



Supporting roller in operation



Transporting device



Finished roller body

A sound basis

The vertical and horizontal forces caused by the supported load must be absorbed by the foundations via the supporting rollers. For supporting the rotary kiln, each roller station requires two supporting roller units with two supporting roller bearings plus the associated baseplates. The supporting roller unit consists of the supporting roller, which is non-detachably connected to the supporting roller axle.

Design and function

In addition to the supporting rollers of a multi-support kiln, which only act as supports, a distinction must be made between the supporting rollers of a two-support kiln, which are directly driven for the friction drive.

In general, the diameter of a supporting roller is selected to ensure safe continuous operation without exceeding the permissible contact pressure per unit area with a correctly aligned rotary kiln. The yardstick in terms of service life is the number of load cycles of a supporting roller. Supporting rollers are generally wider than the corresponding tyres in order to utilise the entire tyre width for power transmission during the axial movement of the rotary kiln.

The main load on a supporting roller is the shearing in the supporting roller axle caused by the supported load. In the event of a fault, the supporting roller can be refurbished in one of our workshops and fitted with a new supporting roller axle with due consideration to the number of load cycles.

In the past, supporting rollers have been cast because of the manufacturing resources and also because of the price relationships as compared to forgings. Due to the ever-growing demand, polysius® supporting rollers are exclusively forged in order to achieve maximum quality and operational reliability.

Your service advantages

- Continuous production and quality monitoring
- The advantages of forged supporting rollers are as follows: Homogeneous material structure, no cavities or defects; reject-free production
- Static recalculation with corresponding information (manufacturer-independent)
- Design/Manufacture of the supporting rollers according to the latest standard
- Quotations for repair or refurbishment of used supporting rollers in one of our worldwide service workshops