

polysius® kiln girth gear



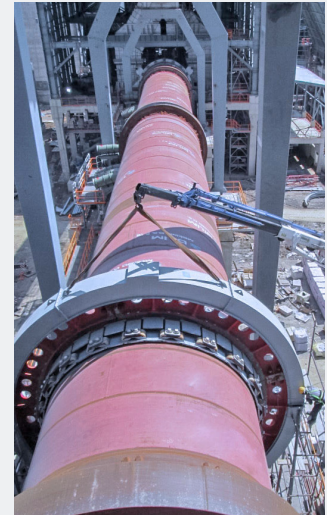
thyssenkrupp



Forged version



Welded construction



The heart of continuous kiln rotation

The drive unit is one of the critical components of a rotary kiln. The forces of the drive unit are transmitted to the kiln via the girth gear. High elasticity in radial direction and flexibility during thermal expansion of the kiln must be ensured.

Design and functionality

Increasing demands on quality and delivery time, and above all size, are increasingly limiting manufacturing options. polysius® girth gears are available as welded constructions or milled from solid forged material. The latter is the most rugged construction available on the market.

The welded girth gear is composed of the web as well as the upper and lower flange. All blanks are solid forged. The upper and lower flanges are welded to the web by means of a full penetration weld so that maximum strength and maximum load distribution are achieved. Once the flanges and the web have been integrally joined, the heat treatment and gear tooth forming follow. This design has proven to be effective since the 1990s.

The design of the girth gear milled from solid metal is the same as that of the welded girth gear.

As this girth gear is machined from a solid forged blank, it does not require any additional heat treatment other than hardening and tempering. Geometric deviations are reduced to a minimum as the component is free of welding stresses.

Your service advantages

- Homogenous structure
- No rejected blanks due to casting defects during production
- Can be retrofitted to any kiln
- Compatible with bridge plate fastening system
 - Heat shield protects against thermal stress
 - Easy to turn
 - Can be aligned quickly and accurately
- Very rigid in circumferential direction
 - Torque is transmitted without the girth gear buckling