

CE 0194

EN14594: 2005

INSTRUCTION
MANUAL



rpb® **NOVA 2000**™
ADVANCED ABRASIVE BLASTING HELMET



CONTENTS

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

.....
INTRODUCTION	4
.....
WARRANTY	4
.....
APPARATUS COMPONENT CONCEPT	5
.....
WARNINGS	6
.....
AIR FILTRATION & CARBON MONOXIDE MONITORING	7
.....
CAUTIONS AND LIMITATIONS	7
.....
APPARATUS OPERATIONS	8
.....
BREATHING AIR PRESSURE TABLE	10
.....
SETTING UP	11
.....
LENSES	12
.....
DONNING YOUR APPARATUS	13
.....
INSPECTION, CLEANING AND STORAGE	15
.....
PARTS AND ACCESSORIES	17
.....

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COMPRESSED AIRLINE BREATHING APPARATUS

THIS APPARATUS IS APPROVED ONLY IN THE FOLLOWING CONFIGURATION

Respirator Components																											
Model	Alternate Helmets		Alternate Flow Regulator and Belt				Alternate Capes				Alternate Quick Disconnect			Alternate Hoses			Breathing Air Tube	Alternate Visor	Alternate Lenses				Accessories	Cautions and Limitations 2			
	IV2001	02-803	03-101	IV2016	IV2002	IV2002L	IV2002XL	02-813	02-814	IV2025	IV2024	IV2032	IV2027	IV2028	IV2029	IV2021	IV2004	02-804	IV2018	IV2031	IV2017	02-810	02-811		02-816	09-800	09-900
Nova 2000	X		X	X	X	X	X			X	X	X	X	X	X	X	X		X	X	X				X	X	ABCDEJMNS

1. PROTECTION

CF – Continuous Flow SA – Supplied Air

2. CAUTIONS AND 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.



INTRODUCTION

The NOVA 2000 COMPRESSED AIRLINE BREATHING APPARATUS EN14594 is specifically designed for use during Abrasive Blasting. The Nova 2000 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 Nova 2000 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 Nova 2000 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

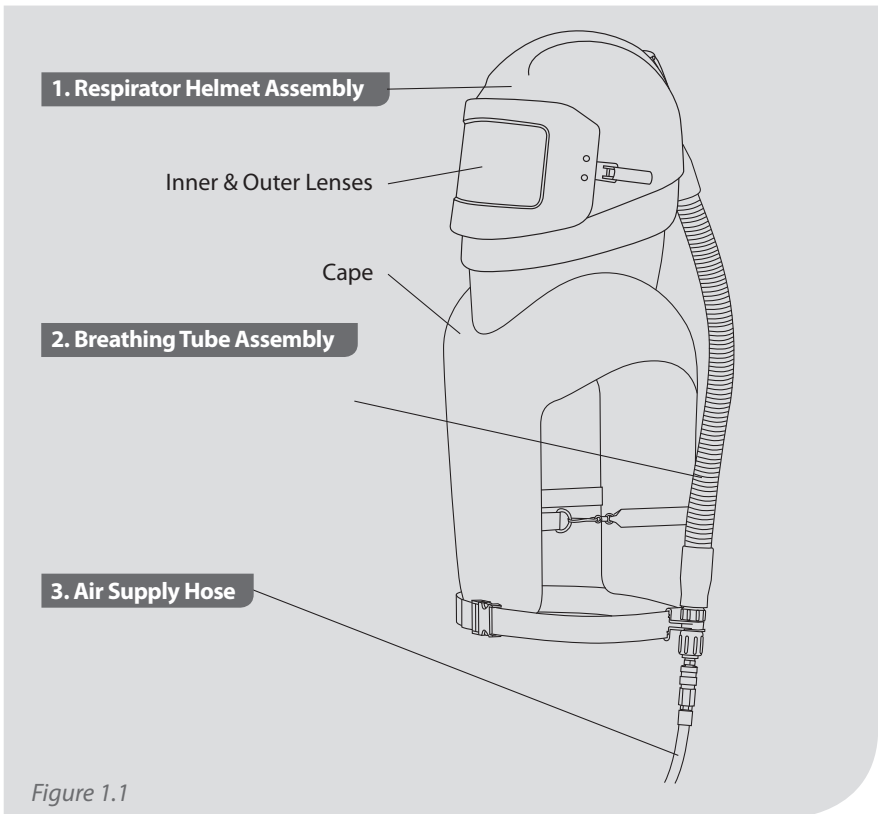
All RPB® products are covered by a manufactures warranty of 3 months. The manufacturer warranty covers defects in material, workmanship and does not cover damage caused by misuse or abuse. RPB®'s only obligation and your exclusive remedy shall be to repair, replace or refund the purchase price of such 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
Salford
M6 6AJ
United Kingdom

COMPRESSED AIRLINE BREATHING APPARATUS COMPONENT CONCEPT

The RPB® Nova 2000 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 2000 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, oxygen, oxygen enriched air, 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 2000 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 Radex™ Carbon Monoxide Monitor (08-200). Further information is available by contacting RPB® on 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 NOVA 2000 does not purify air or filter contaminants. Breathable air must be supplied to the point of attachment of the EN14594 approved NOVA 2000 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 assure 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 NOVA 2000 BREATHING AIR PRESSURE TABLE on Page 10 defines the air pressure ranges needed to provide the respirator with a volume of air which falls in the required range of 6 - 15 cfm or 170 - 425 lpm.

BREATHING AIR SUPPLY HOSE AND FITTINGS

EN14594, AS/NZS 1716 approved NOVA 2000 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 NOVA 2000 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.

!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 NOVA 2000 breathing air hose.
4. Check your NOVA 2000 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 NOVA 2000 with the volume of air that falls within the required range of 6 -15 cfm or 170 - 425 lts/min 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	NV2021/03-101 Flow Control Valve Assembly	NV2027(30m) NV2028(7.5m) NV2029 (15m)	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

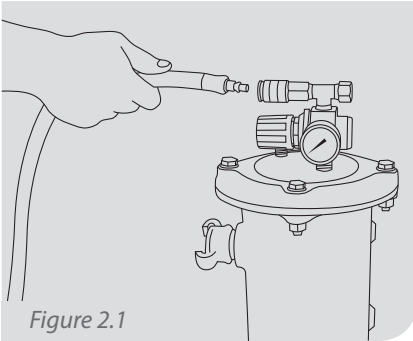


Figure 2.1

Connect the EN14594, AS/NZS 1716 approved NOVA 2000 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.

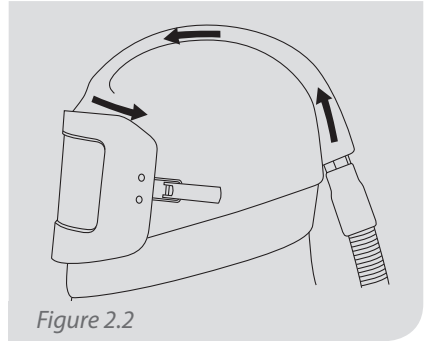


Figure 2.2

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 10).

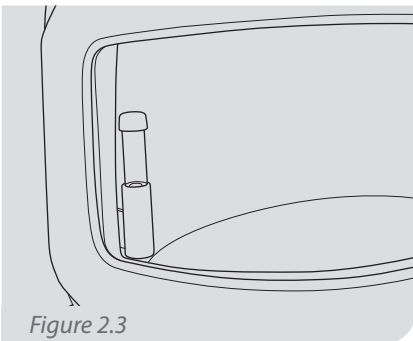


Figure 2.3

Airflow in the apparatus must be above 170lt/min 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

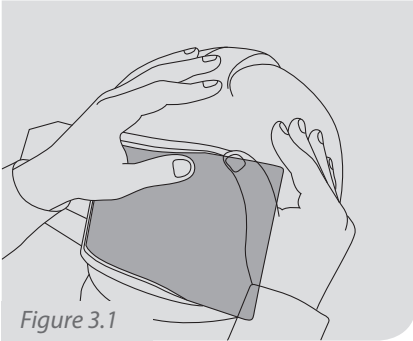


Figure 3.1

Make sure you have a EN14594, AS/NZS 1716 approved inner lens 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.

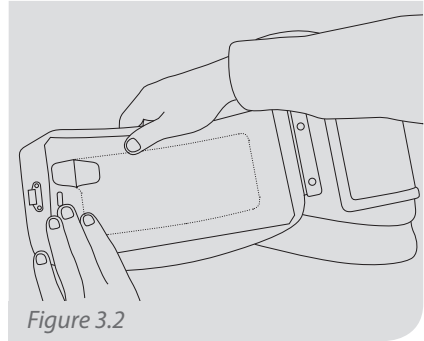


Figure 3.2

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.

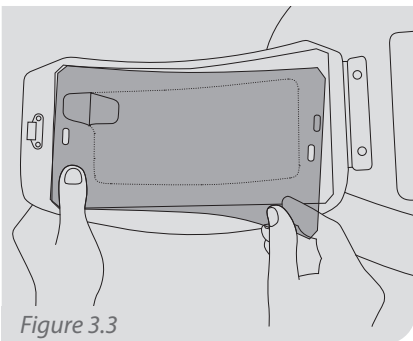


Figure 3.3

Fit an outer lens onto the tabs on 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.

DONNING YOUR APPARATUS

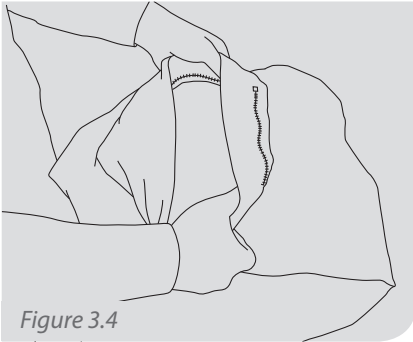


Figure 3.4

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.

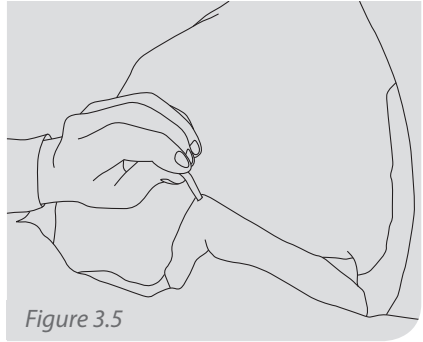


Figure 3.5

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.

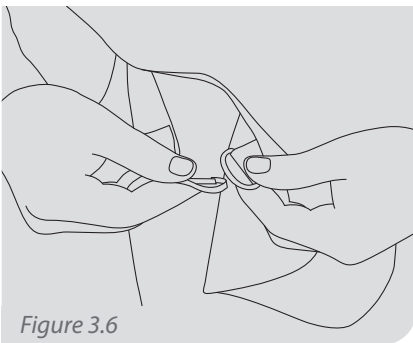


Figure 3.6

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

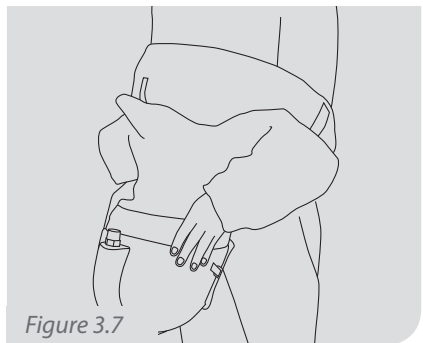
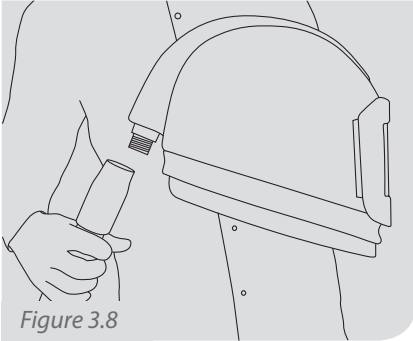


Figure 3.7

Blast Jackets (NV2002HB Series): Put your arms through the arm holes then pull the jacket down around your waist.

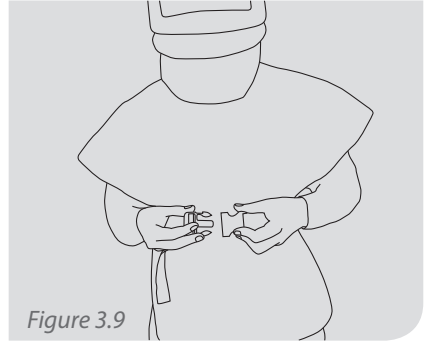
APPARATUS USE CONTINUED



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.

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.



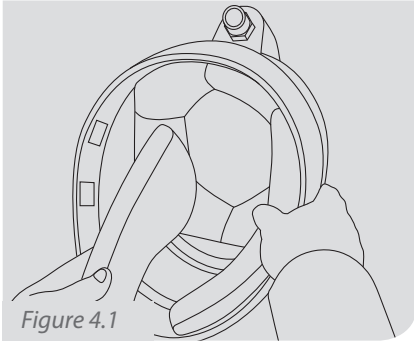
Fasten the belt at waist or hip level and adjust for comfort. Rotate the belt holder until it is in the hip pocket area.

DOFFING YOUR HELMET

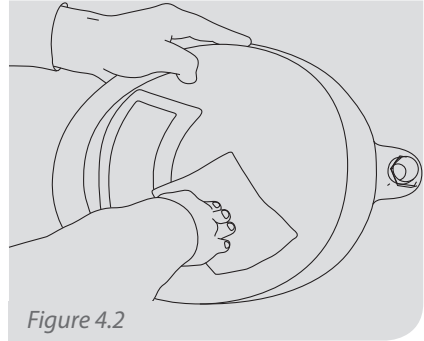
When you have finished working leave the work area wearing the respirator with air still flowing into the helmet. Once outside the contaminated area remove the respirator and disconnect the air supply hose.

!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.

CLEANING, DISINFECTING & STORAGE



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



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.

CLEANING, DISINFECTING & 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.

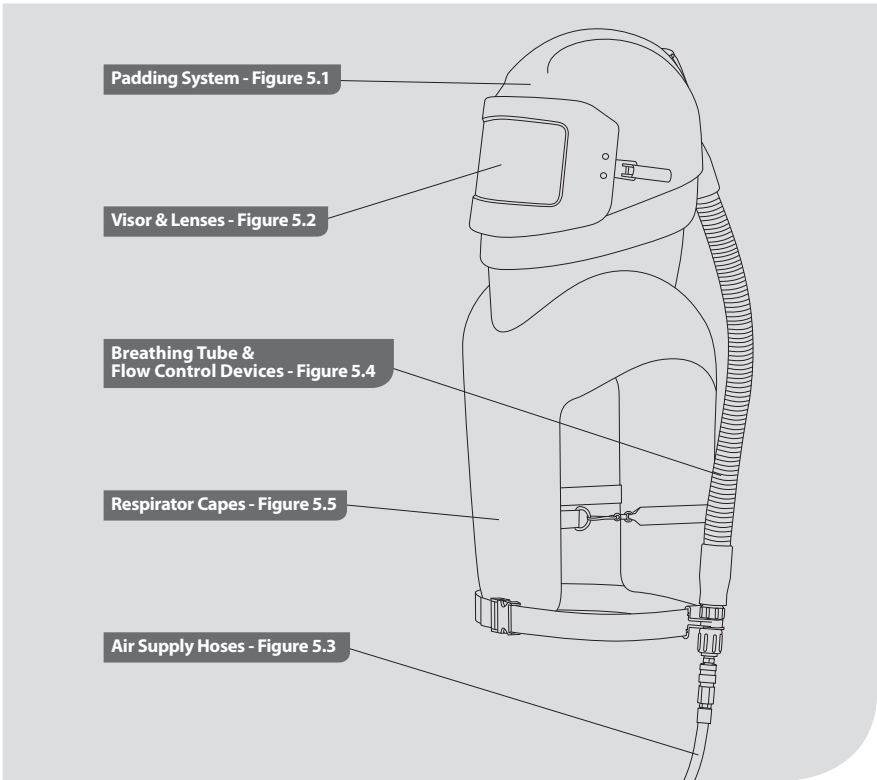
!WARNING! Use only the correct hoses for this respirator.

STORAGE

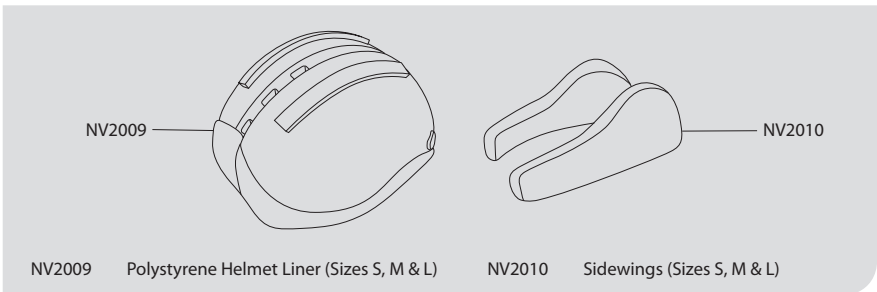
After the respirator components have been cleaned and inspected place them in a plastic bag or an airtight container. Store respirator parts away from excessive heat, dust, cold, moisture or harmful chemicals.

After use hang the respirator up by the hand strap, this will help keep the inside of the helmet free of contaminants.

PARTS AND ACCESSORIES

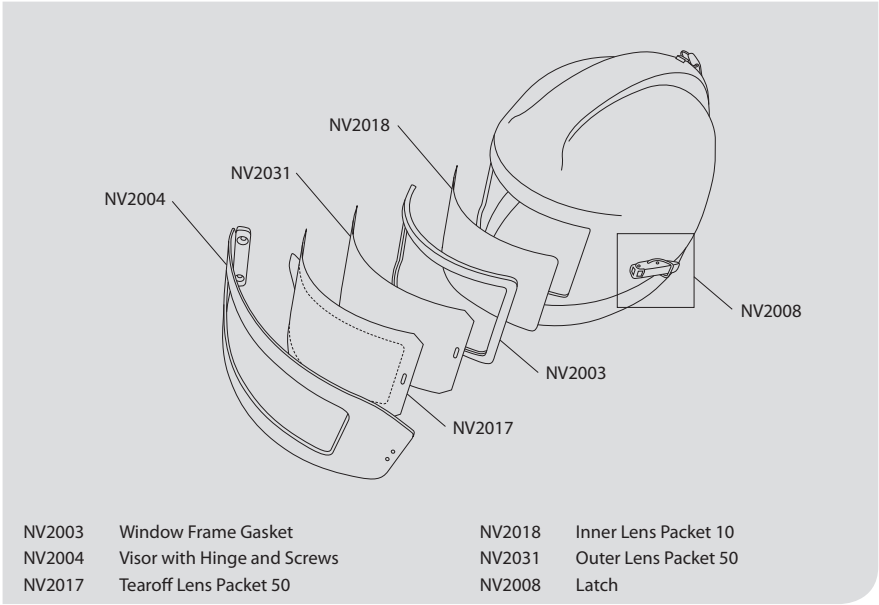


PADDING SYSTEM *Figure 5.1*

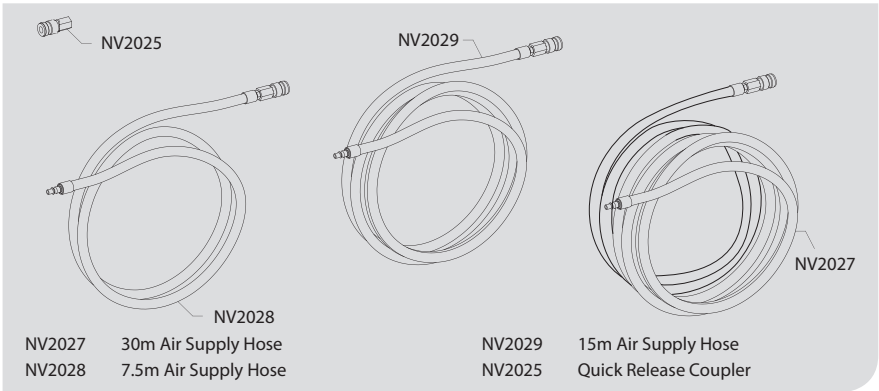


PARTS AND ACCESSORIES (CONTINUED)

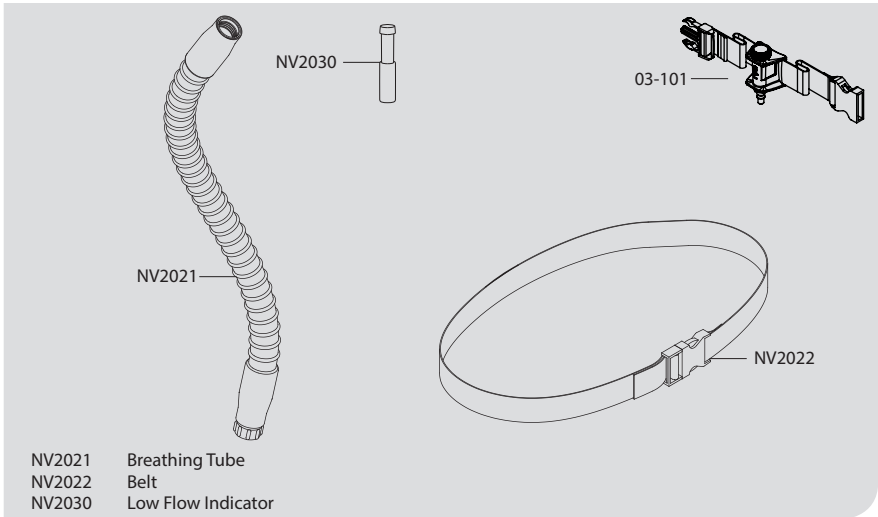
VISOR AND LENSES *Figure 5.2*



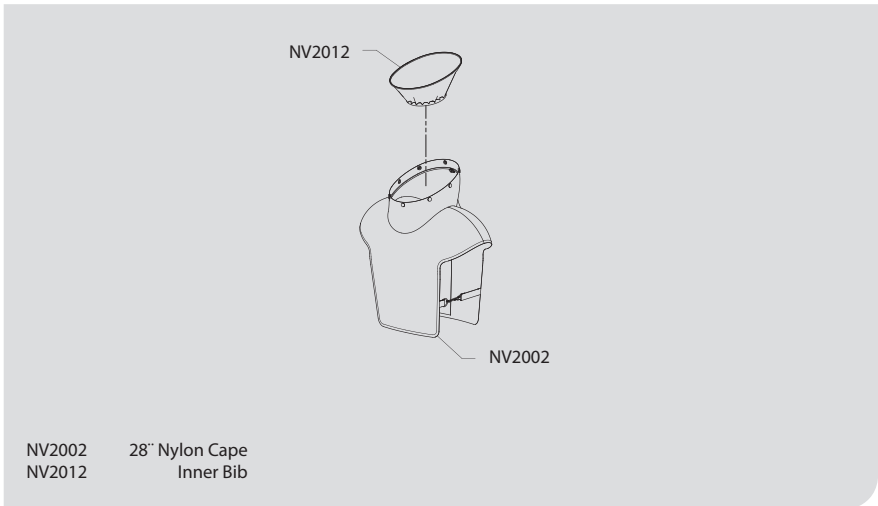
AIR SUPPLY HOSES *Figure 5.3*



BREATHING TUBE & FLOW CONTROL DEVICES *Figure 5.4*



RESPIRATOR CAPES *Figure 5.5*



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.



AIR TEMPERATURE CONTROL

The RPB® 4000-01 Cool Air Tube cools compressed breathing air coming into the respirator by up to 30°F while the RPB® 4000-20 Hot Air Tube will heat the compressed air by up to 30°F. These maximize worker comfort and increase productivity in hot or cold climates.



AIR QUALITY MONITORING

The RPB® RADEX CO MONITOR™ helps ensure worker safety with a unique traceability feature that monitors and records carbon monoxide levels, and temperature. This data that provides certainty of monitor functioning and can be stored for up to two years allowing analysis of plant and field air quality.



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