

# CASE STUDY: PRODUCT IMPLEMENTATION

*MOVING YOUR WORLD*



## VITROLIS IS X220

### Project Overview

The customer was experiencing excess usage of the mineral machine oil used at the facility. In discussion with FUCHS and its local partners, the parameters of the project were defined:

- Reduce the amount of lubrication being applied
- Reduce the residue formation on the mechanisms
- Reduce the overall machine oil lubricants cost

The FUCHS team optimised the lubrication processes plus implemented automated lubrication upgrades and a trial of VITROLIS IS X220. The plant saw a significant extension in lubrication cycle times, reductions in oil usage and reductions of carbon formation.

### The Customer

Having worked in partnership with FUCHS around the world, a major global manufacturer of container glass was looking to make improvements to their processes by moving away from the current machine oil used in the Americas region. The facility is one of the largest in the world with 16 IS machines across the plant.

### The Problem

During visits to the customer's manufacturing facilities, the IS Maintenance engineers told our team about a number of concerns that they had including;

- Current high consumption of oil
- Inefficient cycle time of their central lubrication system
- Unreliability of existing lubricant

The customer was also using a mineral-based oil and became aware that switching to a synthetic lubricant would help to decrease future issues caused by the formation and build-up of problematic carbon residues.

### Problem

- High lubricant usage throughout the facility
- Carbon formation on the IS machines was causing an inefficient process
- High lubrication costs

### Solution

#### VITROLIS IS X220

- Proven ultra-low carbon-forming tendencies
- Greatly reduces lubricant consumption due to inherently high viscosity and thermal stability
- Excellent seal compatibility

### Results

- Doubled lubrication cycle time
- Reduced oil consumption by 65%
- Reduced carbon formation on the IS machine mechanisms
- Less waste through leaks

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### The Solution

Based on our experience in many other similar manufacturing plants, FUCHS presented a new design for the customer's automatic lubrication equipment and a new plan to address and reduce their current oil consumption, which included the use of VITROLIS IS X220.

VITROLIS IS X220 is a fully synthetic lubricant specifically developed for use in IS machines. Manufactured from a complex mix of synthetic base fluids and highly sophisticated performance-enhancing additives, VITROLIS IS X220 offers greater advantages & benefits when compared to other competitor products including;

- Outstanding resistance to thermal degradation
- Very low evaporation loss at high temperatures
- Low carbon-forming tendencies
- Flash point guaranteed >250°C
- Viscosity Index of MIN 140
- Superior lubricity and wear protection

### Results & Conclusion

The product was successfully implemented in July 2022 and it was found that the lubrication cycle time had doubled during this period. Daily oil usage was reduced by an average of 65% after 50 days of evaluation. Less carbon formation in mechanisms of IS machine due to using an Ester-based oil versus a mineral lubricant. FUCHS technicians were able to identify areas of leakage, these were promptly addressed with the customer and a plan was agreed upon to fix the leaks. In summary:

- Extended lubrication cycle time
- Reduced daily oil usage
- Less carbon formation
- Less waste through leaks

### ✓ Excellent viscosity stability

Ensures optimum lubrication under extreme temperatures which allows for extended machine overhaul periods and lower energy costs

### ✓ Superior load-carrying capacity

Improves performance, reduces mechanical wear rates and minimises lost production time

### ✓ High oxidation/thermal stability

Reduces problematical carbon residues to reduce premature wear, fluid leakages and resultant fire hazards

### ✓ Less lubricant consumption

Provides a cost-effective approach whilst reducing water pollution, improving factory hygiene and lowering waste disposal costs

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