

# Scentroid **Sampling Bags**

PTFE, Tedlar, Nalophan, Stainless Steel




# SCENTROID

# Letter from Scentroid's CEO

Scentroid's mission is to empower our clients with vast in-depth knowledge, state-of-the-art instruments, and the most extensive customer support. To this end, we strive in every aspect of our operation to put our client first and to use our research expertise to develop the most innovative and effective products and services in the sensory industry. We envision a future where environmental impacts will be easily and accurately measured and mitigated.

  
**Dr. Ardevan Bakhtari**  
CEO, Scentroid

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# INDUSTRIES UTILIZING SAMPLE BAGS



Waste Water  
Treatment Plants



Environmental  
Consultants



Laboratories



Health / Medical  
Industries



Universities and  
Researchers



Oil and Gas  
Refineries

# Selecting the Right Bag for you!

## Nalophan Bags

Nalophan is an inexpensive material used for making disposable sampling bags. Nalophan can be purchased pre-made or as a large roll to reduce cost. Nalophan provides a cost effective solution but has the shortest holding time for most compounds such as H<sub>2</sub>S, Ammonia and VOCs.



## PTFE Bags

Scentroid is the only manufacturer offering PTFE sampling bags. These bags offer a much higher resistance to contamination and Scentroid's PTFE Sampling Bags have a longer holding time than Tedlar bags. They are also the only accepted bag material for all standards. PTFE Sampling bags are extremely resistant to contamination and therefore can be easily cleaned and reused. They have been approved in nearly every jurisdiction in the world.



## Tedlar Bags

Tedlar is the standard in air sampling for 20 years now. Tedlar bags will provide a reusable storage medium with good retention for most substances. Scentroid Tedlar bags are made of 2mm thick film and purged at 100 °C using Scentroid's patented heat/vacuum SP20 Purger. Sampling bags are pressure tested and leak tested to ensure the utmost perfect quality.



## Stainless Steel Bags

Scentroid is the only manufacturer in the world to offer stainless steel sampling bags. Each stainless steel bag is made of electro-polished marine grade (316L series) stainless steel film. Stainless steel sampling bags are ideal for sampling corrosive materials such as high H<sub>2</sub>S or benzene. Stainless steel is rolled into a thin film that provides it with flexibility while maintaining the 100% sample preservation. Scentroid stainless Steel bags are used more often than SUMMA canisters.



## Bag Pricing and Delivery

SCENTROID bags are stocked in a variety of sizes and materials and can be shipped immediately. All scentroid bags are produced in-house at our Canadian location. This means that we can manufacture custom bags to your specification at no extra charge. In most cases even custom made bags are shipped the same day.

## Revolutionary Technology

SCENTROID provides advanced air sample bags to provide the highest holding time and zero contamination. Our dedication to sample preservation and odour measurement accuracy is evident in our newly introduced pure PTFE and 100% stainless steel sample bags. Browse our products for complete description of our line of sampling equipment, sample bags and purging equipment.



# SAMPLE BAG SUMMARY

# PTFE Sampling Bags

SCENTROID PTFE bags are made of pure PTFE film. The Scentroid lightweight Nylon and PTFE fittings are easy to use and prevent damage to the bag from repeated operation.

- ✓ Ultra-pure PTFE film with exceptional sample preservation
- ✓ PTFE density of 2.2 g per cubic cm is twice as high as Tedlar allowing for much longer sample preservation.
- ✓ Excellent stability for petrochemical products such as benzene.
- ✓ Zero background odour allows for ambient sampling.
- ✓ UV protection helps preserve samples during transportation.
- ✓ Easy to clean and reuse (typical lifespan is 30 samples).
- ✓ Recommended for a sample processed after a long delay - 12 to 30 hours
- ✓ Excellent stability for most compounds including VOCs, sulfur compounds, including hydrogen sulfide
- ✓ Excellent stability for carbon monoxide, carbon dioxide, methane, and sulfur hexafluoride
- ✓ Choice of fittings to match bag size and application include both compression and 2-in-1 valve/septum fittings
- ✓ Stocked in a variety of sizes; custom bags available.
- ✓ Low sample absorption.
- ✓ Bags available for EPA TCLP method.
- ✓ Perfect for samples with high VOCs and H2S
- ✓ Samples that have any petrochemical products
- ✓ Samples with low odour thresholds
- ✓ Samples that have high humidity

PTFE Sampling Bags Not Recommended for:

- ✗ Samples that are processed with a delay exceeding 30 hours

Odour Source	Recovery %	
	12 hours	24 hours
Wastewater Treatment	84%	80%
Compost	86%	82%
Landfills	90%	82%
Gas Refinery	86%	75%
Swine Production	78%	78%
Processing Plants	91%	88%
Pet Food Factories	87%	83%
Coffee Production	82%	78%



Completely Odourless  
High density PTFE Sampling Bags have zero background odour giving you much more accurate measurements



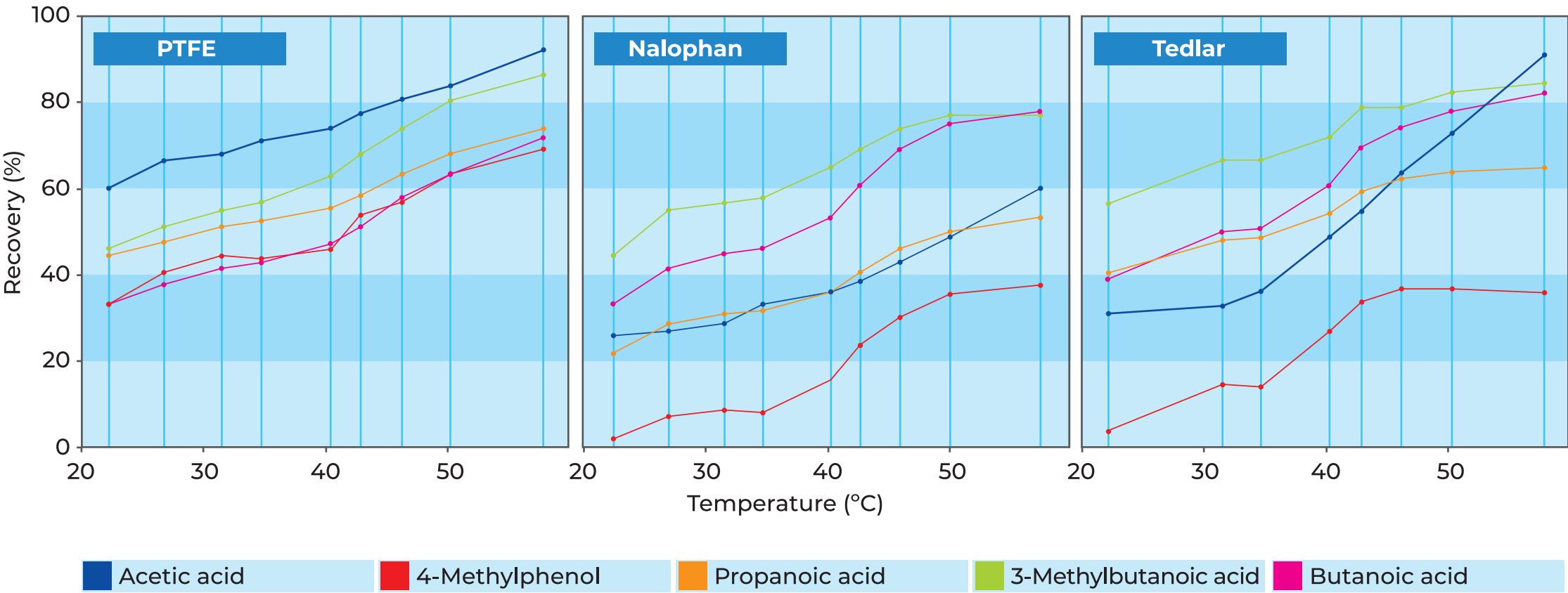
Maximum Sample Retention  
PTFE provides the highest sample retention of any media. Scientific studies have shown an improvement in 24 hours of up to 600% more in sample retention when compared to



Cost Effective  
PTFE sample bags are reusable making them a cost effective option. Laboratories using the SP20 Heated Purger routinely reuse PTFE sample bags up to 30 times

# PTFE Sample Bag Recovery Comparison

The chart below displays the recovery of odorants at different temperatures within 5L polytetrafluoroethylene (PTFE) bags, 10L Nalophan bags, and 10L Tedlar bags. The chemical compounds tested are Butanoic acid, 4-methylphenol, propanoic acid, 3-methylbutanoic acid; and acetic acid. For more details on this study, please see page 14.



# Stainless Steel Sampling Bags

SCENTROID Stainless steel sampling bags are made of pure Stainless steel film. Stainless steel is rolled thin providing it with flexibility while maintaining 100% sample preservation. The seams have been welded closed; and the bag has been heated and purged for optimal purity. Stainless steel sampling bags display true dedication to sample preservation and odour measurement accuracy.

- ✓ Excellent stability for all chemicals and compounds
- ✓ Excellent substitute for SUMMA canisters
- ✓ Does not require expensive cleaning procedures
- ✓ Extremely durable for ease of transportation
- ✓ Perfect for GCMS analysis as container has zero chemical contamination
- ✓ Available in 8 L bag
- ✓ Flexible electro-polished stainless steel film for complete sample preservation
- ✓ Can be used with regular sampling equipment eliminates the need for vacuum generation
- ✓ Recommended for samples Where GCMS analysis were purity is a must
- ✓ Samples With ultra-high H<sub>2</sub>S content where sample preservation is critical
- ✓ With high concentration of petrochemical compounds



**Completely Impermeable**  
These sample bags are made of electro-polished 316L stainless steel and are completely impermeable to any compound



**Longest Holding Time**  
Scentroid stainless steel sample bags provide the longest holding time – identical to SUMMA canisters



**Easy to Use**  
Stainless steel sample bags can be used with vacuum chambers and stack dilution samplers just like PTFE and Tedlar bags

# Nalophan Sampling Bags

SCENTROID Nalophan bags made of classic Nalophan film are an affordable solution for air sampling. Nalophan bags are commonly used in Europe and North America due to their relatively good holding time and affordable pricing. The bags are easy to use and are thrown out after one use, eliminating the need for reuse.

- ✓ Quality Nalophan film for durable and reliable sampling
- ✓ Low background odour
- ✓ Good stability for carbon monoxide
- ✓ Can be pre-made or as a DIY (do-it-yourself) Kit
- ✓ Great for samples processed without long delays
- ✓ Straight tube connection for zero back pressure flow
- ✓ Scentroid one-touch caps provide secure and reliable solutions
- ✓ Tubes that can be made to any capacity; custom size bags available
- ✓ Great for samples with moderate VOC and H2S

**Nalophan Bags are Ideal For:**  
Short term storage and on site analysis

- Nalophan Sampling Bags Not Recommended for:**
- ✗ Samples that are processed 6 or more hours after capturing
  - ✗ Situations with high humidity
  - ✗ Samples with high H2S
  - ✗ Samples with Benzene or other petrochemicals

Odour Source	Recovery %	
	12 hours	24 hours
Wastewater Treatment	70%	45%
Compost	61%	40%
Landfills	65%	48%
Gas Refinery	20%	17%
Swine Production	55%	39%
Processing Plants	68%	51%
Pet Food Factories	62%	43%
Coffee Production	80%	75%



**Cost Effective Solution**  
Nalophan sampling bags are extremely cost effective making it ideal for sampling campaigns where sample preservation and long holding times are not required



**Easy to Use**  
Nalophan sampling bags are easy to make and easy to use. Scentroid nalophan bags come with push-in caps that are easy to open and 100% leak proof when closed



**DIY Kits and Pre-Made**  
Nalophan DIY kit includes a 100 meter roll and all accessories to make 150 sample bags of 10L each. Alternatively you can choose pre-made bags of any capacity ready to be used right out of the box. The choice is yours!

# Tedlar Sampling Bags

SCENTROID Tedlar bags are made with Dupont Tedlar film. The Scentroid lightweight Nylon and PTFE fittings are easy to use and prevent damage to the bag from repeated operation.

- ✔ Dupont Tedlar film works great for sample preservation
- ✔ Provides stability for VOCs and some sulfur compounds, including hydrogen sulfide
- ✔ Provides stability for carbon monoxide, carbon dioxide, methane, and sulfur hexafluoride
- ✔ High bursting pressure in order to transport samples safely
- ✔ Pre-purged using Scentroid's Heated Air Purger for minimal background contamination
- ✔ Choice of fittings to match bag size and application includes both compression and 2 in 1 valve/septum fittings in a variety of materials including PTFE, stainless steel, PTFE coated nylon, and polypropylene
- ✔ Stocked in a variety of sizes; custom bags available
- ✔ Bags available for EPA TCLP methods
- ✔ Perfect for samples processed within a moderate delay (6 to 12 hours)
- ✔ Recommended for samples with moderate to high VOC and H2S

Tedlar Bags are Ideal For:  
Moderate storage time and reusability options

- ✘ Tedlar Sampling Bags Not Recommended for:
- ✘ Samples that are processed 12 or more hours after sampling
- ✘ samples with low contamination
- ✘ samples with Benzene and other petrochemicals

Odour Source	Recovery %	
	12 hours	24 hours
Wastewater Treatment	80%	60%
Compost	72%	69%
Landfills	68%	58%
Gas Refinery	18%	15%
Swine Production	65%	47%
Processing Plants	78%	56%
Pet Food Factories	72%	63%
Coffee Production	75%	65%



**Trusted Materials**  
Tedlar has been used for more than 20 years for air sampling. It provides a stable material with good sample retention



**Pre-purged and Odourless**  
Scentroid Tedlar bags are pre-purged to minimize any odour associated with unused Tedlar



**Multiple Fitting Options**  
Scentroid Tedlar bags can be ordered with a variety of fittings to fit your application

# Selecting the Right Fitting

SCENTROID sample bag fittings are designed specifically for air sampling. SCENTROID fittings are offered in a choice of materials and styles to fit a variety of applications. Stainless steel, polypropylene, and PTFE fittings combine the connector and valve with septum into one easy to use fitting. Compression style fittings made of PTFE coated nylon are used on larger bags where low flow restriction is required

## 2-in-1 Polypropylene

On/Off valve function with replaceable septum in a single unit. Quick, easy opening and closing of valve. Less than one half turn opens/closes the valve. These fittings fit 4/1" & 6 mm tubing



## 2-in-1 PTFE Fitting

The combination fitting and septum is made of pure PTFE and offers high corrosion resistance. The fittings are light weight and therefore provide an excellent choice for PTFE sample bags.



## PTFE Coated Nylon

These fitting offer zero resistance with sample flow and therefore are the ideal choice for large sample bags. They also allow attaching tubing or syringe sample extraction by changing caps



## Stainless Steel Fitting

These all stainless steel fittings are used only on Scentroid stainless bags. This type of fitting is highly resistant to corrosive materials and can be used in high temperature sampling



## Unmatched Quality Control

All Scentroid sample bags are manufactured in a dedicated, closed room with continuous air filtration via 3 HEPA and carbon filtration systems.

All bags are tested to pressure of 10 inches of water to ensure strong and reliable seals.



# SUPPORTING ARTICLES

# Scentroid Stainless Steel Bags Being Used for Latest Mars Mission

To boldly go where no sampling bag has gone before – Scentroid has exciting news to share! Our stainless steel Sampling bag technology is being used for the Latest Mars mission in coordination with NASA.

Through their latest Perseverance rover exploration, NASA intends on researching whether life has ever existed on Mars. It is believed that by doing so, we will further develop a better understanding of our origins on earth. The Perseverance rover will collect samples of both Martian rock and regolith using special drills attached to the end of a robotic arm. By early 2030, a shuttle will contact the rover and collect glass vials containing these samples.

“Returning samples of Mars to Earth has been a goal of planetary scientists since the early days of the space age, and the successful completion of this MSR key decision point is an important next step in transforming this goal into reality,” as per Thomas Zurbuchen, associate administrator for science at NASA Headquarters in Washington. “MSR is a complex campaign, and it encapsulates the very essence of pioneering space exploration – pushing the boundaries of what’s capable and, in so doing, furthering our understanding of our place in the universe.” <https://tinyurl.com/zp9a5khw>

## Essential Sample Preservation Procedures

Upon returning to earth, samples must be protected with a high-reliability containment method. This is where our Scentroid stainless steel sampling bags will play an essential role during the Mars Mission. These sampling bags are made of pure Stainless steel film. The steel is rolled thin providing it with flexibility while maintaining 100% sample preservation. The seams have been welded closed, and the bag has been heated and purged for optimal purity. These sampling bags provide the longest holding time – identical to SUM-MA canisters. They are also trusted for stability for all chemicals and compounds. In addition to this, they are perfect for GCMS (Gas Chromatography-Mass Spectrometry) analysis as contained specimens display zero chemical contamination.

The collection, transferring, and safe preservation of these samples will give our scientists an opportunity to use sophisticated tools too difficult to bring into space. It will also allow our future generations to use technology not yet available.



# SCENTROID

# Results are in: Scentroid Exclusive PTFE Sampling Bag is Superior!

A recent independent study from the Journal of Environmental Quality has concluded that our exclusive PTFE Sampling Bag is superior to any other sample bag including Tedlar bags. "[Scentroid's] PTFE bags were found superior for storing the considered odorants from pig production, especially for 4-methylphenol, which was almost completely lost on introduction to Nalophan and Tedlar bags."

<https://access.onlinelibrary.wiley.com/doi/full/10.2134/jeq2017.07.0289>

The study was conducted by Pernille Lund Kasper, Arne Oxbøl, Michael Jørgen Hansen, and Anders Feilberg funded by Green Growth and Development Denmark, Ministry of Food, Agriculture and Fisheries Denmark, and The Danish AgriFish Agency. It consisted of purchasing varying sample bag types, including our very own PTFE bag (found here: <https://scentroid.com/products/sampling-bags/ptfe-bags/>) Loss mechanisms of livestock odorants in sampling bags were also investigated. This was done with the understanding that loss rates in sampling bags are strongly influenced by compound volatility.

It is generally understood that the authenticity of an air sample could in fact be compromised through several factors. These include absorption from the sample bag itself or the tubes and fittings it is attached to. Sample loss can even be triggered by chemical interactions causing loss of the sample. Thus, the study evolved to deduce the optimal storage strategy for air samples containing livestock emissions.

Analysis of sample humidity, partitioning, and thermal desorption suggest one major point. The improved storage ability of PTFE bags was mainly caused by improved retention of the compounds. This was due to decreased diffusion compared with the other materials. Additionally, PTFE was found to maintain the original sample humidity for significantly longer periods. Our PTFE sampling bag is superior!





# PURGING & CLEANING



# HEATED AIR PURGER

The Scentroid SP20 Heated Air Purger is a revolutionary device designed to provide an effective and reliable cleaning solution for olfactometers, sample bags, PTFE lines, and other equipment that may be contaminated with odours. The SP20 provides hot air at up to 200 degrees Celsius (400 degrees Fahrenheit) to effectively clean stainless steel lines or any of our olfactometers. It can

be connected directly to the sample line or to the compressed airline. The hot air from the unit can also be used to regenerate carbon filters and silica gels in the odour/humidity filter built into the SM100, SC300, or the SS600. The SP20 provides a unique function of cycling between injecting hot air and vacuuming to speed up purging of tedlar and other reusable

bags. This process, known as cyclic purging, significantly reduces the required purging time as the vacuum of the sample bags forcibly pulls odour causing molecules from the surface of the bag. Typical sample bag purging time of 1 hour using conventional hot air can be reduced to approximately 7 minutes using cyclic purging.



## RAPID DECONTAMINATION

The SP20 heated air purger uses both hot air and high vacuum pressure to quickly and effectively decontaminate all sampling equipment



## ADJUSTABLE PURGE TEMPERATURE

The SP20 provides heated air at exactly the temperature required. For instance, PTFE sample bags must be purged at 150 °C and stainless steel bags at 200°C



## FULLY AUTOMATED OPERATION

SP20 provides complete, automated operation by supplying heated air and then switching to vacuum mode on a predefined cycle frequency



### RAPID DISINFECTION

The SP50 uses oxidising molecules such as ozone and hydroxyl to quickly and effectively decontaminate and disinfect all sampling equipment including PTFE tubes, sample bags, and probes



### ADJUSTABLE PURGE FOR OZONE INTENSITY

The SP50 injects ozone at the exact concentration which you require. The concentration can be adjusted based on need.



### FULLY AUTOMATED OPERATION

SP50 provides complete automated operation by injecting ozone and switching to vacuum mode on a predefined cycle frequency

# OXIDIZATION PURGER

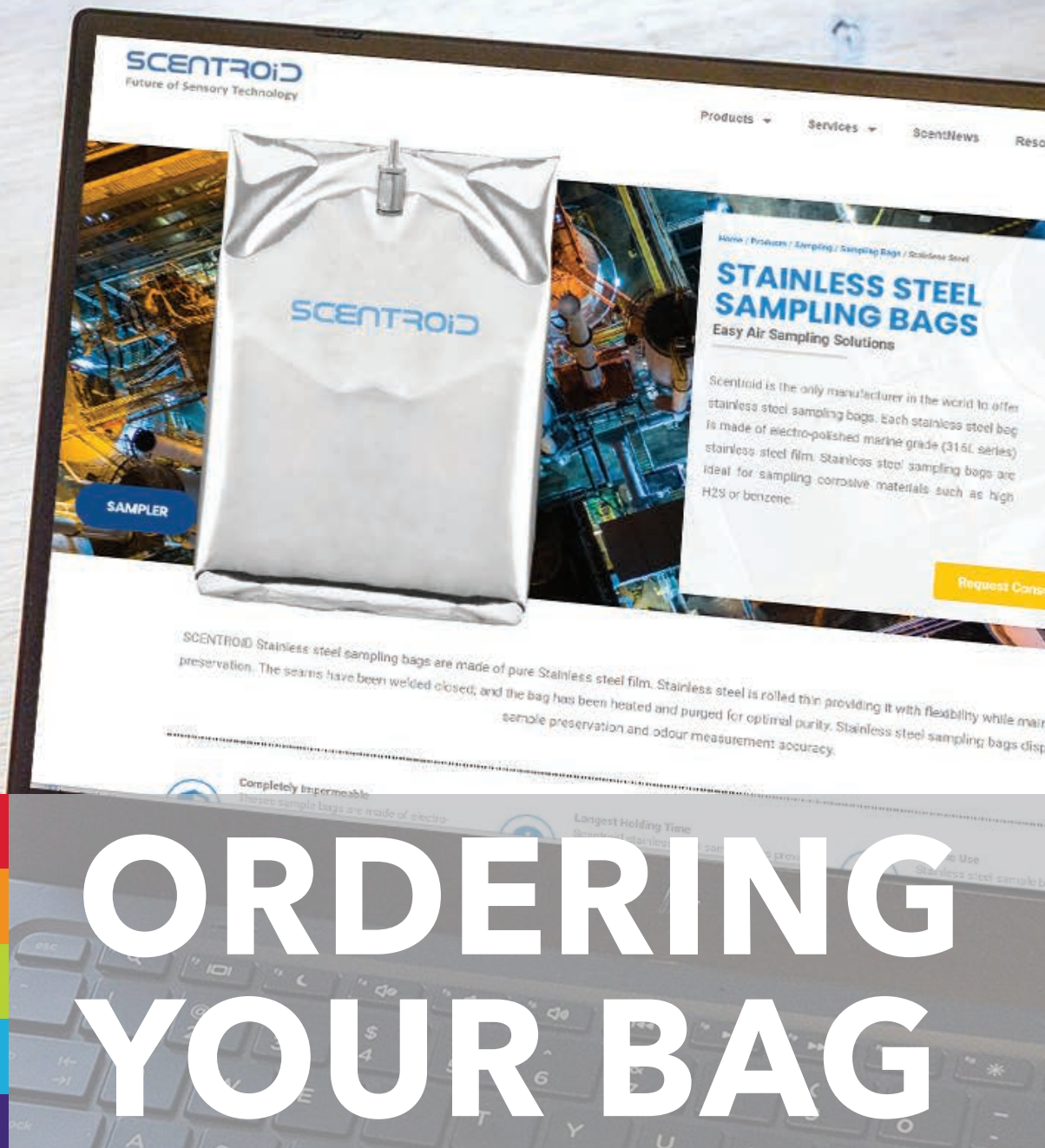
The Scentroid SP50 Oxidisation Purger is a revolutionary device designed to provide effective and reliable cleaning solutions for olfactometers, sample bags, PTFE lines, and other equipment that may be contaminated by odours. The SP50 provides a mixture of clean air with oxidisation gases such as ozone and hydroxyl to effectively decontaminate sampling tedlar or teflon bags, sampling

probes, or sampling lines. The mixture is injected, with the desired concentration to allow high levels of decontamination either, remaining contaminants, bacteria or fungus.

The SP50 has been built with safety in mind, the purger has a built in-carbon filter that scrubs and cleans the contaminated air coming from the equipment that is being

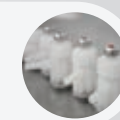
cleaned such as bags or probes before it is released into the laboratory.

Oxidisation serves as a powerful tool for decontamination. Ozone has demonstrated its decontamination capabilities vs. formaldehyde for bio clean rooms, and high neutralizing effects for several pollutants.



# PTFE & TEDLAR

2-in-1  
Polypropylene



2-in-1  
PTFE Fitting



PTFE Coated  
Nylon



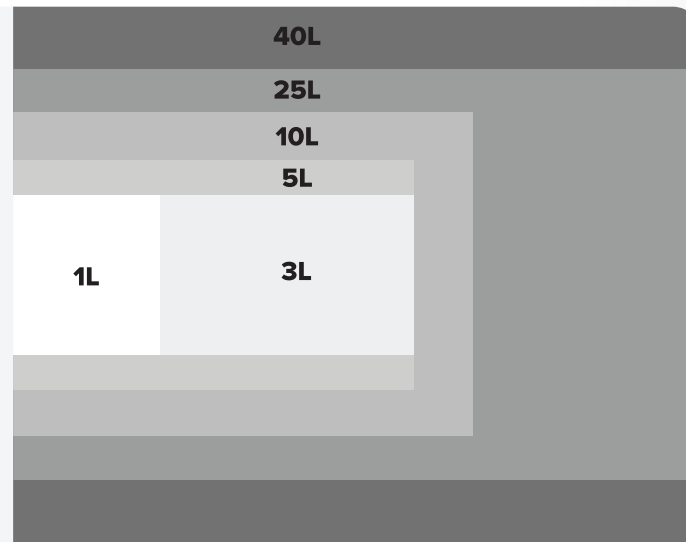
Stainless  
Steel Fitting



Select Your Fitting

1L (7" x 7")  
3L (7" x 14")  
5L (7" x 14")  
10L (7" x 16")  
25L (18" x 24")  
40L (18" x 28")

Customizable  
bag sizing  
options  
available



Select Your Bag Size



PTFE



TEDLAR

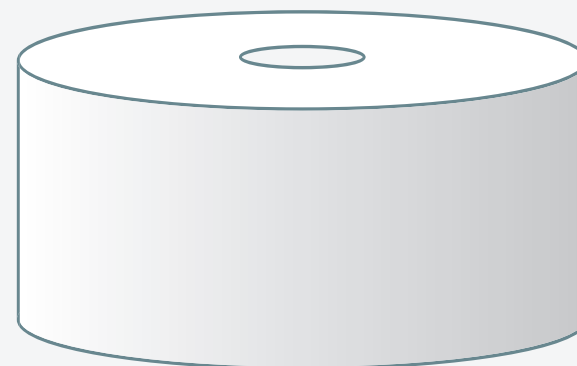
Select Your Bag Type

# NALOPHAN

Roll for 100 bags  
20 caps  
1 cable tie gun  
50 Cable ties  
(10' x 1/4") PTFE  
Tubing  
Quantity of kits



OR Select a Do it Yourself Kit



100 m 500 m x 153 mm  
300 m 1000 m

OR Select Nalophan Roll Size

5 litres  
10 litres  
25 litres  
40 litres  
60 litres  
Customizable  
bag sizing  
options  
available

Select Your Bag Size

Note: Stainless steel bag size is 12" x 24" and it comes equipped with a stainless steel fitting.





# AFTER-SALES SUPPORT

# Training

Training is the key of using any instrument, and Scentroid provides worldwide training programs for our clients and distributors. Training can be conducted by Scentroid or your local distributor. Scentroid training tools include: online training, videos, brochure, operation manual and on-site workshops. We also offer a hands-on training program using our high-tech simulation room. Scentroid's state of the art simulation room is located at our headquarters in Toronto, Canada. You are more than welcome to visit us and meet with the people behind these products

# Warranty

We are so confident of the reliability of our products, that we are glad to offer our clients a comprehensive 24 month warranty for every AQSafe. Additionally, warranties can be extended for the 3rd, 4th and 5th year. For more information about our extended warranties, speak to us today.

# Technical Support

We are responsible for any products that exit from our manufacturing warehouse! Our support team offers different ways to help you. Choose the one most convenient for you below!



## Local Support

We have developed a vast growing network of distributors and repair facilities. To find your local support please check our distributors map.



## Phone Support

Our highly professional customer services are here to serve you, for any technical issue reach them easily via phone: 416.479.0078 – Ext 210



## SME Support

Connecting you to the Subject Matter Experts! Our customer support is unique in that you can talk directly to the designer or programmer of each product.



## Live Chat

If you feel it more convenient to solve your technical issue via chat, No problem! Reach our highly professional customer services through our website-hosted Live Chat.



## Email Support

For any technical issue you may encounter, our engineers are happy to assist via email. For fast and efficient support, simply email our team at [support@scentroid.com](mailto:support@scentroid.com)

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BUILD OUR  
NETWORK

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