

# Varnish Management & Removal Solutions



## FAST Fifteen

Give us 15 - we will give you targeted fluid cleanliness concepts for your machine.



# Applications for VMU – VEU-F

- Turbine Lubrication Systems in Power Plants
- Plastic Injection Molding Machines
- Industrial Forges and Presses
- Machine Tools



# Varnish – what is it?

Varnish usually refers to a type of clear coating. It is a gel, resin-like or solid varnish-like deposits that form in fluid system.



Varnish on the housing cover of the hydraulic pump



Varnish in the filter element



Varnish on the tank wall



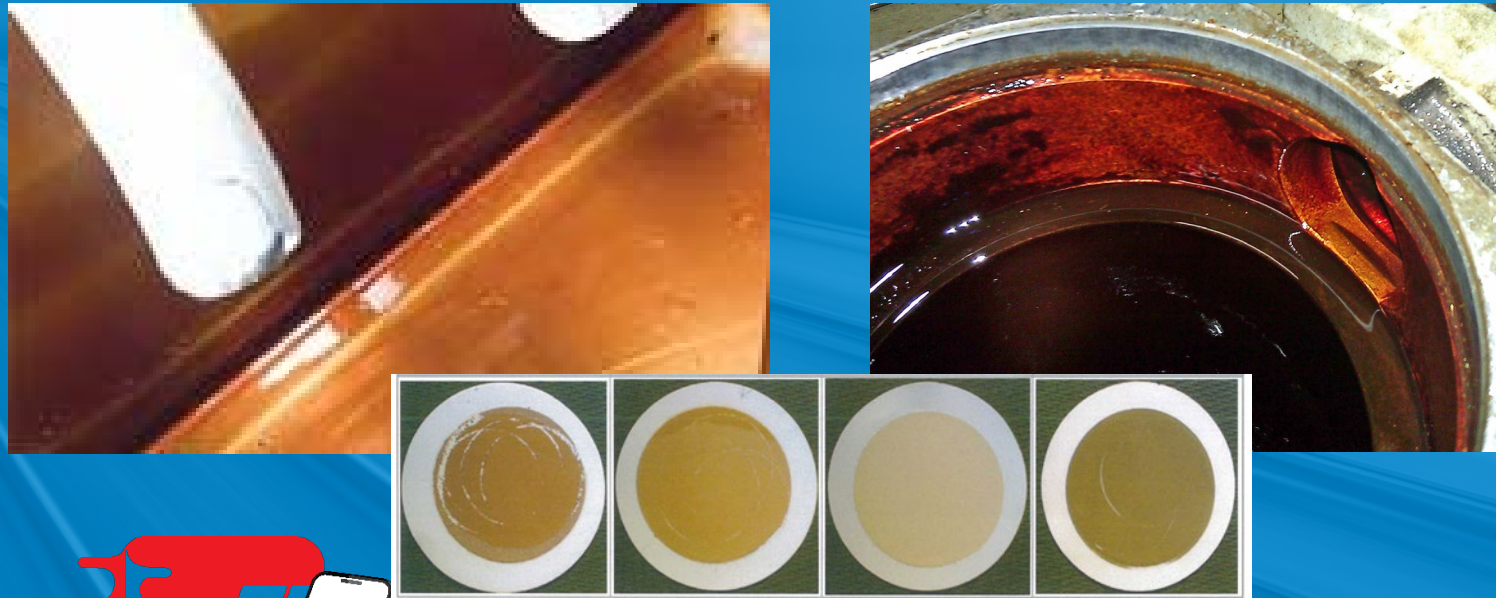
Varnish free tank wall

The cause of these lacquer-like varnish deposits is oil aging



## Causes of Varnish:

- Changes in Base Oils – from Group I to less polar Group II / III
- Elevated fluid temperature
- Insufficient Cooling - Varnish will impede the heat transfer
- ElectroStatic Discharge



# Varnish Elimination Units – VMU or VEU-F

- Primary function is to remove varnish (oil aging products) from mineral oils
- Removal of varnish (solid and gel-like products) based on reducing the oil solubility of varnish precursors followed by filtering the precursors out of solution
- Varnish removed via Resin Elements (VMU) or Cooling and Filtration (VEU-F)



# Varnish or Acid Elimination Units – VMU or VEU-F

Customer can realize:

- Increase operating reliability of the system as a result of fewer deposits
- Increase in fluid service life
- Greater machine and system availability
- Can be added to existing systems or installed on new systems



# Interested to learn more?

- Select 1-5 items pertaining to the topic you are interested
- Click the “Request Information” button located directly under the product photo
- Mention “Fast Fifteen” in the comments section and a representative will be in touch

