

CE 0194

EN14594: 2005

INSTRUCTION
MANUAL



rpb® **NOVA 1**™
ADVANCED ABRASIVE BLASTING HELMET



CONTENTS

Read all instructions and warnings before using this product.
Keep this manual for future reference.

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Form #: 7.20.535
Rev: 0

INTRODUCTION

The RPB® NOVA 1™ COMPRESSED AIRLINE BREATHING APPARATUS EN14594 is specifically designed for use during Abrasive Blasting. The RPB® Nova 1™ has been designed for use in atmospheres NOT IMMEDIATELY DANGEROUS TO LIFE OR HEALTH, and from which a user can escape without the aid of the breathing apparatus, or that do not exceed the concentrations allowed by Government regulations and recommendations.

The RPB® NOVA 1™ is tested and approved to EN14594:2005 and AS/NZS 1716:2003 to provide respiratory protection in abrasive blasting applications. The cape is designed to protect the wearer's upper body from rebounding abrasive.

The RPB® NOVA 1™ provides an assigned protection Factor of greater than APF1000. Due to the high noise levels experienced during abrasive blasting, hearing protection must always be worn.

WARRANTY

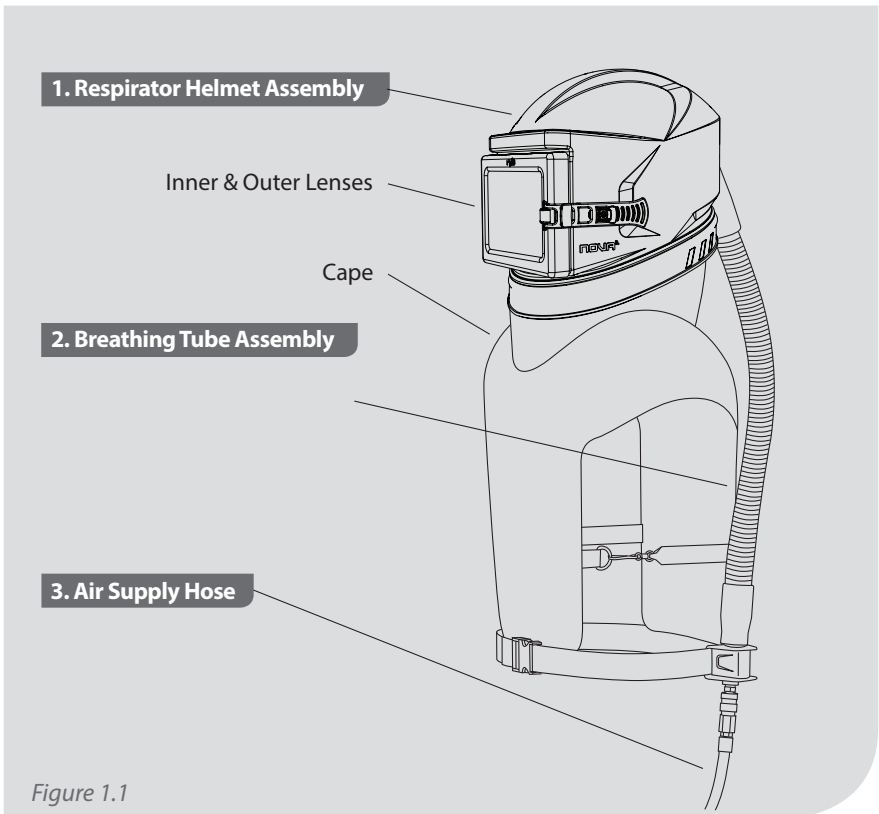
All RPB® products are covered by a manufactures warranty of 3 months. The manufacturer warranty covers defects in material, workmanship and does not cover damage caused by misuse or abuse. RPB®'s only obligation and your exclusive remedy shall be to repair, replace or refund the purchase price of such parts or products upon the presentation of proof of purchase. Maximum liability is in no case to exceed the value of the RPB® Product involved.

TESTED AND CERTIFIED BY

INSPEC International
56 Leslie Hough Way
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COMPRESSED AIRLINE BREATHING APPARATUS COMPONENT CONCEPT

The RPB[®] NOVA 1[™] consists of 3 main components: Helmet assembly, breathing tube and air supply hose illustrated in Fig1.1. All 3 components must be present and properly assembled to constitute a complete EN14594 and AS/NZS 1716 approved Compressed Airline Breathing Apparatus.



!WARNING! Failure to use genuine parts and components that are part of the EN14594, AS/NZS 1716 approved respirator assembly will void the approval of the entire respirator assembly.

!WARNINGS!

1. Do not use this apparatus until you have been trained in the apparatus use, maintenance and limitations by a qualified individual (appointed by your employer) who has extensive knowledge of the RPB® NOVA 1™ Series .
2. Before using this apparatus ensure your employer has determined that airborne contaminant concentrations do not exceed those allowed by applicable Government Regulations and recommendations for a Compressed Air line Breathing Apparatus. It is required that the employer measures and monitors airborne contaminant levels in the work area.
3. DO NOT WEAR this apparatus if any of the following conditions exist:
 - Atmosphere is immediately dangerous to life or health.
 - You CAN NOT escape without the aid of the respirator.
 - Atmosphere contains less than 19.5% Oxygen.
 - Work area is poorly ventilated.
 - Contaminants are in excess of regulations or recommendations.
4. Do not modify or alter this apparatus. Use only parts and components that are part of the EN14594 and AS/NZS 1716 approved apparatus assembly. The use of non RPB® parts voids the EN14594 and AS/NZS 1716 approvals of the entire apparatus assembly.
5. Inspect all components daily for signs of damage or wear that may reduce the level of protection originally provided.
6. Do not use abrasives containing silica, lead, arsenic or sharp glass particles – use of abrasives containing these elements could result in serious injury or death.
7. Do not wear this apparatus until you have passed a complete physical exam maybe including a lung X-ray conducted by qualified medical personnel.
8. Improper use of this apparatus may cause injury or death. Improper use may also cause life threatening delayed lung disease such as silicosis, pneumoconiosis or asbestosis.
9. This apparatus, when properly fitted and used, significantly reduces but does not completely eliminate the breathing of contaminants by the apparatus wearer.
10. Be certain your employer has determined that the breathing air source provides at least EN12021, AS/ NZS 1715 breathable air. The apparatus must be supplied with clean breathable air at all times.
11. Do not connect the apparatus's air supply hose to nitrogen, toxic gases, inert gases or other non-breathable non EN12021, AS/NZS 1715 breathable air source. Check the air source before using the apparatus. This apparatus is not designed for use with mobile air supply systems i.e. cylinders. Failure to connect the supply hose to the proper air source could result in serious injury or death.
12. DO NOT use this apparatus in poorly ventilated areas or confined spaces unless the area is well ventilated and

that the contaminant concentrations are below those recommended for this apparatus. Follow all procedures for confined space entry, operation and exit as defined in applicable regulations and standards including.

- 13. LEAVE WORK AREA IMMEDIATELY IF:**
- Any apparatus component becomes damaged.
 - Airflow stops or slows down.
 - Breathing becomes difficult.
 - You become dizzy, nauseous, too hot, too cold, or ill.
 - Vision is impaired.
- 14. DO NOT** wear this apparatus if the ambient usage temperature is below -10°C or above $+60^{\circ}\text{C}$. Moisture content of breathable air should be controlled when the apparatus is to be used in temperatures below $+4^{\circ}\text{C}$ to avoid freezing the apparatus.
- 15.** This apparatus does not provide hearing protection. Approved ear plugs must be properly fitted when exposed to noise levels that exceed Government permissible exposure levels.
- 16.** This apparatus provides eye and face protection to EN166.

AIR FILTRATION & CARBON MONOXIDE MONITORING

It is a Government requirement that the RPB® NOVA 1™ compressed airline breathing apparatus be supplied with EN12021, AS/NZS 1715 air. To achieve this, RPB® recommends using the Radex™ Airline Filter (04-900) and a GX4 Gas Monitor (08-400). Further information is available by contacting RPB® at 1-866-494-1599 or from your nearest authorized RPB® distributor

CAUTIONS & LIMITATIONS

- A** - Not for use in atmospheres containing less than 19.5% oxygen.
- B** - Not for use in atmospheres immediately dangerous to life or health.
- C** - Do not exceed maximum use concentrations established by regulatory standards.
- D** - Air-line apparatus can be used only when the apparatus are supplied with respirable air meeting the requirements of EN12021, AS/NZS 1715 or higher quality.
- E** - Use only the pressure ranges and hose lengths specified in the User's Instructions.
- J** - Failure to use and maintain this product properly could result in injury or death.
- M** - All approved apparatus shall be selected, fitted, used and maintained in accordance with local Government and other applicable regulations.
- N** - Never substitute, modify, and, or omit parts. Use only exact replacement parts in the configuration specified by the manufacturer.
- O** - Refer to user instruction and/or maintenance manuals for information about use and maintenance of these apparatus.
- S** - Special or critical User's Instructions and/or specific use limitations apply. Refer to User's Instructions before donning.

APPARATUS OPERATIONS

AIR QUALITY

This respirator must be supplied with clean breathable air, EN12021, AS/NZS 1715 or better, at all times. The RPB® NOVA 1™ does not purify air or filter contaminants. Breathable air must be supplied to the point of attachment of the EN14594 approved RPB® air supply hose.

Supplied breathing air must at least meet the requirements for EN12021, AS/NZS 1715 and local Government Regulations.

AIR SOURCE

Locate the air source in a clean air environment, always use a filter on the inlet of your air source. Do not park vehicles beside your air inlet as this will cause carbon monoxide to be drawn into your air supply.

Use suitable aftercoolers / dryers with filters and carbon monoxide alarms to ensure clean breathable air is supplied at all times.

The air should be regularly sampled to ensure that it meets EN12021, AS/NZS 1715 requirements.

BREATHING AIR PRESSURE

The air pressure must be continually monitored at the point of attachment while the air is flowing to the respirator. Air pressure must be read from a reliable pressure gauge whilst the respirator has air flowing through it.

!WARNING!

Failure to supply the apparatus with the minimum required pressure at the point of attachment for the length of airline hoses used could result in contaminants being inhaled as the pressure in the helmet may become negative due to peak inhalation flow when working at very high work rates. The RPB® NOVA 1™ BREATHING AIR PRESSURE TABLE on Page 9 defines the air pressure ranges needed to provide the respirator with a volume of air which falls in the required range of 5.7 - 15cfm or 160 - 425lpm.

BREATHING AIR SUPPLY HOSE AND FITTINGS

EN14594, AS/NZS 1716 approved RPB® NOVA 1™ airline hoses must be used between the point of attachment and the apparatus breathing air connection at the wearer's belt. EN14594, AS/NZS 1716 approved RPB® quick disconnect fittings must be used to connect the hose lengths together. The hose sections must be within the approved length and the amount of sections must be within the number specified in the Breathing Air Pressure Table.

APPARATUS OPERATIONS (CONTINUED)

!WARNING!

Make sure you understand the Breathing Air Pressure Table before using this respirator.

1. Determine your air source (column 1)
2. Find your breathing tube assembly (column 2)
3. Be sure your air supply hose is EN14594, AS/NZS 1715 approved RPB® breathing air hose.
4. Check your RPB® air supply hose is within the EN14594, AS/NZS 1715 approved length in column 4.
5. Set the air pressure at the point of attachment within the range specified in column 6 for your breathing tube assembly, hose length and amount of hose sections. Make sure air is flowing through your respirator when setting the pressure.

SPECIAL OR CRITICAL USERS INSTRUCTIONS

BREATHING AIR PRESSURE TABLE

This table lists Air pressure ranges needed to provide the RPB® NOVA 1™ with the volume of air that falls within the required range of 5.7 -15cfm or 160 - 425lpm according to GOVERNMENT REGULATIONS.

1. AIR SOURCE	2. BREATHING TUBE ASSEMBLY AND FLOW CONTROL DEVICES	3. AIR SUPPLY HOSE	4. SUPPLY HOSE LENGTH (METRES)	5. MAX NUMBER OF SECTIONS	6. PRESSURE RANGE (BAR AIR)
Portable or Stationary Compressor	NV2021B/ 03-101 Constant Flow Valve Assembly	04-322-25 (7.5m) 04-322-50 (15m) 04-322-100 30m)	7.5	1	0.54 - 0.65
			15	1	0.67 - 0.77
			30	1	0.80 - 0.97
			45	2	1.03 - 1.17
			60	2	1.15 - 1.35
			75	3	1.38 - 1.55
			90	3	1.49 - 1.66

Set the air pressure at the point of attachment to the pressure setting specified in column 6 for your breathing tube assembly, hose length and amount of hose sections. Make sure the air is flowing through your apparatus when setting the pressure.

!WARNING! ALWAYS WEAR EAR PLUGS WHEN WEARING THIS APPARATUS.

RECOMMENDATION: Check that the air supply system can sufficiently supply every apparatus connected to the system according to the user instructions.

!WARNING! The Apparatus must be supplied with respirable air meeting the requirements of EN12021, AS/NZS 1715 or Higher Quality.

SETUP

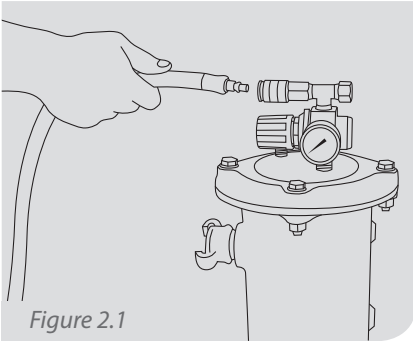


Figure 2.1

Connect the EN14594, AS/NZS 1716 approved RPB[®] Air Supply Hose to a breathing air source supplying EN12021 or better quality air. Connect the respirator quick disconnect fitting onto the Air Supply Hose.

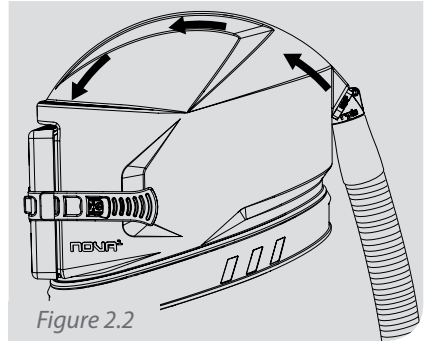


Figure 2.2

With air flowing through the respirator adjust the air pressure at the point of attachment to the recommended pressure as specified in the Breathing Air Pressure Table (page 9).

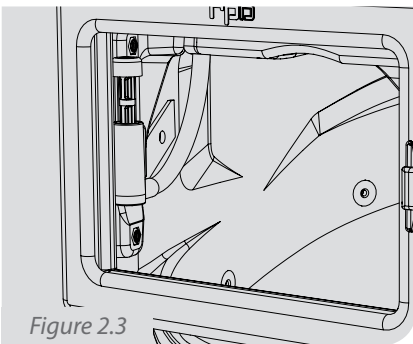


Figure 2.3

Airflow in the apparatus must be above 160lpm and the yellow indicator is not visible when the flow drops below this rate. DO NOT use the apparatus when the indicator is not showing.

NOTE:

Check the hose connections for any air leaks and tighten if necessary – replace any worn parts.

LENSES

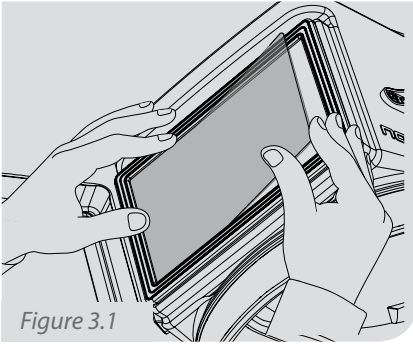


Figure 3.1

Make sure you have an EN14594, AS/NZS 1716 approved inner lens that is securely fitted into the window frame gasket. Place one end into the gasket first, then slowly roll the gasket over the sides of the lens, working towards the other end.

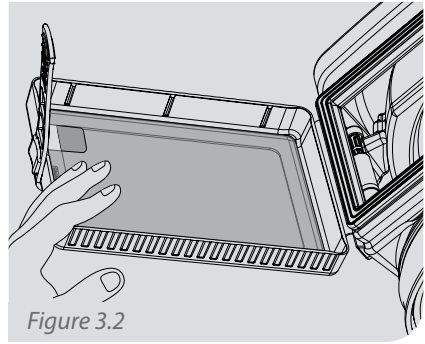


Figure 3.2

Optional tear-off lenses can be used with the outer lens. It is recommended to use 2-3 tear-off lenses and an outer lens for extra protection.

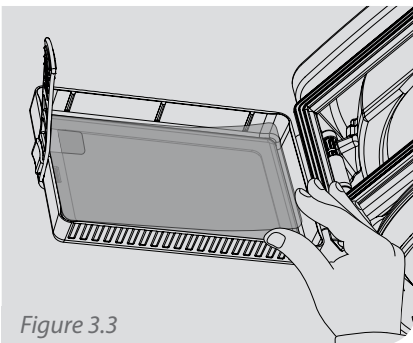


Figure 3.3

Fit an outer lens into the visor, fold the visor onto the helmet and secure it with latch, making sure there are no gaps between the visor and the window frame gasket.

!WARNING! DO NOT use this respirator without an inner lens in place.

LENSES (CONTINUED)

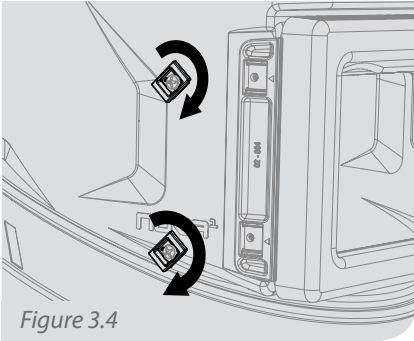


Figure 3.4

If you choose to use a 3mm outer lens instead of the standard 0.4mm outer lens (02-811) and tear offs (02-816), unscrew the visor from the helmet. Remove the two spacers and rotate them so that the "3" is upright to indicate 3mm lens.

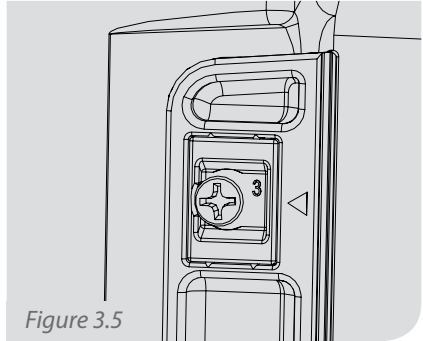


Figure 3.5

Secure the visor in place with the "3" next to the arrow on the visor by reinserting the screws. Make sure the screws go into the nuts of the support bracket on the inside of the helmet.

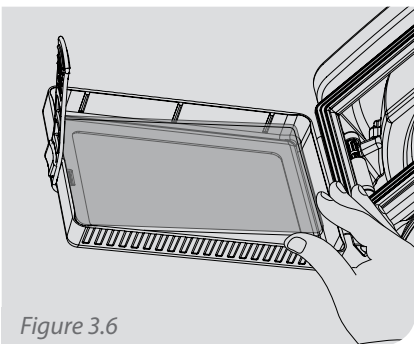


Figure 3.6

Place the 3mm outer lens into the visor. Make sure the inner lens is also in place.

DONNING YOUR APPARATUS

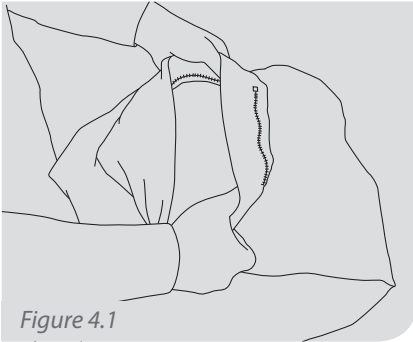


Figure 4.1

With air flowing into your Respirator fold back the cape, open the inner bib and place your fingers on the inner bib and the side of the helmet at approximately ear position, lift the helmet and place onto your head.

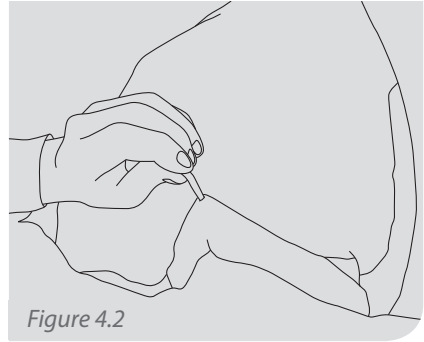


Figure 4.2

Pull the inner bib around your neck and adjust the elastic cord to ensure a snug fit around your neck – this helps provide a barrier to airborne contaminants.

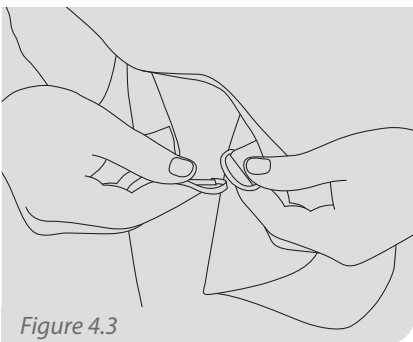
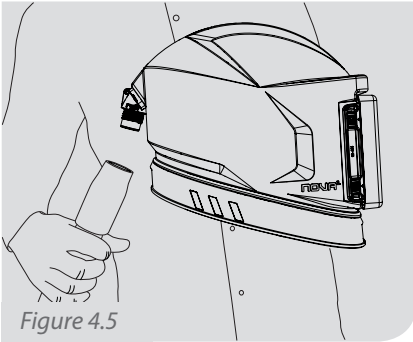


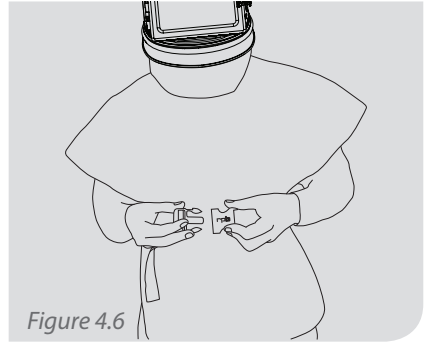
Figure 4.3

Regular Capes: Pull the respirator cape around your body and fasten the snap hooks on each side of the cape.

APPARATUS USE (CONTINUED)



When attaching the breathing tube to the helmet, attach the fixed end of the breathing tube hose to the helmet fitting and the loose running nut to the flow control valve.

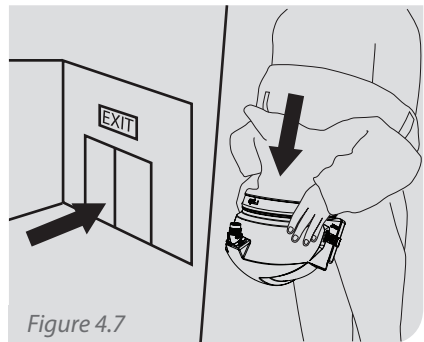


Fasten the belt at waist or hip level and adjust for comfort. Rotate the belt holder until it is in the hip pocket area.

NOTE:

Re-check the air pressure and adjust if necessary. With air flowing into your respirator you are now ready to enter the work area.

DOFFING YOUR HELMET



When you have finished working leave the work area wearing the respirator with air still flowing into the helmet. Once outside the contaminated area remove the respirator and disconnect the air supply hose.

!WARNING! NEVER remove your helmet whilst in a contaminated area or where blasting is still being performed, as this may result in serious injury or death.

INSPECTION, CLEANING & STORAGE

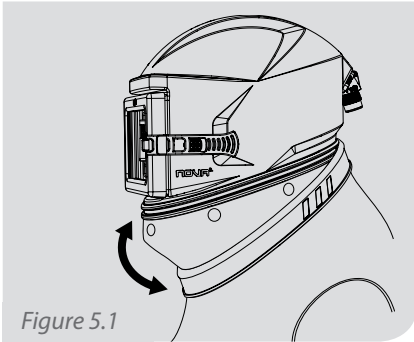


Figure 5.1

To remove the cape, the cape coverband must first be removed by stretching it over edge and then undoing the eight snaps. To replace the cape, secure all eight snaps and then stretch the cape coverband into the channel above the snaps.

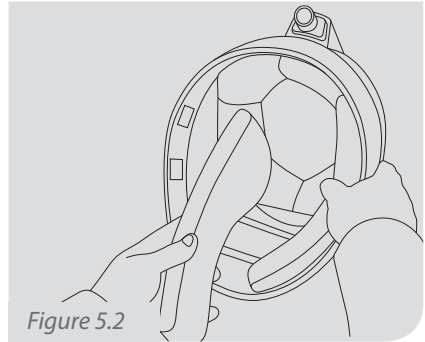


Figure 5.2

The helmet sidewings and lining can be removed and sponged with warm water and a gentle detergent, then air dried before refitting into the helmet.

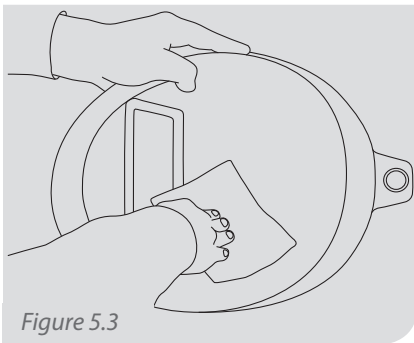


Figure 5.3

The helmet shell and window frame gasket can be sponged with warm water and a gentle detergent, rinsed and air dried.

NOTE:

The leather cape must be cleaned with an approved leather cleaner.

To disinfect the apparatus we recommend using Domestic Grade Disinfectant Wipes. Domestic grade spray disinfectants may also be used inside the helmet.

INSPECTION, CLEANING & STORAGE (CONTINUED)

BREATHING TUBE ASSEMBLY

Inspect the breathing tube for cracks or excessive wear. Check that the fittings are secured into the hose tightly and aren't allowing any air to escape.

Replace the hose as soon as signs of damage or excessive wear become evident. Do not remove the foam that is inside the breathing tube as this helps reduce the noise levels of the incoming air.

!WARNING! Air leaks will cause a drop in air flow through the respirator helmet resulting in less protection from contaminants.

AIR SUPPLY HOSE

The air supply hoses should be inspected for cuts, cracks, blisters and signs of abrasion. Make sure the fittings are tightly crimped to the hose so that air cannot escape. Make sure the hose has not been crushed or kinked. Replace the hose immediately if there are any signs of damage. Do not run water through the inside of the hose. Check the Quick Disconnect Couplings and blow down with a duster gun to remove any sand or dirt that may jam the coupler.

!WARNING! Use only the correct hoses for this respirator.

STORAGE

Store in a cool dry place between -10° to +45°.

After cleaning:

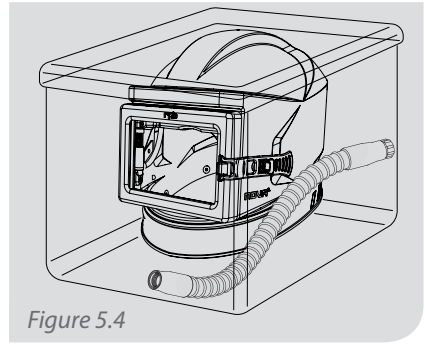


Figure 5.4

After use:

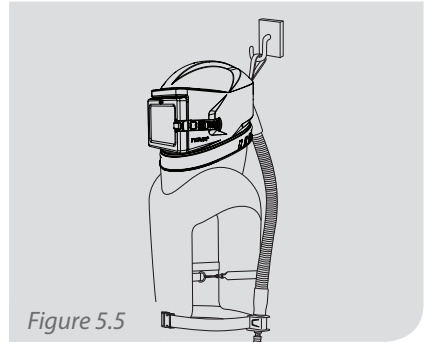
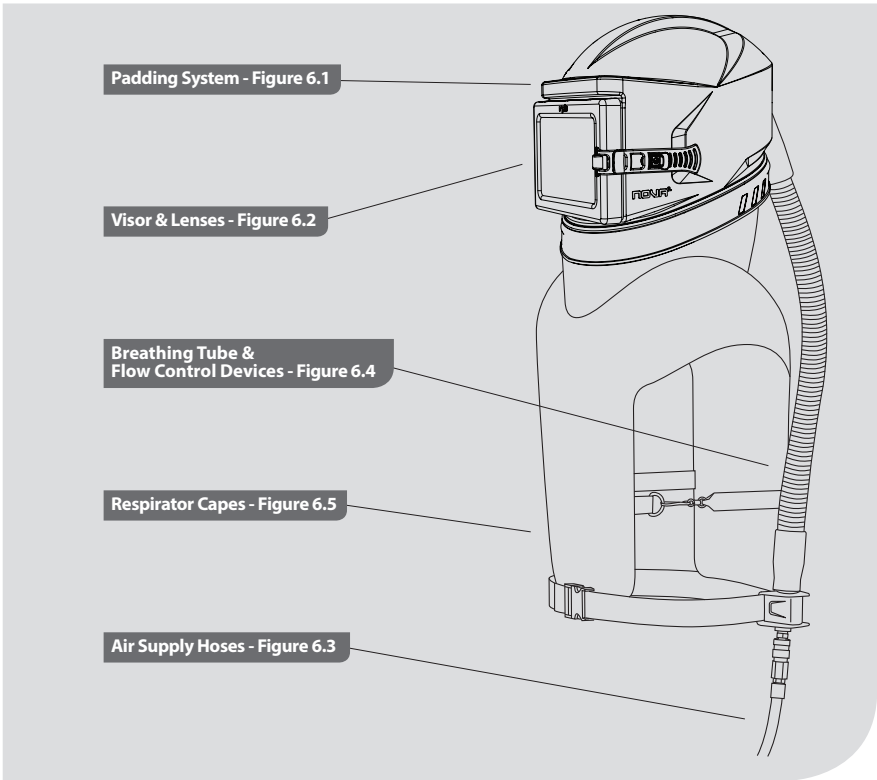
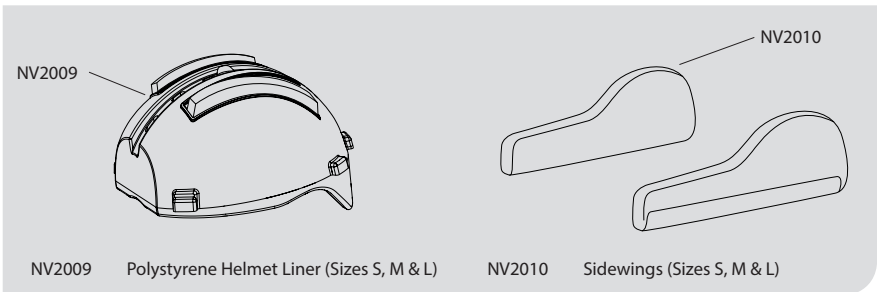


Figure 5.5

PARTS AND ACCESSORIES

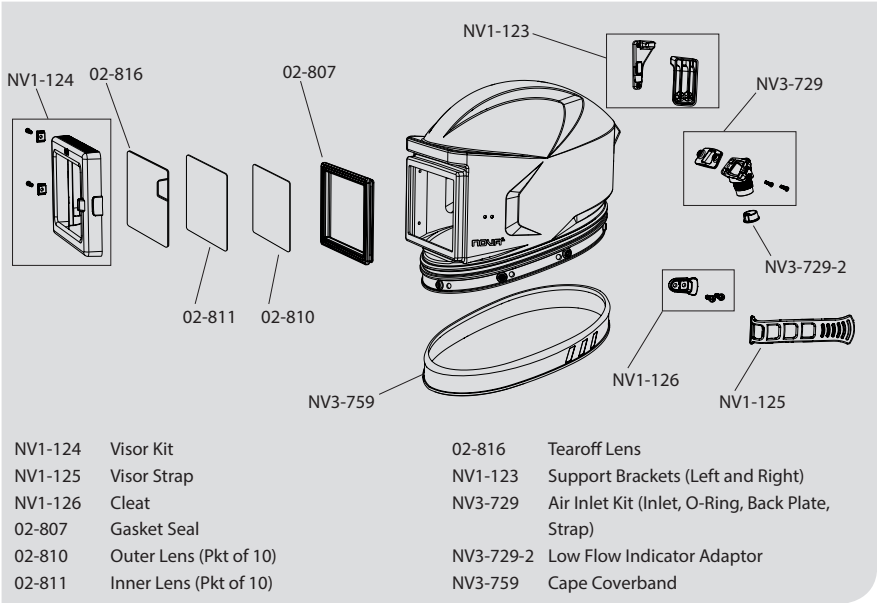


PADDING SYSTEM *Figure 6.1*

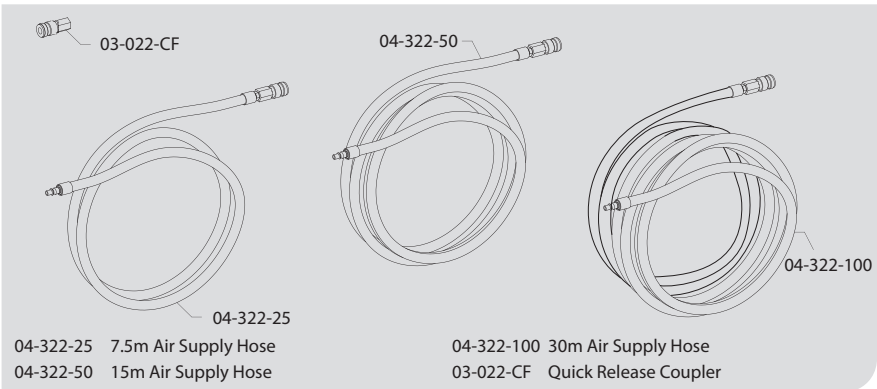


PARTS AND ACCESSORIES (CONTINUED)

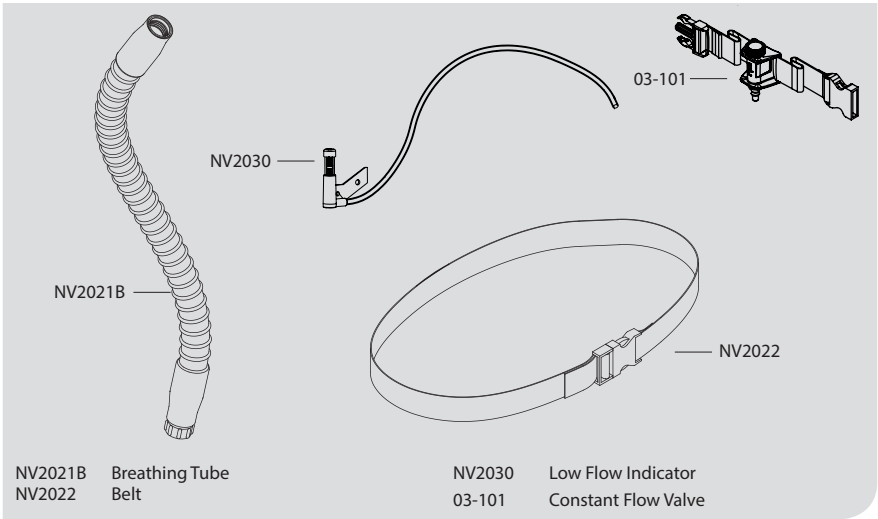
VISOR AND LENSES *Figure 6.2*



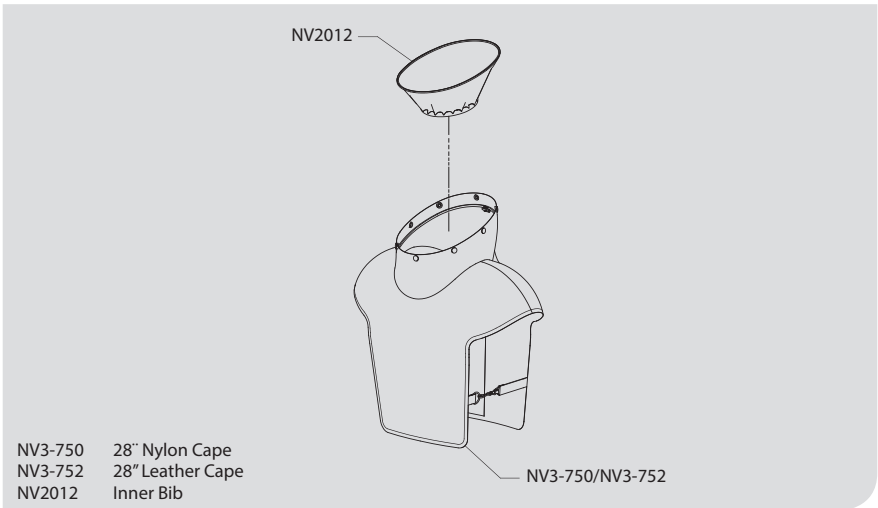
AIR SUPPLY HOSES *Figure 6.3*



BREATHING TUBE & FLOW CONTROL DEVICES *Figure 6.4*



RESPIRATOR CAPES *Figure 6.5*



OTHER PRODUCTS

ISO9001
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AIRLINE FILTRATION

The RPB® RADEX AIRLINE FILTER™ offers increased capacity, versatility and filtration. This optional equipment combines the versatility of either floor or wall mounting with increased filtration capacity, enabling customization to meet worker's needs and working environments.



POWERED AIR RESPIRATOR

Polluted air can be the cause of major health issues. How can you improve the quality of the air your employees are breathing? The RPB® PX4 AIR™ is a powered air purifier that is ergonomic and lightweight, designed to withstand harsh conditions. Powered with a lithium-polymer battery, making the unit incredibly efficient, operating for up to 8 hours on a single charge.



AIR QUALITY MONITORING

Do you need an intelligent gas monitor that can give you complete confidence in the air you and your employees are breathing? The RPB® GX4 has the ability to detect up to 4 gases simultaneously, giving you total peace of mind.



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