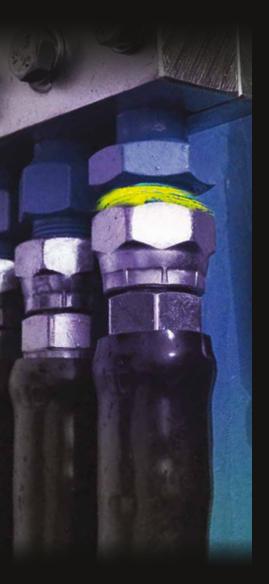
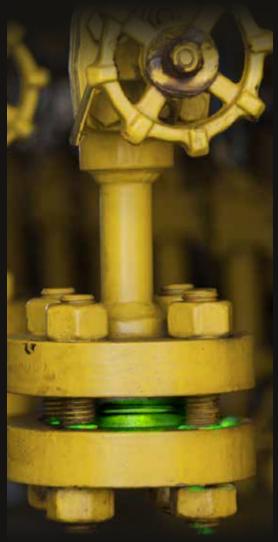
# SPECTROLINE®

## **FLUORESCENT LEAK DETECTION**

and Specialty Tools for Industrial Systems













Turbines



Systems

Liquid Holding Tanks



Cooling Towers



Compressed Air Lines



Natural Gas Lines



Pneumatic Systems



Propane Tanks





### A Unique Method of Finding Fluid Leaks in an Industrial Environment

Works effectively in any enclosed circulatory system where fluids are used for lubrication. hydraulics, cooling control or hydrostatic pressure testing. Fluorescent dyes also can reveal leaks in static systems that can be pressurized or agitated.

## **Industrial Systems Leak** More Than Just Fluids... They Leak Money!

This is why in <u>any</u> industrial system, leaks of any kind—oil, hydraulics, gasoline, diesel fuel or water—are a source of major concern.

### **Spectroline Advantage**

- · Fast, easy and accurate
- Finds all leaks —the first time, every time
- Economical
- · Reduces labor costs
- · Perfect for preventive maintenance
- Environmentally friendly
- · Remains safely in system
- Improves working conditions
- · Decreases equipment downtime
- Increases efficiency of machinery operation

### Fluorescent Leak Detection Applications (open and closed loop)







Pipelines



hydrostatic pressure systems



Fuel systems



### DYES FOR CIRCULATING FLUIDS



#### **VERSATILE**

Allow inspection of an entire system under virtually all operating conditions.

### NSF CERTIFIED

OIL-GLO® and WATER-GLO® fluorescent dyes are registered to meet food-grade processing requirements.

## **How It Works**

Just add a small amount of dye to the system and let it circulate.

The dye/fluid mixture escapes with the host fluid wherever there is a leak and glows brightly when inspected with a high-intensity UV, blue or violet light lamp.

### SAFE

Work with any host fluid without damaging the fluid's properties or any of the system's components.

## **Dyes for** Circulating Fluids

Ideal for use as part of a diagnostic/preventive maintenance program for industrial systems. Work effectively in any enclosed circulatory system where fluids are used.

### OIL-GLO® oil-based dyes

meet NSF category codes HTX-2 and HX-2.



### COST **EFFECTIVE**

Highly concentrated. Contain more active ingredients per dose than competitive dyes.

### WATER-GLO®

water-based dyes meet NSF category codes G7, GX and HTX-2.

### **SPECIAL FORMULATIONS**

Available in several distinct colors to differentiate between different leaking fluid systems.



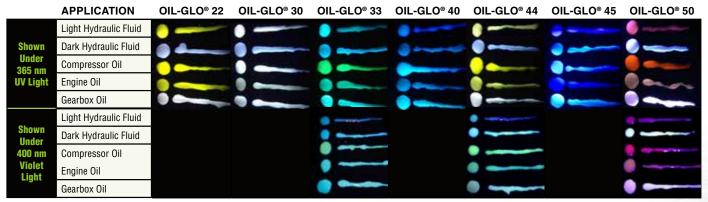




### **Important Note:**

All OIL-GLO® oil-based dyes are manufactured to the highest quality standards, and are filtered down to 2 microns.

Dyes fluoresce different colors depending on the host fluid



Refer to the table on the back cover for detailed information about our most popular dyes.

### What the Pros Are Saying...

"The yellow dye in OIL-GLO 22 works great in finding hard-to-spot leaks."

-Dennis Lee, Timkin Company "OIL-GLO 44 is easy to use, and I don't have to worry about it harming the hydraulic system."

— D.J. Anderson, Western Enterprises

"All power plants should use this simple technology to find leaks quickly. The savings is tremendous."

> -Tom Pike, Western Farmers Electric Cooperative





### **OIL SAMPLE TEST KITS**

Help you select the correct leak detection dye and lamp to meet your specific requirements. Choose from two do-it-yourself field kits, or our mail-in kit to get a free, expert analysis directly from Spectroline®.



Include the hose lines when determining dye dosage. In addition to the tank capacity, there is a significant amount of oil located in the lines.

### Field Dye Dilution Ratio Kits

Easy to use, mess-free and disposable! Each kit comes complete with dye samples, color chart, instructions, black evaluation plate, (2) 0.25 oz (7.4 ml) bottles of each sample dye, applicators and two 8 oz (237 ml) mixing bottles.



### FDK-100 Kit

Includes (2) 0.25 oz (7.4 ml) bottles of each sample dye;

OIL-GLO® 30 dye (glows white) OIL-GLO® 33 dye (glows green) OIL-GLO® 40 dye (glows bright blue) OIL-GLO® 44 (glows yellow/green)









### FDK-200 Kit

Includes (2) 0.25 oz bottles (7.4 ml) of each sample dye;

OIL-GLO® 22 dye (glows yellow) OIL-GLO® 45 dye (glows blue) OIL-GLO® 50 dye (glows red)







### AK-1000

### Dye Selection/Oil Sample Analysis Kit

Contains everything needed to collect an oil sample and send it to us for a professional analysis.

Makes sample collection and shipping fast and easy! Upon receipt, our expert chemists will test your oil sample and provide a report with dye, dilution ratio and leak detection lamp recommendations.

Includes an oil sample analysis form, 8 oz (237 ml) sample bottle with lid, absorbent cloth, plastic bag with tie, pressure-sensitive tape, box-sealing tape, shipping label, packaging instructions and cardboard shipping box.

### **CORDLESS LED LEAK DETECTION LAMPS**

All of our cordless leak detection flashlights feature a compact design for getting into tight areas, an anodized aluminum lamp body for durability, and a powerful, high-intensity LED with a 100,000-hour service life.



Note: For most applications, our 400 Series LED flashlights do not require fluorescence-enhancing glasses

## **OPX-400ICS OPTIMAX™ 400**

- Power comparable to highintensity 150-watt lamps
- Works with Spectroline® OIL-GLO® 33 (green), OIL-GLO® 44 (yellow/green) and OIL-GLO® 50 (red) oil-based dyes, as well as WATER-GLO® 802 (green) water dye

Includes fluorescence-enhancing glasses and lanyard.

## **OLX-400**I **OPTI-LUX™ 400**

- Power comparable to high-intensity 150-watt lamps
- Works with Spectroline® OIL-GLO® 33 (green), OIL-GLO® 44 (yellow/green) and OIL-GLO® 50 (red) oil-based dyes, as well as WATER-GLO® 802 (green) water dye
- Provides <u>4 hours</u> of continuous inspection between charges

Includes smart charging cradle with AC and DC cord sets, fluorescenceenhancing glasses and lanyard.

### **0LX-365 OPTI-LUX™** 365

- Twice as powerful as most corded, high-intensity UV lamps
- Works with <u>all</u> systems and dyes, including difficult-to-fluoresce yellow, white and blue dyes even in dirty fluids
- Provides <u>4 hours</u> of continuous inspection between charges

Includes smart charging cradle with AC and DC cord sets, UV-absorbing glasses, belt holster, lanyard, spare battery and rugged carrying case.

### LT-300

### LeakTracker™

- More powerful than most corded, high-intensity UV lamps
- Works with <u>all</u> oil- and waterbased fluorescent dyes, including difficult-to-fluoresce yellow, white and blue dyes — even in dirty fluids

Includes UV-absorbing glasses and lanyard.



# OIL-GLO WATER-GLO 22 30 33 40 44 45 50 801 802









### EK-365 EagleEye™

#### **Leak Detection Lamp Kit**

Features the palm-sized, lightweight, cool-running EE-365 EagleEye™ cordless, hands-free LED lamp, with two ultra-high intensity UV LEDs and a three-LED white light assembly.

- · Power comparable to high-intensity 100-watt lamps
- Adjustable strap allows lamp to be worn on a hard hat or directly on the head for complete hands-free operation!
- Works with <u>all</u> oil- and water-based fluorescent dyes. Especially effective on difficultto-fluoresce yellow, white and blue dyes— even in dirty fluids
- · Built-in fan keeps LEDs cool to maintain optimum intensity during extended use
- Lithium-ion battery provides up to 75 minutes of continuous inspection between charges.
   Two spare batteries included
- Includes lanyard, three splash guards with integral particulate filters, charging cradle with AC and DC cord sets, UV-absorbing glasses and a soft carrying case



#### COMPLETE LEAK DETECTION KITS



For very small leaks, allow enough time for the dye to accumulate at the leak site.











### OPK-441 – Starter Kit

Specially designed for finding leaks in small to medium sized oil-based fluid systems!

- OPX-400 OPTIMAX™ 400 high-intensity, cordless LED leak detection flashlight
- 8 oz (237 ml) twin-neck bottle of patented OIL-GLO® 44 concentrated oil dye

OLK-402 – Water-Based Kit

The most complete kit for finding leaks in water- and water/glycol-based systems!

- OLX-400I OPTI-LUX™ 400 high-intensity, rechargeable LED leak detection flashlight.
- 16 oz (473 ml) twin-neck bottle of WATER-GLO® 802 concentrated water dye.

OLK-444 – Oil-Based Kit The most powerful kit for finding leaks in larger oil-based fluid systems!

- OLX-400I OPTI-LUX™ 400 high-intensity, rechargeable LED leak detection flashlight
- 16 oz (473 ml) twin-neck bottle of OIL-GLO® 44 concentrated oil dye

Features & included items (for above kits)















### **HIGH-INTENSITY UV LAMPS & KITS**

—Choose Dyes Separately

OIL-GLO					WATER-GLO			
22	30	33	40	44	45	50	801	802
	$\bigcirc$							

### ML-3500S **MAXIMATM**

**Features State-of-the-Art Micro** Discharge Light (MDL) Technology!

Delivers up to 10 times the UV output of conventional High Intensity Discharge (HID) lamps!

- Instant-on operation; no warm-up time required
- Works even in direct sunlight
- \* Available in lamp kits at right





MLK-35M (battery-operated version)

Features & included items















Additional items included in the battery operated kit





### TRI-365HB TRITAN™ 365 **Ultra-High Intensity Broad-Beam UV Lamp**

- Three UV LEDs and one white light LED
- Instant-on operation; no warm-up time required
- Broad-beam design provides wider coverage area than conventional UV leak detection lamps
- Rubber bumper with Borofloat® glass lens protects LEDs from damage
- Built-in fans keep LEDs cool to maintain optimum output during extended use

Features & included items





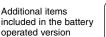






UV Lamp Kit. Features the battery-operated TRITANTM 365 UV Lamp.













Tanks often have a separate holding area where the oil is cooled. Therefore, inject the fluorescent dye into the dispensed area to ensure adequate circulation.





### MDE-2000NC

### Marksman™ II Ultrasonic Diagnostic Tool

Finds leaks and component defects long <u>before</u> they lead to equipment breakdown!

- Adjustable touch-control sensitivity pad and power switch.
- Quickly detects compressed air, natural gas, propane tank, vacuum, steam, refrigerant and other pressurized leaks.
- Finds gear and bearing wear in internal components and electric motors.
- Precision-engineered hollow air probe helps isolate leak sources in cramped areas.
- Unique ultrasonic emitter helps locate faulty seals, gaskets and weather stripping in doors, windows, ductwork and other non-pressurized enclosures.
- Comes complete with ultrasonic receiver, ultrasonic emitter, hollow air probe, contact probe, noise-cancelling headphones, (2) D cell batteries and carrying case.

### CG-1000 PRO-Chek CG™

## Combustible Gas Leak Detector Ideal for finding leaks in natural gas systems,

Ideal for finding leaks in natural gas systems, propane tanks, pipelines, regulators and valves, heat exchangers and many other combustive gas applications!

- <u>Certified intrinsically safe</u> for use in combustive/ explosive environments
- Twice as sensitive as competitive units
- Detects natural gas, propane, ammonia, methanol, ethanol, ethane, butane and other gases
- · Adjustable sensitivity control
- Variable-intensity audible alarm and flashing LEDs quickly determine leak size and strength
- Auto-zeroing function helps ignore background gas levels in test area
- Chrome-plated, flexible metal probe allows leak checking in tight spaces
- Field-replaceable sensor eliminates downtime
- Sensor, (2) D cell batteries and carrying case

### PRO-Chek CG™ Sensitivity Rates

GAS	SENSITIVITY	Gasoline	1 ppm
Acetone	50 ppm	Hydrogen	500 ppm
Acetylene	50 ppm	Hydrogen Sulfide	5 ppm
Ammonia	20 ppm	Iso-butane	5 ppm
Butane	5 ppm	Methane	5 ppm
Carbon Dioxide	500 ppm	Methanol	50 ppm
Chlorine	1 ppm	Methyl Chloride	5 ppm
Cyclopentane	5 ppm	Methyl Ether	500 ppm
Ethane	5 ppm	Propane	5 ppm
Ethanol	5 ppm	Vinyl Chloride	5 ppm
Ethylene	500 ppm		

This is a **partial list** of gases that are detectable by the PRO-Chek CG™



For applications that require exact dosing of fluorescent leak detection dye over precise intervals of time. Available in both air-assisted and manual pump versions.

### INDUSTRIAL DYE DISPENSING EQUIPMENT



### IDD-2000A Air-Assisted Pump Dye Dispenser

Adjustable for dye doses from 0.33 oz to 5 oz (9.8 ml to 148 ml). For use on assembly lines or lubricant room. Works with 5 gallon to 55 gallon (19 L to 208 L) drums.



### IDD-1000M

### **Manual Dye Dispenser**

Adjustable for dye doses from 0.33 oz to 2 oz (9.8 ml to 59 ml). For use on assembly lines or lubricant room. Works with 5 gallon to 55 gallon (19 L to 208 L) drums.







LAMPS









Note: All OIL-GLO® and WATER-GLO® fluorescent dyes are NSF Certified and registered to meet food-grade processing requirements. OIL-GLO® oil-based dyes meet category codes HTX-2 and HX-2. WATER-GLO® water-based dyes meet category codes G7, GX and HTX-2

Product No.	Application	Suggested Dilution Ratio	% Dye to System Fluid	Use With
OIL-GLO® 22/6* OIL-GLO® 22-8 OIL-GLO® 22-P OIL-GLO® 22-Q OIL-GLO® 22-G (Fluoresces yellow)	Petroleum-Based Fluid Systems: Light-colored hydraulic fluid Very dark or intensely blue hydraulic and fluids Compressor oil Engine oil Gearbox oil	1 oz (30 ml) per 4 gals (15.1 L) hydraulic fluid 1 oz (30 ml) per 2 gals (7.6 L) hydraulic fluid 1 oz (30 ml) per 2 gals (7.6 L) compressor oil 1 oz (30 ml) per 1.5 gals (5.7 L) engine oil 1 oz (30 ml) per 2 qts (1.9 L) gearbox oil	0.20% 0.39% 0.39% 0.52% 1.56%	0R +
OIL-GLO® 30/6* OIL-GLO® 30-8 OIL-GLO® 30-P OIL-GLO® 30-Q OIL-GLO® 30-G (Fluoresces white)	Petroleum-Based Fluid Systems: Light-colored hydraulic fluid Very dark or intensely blue hydraulic and lubrication fluids Compressor oil Engine oil Gearbox oil	1 oz (30 ml) per 8 gals (30.3 L) hydraulic fluid 1 oz (30 ml) per 4 gals (15.1 L) hydraulic fluid 1 oz (30 ml) per 4 gals (15.1 L) compressor oil 1 oz (30 ml) per 3 gals (11.4 L) engine oil 1 oz (30 ml) per 1 gal (3.8 L) gearbox oil	0.10% 0.20% 0.20% 0.26% 0.78%	+ CONLY
OIL-GLO® 33/6* OIL-GLO® 33-8 OIL-GLO® 33-P OIL-GLO® 33-Q OIL-GLO® 33-G (Fluoresces green)	Synthetic- or Petroleum-Based Fluid Systems: Light-colored hydraulic fluid Very dark or intensely blue hydraulic and lubrication fluids Compressor oil Engine oil Gearbox oil	1 oz (30 ml) per 8 gals (30.3 L) hydraulic fluid 1 oz (30 ml) per 4 gals (15.1 L) hydraulic fluid 1 oz (30 ml) per 4 gals (15.1 L) compressor oil 1 oz (30 ml) per 3 gals (11.4 L) engine oil 1 oz (30 ml) per 1 gal (3.8 L) gearbox oil	0.10% 0.20% 0.20% 0.26% 0.78%	+ CO
OIL-GLO® 40/6* OIL-GLO® 40-8 OIL-GLO® 40-P OIL-GLO® 40-Q OIL-GLO® 40-G (Fluoresces bright blue)	Synthetic- or Petroleum-Based Fluid Systems: Light-colored hydraulic fluid Very dark or intensely blue hydraulic and lubrication fluids Compressor oil Engine oil Gearbox oil	1 oz (30 ml) per 8 gals (30.3 L) hydraulic fluid 1 oz (30 ml) per 4 gals (15.1 L) hydraulic fluid 1 oz (30 ml) per 4 gals (15.1 L) compressor oil 1 oz (30 ml) per 3 gals (11.4 L) engine oil 1 oz (30 ml) per 1 gal (3.8 L) gearbox oil	0.10% 0.20% 0.20% 0.26% 0.78%	+ CONLY
OIL-GLO® 44/6* OIL-GLO® 44-8 OIL-GLO® 44-P OIL-GLO® 44-Q OIL-GLO® 44-G (Fluoresces <i>yellow/green</i> )	Synthetic- or Petroleum-Based Fluid Systems: Light-colored hydraulic fluid Very dark or intensely blue hydraulic and lubrication fluids Compressor oil Engine oil Gearbox oil Fuel (gasoline or diesel)	1 oz (30 ml) per 8 gals (30.3 L) hydraulic fluid 1 oz (30 ml) per 4 gals (15.1 L) hydraulic fluid 1 oz (30 ml) per 4 gals (15.1 L) compressor oil 1 oz (30 ml) per 3 gals (11.4 L) engine oil 1 oz (30 ml) per 1 gal (3.8 L) gearbox oil 1 oz (30 ml) per 12-18 gals (45.4-68.1 L) gasoline/diesel fuel	0.10% 0.20% 0.20% 0.26% 0.78% 0.04-0.07%	+ C) OR + C)
OIL-GLO® 45/6* OIL-GLO® 45-8 OIL-GLO® 45-P OIL-GLO® 45-Q OIL-GLO® 45-G (Fluoresces blue †)	Synthetic- or Petroleum-Based Fluid Systems: Light-colored hydraulic fluid Very dark or intensely blue hydraulic and lubrication fluids Compressor oil Engine oil Gearbox oil	1 oz (30 ml) per 8 gals (30.3 L) hydraulic fluid 1 oz (30 ml) per 4 gals (15.1 L) hydraulic fluid 1 oz (30 ml) per 4 gals (15.1 L) compressor oil 1 oz (30 ml) per 3 gals (11.4 L) engine oil 1 oz (30 ml) per 1 gal (3.8 L) gearbox oil	0.10% 0.20% 0.20% 0.26% 0.78%	+ CONLY
OIL-GLO® 50/6* OIL-GLO® 50-8 OIL-GLO® 50-P OIL-GLO® 50-Q OIL-GLO® 50-G (Fluoresces <i>red</i> )	Synthetic- or Petroleum-Based Fluid Systems: Light-colored hydraulic fluid Very dark or intensely blue hydraulic and lubrication fluids Compressor oil Engine oil Gearbox oil	1 oz (30 ml) per 8 gals (30.3 L) hydraulic fluid 1 oz (30 ml) per 4 gals (15.1 L) hydraulic fluid 1 oz (30 ml) per 4 gals (15.1 L) compressor oil 1 oz (30 ml) per 3 gals (11.4 L) engine oil 1 oz (30 ml) per 1 gal (3.8 L) gearbox oil	0.10% 0.20% 0.20% 0.26% 0.78%	+ OR + CO
GAS-GLO <sup>TM</sup> 32** GAS-GLO <sup>TM</sup> 32-P GAS-GLO <sup>TM</sup> 32-G (Fluoresces <i>yellow</i> )	Gasoline and Diesel Fuel Systems	1 oz (30 ml) per 10 gals (37.9 L) gasoline/diesel fuel	0.08%	+ C) OR + C)
WATER-GLO® 801-P WATER-GLO® 801-Q WATER-GLO® 801-G (Fluoresces blue†)  WATER-GLO® 802-P WATER-GLO® 802-Q WATER-GLO® 802-G (Fluoresces green)	Water- and Water/Glycol-Based Fluid Systems – Both Static and Circulating	1 pt (473 ml) per 500 gals (1,900 L) water 1 pt (473 ml) per 1,000 gals (3,800 L) water	0.03%	+ CO

NOTE: The suffix "8" denotes an 8 oz (237 ml) bottle; suffix "P" denotes a 16 oz (473 ml) bottle; suffix "G" denotes a 1 gal (3.8 L) pail. Other sizes also available.

The dilution ratios of Spectroline® fluorescent dyes to the host fluids shown above are only guidelines. These ratios can be increased or decreased depending on the fluorescent response required and the ambient lighting conditions. A simple way to check for proper fluorescence is to remove a small amount of host fluid from the system and add the suggested amount of dye to it. Then shine a Spectroline® leak detection lamp on this sample mixture and check for a bright fluorescent response.

\* Package of (6) 1 oz (30 ml) bottles \*\* Case of (24) 1 oz (30 ml) bottles † Appears clear. Will not discolor host fluid.

