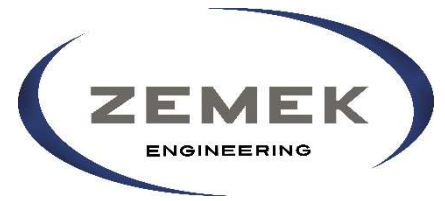


ZEMATRON



Bearingless Rollers

From a trial completed at BMA Goonyella Riverside in the Bowen Basin, ZEMEK rollers have been referred to as ***"The best bearingless rollers available for mining industry applications"***.

ZEMEK ensures that in every application involving the use of rollers, only superior performing synthetic materials are used.

The advantages of ZEMATRON Bearing-less rollers are extensive due to consistent savings achieved. ZEMEK Engineering Pty Ltd support our client's desire to maximise productivity, value and safety in their operation.

SAFETY

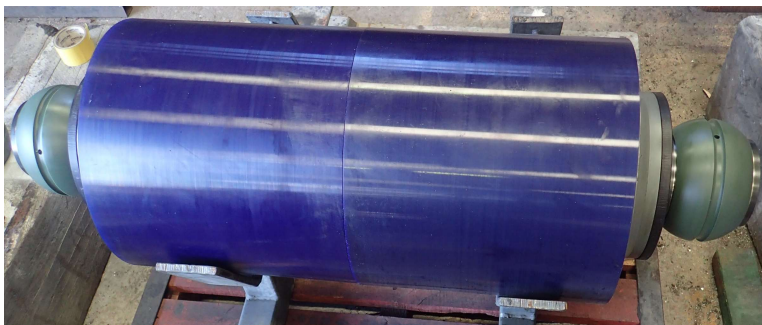
- *Safer handling due to lighter weighted product, when compared to metal equipment*
- *Eliminates sharp edges, splinters or burrs on rope or rollers, due to lower coefficient of friction*
- *Colour coded synthetic for easy identification*

PRODUCTIVITY

- *Ease of installation and removal for rotation or replacement*
- *Quickly & safely identify roller performance by visual inspections*
- *Minimal roller maintenance required*
- *Ease of cleaning rollers and shaft*
- *Self-lubricating product. No manual or regular lubricating*

VALUE

- *Increased performance of 300 - 600%, when compared to other roller brands on the market*
- *Extended rope life due to low coefficient of friction between synthetic rollers & steel rope*
- *Remarkably cost effective*
- *Can be cast & moulded to any shaft & roller size required*
- *Exclusive agreements with world class quality synthetic manufacturers ensuring capability to provide superior roller solutions*



ZEMEK Roller Locations

- House
- Tri-structure
- Drag Chute/ Drag Tunnel
- Aperture
- Hoist Rope
- Boom
- Electrical cable feed rollers



ZEMATRON Bearing-less Roller Case Study

ZEMEK rollers were installed within the drag tunnel of DRE3 at BMA Goonyella Riverside. They were in **continuous operation for some 32 months**. Regular monitoring found only minimal scheduled maintenance is required. 'Black-jack' clean and rotation of the rollers occurred three times in the past 32 months of operation.

Competitor brand rollers were similarly installed in the drag tunnel of DRE4. These rollers lasted an average of three months. Before being scrapped and replaced with new rollers.

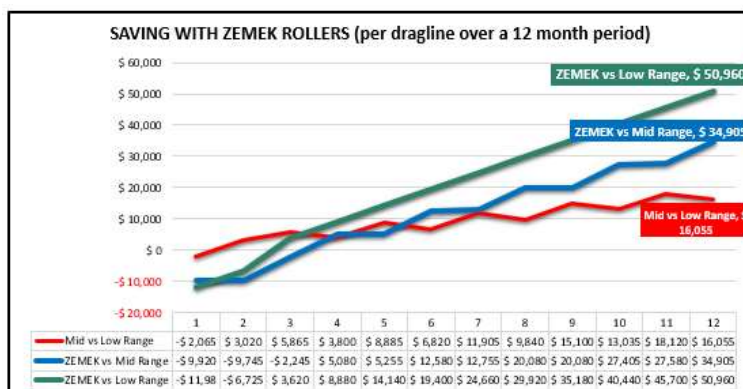
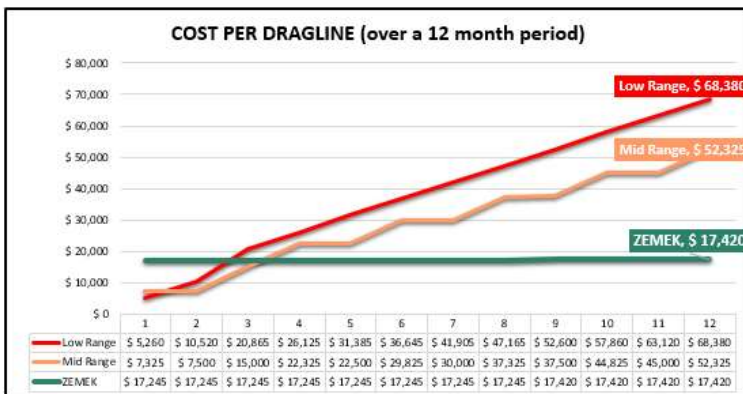


ZEMEK Rollers after 32 months Operation



Competitor Roller after 3 months Operation

ZEMEK has developed a case study of our rollers performance. Clearly identifying the benefits of investing in a Zemek roller system. We invite you to request a copy of this document.



Assumptions

Roller Type	Low Range	Mid Range	Top Range ZEMEK
Physical Characteristics			
Abbrasion Loss (mm ³)	88	60	29
Hardness (Shore A)	93	93	95
Replacement and Rotation of Rollers (per dragline)			
<i>Intervals between Replacements and Rotations (weeks):</i>			
Weeks from replacement to rotation	4	8	48
Weeks from rotation to replacement	4	8	32
Total weeks between replacements	8	16	80
Number of dragtunnel rollers per dragline (set consists of 2 x 4 rollers each side)	16		
<i>Resource time to rotate or replace (hours):</i>			
Hours per rotation or replacement	2.5		
Number of FTEs allocated	2.0		
Total FTE per rotation or replacement (manhours)	5.0		
Resource cost per FTE (per hour)	\$ 35		
Customer Cost at Site (per roller)			
Buy price (ex Supplier)	\$ 300	\$ 440	\$ 1,060
Freight cost from Supplier to Site	\$ 7	\$ 7	\$ 7
Landed cost at site	\$ 307	\$ 447	\$ 1,067

