roller that rotates the work pieces. Said rotating roller consists of two sections, one of which is driven and the second is non-driven, each of which is equipped with 2 wheels. It is required, of course, to ensure the rotational movement of the work piece. As a rule, geometric errors that occur during the fitting of sections, as well as flaws in the work piece, cause parasitic axial movement: SHIFT. This movement not only poses a hazard during these types of work, but also poses a safety hazard to personnel and materials in the workplace. There are several ways to overcome this shortcoming:

- the use of a mechanical locking wheel, which, however, only works in one direction and creates a strong resistance;
- the use of an adjustable wheel support, i.e. a manual shear resistance system, which, however, is very difficult to adjust and not entirely reliable due to the vibrations created in the workplace, as a result of which the system stops working;
- using automatic shear resistance system, reliable, safe and easy to adjust.

The electronic shear resistance system manufactured by Lambert-JOUTY is made in two parts: the mechanical one is located in the wheel support, and the electronic one consists of a servo drive and a sensor.

An original feature of the LAMBERT-JOUTY wheel support is the way the wheel is adjusted by moving the hinge around the axis perpendicular to the tangent plane of the work piece using an eccentric shaft mounted on bearings. This has the advantage of minimizing the sliding of the work piece on the wheel, as well as the elimination of mechanical friction within the mechanism.

The presence of a drive motor and a sensor that registers the movement of the work piece provides the ability to adjust the wheel. The PLC processes the sensor data and transmits it to the motor according to the amplitude and rotation speed of the work piece, and the correction speed of the wheel even increases because the distance from the origin is large and constant. This provides excellent stability.

Rotating roller with shear resistance system

The shear resistance system is designed to correct small but unavoidable defects resulting from the fit of the rotating roller sections, geometrical errors, etc. To facilitate the task of preparing the workplace, certain rules must be followed.

Typically, the shear resistance section is made up of two corrective wheels. This configuration gives the best results when used in the boiler industry.

For more than 40 years, Lambert-JOUTY (France) has been specializing in the development and production of welding positioners, fixed or variable height manipulators, roller rotators (including self-centering), welding columns, rotary tables, mechanical carts. In addition to a wide range of standard equipment, Lambert-JOUTY manufactures and develops special and non-standard equipment according to customer needs.

The ITS Group of Companies, which includes the ITS-Ural company, is the official partner of Lambert-JOUTY in Russia and provides full technological support to customers, from pre-sales consultations, installation and installation of equipment, training of customer personnel, and ending with post-warranty service.

To receive a questionnaire, draw up a specification or calculate an estimate for Lambert JOUTY welding rotators, send an application to **website@ets-ural.ru** with a map of your enterprise and terms of reference, if available.

Specifications of CZF Lambert-JOUTY Roller Bearings

CZF	**P, t**	**D, mm**	**L, mm**	**F, daN**	**V, m*min^{-1}**	**E max, mm**	**E min, mm**	**H, mm**
CZF-500	500	620	300	19000	1.7	3100	700	800