

Gypsum Plant USA

Application: 16 deck oven lubrication

Product: Castrol LubeCon KCL-46

43.70% REDUCTION IN OIL USAGE



THE SITUATION

Castrol was challenged to reduce chain lubricant consumption while providing maximum protection to the chain links.

BEFORE

- A competitor product was used on the 16 deck oven. The system was not monitored by the supplier.
- Off cycles were set at 20.
- On cycle counts were set at 4250
- In order to control amperage an on cycle was forced every three hours during runs of Mold tough board.

AFTER

- Castrol installed a LubeCon shot-to-point chain lubrication system utilizing Castrol KCL-46 lubricant.
- Off cycles were set at 30 for decks 1 thru 12 and 25 off cycles for decks 13 thru 16..
- On cycle counts were set at 3600 after a LubeCon technician reviewed the chain length and determined the new chain count.
- No forced on cycles are required for Mold tough board due to better performance of the LubeCon chain oiler and KCL-46 lubricant.

THE SOLUTION

- **Right product for the right application**
- **The chain lubrication system is monitored by Castrol's LubeCon Technical Sales representative. Via by-weekly system inspections.**

CASE STUDY

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Oil consumption reduction based on lubricating oil conversion

A 43.70% reduction was achieved by converting to a LubeCon chain lubrication system and Castrol KCL-46 oil.

Current LubeCon system

.31 ml per shot x 3600 on counts = 1116 ml

1116 ml = .294 gallons for one deck

.294 gallons x 16 decks = 4.704 gallons

33 minutes to make one complete revolution

Controller off cycles are 30 revolutions

30 x 33 minutes = 990 minutes or 16.5 hours before lubrication

24 hours / 16.5 hours = 1.454

4.704 gallons x 1.454= 6.839 gallons in a 24 hour period.

Competitors system

.31 ml per shot x 4250 on counts = 1317.5 ml

1317.5 ml = .348 gallons for one deck

.348 gallons x 16 decks = 5.568 gallons

33 minutes to make one revolution

Controller off cycles are 20 revolutions

20 x 30 minutes = 660 minutes or 11 hours before lubrication

24 hours / 11 hours = 2.181

5.568 gallons x 2.181= 12.143 gallons in a 24 hour period.

Additional non-measurable savings

- Regular onsite Castrol technical support to ensure control of cost and program success.
- Castrol's turnkey lubrication system and installation at no cost to customer.
- Data collection to identify potential process problems.

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