

## **SUCCESS STORY**

Tension drum of a conveyor

## **CONTEXT OF THE CUSTOMER'S CHALLENGE**

adopted solution that will be fully implemented on all quarry conveyors.

In Poland, the quarrying facility "Jeleniogórskie Kopalnie Surowców Mineralnych Lipiński Sp. J. ZWiPD Pisarzowice» wished to optimize the profitability of its production devices.

"Service life several times higher of KIZEI® bearings in very dusty environments than an open bearing, has helped to eliminate unplanned downtime (failures) and increase the efficiency of the production line.

Big advantage is that they are mounted in the same way with the same accessories (same ISO dimensions).

The product deserves a very high rating and we recommend it to other users."

More than 90% of quarry conveyors are equipped with open steel cage spherical oller bearings.



In addition to production downtime for maintenance, a bearing breakage can cause collateral damage (destruction of the housing or shaft...)



## **CUSTOMER REQUIREMENTS AND NTN RECOMMENDATIONS**

End-user has defined that a production shutdown due to a bearing failure generates a cost of €4,000\*. NTN recommended KIZEI®, a unique solution in the market provided by its nitrided metal shields and that is also 100% interchangeable with an open solution.

The customer tested our solution on a drum tension conveyor, in a highly polluted area:

- Drop of fine particles « limestone dust »
- Proximity to the ground « humidity / mud »

Open solutions of main competitors were showing an average lifespan of 2 months.

Customer expectation with KIZEI®: at least double maintenance intervals





## **RESULTS FAR BEYOND CUSTOMER EXPECTATIONS**

- Tests of several KIZEI® references 22212EAKW33ZZ, all of them still running after 10 months, i.e. a.
- Service life multiplied by more than 5 compared to open steel cage version. For the moment, End-user expected service life is more than doubled.
- Grease retention increased by 3

	Number of stop/yr	<b>Annual downtime cost</b>	KIZEI®
Antigua solución	6	€24.000	Savings*
New KIZEI® solution	1 maximum	€4.000	€20.000

<sup>\*</sup>Savings estimated on production performance. Savings on Bearing purchase and maintenance operation are not taken into account.

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