

polysius® splined tyre fastening system



Splined fastening system in operation

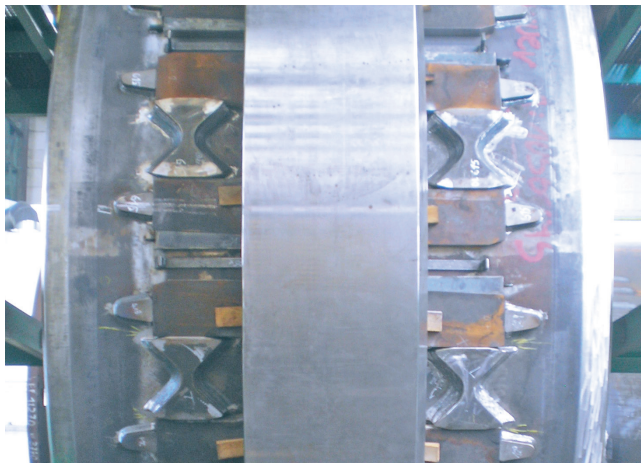


So that round always stays round

There are basically two different systems that can be used to fasten kiln tyres to a kiln shell: the splined or the loose tyre fastening system. The splined tyre fastening system transfers the load to be supported from the rotary kiln shell into the kiln tyre by means of a form-fit connection. This type of system ensures that the kiln shell is kept as round as possible.

Design and function

The splined fastening system consists of floating tyre pads which are held by means of the axial and radial stops welded to the kiln shell. A wedge tensing system is also part of the splined fastening system.



The teeth of the tyre are pressed against the tyre pads and the radial stops by means of the wedge tensing system. The force runs from the radial stop welded to the kiln shell through the tyre pads and into the tyre tooth and the tyre itself. The unusual choice of shape for the radial stops as well as the tyre pads is a result of decades of development. The greatest load on the fastening system during kiln operation is at the three and nine o'clock positions.

The fastening system allows unimpeded expansion of the kiln shell as the operating temperatures increase. This means that the shell remains round under all operating conditions. Constriction of the kiln shell is prevented, which is ideal for a long service life of the refractory lining.

Your service advantages

- Lower operational ovality of the tyre-bearing shell section and lower dynamic stress on the refractory lining
- Prevention of any refractory lining bricks falling out and higher stability of the clinker coating
- Lower operating costs (tyre clearance requires no correction and no lubrication)