

CASE STUDY

Industrial Gas Manufacturer Extends Compressor Life by Two Years

Fluitec's EPS to Extend Oil Life by Two Years and Keeps Production Running

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Industrial Gas Manufacturer Extends Compressor Life by Two Years

TOTAL MACHINE LIFE EXTENSION **2 YEARS**

CLIENT: Industrial Gas Manufacturer

COUNTRY: Singapore

APPLICATION: Compressor

LIFE EXTENSION: 2 years for Compressor

SOLUTION: Fluitec ESP



PROBLEM

A mechanical engineer at one of the world's largest industrial gas manufacturers was concerned about varnish through their lubricating systems. These deposits had led to shutting down operations, oil changes and even an entire compressor replacement.

vita esp'il

SOLUTION

Fluitec's ESP™ (Electrophysical Separation Process) technology to remove oil degradation contaminants. In more than five years since the installation, the compressor hasn't experienced a single lubrication related failure.

RESULTS

Beyond the fact that the air separation plant has not had a lubrication related failure since installing Fluitec's ESP, they're also able to extend the life of the oil to match the maintenance intervals of the machine.



DEEPER DIVE

The Maintenance Center team at an industrial gas separation plan has the overwhelming responsibility of one simple thing —to keep production running. Being down for even a moment has massive repercussions throughout their pipeline.

Lube oil degradation problems are widely acknowledged in the industrial gases space, including varnish deposits on bearing pads that result in elevated bearing temperatures and, ultimately, shut downs. Oil analysis indicated high MPC (Membrane Patch Colorimeter) varnish potential in their oil on several pieces of their compressor equipment.



A Mechanical Engineer and his team were heavily concerned with the evidence of deposits throughout their lubricating systems. This led to shutting down operation, changing out the oil or even replacing the entire unit. With the help of Fluitec, the engineering team crafted a proactive approach to identify and correct these issues. Keeping their critical customers like hospitals

that rely on steady delivery of even more critical gases in mind, they wanted to avoid down time, save on expensive maintenance intervals and do so in an environmentally positive way.

This engineering team sought out industry maintenance best practices and as a result turned to Fluitec for the solution. The goal was to understand, identify, remove and control varnish contamination. They installed Fluitec's ESP (Electrophysical Separation Process) technology to remove oil degradation contaminants. In more than five years since the installation, the team hasn't experienced a single lubrication related failure.



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WHAT WERE THREE OR FOUR YEAR (MAINTENANCE INTERVALS) IS NOW FIVE OR SIX YEARS. WE ARE ABLE TO EXTEND THE LIFE OF THE OIL TO THE MAINTENANCE INTERVAL OF THE MACHINE.

- Mechanical Engineer



The members of the engineering team have a culture of instilling and promoting proactive maintenance practices and their forward-thinking approach; working with Fluitec has paid off in dividends.

FLUITEC WAS ABLE TO EXPLAIN HOW MPC CORRELATES TO THE VARNISH POTENTIAL OF THE OIL AS WELL AS HOW THE OIL BEHAVES AT HIGH TEMPERATURES INSIDE OUR MACHINES. THEIR EXPERTISE ACTUALLY ENABLED US TO UNDERSTAND OUR MACHINES BETTER.

- Mechanical Engineer

