

# BEARINGS (USA)

## Roller Bearings

### Castrol Hysol® MB 20

**ANNUAL SAVINGS: \$106,000**



#### THE SITUATION

A large bearing producer experienced excessive odor and high biocide usage with their central grinding system coolant.

They were unable to achieve a full year sump life before frequent biocide additions were necessary to prevent product instability or intolerable odor.

The customer requested a trial of a Castrol product that could give them superior biological control and maintain good grinding performance.

#### BEFORE

- The competitive fluid pulled in high levels of tramp oil, which helped to promote bacterial growth, causing the odors and product instability.
- Maintaining stability required concentrations 7-8%
- Annual additive cost alone was \$10,000.

#### AFTER

- Hysol MB 20 floats free oil readily.
- Bio-control has been excellent.
- No additives needed at operating concentration 5-6%.

#### THE SOLUTION

- A long term trial of several months was conducted using a small capacity, stand-alone vacuum media filter system.
- Several varieties of grinding processes were tested, isolating one grinder at a time, evaluating Hysol MB 20 performance in each operation at 5 to 5.5% concentration.
- The customer committed staff to support filter system hook-up with each machine used for testing, resulting in excellent filtration performance throughout the test.
- Excellent results were observed, with additional quality testing. Hysol MB 20 passed them all without deviation.
- The customer committed to using Hysol MB 20 when the next maintenance window was reached to dump the central system.

- Wheel performance has been excellent throughout the test period as well as in production after central system was changed to Hysol MB 20. No loading or glazing has occurred.
- Foam-free performance even in high agitation surface grinding operations, even though plant water is very soft at 2 to 3 gpg hardness.
- Low product usage keeps operating costs low

## RECOMMENDATIONS

The customer and their staff has appreciated the fresh, clean odor of Hysol MB 20.

The type of wheels in use vary by operation, including conventional vitrified aluminum oxide, aluminum oxide resin bonded wheels, and vitrified ceramic wheels on more form sensitive grinds.

Any customer desiring a low foaming, bio-resistant, medium duty grinding fluid should consider Hysol MB 20 for their operations.

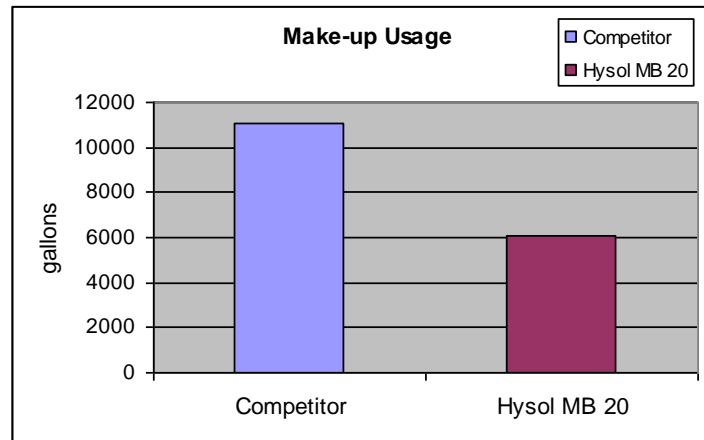
The production staff says, “Our operators have not needed to make any adjustments to grind with Hysol MB 20.”

They were delighted to have experienced a seamless transition to their new grinding coolant.

## CONCLUSION

Our customer has been delighted in the performance of Hysol MB 20. The production staff states the key success is their operators have reported no need to make any adjustments to accommodate the new coolant – it works as expected and the shop smells much better. They have had good performance on all the alloys that they grind, including 52100, 3311, 4320, 8620, and 8622 steels.

The lower operating concentration saves them on makeup costs due to lower fluid usage.



## OTHER POTENTIAL APPLICATIONS

Castrol Hysol MB 20 is well suited for supporting single sump operations as well as central filtration systems. The effective bio control of Hysol MB 20 will promote longer sump life, no matter the sump size.

Hysol MB 20 is suitable to machine carbon steel, medium alloy ferrous materials, and general machining of aluminum alloys.