

Complete - Clean Compressed Air



“Top Quality for Clean Air”

The Very Best Equipment for Filtration,
Supplied Air Respirators and Carbon
Monoxide Monitoring



A Complete
System For Worker
Health Protection



DAN-AM Co.®

Exclusive Independent Distributor of
SATA Products in the US and Puerto Rico

Air compressor, refrigerant dryer & storage tank

The safety professional or business manager faced with providing clean compressed air for the needs of today's body shop may find information complex and inconsistent. The most important and confusing area is defining the capacity and duty cycle to prevent compressor damage. Consulting with the compressor supplier is usually the best solution to establish air volume requirements. Usually a low-pressure (150 psi) compressor is utilized in the majority of body shops and many other industrial manufacturing firms.

Air compressors are normally of the reciprocating or axial screw type. Either type can provide safe, clean breathable air quality when properly located, filtered and monitored. Choosing the location of the compressor that supplies the breathing air system is crucial. If intake air is clean and free of toxic gases the remainder of the system should not cause any special problem. However, if the compressor air intake is located inside a manufacturing plant, on the roof in proximity to vents and exhausts, or through a wall into an environment of auto exhaust, or within any toxic environment, there is virtually no chance that the system will function satisfactorily. Badly worn compressors often introduce excessive oil into the air delivery system and produce greater demands on the filtering or conditioning units. Overall maintenance of the compressor and regular draining of receivers is essential in

avoiding oil accumulation.

As the compressor produces hot air, the refrigerant dryer cools the compressed air and condenses much of the moisture for easy removal. This prepares the air for further treatment.

A storage tank is necessary to maintain a constant supply of compressed air as needed. The tank should be sized to meet the demands of the shop.

In regards to an air compressor as the source of breathing air, an excerpt from The Federal Code of Regulations. Title 29 CFR part 1910.134 (i) (1) (ii) air quality specification states; "Compressed breathing air shall meet at least the requirements for Grade D breathing air described in ANSI/Compressed Gas Association commodity specification G-7.1-1989, to include:

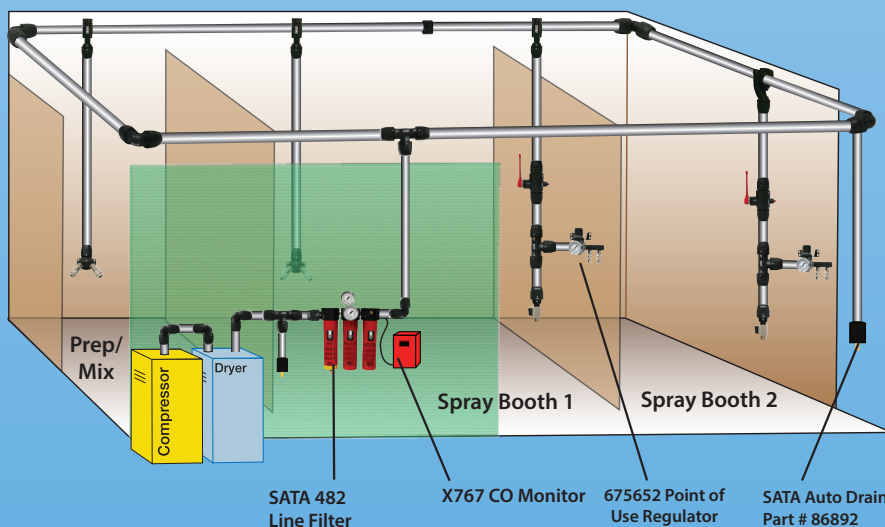
- (A) Oxygen content (v/v) of 19.5 - 23.5%;
- (B) Hydrocarbon (condensed) content of 5 milligrams per cubic meter of air or less;
- (C) Carbon Monoxide (CO) content of 10 ppm or less;
- (D) Carbon Dioxide content of 1000 ppm or less; and
- (E) Lack of noticeable odor. In addition, Title 29 CFR Labor part 1910.134 (i) (6), For compressors that are not oil lubricated, the employer shall ensure that carbon monoxide levels in the breathing air do not exceed 10 ppm. (7); "For oil lubricated compressors, the employer shall use a high-temperature or carbon

monoxide alarm, or both. If only a high-temperature alarm is used, the air from the compressor shall be frequently tested to monitor carbon monoxide levels..." (Full documentation is available at www.osha.gov)

Often pipes may be a long distance from the compressor to the delivery point. Pipes of adequate diameter and proper material to avoid pressure loss and contamination of the air stream are required. The most common material in use is black iron pipe. With proper design, filtering and monitoring, it is fully acceptable. Thermo-plastic pipes should never be used because the material might out-gas in the event of high ambient temperatures. "Out-gassing" is a term meaning the release of toxic gases as air flows over the material used in the manufacturing process. The size of pipe and over-all system design for a major installation would exceed the scope of this review. However, Pipes must be carefully sized, looped and arranged to minimize pressure drop and should be sloped to drain towards a drop leg or moisture trap. See figure below for a general overview and correct method of installation. The objective is to plan a delivery system that will avoid pressure loss due to unnecessary flow restriction with a reasonable size of plumbing and deal with the accumulation of oil, scale and water.

BODY SHOP AIR PIPING LAYOUT

Shop layout with point of use in-line regulators



Auto drain discharge must be located outside paint area

General Rules For Compressed Air Distribution:

1. Pressure drop between the compressor and point of use is irrecoverable.
2. Pipe size should be large enough that pressure drop doesn't exceed 10% between receiver and point of use.
3. Arrange piping to avoid strains.
4. Locate air compressor to draw clean uncontaminated air from the atmosphere.
5. Drain air compressor and drain legs in the a.m.
6. Plan ahead for future emergencies and establish an area of loop to install temporary compressor.
7. Consider by-pass lines on all items that may require future maintenance.
8. Use loop piping system if possible, both around the plant and within each shop. Loop piping has 1/2 the pressure drop than that of a straight run for the same overall length of pipe
9. Consider second air receiver at end of line or loop if you have peak demands for air of short durations.
10. Locate outlets from the main header as close as possible to the point of application. This limits pressure drops.
11. Outlets must always be taken from the top of the pipe line to prevent carryover of condensed moisture to tools.
12. All piping should slope so that it drains towards a drop leg or moisture trap - away from compressor.
13. A minimum of 25 ft. to first outlet is recommended to cool air.
14. The main air line stand pipe should not be smaller than the compressor outlet size.

Compressed Air Piping, Plumbing & Filtration

Stage 1



SATA 222 Filter
Part # 43687



SATA 414 L Filter
Part # 92254



SATA 424 Filter
Part # 92221

Stage 3



SATA 282 Filter
Part # 189290



SATA 284 Filter
Part # 141218



SATA 482 Filter
Order # 92320L



SATA 484 Filter
Part # 92320

Stage 2



SATA 242 Filter
Part # 43752



SATA 244 Filter
Part # 44404

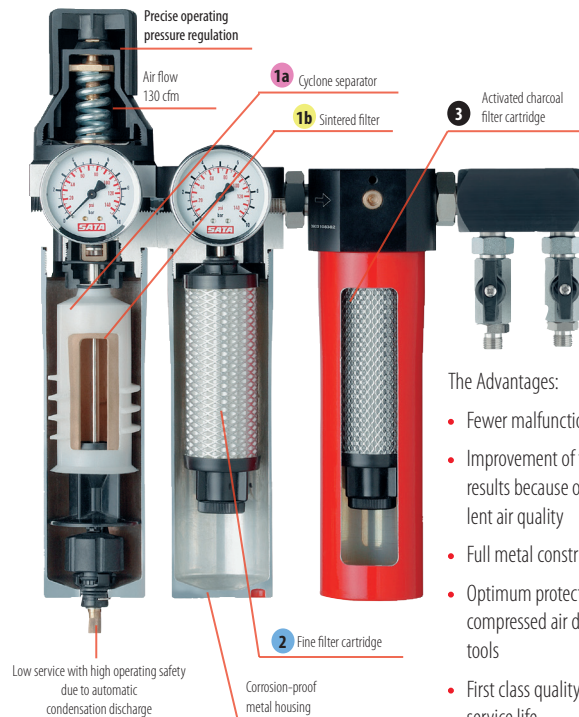


SATA 444 Filter
Part # 92296

SATA FILTER UNIT

SATA 3 stage modular coalescing filter units remove condensation, oil residue and dust particles to a microscopic 0.01 micron ensuring Grade D air quality. Water and oil in the first stage are separated by cyclone rotation and removed with an automatic condensation discharger. A reusable sintered bronze filter removes particle contamination to 5 micron. The second stage fine filter has particle separation to 0.01 micron. The third stage activated charcoal filter removes oil vapor, taste and odors. A convenient air connection module has two drops for attachment of hoses.

The SATA 400 series filter unit includes a built in pressure regulator and delivers 130 cfm at 90 psi. The SATA 200 series delivers 70 cfm at 90 psi with a remote regulator after the filtration unit. The SATA first and second stage filter systems resist temperatures to 248° F. and the third stage charcoal filter units to 140°. They are constructed of a heavy duty corrosion resistant all metal housing. Service is easy with the special wrench provided. There is no desiccant maintenance and dual gauges monitor pressure differential. A pressure difference of 15 psi or more on the dual gauges indicate the first and second stage filters need servicing. Maintenance on the charcoal filter is done on a time interval.



The Advantages:

- Fewer malfunctions
- Improvement of finish results because of excellent air quality
- Full metal construction
- Optimum protection for compressed air driven tools
- First class quality & long service life

Versatility

The graphic left illustrates the function of the various modules:

Stage 1:

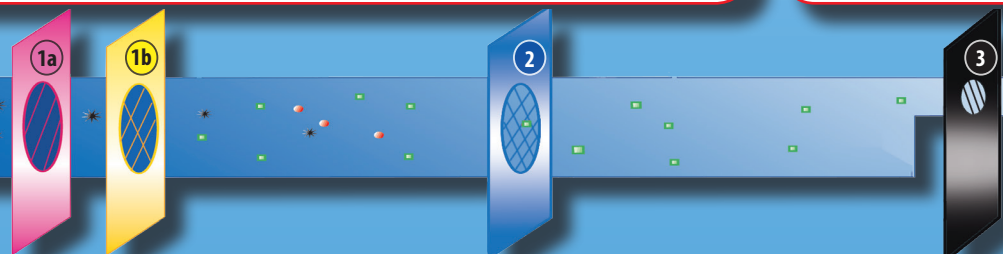
- 1a** Cyclone separator removes oil droplets and condensate
- 1b** Sintered filter separates particles greater than 5 microns

Stage 2:

- 2** Fine filter cartridge separates particles greater than 0.01 micron

Stage 3:

- 3** Activated charcoal filter cartridge purifies breathing air for supplied air respirator systems and for the high quality application of materials



SATA NIOSH Approved Supplied Air Respirators

SATA breathing masks and hoods represent very efficient and healthy protection for painters.



SATA Vision 2000, hood only
Order # 51854



SATA Air Star C
Order # 137653

SATA Charcoal filter belt unit



Vision 2000 Order # 37200
Air Star C Order # 37192

SATA Industrial Belt Valve



Vision 2000 Order # 61002
Air Star C Order # 138362



Industrial Belt Valve
Air Pressure Test Gauge
Order # 61002T

SATA SUPPLIED AIR RESPIRATOR

The **SATA Vision 2000** hood is a type C, continuous flow supplied air respirator with a full face shield. The NIOSH approval number is TC-19C-211.

The **SATA[®] Vision[™] 2000** offers complete head and breathing air protection from solvent vapor and isocyanates. The single pane anti-static visor is non-glare and provides a wide field of vision. It's very comfortable to wear with adjustable headband, tip-up visor and easily replaced hygienic linings. Air volume 6.2-11.3 cfm @ 60-90 psi.

The **SATA[®] air star C[™]** is a ventilated half-mask with adjustable continuous fresh-air supply. The body mask is made of natural rubber and neoprene, with anatomic formed sealing frame and matching nose seating. Built in exhausting valve. The SATA Air Star C half mask provides excellent vision with no internal heat buildup or moisture. The SATA air star C half mask offers a perfect face fit with four-point fixed head straps for seating the mask safely. Painters should bear in mind that half masks do not provide complete protection from dangerous Isocyanates that can be absorbed through the eyes and facial skin. The NIOSH approval number is TC-19C-210. Air volume; 5.6-13.4 cfm @ 60-90 psi.

Activated Charcoal Belt Unit

The activated charcoal belt unit includes an auxiliary filter for final air cleansing. Breathing air is filtered through activated charcoal to remove

oil vapor and compressor tank odors. Airflow is regulated with a throttle valve and a pressure gauge indicates the correct airflow setting.

Industrial Belt Valve

The NIOSH approved system using the industrial belt valve requires using an approved premoflex hose to the belt valve. A separate air hose must be used to connect the paint gun. The industrial belt system requires breathing air to be filtered through a wall mounted activated charcoal filter unit that removes oil vapors and purifies the air. The belt valve has easy access to control air adjustments.

BREATHING AIR HOSE

Not only is Premoflex ideal for breathing air, it is an ideal hose to use with spray guns and other air tools. Premoflex is a high quality non-gassing hose recommended for breathing air. Non-gassing hoses will not introduce harmful vapors or gasses into the air stream. The high quality rubber composition of Premoflex will not break down and introduce particle contamination into compressed air. Moisture cannot wick through the rubber sidewalls of the hose.

The inside diameter of hoses, couplings and nipples can account for a significant loss of pressure. As hose length increases and hose diameter decreases, pressure drop increases. That is crucial when spraying with HVLP guns. Pressure drop is minimal when 3/8" ID Premoflex hose is used. Lengths are available from 25 to 100 feet.

SATA vision 2000 Full Hood or Air Star C w/Activated Charcoal Belt Unit or Industrial Belt Valve

Vision 2000
w/charcoal filter belt unit
Order # 36384



Air Star C
w/charcoal filter belt unit
Order # 137547



Vision 2000
w/industrial belt valve
Order # 60707



Air Star C
w/industrial belt valve
Order # 137745

Monitoring Air for Carbon Monoxide (CO)

Carbon Monoxide is an odorless, colorless, highly poisonous gas caused by partial combustion. Combustion does not take place in a compressor. Yet an overheated compressor could convert lubricating oil to Carbon Monoxide or contaminated air could be drawn into the compressor intake from an outside environment.

X767 GUARDIAN

The X767 is an AC or DC powered Carbon Monoxide Monitor with LCD readout for larger shops or shops that require remote alarms. These monitors provide continuous digital indication of CO levels from 0 to 199 ppm and operate with the reliable Electrochemical sensor. The units give an audible (85db @ 3ft) and visual alarm at 10 ppm. Air sample tubing connects the monitor to the filter unit. The X767 monitor housing is fitted with RF filters to minimize interference from portable radios and cell phones. The battery powered X767 DC version has been certified by the Canadian Standards Association (CSA) for intrinsic safety in Class 1 Division 1 Groups A-D hazardous environments. CSA certification is applicable in the Canada and the US. Optional remote alarms and horns are available.

X144 ICOM

The affordable battery powered X144 ICOM (Individual CO Monitor) is a high performance, simple and effective tool to determine CO levels. An audible beep (76db @ 3ft) is factory set to alarm at 10ppm. The X144 is

a stand-alone unit and because of its tiny size, it is easily mounted with a Velcro strip on the inside of the SATA vision 2000 full hood supplied air respirator. The X144 is only 2.4 x 1.4 x 0.6 inches and weighs less than an ounce. Intrinsic safety is built into the unit. Monitor accuracy is +/-10% of reading at standard conditions of 32° - 122° F. Periodic maintenance and performance checks are recommended at 12 month intervals. The expected operating life is one year and that can be extended by replacement of the battery and *sensor.

CO Monitor Accessories

Over time the CO sensor becomes less sensitive with age making it necessary to re-calibrate the monitor. Calibration kits contain test gas, tubing with flow meter and regulator. Accessory alarm buzzers are available for shops that require sending an audible alarm to a remote location. Some installations may wish to mount the air horn alarm directly in the paint booth.

**Must be sent in for sensor replacement*

X144 "ICOM" CO Monitor



Order # X144



- Mounts inside the respirator hood
- Battery powered stand alone unit
- Weighs less than 1 oz.
- Normal operating life is one year and can be extended by replacement of the battery and sensor

76db @ 3'



X144 "ICOM" CO Monitor
Order # X144



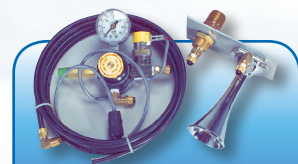
X767 "Guardian"
CO Monitor
Order # X767-PLUS



Calibration Kit
Order # X81-1231K



Std Remote Alarm
Order # XA176



Air Horn w/Regulator
Order # XA176B

SATA Worker Health Protection & Accessories



SATA Air Check Set
Order # 7096



SATA Top Air Humidifier
Order # 89086



Premium non-gassing hose

Top quality non-gassing hose for breathing air and air tools from 10'-100'

- 10'** Order # 3366-10
- 15'** Order # 3366-15
- 20'** Order # 3366-20
- 25'** Order # 3366-25
- 35'** Order # 3366-35
- 50'** Order # 6633-50
- 60'** Order # 6633-60
- 75'** Order # 6633-75
- 100'** Order # 6633-100



SATA Air Tester
Order # 156299



SATA Airwarmer
Order # 61242

Painting can cause excessive solvent vapor. Most solvents cause toxic effects if they are absorbed into the bloodstream. Isocyanate hardeners and waterborne material are especially hazardous. SATA/Dan-Am offer high quality worker health and protective accessories ranging from NIOSH approved supplied air respirators, paint suits to humidifiers and air warmers, that help stop the toxic effects caused by painting.

SATA Top Air Breathing Humidifier

Avoid throat irritation and dry mucous membranes with the SATA Top Air Humidifier. Refrigerant or desiccant dryers remove moisture and create extremely dry air. The Top Air Humidifier reintroduces moisture into breathing air to 30% relative humidity.

SATA Air Tester

The SATA Air Tester is an easy to use special coated mirror to detect contaminants in your air supply.

SATA Air Check Set

Compressed air testing device. Simply connect and allow air flow for 15 minutes or longer. Test paper traps dirt, oil and in-line contamination. Complete with test paper, tweezers, magnifying glass and exam light all in a compact carrying case.

SATA Airwarmer

Used to warm compressed air to 70 degrees. This accessory is ideal in winter months in cooler climates.

Paint Suit by DAN-AM Co.

The Dan-Am Company offers three high quality paint suits. Two with SATA logo on the front and back. They are made of 100% breathable nylon that offers superior protection over clothing. These paint suits are treated to be anti-static, open at the wrist, ankle and face. It features a hood to cover the head and has an elastic waist band. This helps avoid brushing into the paint job. The arm cuffs are also adjustable.

The Dan-Am PRO-SERIES paint suit is expertly designed for fit and movement. Made with the finest quality anti-static carbon fiber thread to keep it lint free. Comes with the special Mike Elwood design SATA Twisted Fire on the back and SATA spray logo on the front. The hooded suit has a covered heavy duty zipper, interior utility pocket, adjustable sleeve and leg velcro closures, wide leg, adjustable elastic waste band for comfort, fully breathable back fabric, 2 utility back pockets, underarm zipper opening for ventilation when needed, bi-swing shoulders for easier movements. Outperforms and outlasts disposables at least 10 to 1. The paint suits are machine washable and available in sizes small to XXXXL.

Dan-Am Hoses

Dan-Am High Quality Silicone Free Premo Flex Air Hose * For use with SATA Supplied Air Respirators and Spray Guns. 3/8" Premo Flex Non-Gassing 250 PSI Working Pressure with Brass 1/4" Male NPT



Dan-Am Gray Paint Suit



Dan-Am White Paint Suit



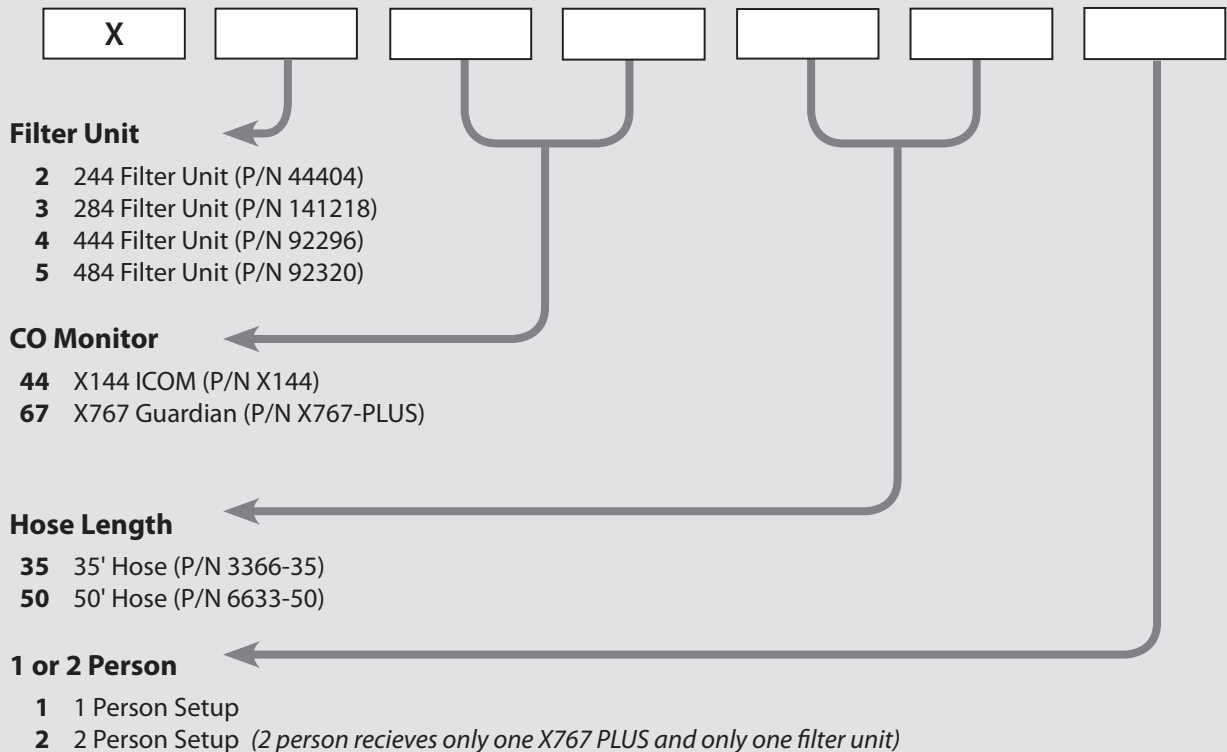
Dan-Am Pro-Series Paint Suit

S.A.M.S.

(Supplied Air Monitoring System)

Dan-Am Company has made it easy and simple to comply with OSHA and NIOSH rules for breathing air quality and monitoring for Carbon Monoxide. S.A.M.S. is an acronym for Supplied Air Monitoring System. It is a complete breathing air system consisting of five parts: a SATA air filter, the SATA vision 2000 supplied air respirator, choice of Carbon Monoxide monitor, Premoflex breathing air hose, and all necessary couplings and fittings. One or two person systems are available. The S.A.M.S. system conforms to government regulations, delivers clean grade D air, monitors Carbon Monoxide levels, has a NIOSH approved Respirator, and has compressed air that is free of particles, oil and condensation.

Build your custom *S*A*M*S System from these components



All systems include whip hose (P/N 55640), Coupler (P/N 13599) & Nipples (P/N 13656) where required, Vision 2000 Full Hood and Activated Charcoal Belt Unit (P/N 36384)

EXAMPLE for Order # X467352

This example includes:

This part number includes:

- (4) 1 - 0/444 Filter unit
- (67) 1 - X767 CO Monitor
- (35) 2 - 35' Hoses
- (2) 2 - Vision 2000 Full Hood with Charcoal belt units
- 2 - Whip hoses with Couplers and Nipples



Other system combinations are available on inquiry. Using the 3 stage charcoal filter units and longer hose lengths are other possibilities. If your ideal system is not listed above, please call 800-533-8016 for assistance.

Components and Accessories for Clean Fresh Air



**Dan-AM
in-line regulator**

Dan-AM in-line regulator
Precise control of air flow and pressure
with a 160 psi gauge, 1/2"

Order # 675635



**Dan-AM in-line regulator
w/bracket**

Precise control of air flow and pressure
with a 160 psi gauge, bracket, 1/2"

Order # 675634



**Dan-AM Point of use regulator
w/brackets & drops**

Dan-AM Point of use regulator,
w/bracket, drops
Precise control of air flow and pressure
with a 160 psi gauge, max inlet 216 psi,
Max. cfm: 140

Order # 675652 (2 drop)

Order # 675654 (4 drop)



**SATA vision 2000
gray cape only**

Hood/chest cloth, gray, anti-static

Order # 60541



**SATA vision 2000
Tear-off Visor Sheets**

SATA Vision 2000 tear-off sheets

Order # 35659 pk of 5

Order # 35675 pk of 25

Order # 35050 pk of 50

Order # 35100 pk of 100

Order # 36301 pk of 1000



Vision 2000 Hood Lining

Vision 2000 Hygienic Hood lining
Pack of 20, **Order # 69658**



Vision 2000 Sweat Band

Replacement sweatbands for the
Vision 2000

Natural Leather **Order #61226**

Artificial Leather **Order #47571**

Pack of 10 **Order #10330**



SATA Filter Replacement Kit

Charcoal cartridge, #85373 for
the 200-400 series pack of 4
Fine filter cartridge, #81810,
pack of 2

Order # 214270

Package SAVINGS



SATA Particle Filter

Stage 1, Sintered bronze filter

Order # 22160



Micro-Fine Fibre Filter

Stage 2, Micro-Fine filter

Order # 81810



SATA Activated Charcoal Filter

Stage 3, Activated charcoal filter

Order # 85373



Activated Charcoal Filter

Replacement cartridge for the
charcoal filter belt unit.

Order # 13904



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SATA product in the US and Puerto Rico

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Your SATA Dealer:

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