

# CANTY

## PROCESS TECHNOLOGY

# LUBE OIL PARTICLE & WATER ANALYZER



## FEATURES

- **Measuring Principle as per ASTM D7596 & D8049**
- Data reporting to ISO4406
- Detects and discerns solids, water and air in oils - back scatter and obscuration devices cannot determine shape and therefore count water and air as solid particles.
- Visual Verification
- Ethernet Connectivity
- Intuitive Software Interface
- Measurement to 0.7 um
- Data Outputs to Excel Database
- Image Based analysis
- Pre-Programmed AI algorithms
- Automatic de-gassing
- High Intensity Lighting for Maximum Magnification

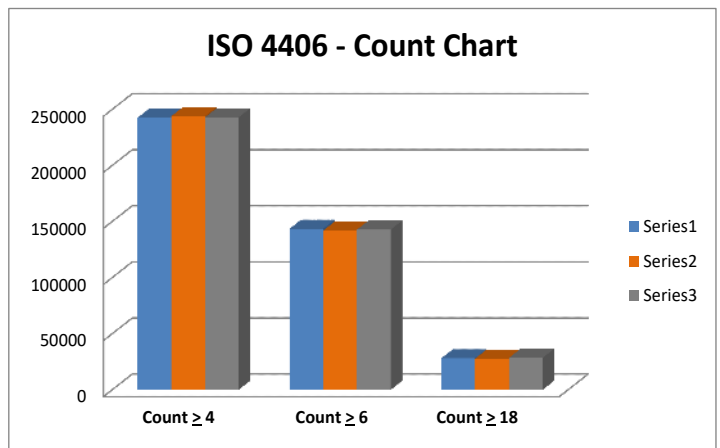
## THE CANTY ADVANTAGE

- **Speed and Time** - With our automatic de-gassing feature the operator is able to degas and perform analysis on the sample all in one step
- **Accuracy** - We are able to actually see the particles and therefore eliminate any water, additive, or air from particle count; we are also able to give the the PPM of water
- **Ultra Clean Flow Cell** - This high purity flow cell was originally designed for the pharmaceutical industry and allows for plug-free operation
- **Minimal Entry Flow Path** - Our system eliminates the need for large amounts of unnecessary and cumbersome tubing
- **Pre-programmed Software** - Our system features advanced imaging software that is user friendly and based on AI algorithms that are pre-programmed into the system to allow for ease of set-up and operation
- **Photo & Video Output** - Our software allows for you to not only run a report with a sample but also capture valuable photo & video that can be saved and referred back to
- **Resolution Below 1 Micron** - We are able to detect particles down to 0.7 micron
- **Particle Shape** - We are able to analyze the particles shape in order to determine what kind of wear particles were present in the lube oil

## SPECIFICATIONS

- Luer Lock Connection
- Particle Size Range = .7 - 480 micron
- 120 V AC / 60 Hz or 240 V AC / 50 Hz
- Syringe Pumping System
- Gravity Feed Flow System
- Variable Gap
- Ethernet OPC or 4-20 mA Output

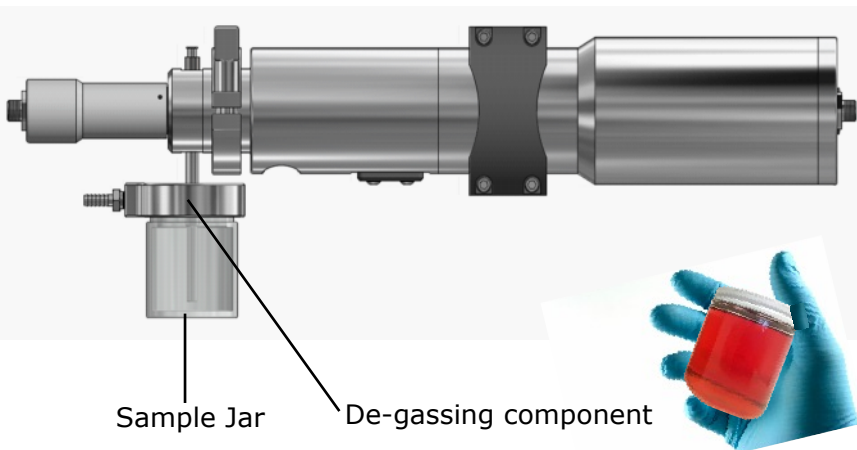
## REPORTING



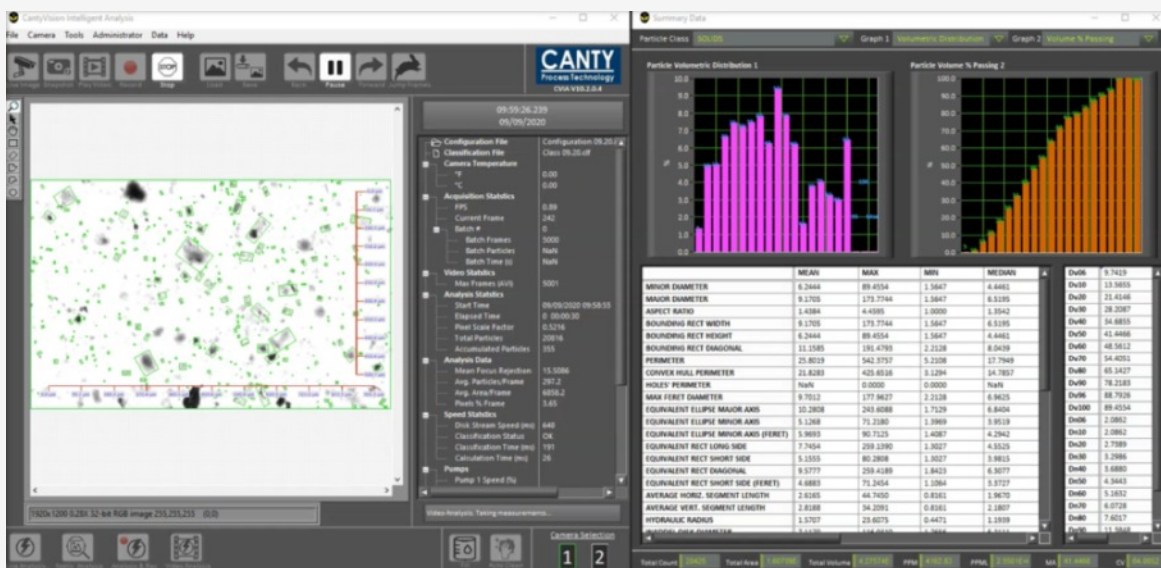
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# SAMPLE PREPARATION

Sampling is made easy by simply agitating the sample and then attaching it to our system for it to be automatically de-gassed and analyzed in one step. This saves time and allows operators to run a large volume of samples. Samples can be run in under 3 minutes!



# DATA REPORTING & MANAGEMENT



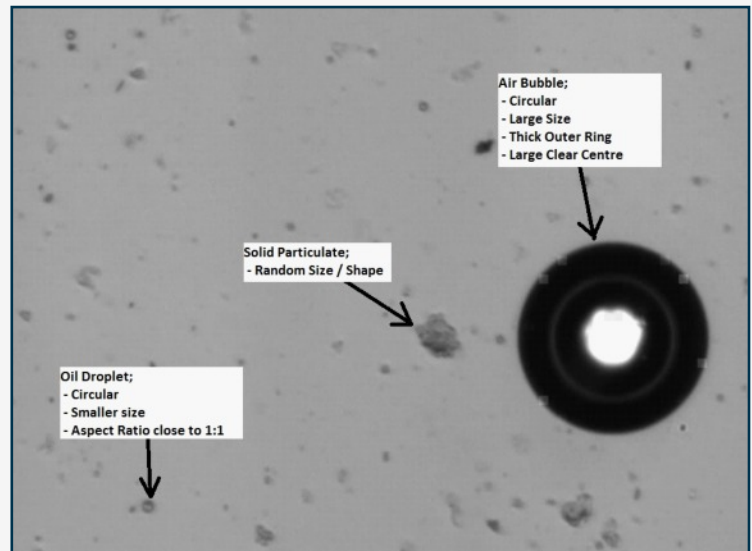
Canty has spent years developing our cutting edge AI software to be user friendly and give end users the exact data they're looking for. Our CantyVision™ software gives real-time data and reports to the user. These reports can output to excel as well as be saved for reference. We can also output using OPC, Modbus, 4-20mA, and others to the user's PLC.

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## VISUAL VERIFICATION

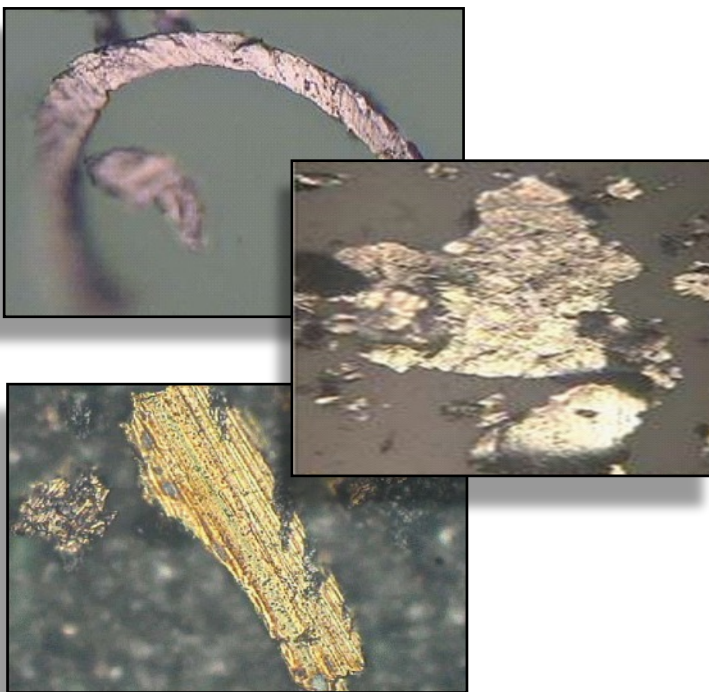
Visual Verification allows for you to actually see what is being analyzed. As shown in the image to the right the user can see what is a solid particle vs. a droplet (water or additive) vs. an air bubble. Being able to see these particles allows the software to utilize its machine learning capabilities and categorize the particles into their proper class.

Another feature is being able to record and save the sample analysis as a video this allows for accurate record keeping and an extra layer of accuracy to any lab report.



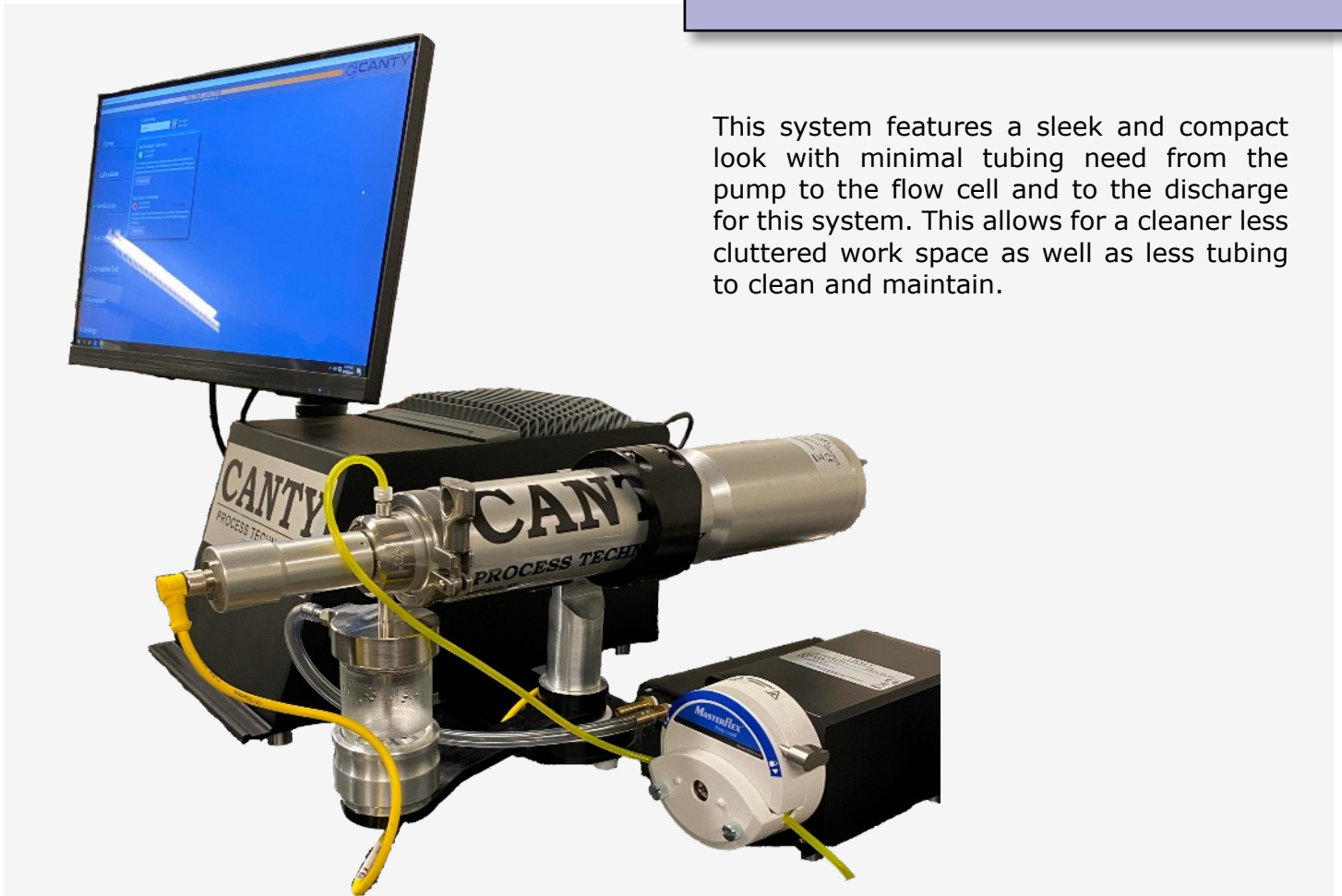
## WEAR ANALYSIS

The type of wear present in a type of machinery can be determined via the shape of the particulates in its lube oil. The three particles shown to the left are representations of three different kinds of wear (sliding wear, cutting/grinding wear, and fatigue wear). Our system is able to easily classify these particles in order to give the customer key insight into any wear that is being put on their machine. Since shape of particles can only be determined via image based analysis this is a feature that is unique and not offered with laser based systems.



## MINIMAL ENTRY FLOW PATH

This system features a sleek and compact look with minimal tubing need from the pump to the flow cell and to the discharge for this system. This allows for a cleaner less cluttered work space as well as less tubing to clean and maintain.



## PRODUCT ADVANTAGES

	CANTY	Laser and Light Obscuration Systems
Shape of Particles	✓	✗
Anti-foam / Additive detection	✓	✗
Water Droplet Detection (PPM)	✓	✗
Air Bubble Detection	✓	✗
Counts Particles Below 4 micron	✓	✗
Reports to D8072 Standard	✓	✗
Reports to ISO4406 Standard	✓	✓

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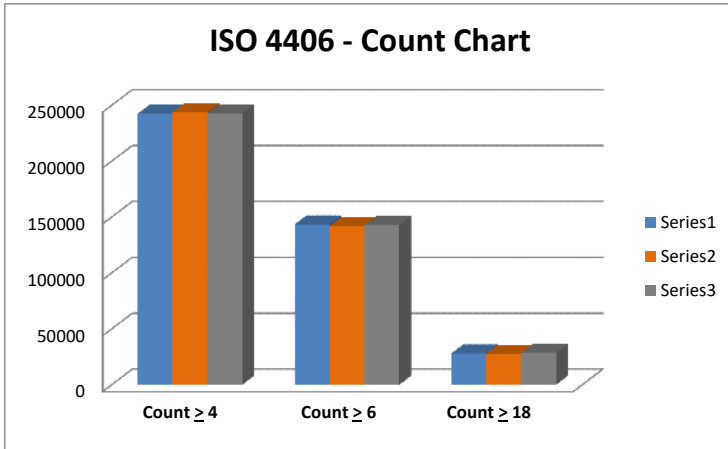
## ORDERING INFORMATION

**PART NUMBER (120 V AC)=**

**LUB - A G 1 K 6 1 B 1 2 A Z**

**PART NUMBER (240 V AC)=**

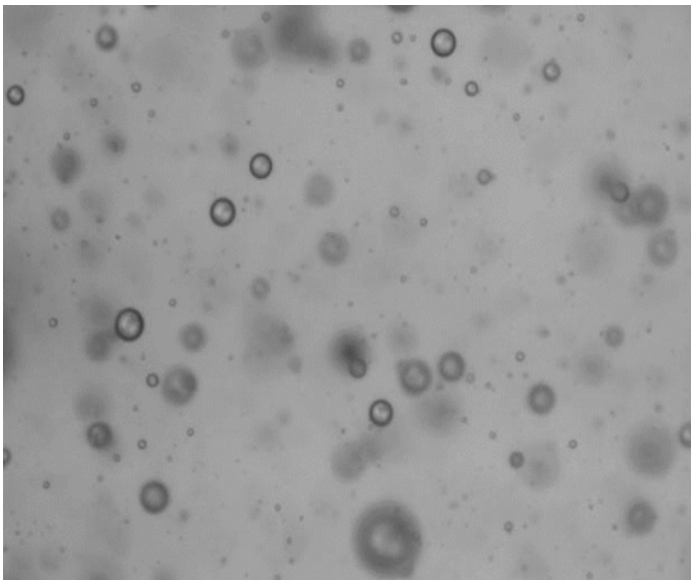
**LUB - A G 1 K 6 2 B 1 2 A Z**



ISO > 4	ISO > 6	ISO > 14
25	24	22
25	24	22
25	24	22

Count & size data output

Data reporting to ISO 4406



Visual images to verify contamination

Standard peristaltic pump layout