Protecting you for life's best moments®



# Instruction Manual
# Nova 3® Blasting Respirator

**Employers:** Read this manual and the flow control device instruction manual and carry out the employer responsibilities (page 8).

**Product users:** Read this manual and the flow control device instruction manual and follow the product user safety instructions (page 10).

Manuals are regularly updated. Make sure this manual is available to all users for reference.

**Current version of manual and other languages:** gvs-rpb.com/industrial/resources

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NIOSH APPROVED

GVS | rpb NOVA 3®

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## EXPLANATION OF SIGNAL WORDS AND SYMBOLS

The following signal word and safety symbols are used in this manual and product labeling:

**⚠ WARNING** **WARNING** indicates a hazardous situation that, if not avoided, could result in death or serious injury.

**⚠ DANGER** **DANGER** Indicates a hazardous situation that, if not avoided, will result in death or serious injury.

**Read the Instruction Manual**.
Additional copies of RPB® manuals can be found at gvs-rpb.com.

**RPB® Safety LLC is an ISO9001 certified company.**

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# INTRODUCTION

The NOVA 3® is an advanced heavy industry respirator designed for abrasive blasting and other industrial applications. Additionally, the L4™ light attachment is available to provide light to the work area and the NOVA TALK™ in-helmet communication system allows for hands free radio communication. The NOVA 3® can increase productivity with the advanced tear-off lens system and other innovative features. The NOVA 3 is a NIOSH approved Type CE respirator when used with Supplied Air. The NOVA 3 is a NIOSH approved Type C when used with the PX5® PAPR.

This product must be inspected and maintained in accordance with this instruction manual at all times.

See PROTECTION PROVIDED AND LIMITATIONS (page 4) for details.

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For technical assistance contact our Customer Service Department at 1-866-494-4599 or email: sales@gvs.com

Form #: RPB 155
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# IMPORTANT SAFETY INFORMATION

**⚠ WARNING** Improper selection, fit, use, or maintenance of this product can result in injury; life threatening delayed lung, skin or eye disease; or death. This product is intended for occupational use in accordance with applicable standards or regulations for your location, industry, and activity (see Employer Responsibilities, page 8). Familiarity with standards and regulations related to the use of this protective equipment is recommended, even if they do not directly apply to you. If self-employed or if used in a non-occupational setting, refer to Employer Responsibilities and Product User Safety Instructions. Go to gvs-rpb.com/important-safety-information for helpful links to OSHA and other content.

**Employers:** Read this manual and the air supply device Instruction Manual and carry out the Employer Responsibilities (page 8).

**Product users:** Read this manual and the air supply device Instruction Manual and follow the Product User Safety Instructions (page 10).

**Check website for updates.** Product manuals are regularly updated.
Visit gvs-rpb.com/industrial/resources for the most recent version of this manual before using the product.

# PROTECTION PROVIDED AND LIMITATIONS

## RESPIRATION

The RPB NOVA 3 is approved by NIOSH in the categories as follows:

### Powered Air

The RPB NOVA 3 Respirator, when properly fitted and used with all required components, including the Breathing Tube Assembly and the RPB PX5 Powered Air Purifying Respirator, is a NIOSH approved Type C powered air purifying respirator with an assigned protection factor of 1000. As such, it significantly reduces, but does not completely eliminate, the breathing of contaminates by the respirator wearer. Specific protection depends on the filter selected for use in the RPB PX5 PAPR (see the PX5 Instruction Manual).

### Supplied Air

The RPB NOVA 3 respirator, when properly fitted and used with all required components, including the Breathing Tube Assembly, Flow Control Device, and RPB Breathing Air Line is a NIOSH approved Type CE supplied air respirator with an assigned protection factor of 1000. As such, it significantly reduces, but does not completely eliminate, the breathing of contaminates by the respirator wearer. Use with an airline filter, such as the 04-900 RPB RADEX® Airline Filter. Specific protection depends on the setup of the airline filter (see the RPB RADEX Instruction Manual). The approved Flow Control Devices for this respirator are: NV2016 Flow Control Valve, 4000-01 Cold Air Tube, 4000-20 Hot Air Tube, or the 03-500 C40™ Climate Control Device.

**⚠ WARNING** **OSHA STATES THAT ABRASIVE BLASTING MUST BE DONE WITH A TYPE CE AIRLINE RESPIRATOR. TYPE C RESPIRATORS MUST NOT BE USED FOR ABRASIVE BLASTING.**

**HAZARD LIMITATIONS**

The RPB NOVA 3 Respirator is **NOT FOR USE** if:

- In atmospheres immediately dangerous to life or health (IDLH).
- Wearer cannot escape without the aid of the respirator.
- Atmosphere contains less than 19.5% oxygen.
- For protection against hazardous gases (e.g., carbon monoxide).
- Contaminants are in excess of regulations or recommendations.
- Contaminants or contaminant concentrations are unknown.
- Work area is poorly ventilated.
- The temperature is outside the range of 14°F to 140°F (-10°C to +60°C).
- A flammable or explosive atmosphere is present when used with systems including electrical parts that are not intrinsically safe, PX5 PAPR, 09-502 L4 Light, 09-903 NOVA TALK.

**FACE AND EYES:**

- The NOVA 3 respirator with Inner Lens meets ANSI/ISEA Z87.1 requirements and designed for abrasive blasting, grinding, and other industrial applications.
- The NOVA 3 is not designed or tested to provide protection against molten metals or corrosive liquids.
- **Note:** Safety glasses may be required to be worn depending on the job hazard analysis. The NOVA 3 does not protect against the potential transfer of impact to glasses worn underneath the Visor. It does not provide complete eye and face protection against severe impact and penetration and is not a substitute for good safety practices and engineering controls.

**HEAD:**

- The NOVA 3 meets the ANSI/ISEA Z89.1 Type 1C requirements for physical head protection as a hard hat. The helmet is design to provide limited head protection by reducing the force of falling objects striking the top of the head. Ensure the helmet is adjusted to properly fit the user by adjusting the head harness and side pads.

**HEARING:**

- Hearing protection must be worn and properly fitted when exposed to noise levels that exceed the OSHA permissible exposure levels.

# RESPIRATOR COMPONENT DIAGRAM - PAPR

The RPB NOVA 3 Type C Powered Air Purifying Respirator consists of 3 main components. All 3 components must be present and properly assembled to constitute a complete NIOSH approved respirator.

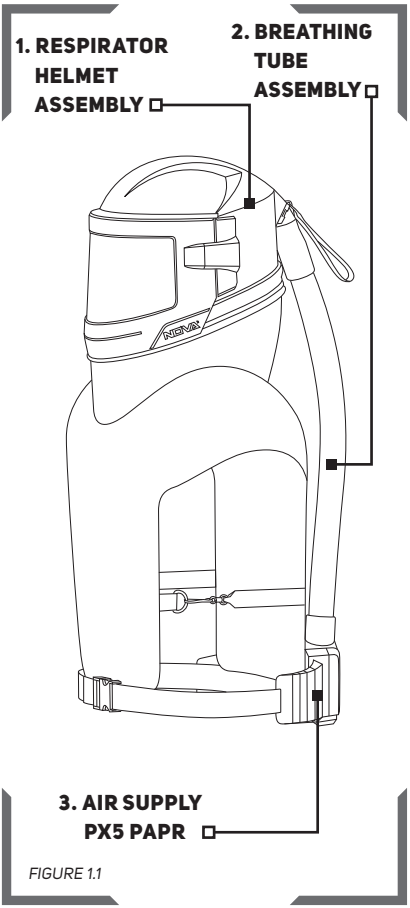


*FIGURE 1.1*

## NIOSH - CAUTIONS AND LIMITATIONS

**Powered Air**

A. Not for use in atmospheres containing less than 19.5 percent oxygen.

B. Not for use in atmospheres immediately dangerous to life or health.

C. Do not exceed maximum use concentrations established by regulatory standards.

F. Do not use Powered Air-Purifying Respirators if airflow is less than four cfm (115 lpm) for tight fitting face pieces or six cfm (170 lpm) for hoods and/or helmets.

H. Follow established cartridge and canister change schedules or observe ESLI to ensure that cartridge and canisters are replaced before breakthrough occurs.

I. Contains electrical parts that may cause an ignition in flammable or explosive atmospheres.

J. Failure to properly use and maintain this product could result in injury or death.

L. Follow the manufacturer's User's Instructions for changing cartridges, canister and/or filters.

M. All approved respirators shall be selected, fitted, used and maintained in accordance with MSHA, OSHA, and other applicable regulations.

N. Never substitute, modify, add or omit parts. Use only exact replacement parts in the configuration as specified by the manufacturer.

O. Refer to User Instructions, and/or maintenance manuals for information on use and maintenance of these respirators.

P. NIOSH does not evaluate respirators for use as surgical masks.

**PLACE NIOSH APPROVAL LABEL HERE.**

## RESPIRATOR COMPONENT DIAGRAM - SAR

The RPB NOVA 3 Type CE Supplied Air Respirator consists of 3 main components. All 3 components must be present and properly assembled to constitute a complete NIOSH approved respirator.

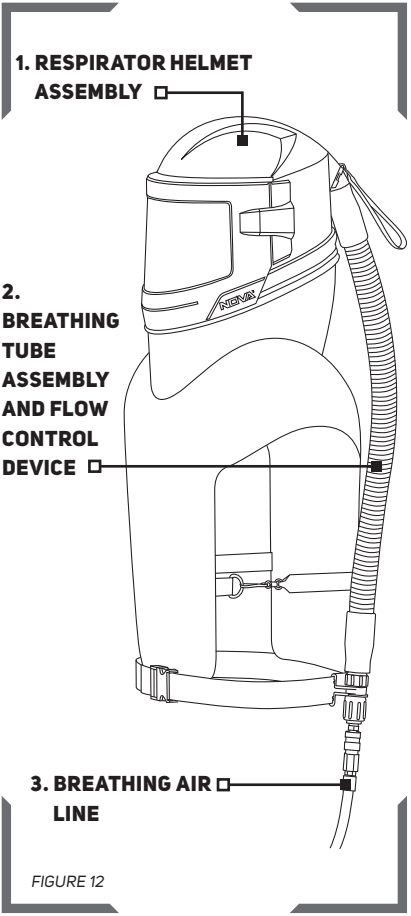


*FIGURE 12*

**NIOSH - CAUTIONS AND LIMITATIONS**

**Supplied Air**

A Not for use in atmospheres containing less than 19.5 percent 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 properly use and maintain this product 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, add or omit parts. Use only exact replacement parts in the configuration as specified by the manufacturer.

O Refer to user's instructions, and/or maintenance manuals for information on use and maintenance of these respirators.

S Special or critical user's instructions and/or specific limitations apply. Refer to page 14 (Breathing Air Pressure Table) before donning.

# AIR SOURCE, FITTINGS, AND PRESSURE

## AIR SOURCE

### Powered Air

Check that the contaminated area is within the limits of use for a Powered Air Purifying Respirator and determine the type of contamination. Once the contamination level has been confirmed you can then determine the filter cartridge to be used for the application, to make sure that you are sufficiently protected. Make sure that the area is well ventilated and that regular air samples are taken to confirm the atmosphere stays within the levels recommended by OSHA and other governing bodies. Follow the PX5 PAPR Instruction Manual for more details.

### Supplied Air

Locate the air source in a clean air environment, always use a filter on the inlet of your air source. Make sure the air source is somewhere that vehicles, forklifts, and other machinery are not running near the air inlet, as this will cause carbon monoxide to be drawn into your air supply. Always use suitable after coolers/dryers with filters and carbon monoxide alarms to ensure clean breathable air is supplied at all times. A Radex Airline Filter (04-900) and a GX4® Gas Monitor (08-400) are recommended. The air should be regularly sampled to ensure that it meets Grade D requirements.

## AIR QUALITY

This respirator must be supplied with clean breathable air at all times. Breathable 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) and as specified by Federal Law 42 CFR 84, subpart J.84.141(b) and 29 CFR 1910.134 (i) the RPB® NOVA 3® does not purify air or filter contaminants. A carbon monoxide monitor must be used at all times.

**⚠ DANGER** Do not connect the respirator's air supply hose to nitrogen, toxic gases, inert gases or other non-breathable 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. Connecting the supply hose to a non-breathable air source will result in serious injury or death.

## BREATHING AIR SUPPLY HOSES AND FITTINGS

RPB breathing air supply hoses and fittings must be used between the point of attachment and the respirator breathing air connection at the wearer's belt. The hose sections must be within the correct length and the amount of sections must be within the number specified in the breathing air pressure table on page 13.

## BREATHING AIR PRESSURE

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

## EMPLOYER RESPONSIBILITIES

Your specific responsibilities may vary by location and industry, but in general RPB expects that employers will:

- **Follow all applicable standards and regulations for your location, industry, and activity.** Depending on your location and industry, a number of standards and regulations may apply to your selection and use of respirators and other personal protective equipment. These may include such things as federal (e.g., OSHA, MSHA, Canadian Occupational Health and Safety), local (e.g., state, provincial), or military standards and regulations and consensus standards such as ANSI and CSA. There are also requirements specific to particular contaminants, e.g. silica (see gvs-rpb.com/industrial/important-safety-information for more information), asbestos, organic pathogens, etc. Know which requirements apply to your location and industry.

- **Have appropriate safety programs in place.**
  Have and follow:
  - ☐ A workplace safety program.
  - ☐ A written respiratory protection program in accordance with applicable standards and regulations (e.g., OSHA 29 CFR 1910.134; ANSI/ASSE Z88.2; CSA Z94.4, etc.).

- **In accordance with the above**,
  - ☐ **Perform a hazard analysis and select appropriate equipment for each activity.** A hazard analysis should be performed by a qualified person. Controls should be in place as appropriate and a qualified person should determine what kind of respiratory, face and eye, head, and hearing protection is appropriate for the intended activities and environments of use. (For example, select a respirator appropriate to the specific airborne hazards, with consideration of workplace and user factors and with an Assigned Protection Factor (APF) that meets or exceeds the required level for employee protection, select welding face and eye protection appropriate to the type of welding to be done, etc.)

    As applicable, check your workplace safety program, respiratory protection program, and standards and regulations for your activity or industry for related protection requirements, and see this manual (Protection Provided and Limitations, page 4) and the flow control device Instruction Manual for product specifications.

  - ☐ **Be sure employees are medically qualified to use a respirator.**
    Have a qualified physician or other licensed health care professional (PLHCP) perform medical evaluations using a medical questionnaire or an initial medical examination per OSHA 29 CFR 1910.134.

  - ☐ **Train employees in the NOVA 3's use, maintenance, and limitations.**
    Appoint a qualified individual who is knowledgable about the RPB NOVA 3 per ANSI/ASSE Z88.2 guidelines to provide training:

    Section 8.1 Qualifications of the Respirator Trainer. Anyone providing respirator training shall:
    a) be knowledgable in the application and use of the respirator(s);
    b) have practical knowledge in the selection and use of respirator(s) and work practices at the site;

## EMPLOYER RESPONSIBILITIES CONTINUED

c) have an understanding of the site's respirator program; and
d) be knowledgable of applicable regulations.

Train each NOVA 3 user in the product's use, application, inspection, maintenance, storage, fitting, and limitations in accordance with the content of this Instruction Manual and the approved flow control device instruction manual and standard or regulatory requirements. Ensure that each intended user reads both these manuals.

☐ **Ensure that equipment is properly set up, used, and maintained.**
Make sure that equipment is properly set up, inspected, fitted, used, and maintained, including selection of the appropriate air filter cartridge and, when applicable, welding filter shade adjustments, for the application.

☐ **Measure and monitor airborne contaminants in the work area.**
Measure and monitor airborne contaminant levels in the work area in accordance with applicable requirements. Make sure work area is well ventilated.

☐ **Ensure that abrasive used is suitable for abrasive blasting.**
Check the material safety data sheets for manufacturers warnings and recommendations and verify the blasting media conforms with applicable standards/regulations (e.g. regarding respirable silica). Refer to gvs-rpb.com/industrial/important-safety-information/ for links to websites that can provide regulatory guidance.

☐ **If you have any questions, contact RPB.**
■ Call Customer Service Department:
Tel: 1-866-494-4599
Email: sales@gvs.com
Web: gvs-rpb.com

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# PRODUCT USER SAFETY INSTRUCTIONS

### BEFORE INITIAL USE - BE TRAINED AND MEDICALLY QUALIFIED

Do not use this respirator until you have read this manual and the flow control device or the PX5 PAPR Instruction Manual (additional copies available at gvs-rpb.com) and have been trained in the respirator's use, maintenance, and limitations by a qualified individual (appointed by your employer) who is knowledgable about the RPB NOVA 3 respirator.

Do not wear this respirator until you have passed a medical evaluation using a medical questionnaire or an initial medical examination by a qualified physician or other licensed health care professional (PLHCP).

**Allergens:** No known common allergens are used in this product.

Some materials could cause an allergic reaction in susceptible individuals. If you have a known allergy or develop irritation, inform your employer. Irritation may occur from lack of cleaning. Following all cleaning and care instructions provided in the instruction manuals for this and any other RPB products you are using.

### MAKE SURE THE SYSTEM IS READY FOR USE

**Make sure you have a complete system.** Verify that you have all required components for the NOVA 3 to serve as a complete NIOSH approved respirator:

- Respirator Helmet Assembly (NOVA 3)
- Breathing Tube Assembly
- Flow Control Device (Flow Control Valve, Cold Air Tube, Hot Air Tube, or C40 Climate Control Device, PX5)
- Breathing Air Line

*See Respirator Component Diagram (page 6).* The RPB NOVA 3 is only approved to be used with the RPB Flow Control Valve, RPB Cold Air Tube, RPB Hot Air Tube, or RPB C40 Climate Control Device, RPB PX5. Use only authentic RPB brand parts and components that are part of the NIOSH approved respirator assembly. Using incomplete or inappropriate equipment, including the use of counterfeit or non-RPB parts, can result in inadequate protection and will void the NIOSH approval of the entire respirator. Do not modify or alter any part of this product.

**Inspect** all components daily for signs of damage or wear and tear that may reduce the level of protection originally provided. Remove any damaged component or product, including any helmet or visor that has been subject to impact, from service until repaired or replaced. Scratched or damaged safety lenses or other components should be replaced with genuine RPB brand replacement parts. When safety and impact lenses are replaced, make sure to remove any additional protective film from both sides of the lens. If the film is left in place, it could affect the optical clarity of the lens and cause eye strain. Inspect the inside of the respirator for respirable dust or other foreign objects. Keep the inside of the respirator clean at all times.

- NOVA 3 has a shelf life of 5 years from the date of manufacture.
- NOVA 3 has an in service life of 3 years from when first put into use.

## PRODUCT USER SAFETY INSTRUCTIONS CONTINUED

**Make sure that the helmet is correctly assembled** in the configuration that suits your application. Never use the respirator without all lenses in place. This includes the Inner and Outer Lenses. These lenses, when installed properly, are part of the respiratory seal to prevent toxic or hazardous gases, liquids or dust from entering the helmet. An incomplete or improperly installed lens system could provide inadequate impact and respiratory protection. *See Respirator Setup and Care (page 16). See Donning (page 22) for fit information.*

**VERIFY THAT YOU HAVE THE APPROPRIATE EQUIPMENT FOR YOUR ACTIVITY**

Verify that the NOVA 3 provides appropriate protection for your activity. As applicable, check your workplace safety program, respiratory protection program, and standards and regulations for your activity or industry. (See PROTECTION PROVIDED AND LIMITATIONS, page 4.)

**BEFORE DONNING THE NOVA 3:**

**Verify airborne contaminants are within recommended limits for respirator use:**

- Determine the type and level of contamination. Verify that airborne contaminant concentrations do not exceed those allowed by applicable OSHA, EPA, or NIOSH regulations and recommendations for powered air purifying respirators or supplied air respirators.

**Filtering the breathing air:**

- **PAPR:** Once the contamination level has been confirmed, determine the correct filter cartridge to be used for the application, to make sure that you are sufficiently protected. Follow the PX5 PAPR Instruction Manual.
- **SAR:** Once the contamination levels have been confirmed, check to make sure the airline filter is working correctly. Follow the Radex Airline Filter Instruction Manual.

**Make sure the area is ventilated and monitored:**

- Make sure that the area is well ventilated and that regular air samples are taken to confirm the atmosphere stays within the levels recommended by OSHA and other governing bodies. For Supplied Air, it is recommended to use a GX4 Gas Monitor. Follow the GX4 Gas Monitor Instruction Manual.

If you have any questions, ask your employer.

**DO NOT ENTER THE WORK AREA** if any of the following conditions exist:

- Atmosphere is immediately dangerous to life or health.
- You cannot escape without the aid of the respirator.
- Atmosphere contains less than 19.5% oxygen.
- A flammable or explosive atmosphere is present when used with systems including electrical parts that are not intrinsically safe, PX5 PAPR, 09-502 L4 Light, 09-903 NOVA TALK.
- Contaminants are in excess of regulations or recommendations.
- Contaminants or contaminant concentrations are unknown.

- Work area is poorly ventilated.
- The temperature is outside the range of 14°F to 140°F (-10°C to +60°C).

**LEAVE THE WORK AREA IMMEDIATELY IF:**

- Any product component becomes damaged.
- Vision is impaired.
- Airflow stops or slows down.
- Breathing becomes difficult.
- You become dizzy, nauseous, too hot, too cold, or ill.
- Your eyes, nose, or skin become irritated.
- The work area is a confined space (unless proper measures are taken for confined spaces).
- You taste, smell, or see contaminants inside the helmet.
- You have any other reason to suspect that the respirator is not providing adequate protection.

**PRODUCT CARE**

Never place the helmet on hot surfaces. Do not apply paints, solvents, adhesives or self-adhesive labels except as instructed by RPB. This product may be adversely affected by certain chemicals.

Clean with mild detergent and a soft cloth or a disinfectant wipe. See the "Respirator Setup and Care" section for more specific cleaning instructions.

**INSTRUCTIONS FOR SPECIFIC USES OR ENVIRONMENTS**

**Confined Spaces**

If this respirator is used in confined spaces, ensure the area is well ventilated and that all 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.

**Abrasive Blasting**

Do not use hazardous abrasives (e.g. those that violate applicable standards/regulations, such as abrasives containing more than trace amounts of silica, lead, arsenic, etc.) - these could result in serious injury or death. Consult your abrasive supplier and read the material safety data sheets for the abrasives to be used to determine suitability for blasting applications.

**Grinding and Sparks**

For grinding and other applications that produce sparks, be sure to use the FR (Fire Retardant) specific model of the PX5 with the FR belt and spark arrestor in place, see the PX5 Instruction Manual. The C40 comes with a FR belt standard. Make sure all skin, such as the neck, is covered to prevent UV radiation and burns.

# BREATHING AIR PRESSURE TABLE

**S - SPECIAL OR CRITICAL USERS INSTRUCTIONS - SAR** *TABLE 1.1*

This table lists air pressure ranges needed to provide the RPB NOVA 3 with the volume of air that falls within the required range of 6-15cfm or 170-425 lts/min according to U.S. government regulations. Maximum hose pressure is 300 psi.

| 1. AIR SOURCE | 2. AIR SUPPLY HOSE | 3. NV2021B BREATHING TUBE ASSEMBLY AND FLOW CONTROL DEVICES | 4. SUPPLY HOSE LENGTH (FT) | 5. MAX NUMBER OF SECTIONS | 6. PRESSURE RANGE (PSIG AIR) |
|---|---|---|---|---|---|
| Portable or Stationary Compressor | NV2028 (25ft)<br>NV2029 (50ft)<br>NV2027 (100ft)<br>04-352-25-RZ (25ft)<br>04-352-50-RZ (50ft)<br>04-352-100-RZ (100ft) | NV2016 Flow Control Valve Assembly | 25<br>50<br>100<br>150<br>200<br>250<br>300 | 1<br>1<br>2<br>3<br>4<br>5<br>6 | 27-28<br>28-29<br>30-31<br>33-34<br>36-37<br>38-39<br>41-43 |
| | | 4000-01 Cold Air Tube Assembly | 25<br>50<br>100<br>150<br>200<br>250<br>300 | 1<br>1<br>2<br>3<br>4<br>5<br>6 | 55-56<br>56-57<br>60-62<br>65-67<br>70-72<br>77-78<br>80-82 |
| | | 4000-20 Hot Air Tube Assembly | 25<br>50<br>100<br>150<br>200<br>250<br>300 | 1<br>1<br>2<br>3<br>4<br>5<br>6 | 67-68<br>69-70<br>73-74<br>77-78<br>81-82<br>86-87<br>91-92 |
| | | 03-500 C40 Climate Control Assembly | 25<br>50<br>100<br>150<br>200<br>250<br>300 | 1<br>1<br>2<br>3<br>4<br>5<br>6 | 55-80<br>60-85<br>65-95<br>70-95<br>75-100<br>80-100<br>90-100 |

**⚠ WARNING** Make sure you understand the Breathing Air Pressure table before using this respirator.

1. Use the correct air source. Do not use an ambient air pump, as it does not supply enough pressure (column 1).
2. Confirm the part number of the air supply hose you are using (column 2) and the flow control device (column 3) you are using.
3. Check your RPB Safety Air Supply Hose is within the correct length (column 4) and the correct number of hose sections (column 5).
4. Set the air pressure at the point of attachment within the range specified (column 6).

Make sure air is flowing through your respirator when setting the air pressure.

| 1. AIR SOURCE | 2. AIR SUPPLY HOSE | 3. NV2021B BREATHING TUBE ASSEMBLY AND FLOW CONTROL DEVICES | 4. SUPPLY HOSE LENGTH (FT) | 5. MAX NUMBER OF SECTIONS | 6. PRESSURE RANGE (PSIG) |
|---|---|---|---|---|---|
| Portable or Stationary Compressor | 04-342-25 (25ft)<br>04-342-50 (50ft)<br>04-342-100 (100ft) | NV2016 Flow Control Valve Assembly with Schrader Fitting | 25<br>50<br>100<br>150<br>200<br>250<br>300 | 1<br>1<br>2<br>3<br>4<br>5<br>6 | 30-32<br>32-34<br>34-36<br>38-40<br>44-46<br>46-48<br>50-52 |
| | | 4000-01 Climate Control Tube Assembly with Schrader Fitting | 25<br>50<br>100<br>150<br>200<br>250<br>300 | 1<br>1<br>2<br>3<br>4<br>5<br>6 | 60-65<br>60-65<br>65-70<br>70-75<br>75-80<br>80-85<br>85-90 |
| | | 4000-20 Climate Control Tube Assembly with Schrader Fitting | 25<br>50<br>100<br>150<br>200<br>250<br>300 | 1<br>1<br>2<br>3<br>4<br>5<br>6 | 70-75<br>70-75<br>75-80<br>80-85<br>85-90<br>90-95<br>95-100 |
| | | 03-500 C40 Climate Control Tube Assembly with Schrader Fitting | 25<br>50<br>100<br>150<br>200<br>250<br>300 | 1<br>1<br>2<br>3<br>4<br>5<br>6 | 65-80<br>70-85<br>75-95<br>80-95<br>85-100<br>90-100<br>95-100 |

**⚠ WARNING** Failure to supply the minimum required air pressure at the point of attachment for the length of air supply hose will decrease the level of protection provided. In addition, 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. Low airflow will decrease the level of protection provided.

If the Breathing Air Lines and Flow Control Device have RZ™ fittings, they will only attach to other RZ™ fittings. They will not work with Universal Couplers. Do not modify air line fittings. RZ™ fittings prevent connection to unsafe air sources.

## BREATHING AIR PRESSURE TABLE CONTINUED

| 1. AIR SOURCE | 2. AIR SUPPLY HOSE | 3. NV2021B BREATHING TUBE ASSEMBLY AND FLOW CONTROL DEVICES | 4. SUPPLY HOSE LENGTH (FT) | 5. MAX NUMBER OF SECTIONS | 6. PRESSURE RANGE (PSIG AIR) |
|---|---|---|---|---|---|
| Portable or Stationary Compressor | 04-412-15 (15ft)<br>04-412-25 (25ft) | NV2016 Flow Control Valve Assembly | 15<br>25 | 1<br>1 | 28-30<br>32-34 |
| | | 4000-01 Cold Air Tube Assembly | 15<br>25 | 1<br>1 | 55-56<br>55-56 |
| | | 4000-20 Hot Air Tube Assembly | 15<br>25 | 1<br>1 | 67-68<br>67-68 |
| | | 03-500 C40 Climate Control Assembly | 15<br>25 | 1<br>1 | 55-80<br>55-80 |
| | 04-442-15 (15ft)<br>04-442-25 (25ft) | NV2016 Flow Control Valve Assembly with Schrader Fitting | 15<br>25 | 1<br>1 | 32-40<br>34-42 |
| | | 4000-01 Cold Air Tube Assembly with Schrader Fitting | 15<br>25 | 1<br>1 | 60-65<br>60-65 |
| | | 4000-20 Hot Air Tube Assembly with Schrader Fitting | 15<br>25 | 1<br>1 | 70-75<br>70-75 |
| | | 03-500 C40 Climate Control Assembly with Schrader Fitting | 15<br>25 | 1<br>1 | 65-80<br>65-80 |

# RESPIRATOR SETUP AND CARE

## INNER LENS

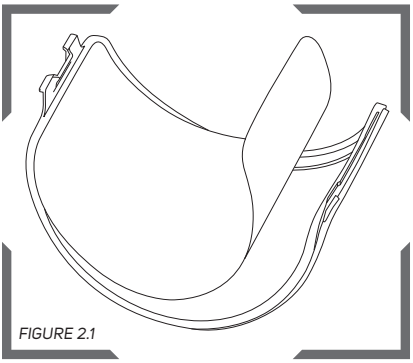


*FIGURE 2.1*

Place RPB Inner lens (NV3-722) into the left of the Inner lens frame (NV3-723) and work it round locating it into the frame and finally clipping it into place on the right.

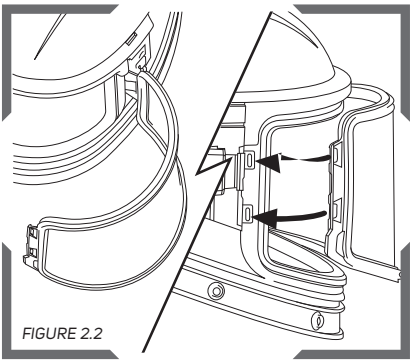


*FIGURE 2.2*

Secure locating Inner lens frame pins into visor latch mount rolling the frame round the inner lens seal and securing it onto the clips at the visor hinge mount.

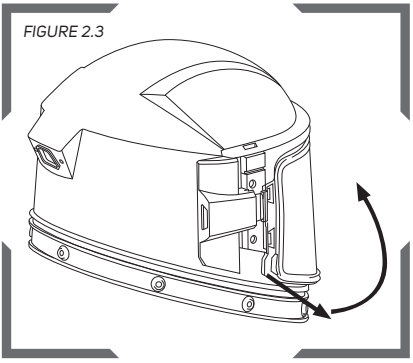


*FIGURE 2.3*

To remove the Inner lens frame pull frame from the visor hinge mount rolling it round and then dislocate the locating pins from the Visor latch mount.

## TEAR OFF AND OUTER LENSES

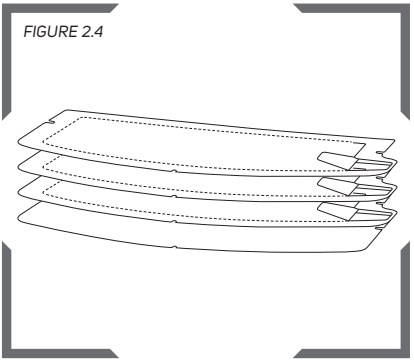


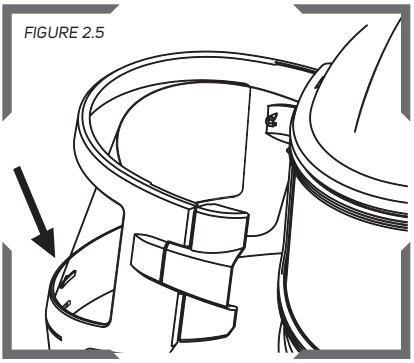
*FIGURE 2.4*

Place 3 Tear Off Lenses (NV3-725) and 1 Outer Lens (NV3-724) on top of each other, make sure the tabs are folded the same way.

## RESPIRATOR SETUP AND CARE CONTINUED

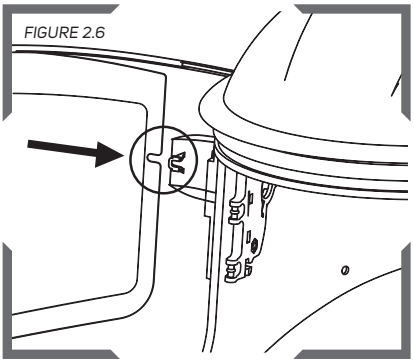
### TEAROFF AND OUTER LENSES CONTINUED

*FIGURE 2.5*



Place the lenses onto the Lens Locator at the centre of the visor (N3-726).

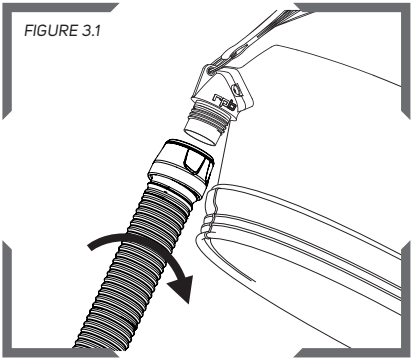
*FIGURE 2.6*



Slide the lenses under the lens locators that are positioned at the sides of the visor.

### CONNECTING THE AIR SUPPLY - POWERED AIR

*FIGURE 3.1*



Connect the Breathing Tube (04-831) to the Helmet. Turn clockwise until tight.

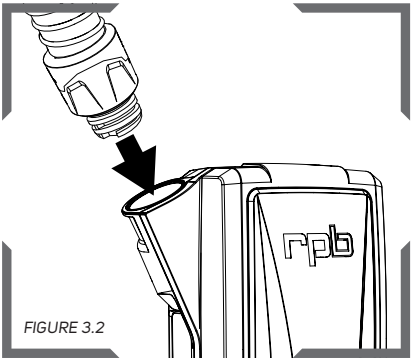



*FIGURE 3.2*

Insert the bayonet end of the breathing tube into the outlet of the PX5 PAPR and twist it in until it is secure.

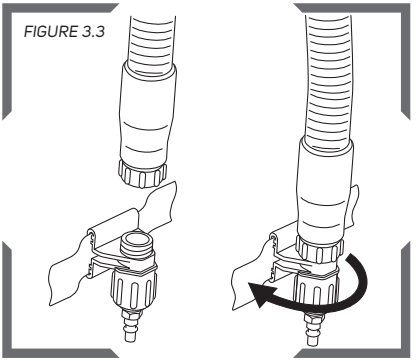
### FOR USE WITH RPB PX5 - SEE THE PAPR USER MANUAL

When the NOVA 3 Respirator is being used in conjunction with the RPB PX5 PAPR, please refer to the PX5 PAPR Instruction Manual for set up and use of the assembly.

Note: The RPB PX5 is a Powered Air Purifying Respirator, therefore care must be taken when selecting the correct filter for the application the respirator will be used in.

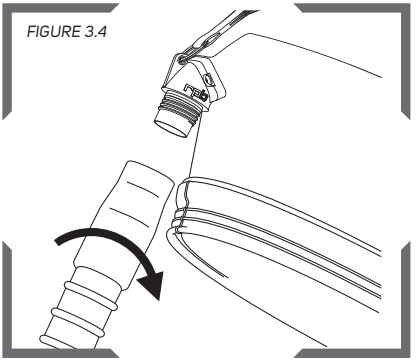
**CONNECTING THE AIR SUPPLY - SUPPLIED AIR**

*FIGURE 3.3*



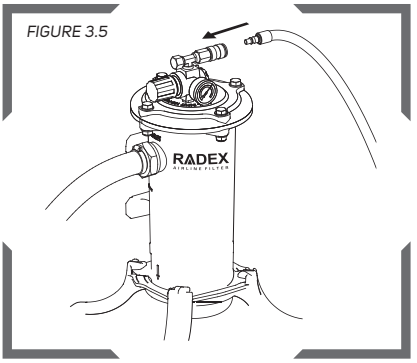
Thread the loose running nut of the Breathing Tube (NV2021B) on to the Flow Control Device (e.g NV2016). Screw the running nut clockwise until tight.

*FIGURE 3.4*



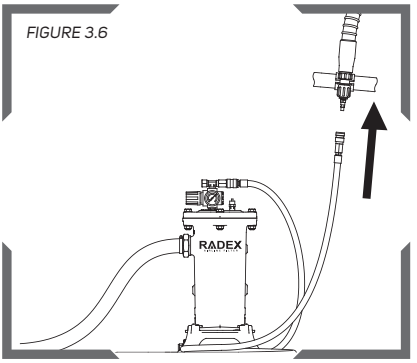
Connect the Breathing Tube (NV2021B) to the Helmet. This end is labelled "Attach this end to helmet". Turn clockwise until tight.

*FIGURE 3.5*




Connect the Breathing Air Supply Hose to the point of attachment (04-900 Radex Airline Filter) shown.

*FIGURE 3.6*




Now connect the Breathing Air Supply Hose to the Flow Control Device. Air should be now flowing through the Respirator.

Check the air pressure at the point of attachment is within the range specified in column 5 of the Breathing Air Pressure Table on page 14 for the hose length and amount of hose sections. Make sure air is flowing through your respirator when setting the air pressure.

**⚠ WARNING** **The NOVA 3 Supplied Air Respirator must be supplied with respirable air meeting the requirements of CGA G-7.1 Grade D or higher quality and meeting OSHA or other governing body requirements.**

# RESPIRATOR SETUP AND CARE CONTINUED

## INSPECTION, MAINTENANCE, AND CLEANING

### Lenses and Lens Gaskets

Check Inner Lens Gasket (NV3-721) and the Inner Lens Frame (NV3-723) for splits, cracks or wear and tear. Replace any damaged or worn parts immediately with RPB genuine parts. The Inner Gasket and Inner Lens fame can be cleaned with warm water and a mild detergent, rinsed and air dried.

### Breathing Tube Assembly

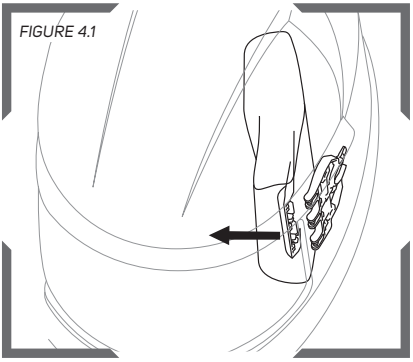
Inspect the Breathing Tube for splits or excessive wear. Check that the fittings are secured into the tube and are not allowing any air to escape. Replace the tube as soon as signs of damage or excessive wear become evident. Do not remove the foam that is inside the Breathing Tube as it reduces the noise level of the incoming air. The outside Breathing Tube can be cleaned with warm water and a mild detergent, rinsed and air dried. Do not run water through the Breathing Tube.

### Breathing Air Line

The air supply hose should be inspected for cuts, cracks, blisters and signs of abrasion. Make sure the fittings are firmly crimped to the hose and 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.  Clean the Quick Disconnect Couplings with an air blow down gun to remove any media or dirt that may jam the coupler.

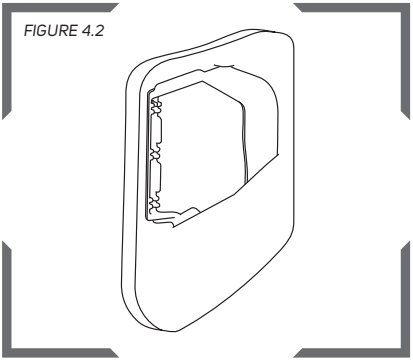
### Helmet and Lining

*FIGURE 4.1*



The side padding is mounted on a hinge and can be removed by pulling away from the helmet.

*FIGURE 4.2*



The covers can be removed from the padding and washed in a conventional washing machine or with light detergent and water, lay flat to dry.

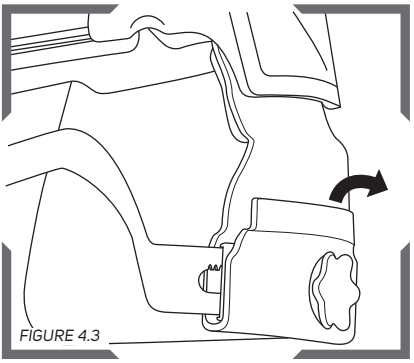


FIGURE 4.3

Remove rear Pad

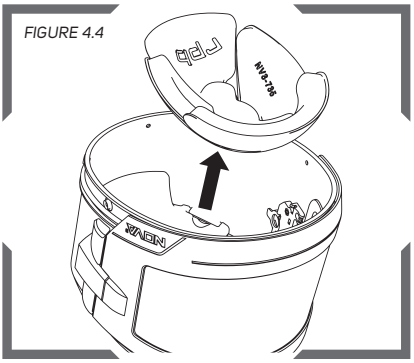


FIGURE 4.4

Remove Head Liner padding from the head liner, the padding can be washed or disposed. The padding is secured with hook fasteners.

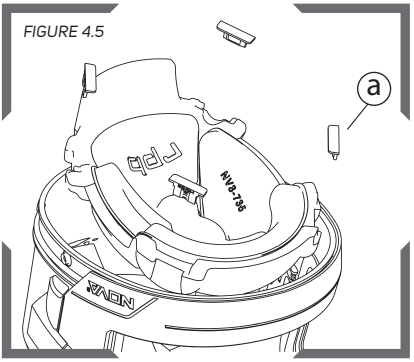



FIGURE 4.5

To remove the Head Liner, first remove the 4 clips (a) then lift out. To clean, rinse in a light detergent and water, or place in a conventional washing machine. Do not clean with volatile chemicals. Lay flat to dry.

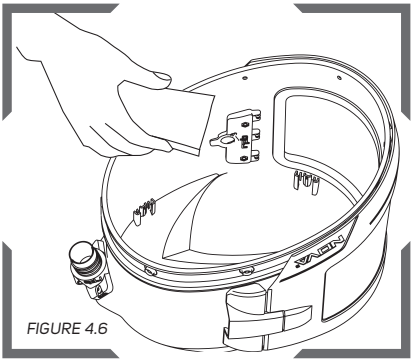


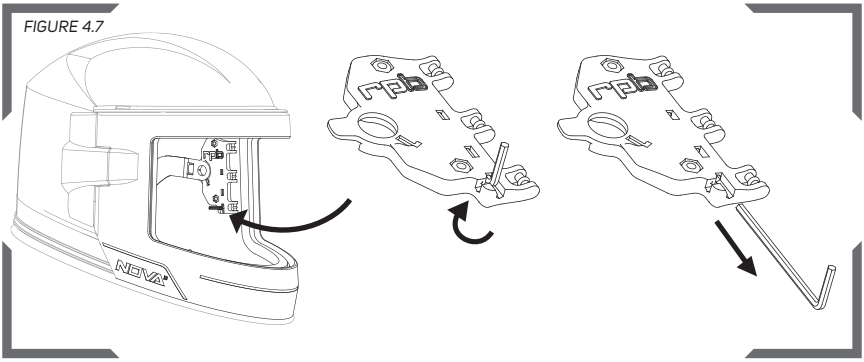
FIGURE 4.6

The inside of the helmet can be wiped clean with a liquid detergent.

## RESPIRATOR SETUP AND CARE CONTINUED

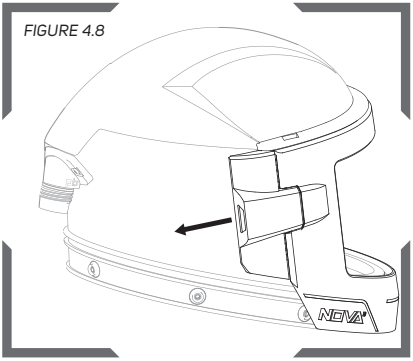
### VISOR ASSEMBLY REMOVAL FOR REPLACEMENT

*FIGURE 4.7*



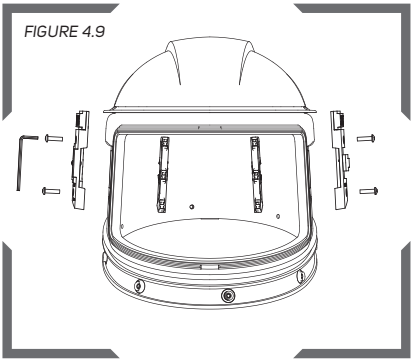
There is an Allen Key mounted in the padding connector. Rotate the Allen Key out of the holder then pull down to remove.

*FIGURE 4.8*



To remove the Visor, undo the hinge lock (NV3-727-2) and slide back, this will expose the hinge pin to remove the Visor.

*FIGURE 4.9*



The Hinge Mount (NV3-727) and Latch Mount (NV3-728) can be removed using the Allen Key.

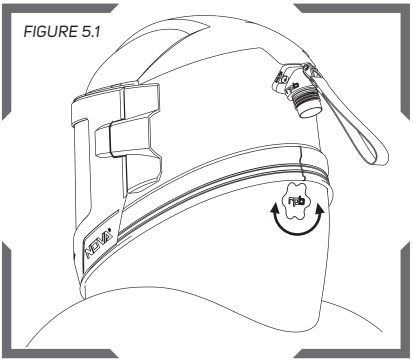
## DONNING AND DOFFING

**⚠ WARNING** **Always check the interior of the respirator for contaminants before donning. Always don and doff the helmet while outside the work area, keeping the interior of the helmet clean and free of contaminants. Not doing these steps could expose you to hazardous materials and contaminants that could impair the function of the respirator.**

### DONNING YOUR HELMET

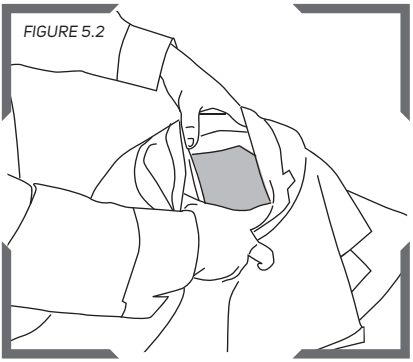
Once you have completed the set up, you are ready to fit your RPB NOVA 3 respirator. Firstly check inside the helmet to ensure that it is free of dust, dirt or contaminants. Always don the helmet with air flowing into the respirator.

*FIGURE 5.1*



Adjust the Respirator padding size by turning the ratchet knob located under the cape collar at the back of the respirator padding.

*FIGURE 5.2*



Fold back cape, open the Inner Bib and place your fingers on the Inner Bib and the side of helmet at approximately ear position. Lift the helmet and place onto your head. Make sure air is flowing into the respirator prior to fitting.

## **DONNING AND DOFFING** CONTINUED

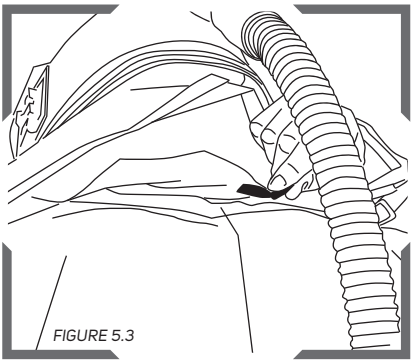


*FIGURE 5.3*

Pull the Inner Bib around your neck and adjust the elastic cord to ensure a snug fit. This helps provide a barrier to airborne contaminates.

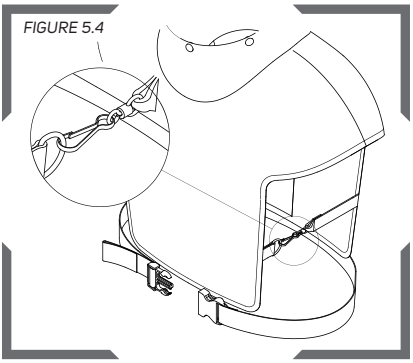


*FIGURE 5.4*

Adjust the Respirator Cape around your body and fasten the snap hooks on each side of the cape.

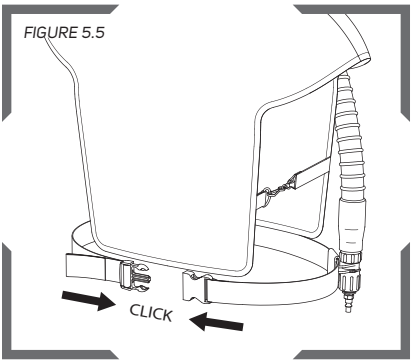



*FIGURE 5.5*

Fasten the NV2022 belt at waist or hip level and adjust for comfort. Move the Flow Control Device away from spine.

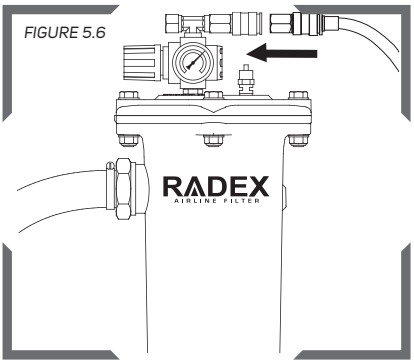



*FIGURE 5.6*

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

### DOFFING YOUR HELMET

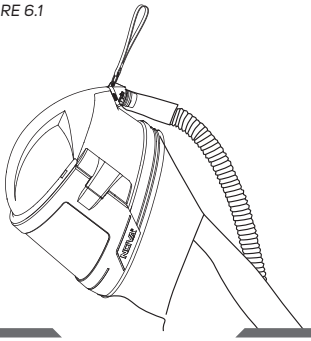
When you have finished working, keep the respirator on with air flowing into the helmet until you have left the contaminated area. Depending on the contaminants, it may be advisable to clean the exterior of the helmet and your work garments before removing the respirator. A workplace cleaning program may be necessary.

## STORAGE

After use, clean the respirator according to your company's cleaning program or the directions in this manual. Then let it dry, and store the respirator by hanging it up in a clean, dry place, away from the work area. Do not tuck the cape into the helmet if it has not been thoroughly cleaned. Before storing the respirator for an extended period of time, clean the unit following the cleaning instructions in this instruction manual. It is recommended to store the respirator in a container or storage bag. Store in a cool dry place between -10°C to +45°C (14°F to 113°F) <90%rh.

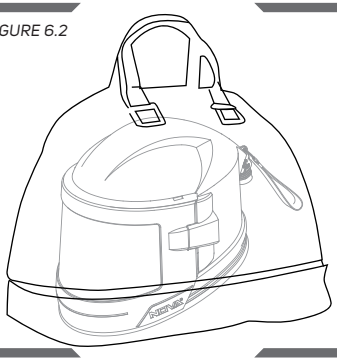
After use:

*FIGURE 6.1*



Long term storage:

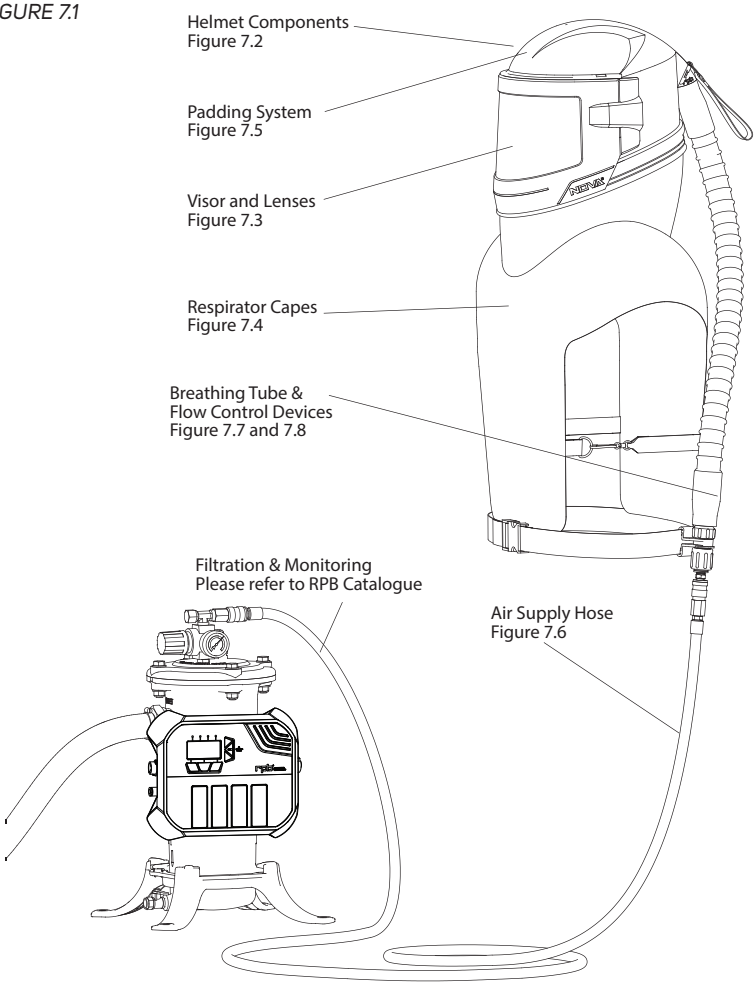
*FIGURE 6.2*



PX5 may need to be stored separately, refer to the PX5 Instruction manual for specific storage instructions.

# PARTS AND ACCESSORIES

*FIGURE 7.1*

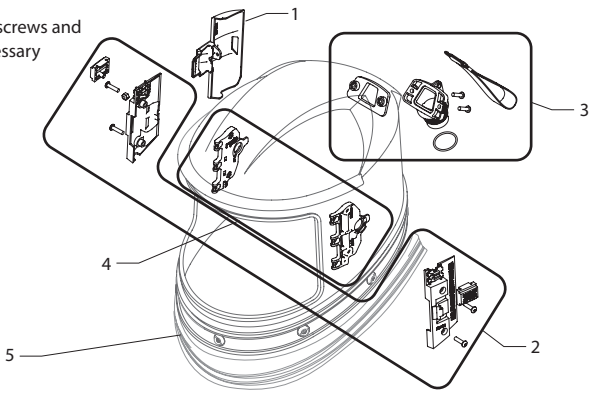



**⚠ WARNING** **Use only exact, authentic RPB replacement parts (marked with the RPB logo and part number), and only in the specified configuration. Using incomplete or inappropriate equipment, including the use of counterfeit or non-RPB parts, can result in inadequate protection and will void the NIOSH approval of the entire respirator assembly.**

# **PARTS AND ACCESSORIES** CONTINUED

## HELMET COMPONENTS *FIGURE 7.2*

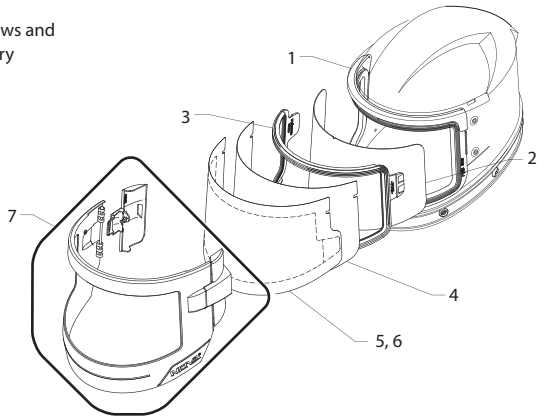
All kits contain screws and nuts when necessary




| Item Number | Description | Part Number |
|---|---|---|
| 1 | Visor Hinge Lock | NV3-727-2 |
| 2 | Visor Latch Mount Kit - Latch Mount, Hinge Mount, Covers | NV3-727/8 |
| 3 | Air Inlet Kit - Air Inlet, O-Ring, Back Plate, Hanging Strap | NV3-729 |
| 4 | Padding Connectors (left & right) | NV3-730 |
| 5 | Cape Coverband | NV3-759 |

## VISOR AND LENSES *FIGURE 7.3*

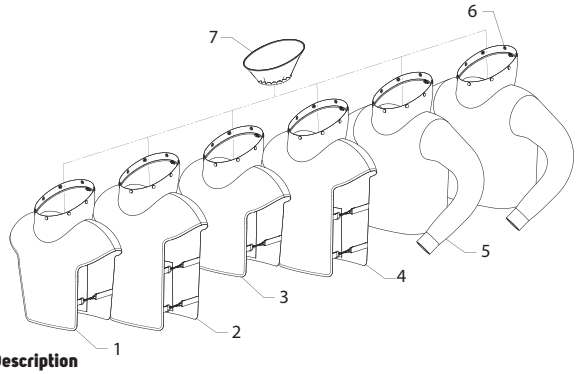
All kits contain screws and nuts when necessary




| Item Number | Description | Part Number |
|---|---|---|
| 1 | Inner Gasket | NV3-721 |
| 2 | Inner Lens pk 10 | NV3-722 |
| 3 | Inner Lens Frame | NV3-723 |
| 4 | Outer Lens pk 50 | NV3-724 |
| 5 | Tear Off Lens pk 50 | NV3-725 |
| 6 | Tear Off Cassette Lens | NV3-745 |
| 7 | Visor Kit - Visor with Hinge Pin and Latch, Hinge Lock | NV3-726 |

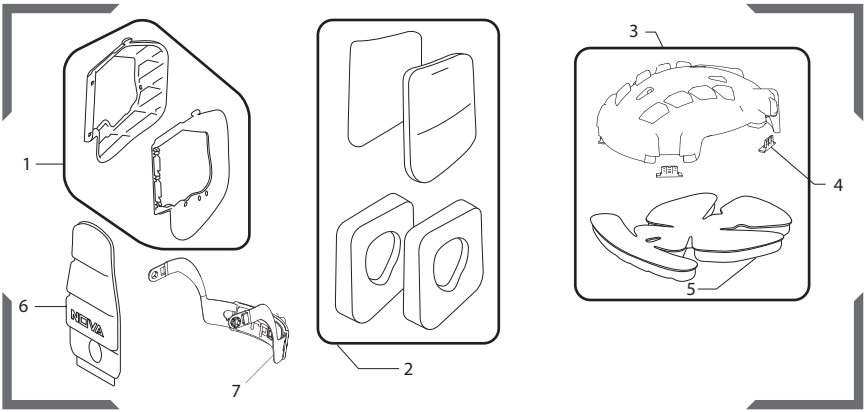
# PARTS AND ACCESSORIES CONTINUED

## RESPIRATOR CAPES *FIGURE 7.4*




| Item Number | Description | Part Number |
|---|---|---|
| 1 | 28¨ Nylon Cape | NV3-750 |
| 2 | 38¨ Nylon Cape | NV3-751 |
| 3 | 28¨ Leather Cape | NV3-752 |
| 4 | 38¨ Leather Cape - HD | NV3-753 |
| 5 | Blast Jacket Size XL | NV3-754 |
| 6 | Blast Jacket Size XXL | NV3-755 |
| 7 | Inner Bib | NV2012 |

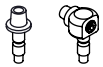
## PADDING SYSTEMS *FIGURE 7.5*

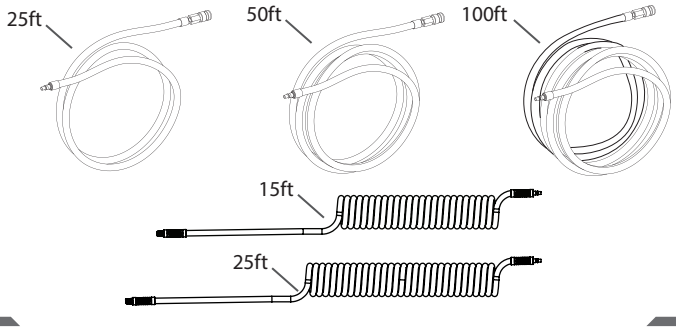



| Item Number | Description | Part Number |
|---|---|---|
| 1 | Side Padding Frames (left & right) | NV3-731 |
| 2 | Side Padding Foam Pads (A10 Thin, A15 Medium, A20 Thick)** w/ covers | NV3-732-XXX |
| 3 | Head Liner Kit - Head Liner, Head Liner Foam Padding, Head Liner Clips x4 | NV3-734 |
| 4 | Head Liner Clips, pack of 4 | NV3-734-1 |
| 5 | Head Liner Padding | NV3-735 |
| 6 | Neck Pad | NV3-735-1 |
| 7 | Adjustable Head Support | 07-900 |

** Note that the A10 is for larger head sizes and the A20 is for smaller head sizes.

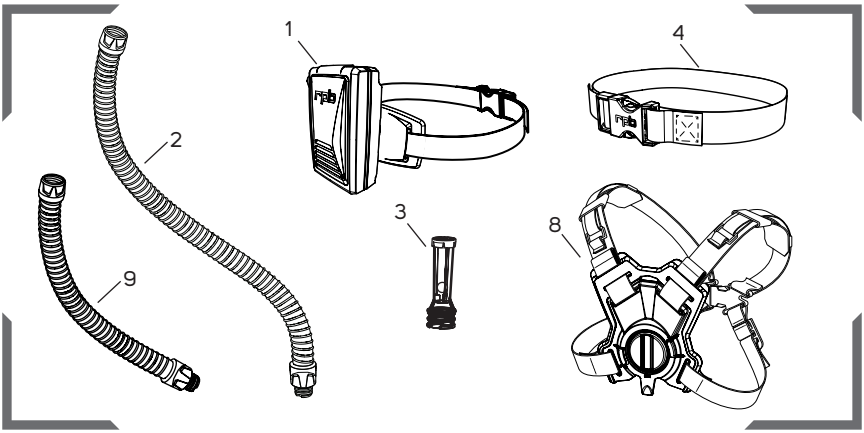
**AIR SUPPLY HOSES** *FIGURE 7.6*

| Series | 1. Couplers | 2. Plugs | 3. Breathing Air Line Assemblies |
|---|---|---|---|
| RPB Quick Disconnect | NV2025 1/4" FM NPT | 03-012-PM 1/4" M NPT<br>03-012-PMS 1/4" M NPT Swivel | NV2028 RPB 25ft<br>NV2029 RPB 50ft<br>NV2027 RPB 100ft<br>04-412-15 RPB 15ft<br>04-412-25 RPB 25ft |
| RPB RZ Quick Connect | | 03-052-PM-RZ RZ Plug 1/4" Male Thread<br>03-052-PMS-RZ RZ Swivel Plug  | 04-352-25-RZ 25ft<br>04-352-50-RZ 50ft<br>04-352-100-RZ 100ft |
| Schrader Twist Lock | 03-042-CF 1/4" FM NPT | 03-042-PM 1/4" M NPT<br>03-042-PMS 1/4" M NPT SWIVEL | 04-342-25 Schrader 25ft<br>04-342-50 Schrader 50ft<br>04-342-100 Schrader 100ft<br>04-442-15 Schrader 15ft<br>04-442-25 Schrader 25ft |



## **PARTS AND ACCESSORIES** CONTINUED

**PAPR PARTS AND ACCESSORIES** *FIGURE 7.7*




| Item Number | Description | Part Number |
|---|---|---|
| 1 | PX5 PAPR and Belt | 03-801 |
| 2 | Breathing Tube for PX5 PAPR | 04-831 |
| 3 | Flow Meter PX5 PAPR | 03-819 |
| 4 | 2" Belt for PX5 - Easy Clean | 07-765-DC |
| | 2" Belt for PX5 - Fire Retardant | 07-765-FR |
| 8 | FR Backpack Assembly | 03-822-FR |
| | Easy Clean Backpack Assembly | 03-822-DC |
| 9 | Short Breathing Tube for Backpack Assembly | 04-841 |

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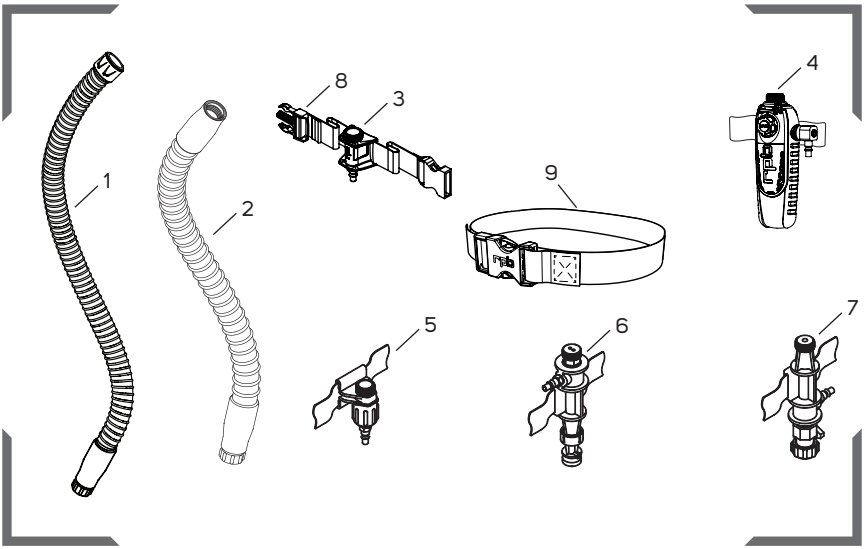
**FLOW CONTROL DEVICES** *FIGURE 7.8*




| Item Number | Description | Part Number |
|---|---|---|
| 1 | Breathing Tube for Supplied Air (Non-Blasting) | 04-833 |
| 2 | Breathing Tube for Supplied Air (Blasting) | NV2021B |
| 3 | Constant Flow Valve Assembly and Belt | 03-101 |
| 4 | C40 Climate Control Assembly and Belt | 03-500 |
| 5 | Flow Control Valve Assembly and Belt | NV2016 |
| 6 | Cool Air Tube Assembly and Belt | 4000-01 |
| 7 | Hot Air Tube Assembly and Belt | 4000-20 |
| 8 | Belt for Flow Control Devices except C40 | NV2022 |
| 9 | 2" Belt for C40 | 07-765 |
| | 2" Belt for C40 - Fire Retardant | 07-765-FR |

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**NOTES**

## NOTES

## NOTES

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