



# VARNISH & CONTAMINATION REMOVAL RESULTS

### **Features & Benefits**

- Filters down to 1 micron, several grades cleaner than new oil
- Dirt holding capacity of up to 5 pounds per filter
- Moisture and water removal (down to 100ppm)
- Remove approximately 1 gallon of water per element
- · Effectively remove varnish
- Available pump sizes 3.5 GPM, 5 GPM, 7 GPM (Rotary gear, positive displacement pump)
- · Pressure gauge to measure element loading
- Oil flow meter gauge
- · Oil sample port device
- Inlet wye strainer to protect pump
- Pressure switch with Hi/Low shut off for unattended use

# **Rugged & Portable Solutions**

Oil systems laden with heavy concentrations of dirt and high levels of varnish deposits are the main culprits affecting the equipment operation and reducing component life.

The Lubrigard GFS dedicated and portable by-pass filtration systems far exceed industry standards. The depth media filter element used in the gold-series filter cart provides maximum protection to your equipment. These filters remove contamination as low as one micron in particle size. Varnish and other contaminants such as water are also removed with this uniquely designed depth media filter.

VIEW REVERSE SIDE FOR CASE STUDY









## **VARNISH REMOVAL RESULTS**

### **CASE STUDY**

Application: EdgeTek Cutting and Cooling Fluid

Reservoir Size: 528 Gallons/2000 Litres

Oil Brand: Fuchs ECOCUT EMC 517

Oil Age: 4 years old

### **Customer Issues Prior to Filtration:**

- 1. Workers complain of skin irritation due to high levels of contamination in oil.
- 2. High cost associated with changing out large volumes of oil at approximately \$20,000 per oil change.
- 3. Dirt and varnish in the oil reduced the cutting tools life and pump life.
- 4. The current 10 micron cloth filter was not meeting their oil cleanliness codes.

### **Solution & Results:**

- 1. 90+% reduction of contamination.
- 2. ISO cleanliness target achieved.
- 3. 85% reduction in varnish target achieved.
- Increased tool life.

- 5. Improved operating time.
- 6. Oil still serviceable for continued use
- 7. \$\$\$ Cost savings.

| Particle Count          | START    | MID      | END      |
|-------------------------|----------|----------|----------|
| >4 micron               | 172,147  | 44,676   | 11,044   |
| >6 micron               | 6,656    | 8,599    | 1,450    |
| >14 micron              | 237      | 915      | 99       |
| ISO Target 21/18/12     | 25/23/15 | 23/20/17 | 21/18/14 |
| Image Color             |          |          |          |
| MPC Varnish Potential # | 47       | 12       | 7        |







Image MPC