



SMS group

fluitec
MEASURE. CONSULT. TREAT.

CASE STUDY

Aerospace Forging Company Increases Machine Efficiency by 8%

Fluitec's DECON significantly lowers varnish potential and restores hydraulic forging press system performance

LEARN MORE

Aerospace Forging Company Increases Machine Efficiency

INCREASED EFFICIENCY
8%



CLIENT: Aerospace Component Manufacturer

COUNTRY: USA

APPLICATION: Hydraulic radial forging press

PRODUCTIVITY: Increased by 8%

SOLUTION: Fluitec DECON

PROBLEM

A leading Aerospace Component Manufacturer noticed a decrease in ram speed with their hydraulic radial forging press creating inconsistent system performance, risking product quality.

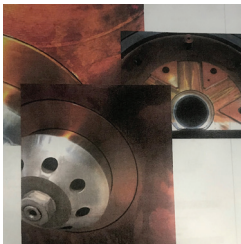
SOLUTION

Fluitec's DECON™ Fluid Enhancement Solution utilizing a patent-pending lubricant varnish and deposit mitigation technology, Solvancer™ was added to the in-service hydraulic oil and circulated throughout all four reservoirs.

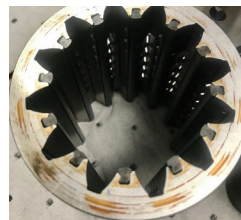
RESULTS

- Within a week, the varnish potential was lowered
- Heavily varnished components began to clean
- Ram speeds were restored and valves no longer stuck





Varnished components before the addition of DECON.



Component inspection 1-month after DECON showed significant amounts of deposits had dissolved.

DEEPER DIVE

The Aerospace Component Manufacturer's hydraulic radial forging press comprises 4 x 12,000 gallon reservoirs with hydraulic fluid from each reservoir powering one of four cylinders. Upon having performance-related issues, an inspection later revealed a manifold riddled with varnish deposits. Deposits were also found in pumps, valves and system internals. Further oil analysis revealed high varnish potential. Three-percent DECON was added to the in-service hydraulic oil and circulated throughout all four reservoirs.

Within a week, the varnish potential was significantly lowered and DECON had restored system performance while simultaneously cleaning system internals. DECON is also currently preventing the formation of additional deposits. The manufacturer is continuing to monitor the fluid on a monthly basis, including the MPC (Membrane Patch Colorimetry) test. The manufacturer will add approximately 3% DECON along with new oil whenever the system needs to be topped-up to maintain superior performance.