



Hanger Bearings



Dynamic-Ceramic, the leader in zirconia advanced ceramic manufacturing, now offers Conveyor Equipment Manufacturers Association (CEMA) standard dimension and tolerance hanger bearings. These bearings are made from Technox® 2000 grade Y-TZP Zirconia, a formulation that provides some of the toughest, strongest and longest-lasting ceramics available. Technox® 2000 can also be up to 40% stronger than Mg-PSZ material and is manufactured to give a very fine microstructure and minimal grain boundary phase, ensuring extremely long life times and in-service quietness.

Benefits

Zirconia ceramic bearings made from Dynamic-Ceramic's Technox® 2000 material, provide a range of benefits:

- Major increase in bearing life
- Increase in life of journal and shaft, with a significant reduction in galling
- Potential noise reduction in many applications
- Option to use ceramic liner or replace only bottom bearing
- Manufactured to CEMA standards

Components

Dynamic-Ceramic produces the following components for use in Screw Conveyor Hanger Bearing Systems:

- Traditional solid ceramic, CEMA standard dimension bearing halves
- Hybrid, metal carrier with a ceramic sleeve, CEMA standard dimension bearing halves
- Sleeves for placement in hybrid bearings or replacement of Stellite

Case histories

Technox® 2000 Bearings provide cost effective solutions in abrasive applications, such as:

Application 1: Glass Recycling Plant.

Screwing glass cullet at 50rpm up a 25 degree incline. Severe wear of steel shaft and cast iron hanger bearing.

Problem: Replacement of bearings every 12 weeks and shaft every 6-8 months.

Solution: Technox® 2000 bearings supplied with a recommendation to harden the shaft.

Result: Bearings and shaft lasted 3 years with no maintenance over that period.

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Application 2: Cement Plant.

Screw Conveyor conveying cement clinker at 400°C with no lubrication.

Problem: Severe failure of hard iron metallic bearings, including galling and sticking of shaft.

Solution: Technox® 2000 bearings fitted with no change or surface treatment of shaft material.

Result: Six fold increase in bearing life over the previous combination with no remedial maintenance or problems with the shaft.

A significant benefit to a cement plant operating an in-line process.

Customer Support

Dynamic-Ceramic manufactures custom-made parts to our customers' specifications. For more details of our products and services or to discuss your specific requirements, please contact one of our Sales Engineers.

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