

Nova 2000 Blasting Helmet



INSTRUCTION
MANUAL



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

rpb® NOVA 2000

CONTENTS

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

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TYPE CE, CONTINUOUS FLOW, SUPPLIED-AIR RESPIRATOR
 THESE RESPIRATORS ARE APPROVED ONLY IN THE FOLLOWING CONFIGURATIONS

RESPIRATOR COMPONENTS																															
TC -	Protection1	M O D E L	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				
			NV2001	NV2016	4000-01	2015	4000-20	93-501	NV2002	NV2002ZL	NV2002XL	NV2002HBXL	NV2002HBBXL	NV2025	NV2024	NV2032	NV2034	NV2037	NV2027	NV2028	NV2029	NV2035	NV2036	NV2021	NV2004	NV2018	NV2031	NV2017	09-800	09-900	
19C-363S	SA/CF/SB	NOVA 2000	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X			X	X	X	X	X	X	X	X	ABCDEJMNOS
19C-422S	SA/CF/SB	NOVA 2000	X			X					X	X	X	X	X						X	X	X	X	X	X	X	X	X	X	ABCDEJMNOS

1. PROTECTION

CF – Continuous Flow SA – Supplied Air SB – Supplied Air ABrasive Blast

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 respirators can be used only when the respirators are supplied with respirable air meeting the requirements of CGA G-7.1 Grade D 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 respirators shall be selected, fitted, used and maintained in accordance with MSHA, OSHA, 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 respirators.
- S - Special or critical User's Instructions and/or specific use limitations apply. Refer to User's Instructions before donning.



INTRODUCTION

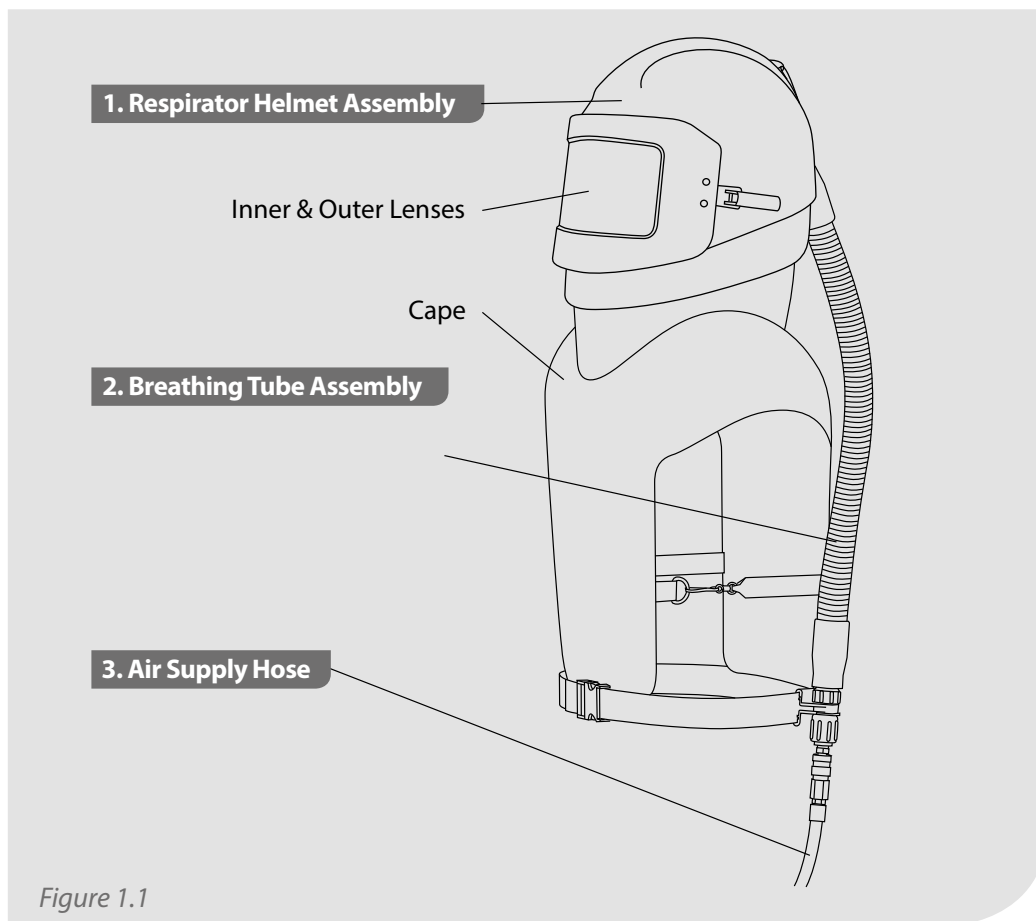
The RPB® NOVA 2000 SUPPLIED - AIR RESPIRATOR TYPE CE is specifically designed for use during Abrasive Blasting. The RPB® NOVA 2000 has been designed for use in atmospheres NOT IMMEDIATELY DANGEROUS TO LIFE OR HEALTH, and from which a user can escape without the aid of the respirator, or that do not exceed concentrations allowed by OSHA, EPA and NIOSH regulations and recommendations.

The RPB® NOVA 2000 is Approved by NIOSH (TC-19C-363, 19C-422-TYPE CE) to provide respiratory protection in abrasive blasting and type CE painting applications. The cape is designed to protect the wearer's upper body from rebounding abrasive.

The RPB® NOVA 2000 is NIOSH Approved for use with the NV2015, NV2016, 4000-01 Cold Air Tube, 4000-02 Hot Air Tube, and the 03-501 Climate Control Assembly.

RESPIRATOR COMPONENT CONCEPT

The RPB® NOVA 2000 SUPPLIED AIR RESPIRATOR consists of three main components: RESPIRATOR HELMET ASSEMBLY, BREATHING TUBE ASSEMBLY, and AIR SUPPLY HOSE. All three components must be present and properly assembled to constitute a complete NIOSH approved Respirator.



!WARNING! Failure to use genuine parts and components that are part of the NIOSH approved respirator assembly will void the approval of the entire respirator assembly.

RPB® NOVA 2000

!WARNINGS!

- 1.** Do not use this respirator until you have been trained in the respirators use, maintenance and limitations by a qualified individual (appointed by your employer) who has extensive knowledge of the RPB® Nova 2000 Respirator.
- 2.** Before using this respirator ensure your employer has determined that airborne contaminant concentrations do not exceed those allowed by applicable OSHA, EPA or NIOSH regulations and recommendations for continuous-flow supplied air respirators. Federal law requires that the employer measures and monitors airborne contaminant levels in the work area.
- 3.** DO NOT WEAR this respirator if any of the following conditions exist:
 - Atmosphere is immediately dangerous to your 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 respirator. Use only NIOSH approved RPB® NOVA 2000 components and replacement parts. The use of non approved parts voids the NIOSH approval of the entire respirator assembly.
- 5.** Inspect all components of the respirator daily for signs of damage or wear and tear 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 respirator until you have passed a complete physical exam including a lung X-ray conducted by qualified medical personnel.
- 8.** Improper use of this respirator may cause injury or death. Improper use may also cause life threatening delayed lung diseases such as silicosis, pneumoconiosis or asbestosis.



- 9.** This respirator, when properly fitted and used, significantly reduces but does not completely eliminate the breathing of contaminants by the respirator wearer.
- 10.** Be certain your employer has determined that the breathing air source provides at least Grade D breathable air. The respirator must be supplied with clean breathable air at all times.
- 11.** Do not connect the respirator's air supply hose to nitrogen, toxic gases, inert gases or other unbreathable non Grade D air sources. Check the air source before using the respirator. 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 respirator in poorly ventilated areas or confined spaces. Ensure the area is well ventilated and that the contaminant concentrations are below those recommended for this respirator. Follow all procedures for confined space entry, operation and exit as defined in applicable regulations and standards.
- 13.** LEAVE WORK AREA IMMEDIATELY IF:
 - Any respirator component becomes damaged.
 - Airflow stops or slows down.
 - Breathing becomes difficult.
 - You become dizzy, nauseous, too hot, too cold or ill.
 - Vision is impaired.



RESPIRATOR OPERATION

AIR QUALITY

This respirator must be supplied with clean breathable air, Grade D or better, at all times. The RPB® NOVA 2000 does not purify air or filter contaminants. Breathable air must be supplied to the point of attachment of the RPB® NOVA 2000 air supply hose. Supplied breathing air must at least meet the requirements for Type 1 gaseous air described in the Compressed Gas Association Commodity Specifications G.7.1 (Grade D or higher).

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 Grade D 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 respirator with the minimum required pressure at the point of attachment for the length of air supply hose 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 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

NIOSH approved RPB® NOVA 2000 air supply hoses must be used between the point of attachment and the respirator breathing air connection at the wearer's belt. RPB® 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 RPB® Safety NOVA 2000 breathing air hose.
4. Check your RPB® Safety air supply hose is within the 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 2000 with the volume of air that falls within the required range of 6 -15 cfm or 170 - 425 lts/min according to U.S. government regulations.

1. AIR SOURCE	2. BREATHING TUBE ASSEMBLY AND FLOW CONTROL DEVICES	3. AIR SUPPLY HOSE	4. SUPPLY HOSE LENGTH	5. MAX NUMBER OF SECTIONS	6. PRESSURE RANGE (PSIG AIR)
Portable or Stationary Compressor	NV2021/ NV2016 Flow Control Valve Assembly	NV2027(100ft) NV2028(25ft) NV2029 (50ft)	25	1	28 - 30
			50	2	28 - 30
			100	2	30 - 33
			150	3	33 - 36
			200	4	36 - 38
			250	5	38 - 39
			300	6	39 - 43
Low Pressure Compressor or Air Pump	NV2021/ NV2015 Constant Flow Valve Assembly	NV2035 (50ft) NV2036 (100ft)	50	1	7 - 8
			100	1	8 - 9
			150	2	10 - 11
			200	2	11 - 12
			250	3	12 - 13
			300	3	14 - 15
Portable or Stationary Compressor	NV2021 03-501 Climate Control Tube Assembly	NV2027 (100ft) NV2028 (25ft) NV2029 (50ft)	25	1	50 - 80
			50	1	55 - 85
			100	2	60 - 95
			150	3	65 - 95
			200	4	70 - 100
			250	5	75 - 100
			300	6	85 - 100
Portable or Stationary Compressor	NV2021B/ 4000-01 Cold Air Tube Assembly	NV2027 (100ft) NV2028 (25ft) NV2029 (50ft)	25	1	55 - 56
			50	1	56 - 57
			100	2	60 - 62
			150	3	65 - 67
			200	4	70 - 72
			250	5	77 - 78
			300	6	80 - 82
Portable or Stationary Compressor	NV2021B/ 4000-20 Hot Air Tube Assembly	NV2027 (100ft) NV2028 (25ft) NV2029 (50ft)	25	1	67 - 68
			50	1	69 - 70
			100	2	73 - 74
			150	3	77 - 78
			200	4	81 - 82
			250	5	86 - 87
			300	6	91 - 92

!WARNING! Respirators must be supplied with respirable air meeting the requirements of CGA G-7.1 Grade D or Higher Quality.

SETUP

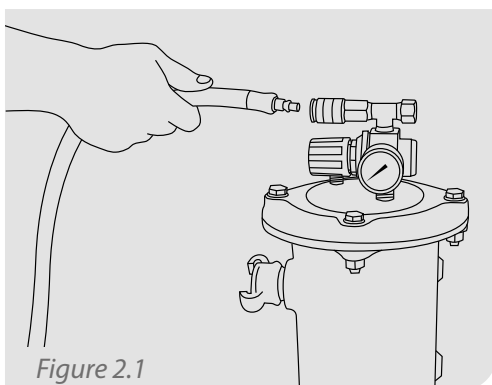


Figure 2.1

Connect the RPB® Safety NOVA 2000 Air Supply Hose to a breathing air source supplying Grade D or better quality air. Connect the respirator quick disconnect fitting onto the Air Supply Hose.

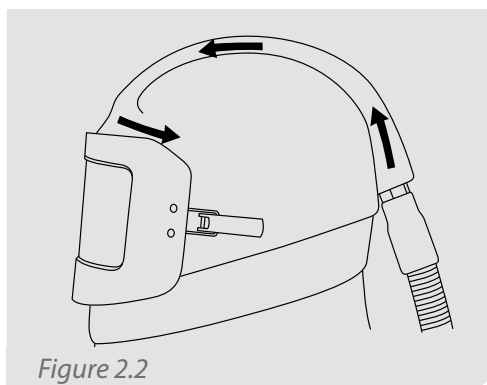


Figure 2.2

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).

NOTE:

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

rpb[®] NOVA 2000

RESPIRATOR USE

LENSES

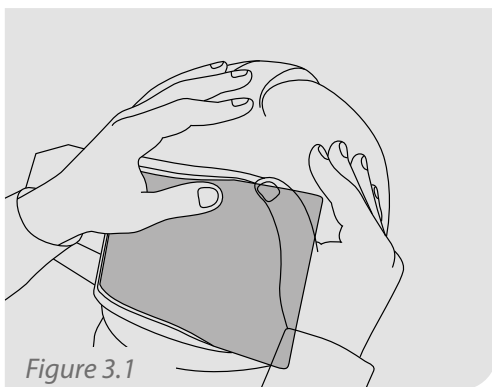


Figure 3.1

Make sure you have an RPB Safety inner lens securely fitted into the window frame gasket.

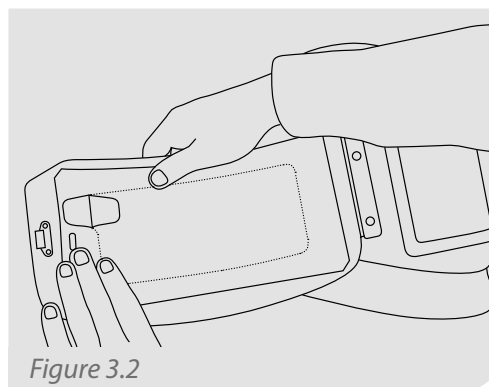


Figure 3.2

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.

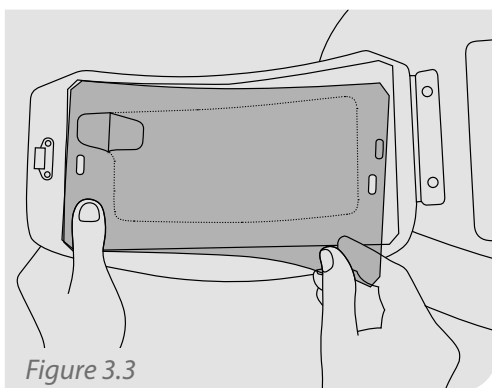


Figure 3.3

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.

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

DONNING YOUR HELMET

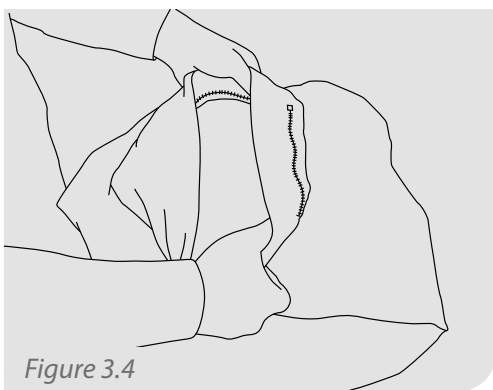


Figure 3.4

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.

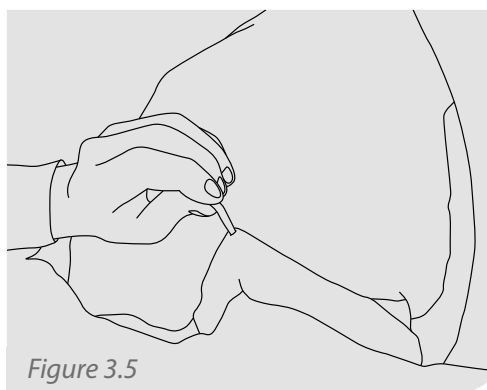


Figure 3.5

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.

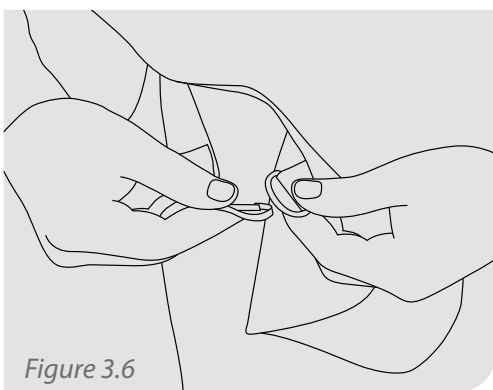


Figure 3.6

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

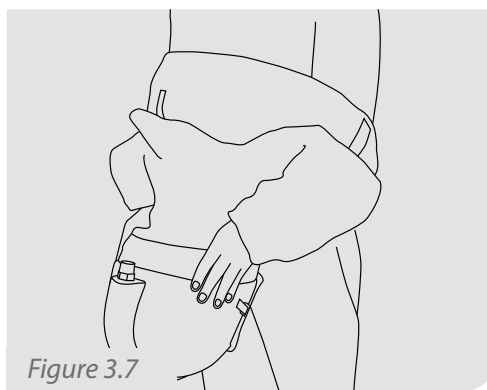
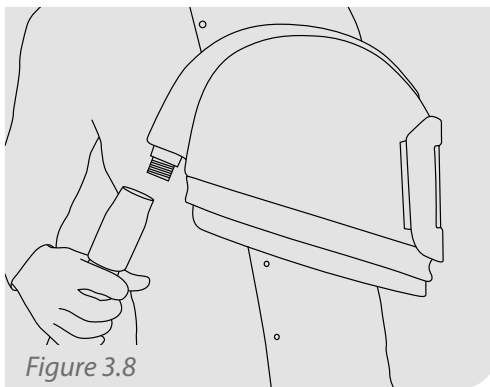


Figure 3.7

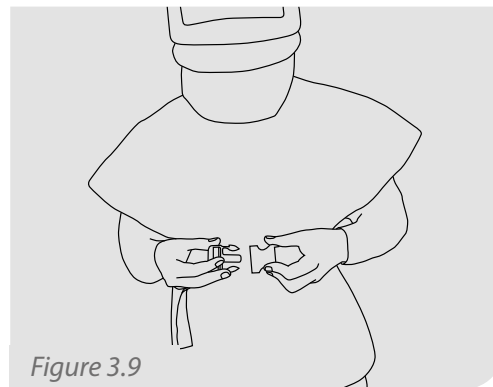
Blast Jackets (NV2002HB Series): Put your arms through the arm holes then pull the jacket down around your waist.

rpb[®] NOVA 2000**RESPIRATOR USE** CONTINUED*Figure 3.8*

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.

*Figure 3.9*

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

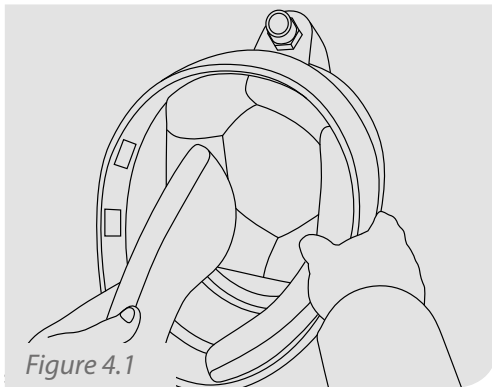
DOFFING YOUR HELMET

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.

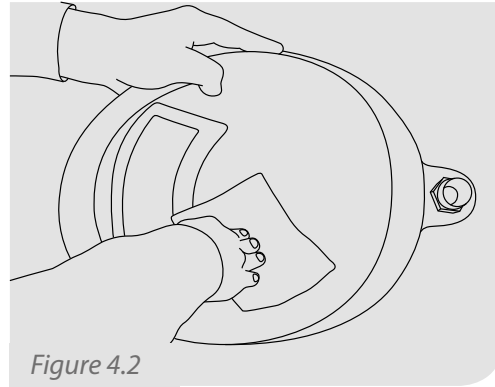
!WARNING! NEVER remove your helmet whilst in a contaminated area or where blasting is still being performed, as this may result in serious injury or death.

INSPECTION, CLEANING & STORAGE

HELMET AND LININGS



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.



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.

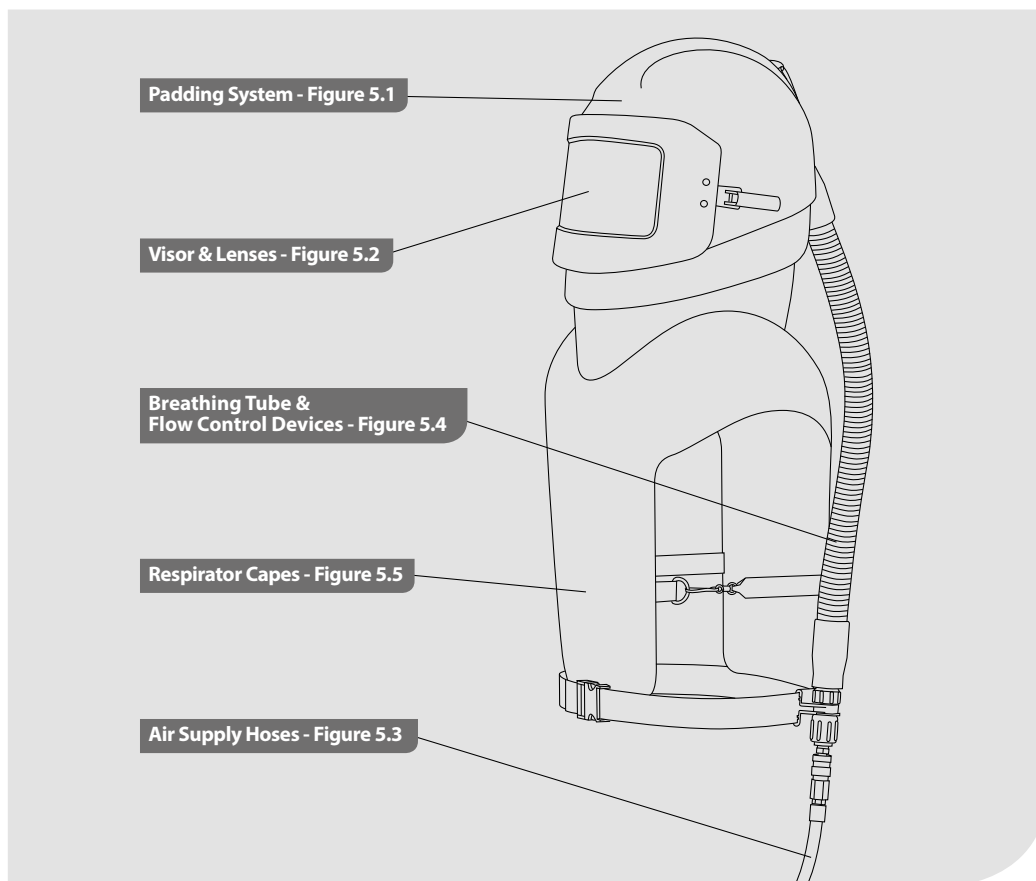
!WARNING! Use only the correct hoses by for this respirator.

STORAGE

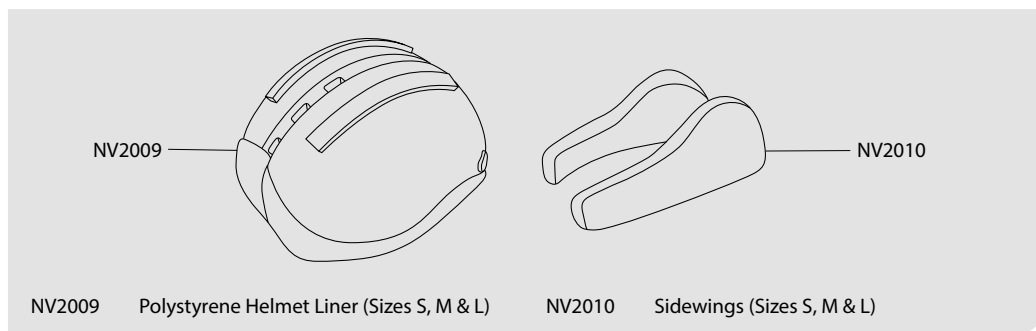
After the respirator components have been cleaned and inspected place them in a plastic bag or an airtight container. Store respirator parts away from excessive heat, dust, cold, moisture or harmful chemicals.

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



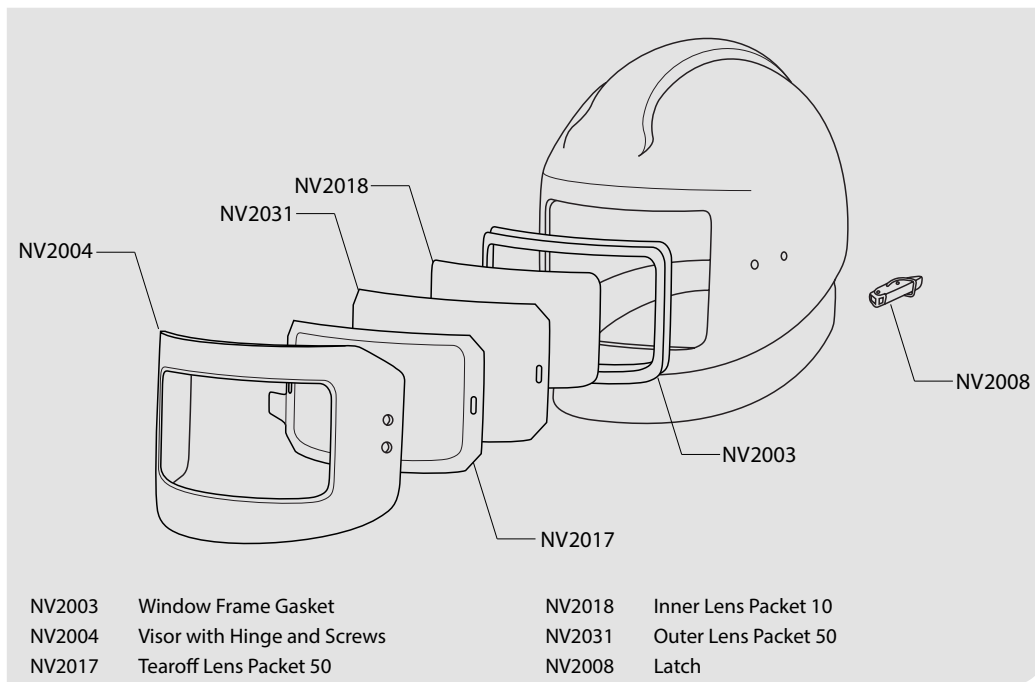
PADDING SYSTEM *Figure 5.1*



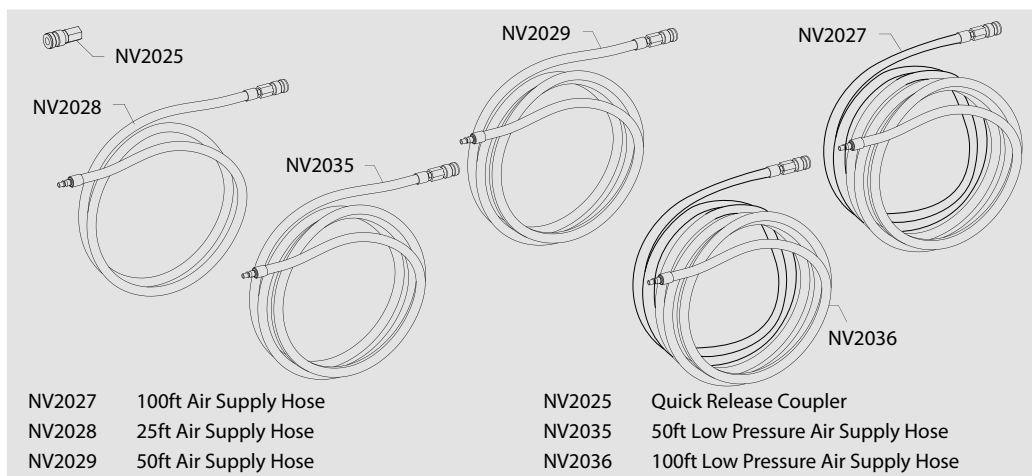
rpb® NOVA 2000

PARTS AND ACCESSORIES (CONTINUED)

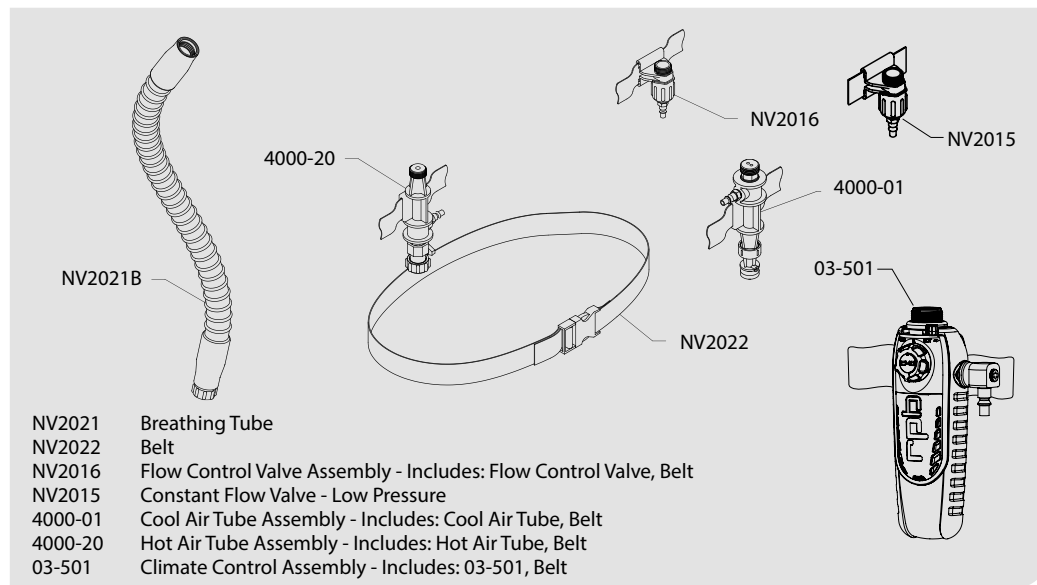
VISOR AND LENSES *Figure 5.2*



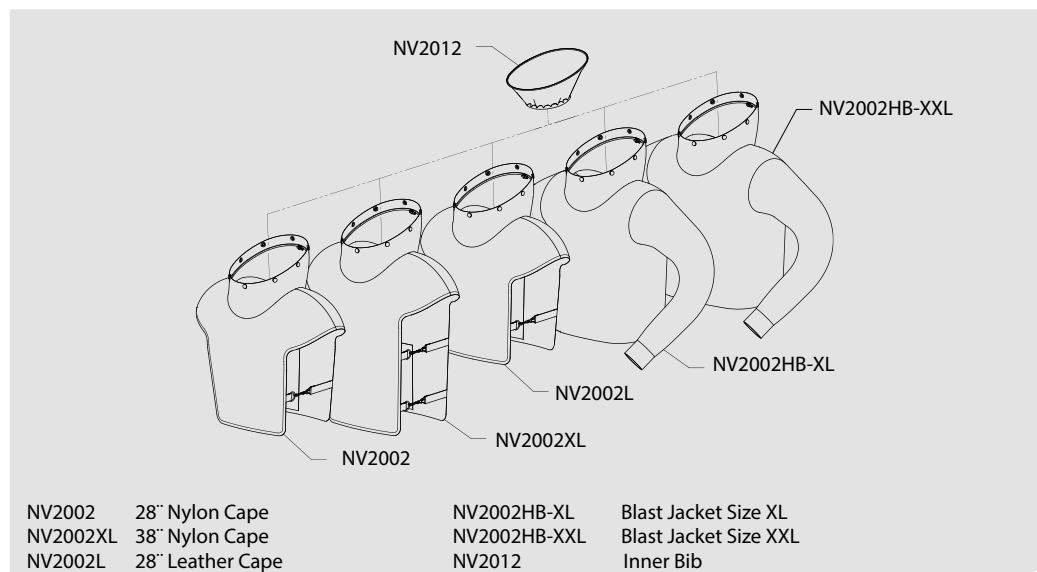
AIR SUPPLY HOSES *Figure 5.3*



BREATHING TUBE & FLOW CONTROL DEVICES *Figure 5.4*



RESPIRATOR CAPES *Figure 5.5*



OTHER PRODUCTS

 ISO9001
 CERTIFIED COMPANY

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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