

Rapid Water Separation with Magna CTX

METALS (USA)

ROLLING MILL BACKUP BEARINGS

Castrol Magna® CTX 460 WT*

ANNUAL SAVINGS: \$213,550

THE SITUATION

A large steel mini mill was using a low performance mill oil for their backup roll bearings (Morgoil) in the Hot and Cold Mills. This resulted in the need for regular system cleanouts and poor water separation.

The customer was seeking an improved oil that would eliminate these issues.

BEFORE

- Low price, low performance mill oil
- System cleanouts **every 6 months**
- Poor water separation

AFTER

- Castrol Magna CTX 460 WT super demulsibility oil
- System cleanouts **every 4 years**
- Excellent water separation (no more emulsion layer)

THE SOLUTION

- Castrol designed the Magna CTX to achieve the highest performance in the conditions found in backup roll bearing systems.
- The super demulsibility nature allows it to rapidly separate from water and eliminate the typical emulsion found with other oils.
- This property allows for excellent water removal in service without the need for regular cleanouts.
- Make-up volume is also reduced since only minimal oil is lost with the water during removal.



- **Super demulsibility sheds water rapidly**
- **Oil/water emulsion layer is eliminated**
- **Sump life is greatly extended**

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RECOMMENDATIONS

Magna CTX is designed to separate from water very quickly. This allows for water to be easily removed through heating and settling processes typical of many steel mills, thus eliminating the need for expensive and high maintenance centrifuges or vacuum dehydrators. The complete separation of oil and water also eliminates large volumes of oil being lost during water drain.

Demulsibility Testing

Left sample – Excellent demulsibility;
nearly full separation (Magna CTX)

Right sample – Poor demulsibility;
heavy emulsion

CONCLUSION

This customer has run Magna CTX 460 WT for 6 years with great success in both the Hot and Cold Mills in 8 total tanks with over 53,000 gallons of oil in service.

The combination of reduced annual oil consumption and much lower cleanout costs has delivered \$213,550 in yearly savings.



OTHER POTENTIAL APPLICATIONS

Castrol Magna CTX super demulsibility oils are specifically designed for the conditions found in the oil circulating systems of rolling mill backup bearings. They will provide rapid water separation in any situation with heavy moisture ingress.



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