Fluitec

CASE STUDY

Fill4Life™ Perform for Life.™

Industry
Industrial Gases

Machinery
Cooper Gas Compressor

Location
Ireland

Product
DECON™

Estimated ROI
€258,500 in savings, 75x

Web
www.fluitec.com

Background

A November 2025 oil analysis at a Dublin industrial gas supplier revealed an MPC™ of 57 on a critical Cooper compressor — nearly four times the alarm threshold — with antioxidants depleted to 37%. Facing valve sticking and unplanned shutdown, the plant applied half a drum of DECON™ in-service, with no downtime. Follow-up sampling confirmed the turnaround within days.

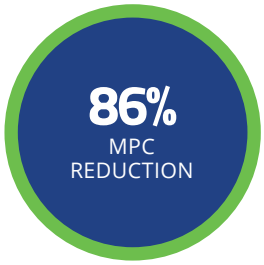
Industrial Gas Plant in Ireland Reverses Critical Compressor Varnish in 24 Hours with DECON™

At an industrial gas company in Ireland, oil analysis conducted in November 2025 returned a Membrane Patch Colorimetry (MPC) value of 57 for a critical compressor which is well above the industry alarm threshold of 15 and approaching critical levels. The cleanliness level at that time was 22/20/16 (ISO 4406), indicating elevated particulate contamination in the oil system. RULER® antioxidant analysis showed phenolic antioxidants had depleted to 37.3% of fresh oil levels, indicating the oil's remaining protective capacity was significantly reduced. If this was left unaddressed, continued oxidative degradation would accelerate varnish formation and risk servo valve sticking, bearing damage, and unplanned shutdown.

From four times the alarm threshold to well below it — in a single day, without stopping the compressor.

86%
MPC REDUCTION

€258K
ESTIMATED ROI



DECON™ delivered an 86% reduction in MPC — from 57 to 7.7 within 24 hours — and an estimated €258,500 net benefit at a 75x return on treatment cost.

Our **Solution**

A&S International recommended that Fluitec's DECON™was used. DECON™ was purchased in drum quantity, with half the drum applied to the compressor oil system. DECON™ uses patented SOLVANCER® chemistry which dissolves varnish deposits from internal surfaces and return them to the oil in suspension for removal. The treatment was conducted entirely in-service with no interruption to compressor operations.

Oil samples were taken before and after treatment to track the response. The post-treatment sample was collected on 19th November 2025, just days after the DECON™ application.

Our **Results**

- MPC reduced from 57 to 7.7 which is a 86% reduction within 24 hours of DECON™ application
- ISO cleanliness improved from 22/20/16 to 18/16/13, reflecting removal of degradation by-products
- Varnish potential dropped from critical range to well below the industry alarm threshold of 15
- No compressor downtime required as full treatment performed in-service
- Remaining DECON™ retained for top-up dosing as required to maintain oil condition

The MPC reduction from 57 to 7.7 in under 24 hours is a strong demonstration of DECON™'s rapid varnish dissolution capability. Ongoing oil analysis monitoring is planned into Q1 2026 to track continued oil health, and top-up dosing with the remaining DECON™ will be applied as needed to sustain clean oil conditions.

Results at **a Glance**

86%
MPC reduction — 57 → 7.7 within 24 hours of application

€258,500
estimated savings
75x return on treatment cost

18/16/13
ISO 4406 cleanliness improved from 22/20/16

0 hours
downtime — treatment performed fully in-service

½ drum
DECON™ applied; remainder retained for top-up dosing

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SCAN-to-LEARN

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