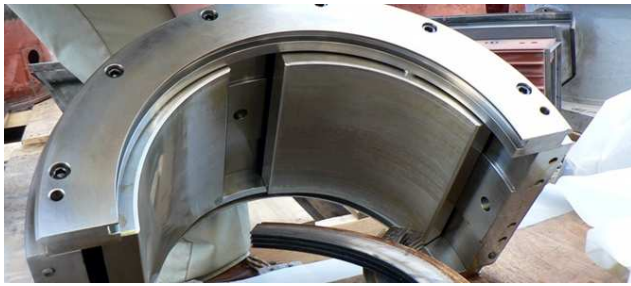


ESP-136 and 436

Electrophysical Separation Process

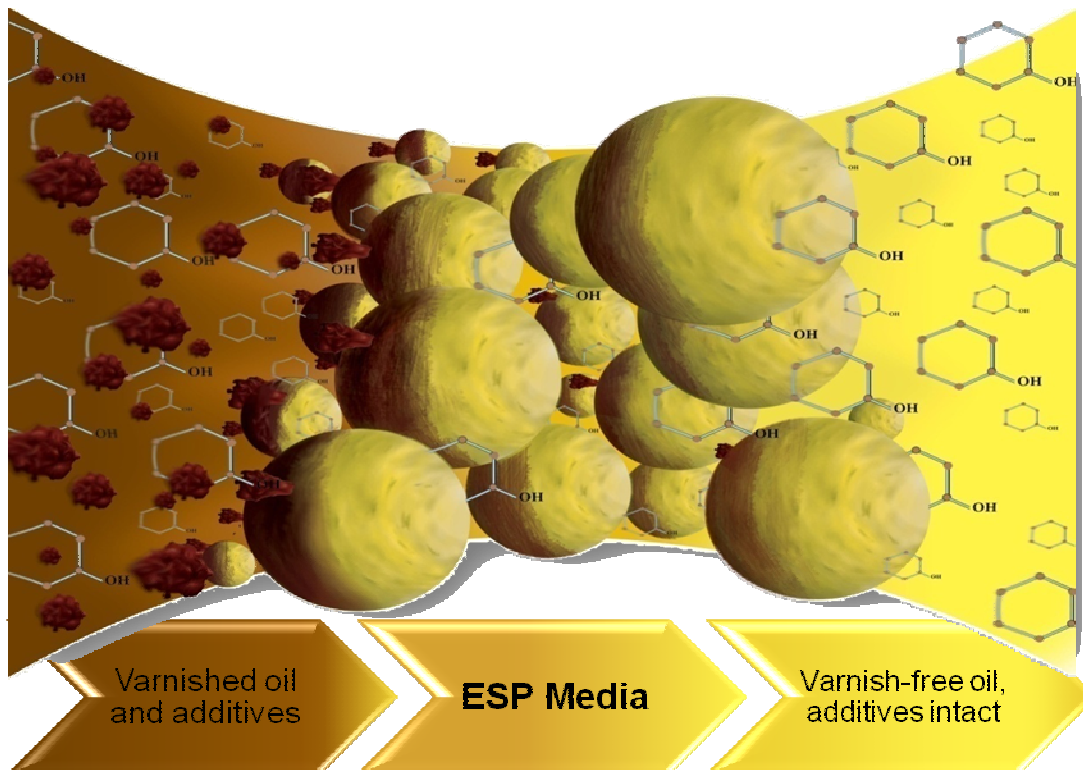
Turbine Oil Varnish Mitigation

Fluitec International introduces the final chapter in large frame gas turbine and steam turbine varnish mitigation. *Electrophysical Separation Process™* uses a Fluitec-developed and patent-pending process to absorb dissolved and suspended oil degradation products – the cause of varnish.



This process is accomplished with a technology that uses a selection of stable filtration materials. The Fluitec varnish mitigation solution is individually tailored to best match the turbine model, fluid chemistry, operational mode, lubricant condition and type and rate of fluid degradation.

The ESP-136 & 436 System is robust and sophisticated, including optional inline sensors, available for real-time condition monitoring. The Fluitec team has been at the forefront of oil degradation research and turbine oil varnish mitigation. This expertise and holistic philosophy is extended to each ESP-systems. The ESP systems includes education, training, on and off-site fluid analysis and a host of services that are unmatched in the industry.



◀ Electrophysical Separation Process™

ESP Performance

The degradation products that make up varnish can exist in the oil in either a *dissolved* or *suspended* state depending upon its chemistry and temperature. Eliminating varnish requires that you continually remove these deposits that are in *both* physical states. This makes ESP technology a more effective varnish mitigation tool compared to competitive technologies.

This means that you will have lower varnish potential numbers in a shorter period of time. A matter of days will typically restore a heavily varnished turbine oil system. The ESP Systems with advanced condition monitoring technologies, on-site plant evaluation, Stat-Free lube oil filters and world-class expertise...finally a *proven solution* to varnish is at hand.



Rapid attraction and retention of varnish-producing contaminants

ESP- 136/ 436 Overview

The ESP is available both as a 136 and 436 system , which integrates ergonomics with the highest manufacturing integrity. The system has been engineered for simple installation, operation and maintenance.

SPECIFICATIONS 436

CE Approved
 IP55 Protection Class
 Gear Pump*
 Viton Seals
 480V, 60Hz, 3-Phase*
 Industrial Wheels/Handle*
 Inlet & Outlet is 3/4" NPT*
 5m (16') of suction and discharge hose*
 10m (33') of electrical cable*
 * Can be customized upon request

DIMENSIONS

L 1005mm (40") H 1314mm (52")
 W 771mm (30") 300kg (660lbs)

TECHNICAL DATA

Operating Pressure is 6 bar max
 Viscosity Range is 15 to 80 cSt@40C
 Recommended Fluid Temp 30-60C (80-140F)
 Reservoir Size 0 - 30 200 l (0 - 8000 gals)

This Product Information Sheet is Subject to Technical Modifications



ESP-436 Installed on a GE 7FA Unit –



ESP 136 unit