

INSTRUCTION MANUAL

RPB® Hot Air Tube



EMPLOYERS: Read this manual and the respirator head-top Instruction Manual and carry out the Employer Responsibilities (page 7).

PRODUCT USERS: Read this manual and the respirator head-top Instruction Manual and follow the Product User Safety Instructions (page 9).

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

CURRENT VERSION OF MANUAL AND OTHER LANGUAGES:
rpb-safety.com/resources

The Respiratory Protection **Brand®**



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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 rpbsafety.com.

RPB® Safety LLC is an ISO9001 certified company.

INTRODUCTION

The 4000-20 Hot Air Tube is NIOSH approved to supply a continuous flow of warm compressed air to the Supplied Air Respirator. All Genuine Parts must be present and correctly assembled to constitute a NIOSH approved respirator.

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: customerservice@rpbsafety.com

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IMPORTANT SAFETY INFORMATION

WARNING

Improper selection, 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 7). 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 rpb-safety.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 7).

Product users: Read this manual and the air supply device Instruction Manual and follow the Product User Safety Instructions (page 9).

Check website for updates. Product manuals are regularly updated.

Visit rpb-safety.com/resources/ for the most recent version of this manual before using the product.

PROTECTION PROVIDED AND LIMITATIONS

RESPIRATION

The RPB[®] Hot Air Tube is approved by NIOSH as a flow control device in the categories as follows:

Supplied Air

The RPB[®] Hot Air Tube, when properly fitted and used with all required components, including the Respirator Head-Top, Breathing Tube Assembly, and RPB[®] Breathing Air Line is a NIOSH approved respirator. A complete respirator assembly significantly reduces, but does not completely eliminate, the breathing of contaminants by the respirator wearer. Refer to the head-top approval label to verify that it is approved for use with the Hot Air Tube. Refer to the instruction manual for the head-top being used for the Assigned Protection Factor. Use with an airline filter, such as the Q4-900 RPB[®] RADEX[®] Airline Filter. Specific protection depends on the setup of the airline filter (see the RPB[®] RADEX[®] Instruction Manual).

HAZARD LIMITATIONS

The RPB[®] HotAir Tube 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).

INSERT APPROVAL LABEL HERE

RESPIRATOR COMPONENT DIAGRAM

A NIOSH approved respirator consists of 3 main components (shown with the Nova 3® for example):

1. RESPIRATOR HELMET ASSEMBLY □

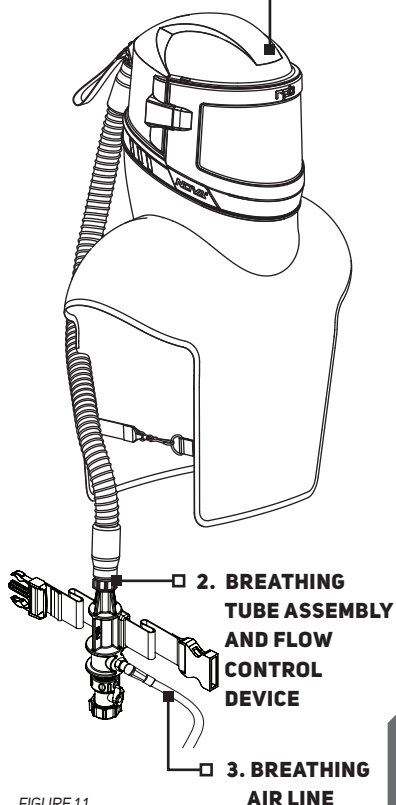


FIGURE 1.1

NIOSH - CAUTIONS AND LIMITATIONS

- 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 Instructions and/or specific limitations apply. Refer to "Breathing Air Pressure Table" in the head-top Instruction Manual.

AIR SOURCE, FITTINGS, AND PRESSURE

AIR SOURCE

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 (j). The RPB® Hot Air Tube 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® 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 in the head-top Instruction Manual.

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 rpbsafety.com/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 head-top 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 Hot Air Tube®'s use, maintenance, and limitations.**

Appoint a qualified individual who is knowledgeable about the RPB® Hot Air Tube per ANSI/ASSE Z88.2 guidelines to provide training:

Section 8.1 Qualifications of the Respirator Trainer. Anyone providing respirator training shall:

- a) be knowledgeable 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 knowledgeable of applicable regulations.

Train each Hot Air Tube user in the product's use, application, inspection, maintenance, storage, and limitations in accordance with the content of this Instruction Manual and the approved head-top 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.

☐ **If you have any questions, contact RPB®.**

■ Call Customer Service Department at:

Tel: 1-866-494-4599

Email: customerservice@rpb-safety.com

Web: rpb-safety.com

PRODUCT USER SAFETY INSTRUCTIONS

BEFORE INITIAL USE - BE TRAINED AND MEDICALLY QUALIFIED

Do not use this device until you have read this manual and the head-top Instruction Manual (additional copies available at www.rpbsafety.com) and been trained in the respirator's use, maintenance, and limitations by a qualified individual (appointed by your employer) who is knowledgeable about the RPB® Hot Air Tube device.

Do not use this device 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. The Hot Air Tube is only one component of a NIOSH approved respirator system. Verify that you have all required components to serve as a complete NIOSH approved respirator:

- Respirator Helmet Assembly
- Breathing Tube Assembly
- Hot Air Tube
- Breathing Air Line

See *Respirator Component Diagram* (page 5). Check the head-top approval label to verify it is approved to be used with the RPB® Hot Air Tube. 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.

Follow the Setup and Product Care instructions to **inspect** all components daily, including the internal components, for signs of damage or wear and tear that may reduce the level of protection originally provided. Remove any damaged component or product. Damaged components should be replaced with genuine RPB® brand replacement parts. Keep the inside of the Hot Air Tube clean at all times.

Make sure that the Hot Air Tube is correctly assembled. Never use the device without all components in place. An incomplete or improperly installed Hot Air Tube system could provide inadequate respiratory protection. See *Setup* (page 11).

PRODUCT USER SAFETY INSTRUCTIONS CONTINUED

BEFORE DONNING THE RESPIRATOR WITH THE HOT AIR TUBE:

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.

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. 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.
- Contaminants are in excess of regulations or recommendations.
- Contaminants or contaminant concentrations are unknown.
- Work area is poorly ventilated.
- The work area is a confined space (unless proper measures are taken for confined spaces).
- 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.
- You taste, smell, or see contaminants inside the helmet.
- You have any other reason to suspect that the respirator is not providing adequate protection.

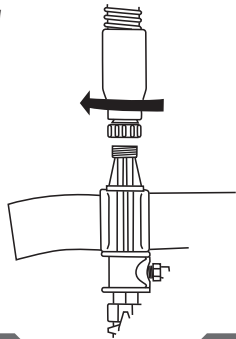
PRODUCT CARE

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.

The 4000-20 can be completely disassembled for maintenance. Clean and disinfect with warm water and a soft cloth. It is advised to rinse out the silencer disc on a regular basis to ensure the unit maintains peak performance. Refer to the parts list for replacement part numbers. Do not clean with volatile chemicals or chemicals that could be harmful to your health.

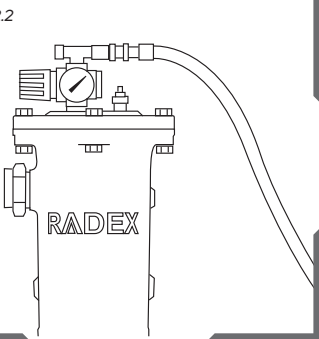
SETUP

FIGURE 2.1



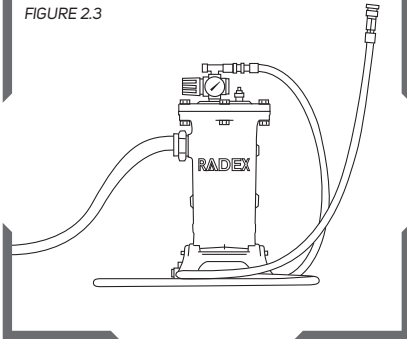
To supply warm air to the respirator connect the outlet to the breathing tube and tighten by hand.

FIGURE 2.2



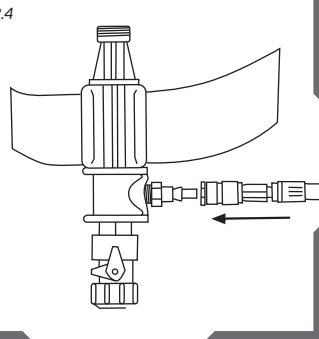
Connect a RPB® Breathing Air Line insuring the maximum sections and lengths are within the specifications of the Breathing Air Pressure Table in the head-top instruction manual.

FIGURE 2.3



Adjust the air pressure at the point of attachment according to the Breathing Air Pressure Table in the head-top instruction manual.

FIGURE 2.4

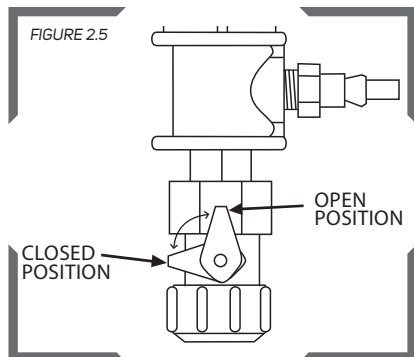


Connect the air supply hose to the quick disconnect connector on the Hot Air Tube.

RPB[®] HOT AIR TUBE

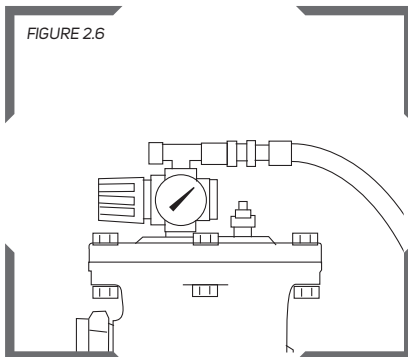
SETUP CONTINUED

FIGURE 2.5



With air flowing through the point of attachment to the recommended pressure specified in the breathing air pressure table. The air pressure must be set with the outlet valve in the open position as detailed in .

FIGURE 2.6



Re-check the air pressure at the point of attachment and adjust it if necessary. Ensure you are comfortable with the flow of air inside the respirator.

BREATHING AIR PRESSURE TABLE

S - Special or Critical Users Instructions

Refer to the head-top instruction manual for Breathing Air Pressure Table. This table lists air pressure ranges needed to provide the RPB[®] Supplied Air Respirators when using the Hot Air Tube with the volume of air that falls within the required range of 6-15cfm or 170-425 slpm according to U.S government regulations.

INSPECTION, CLEANING AND STORAGE

Hot Air Tube

The RPB® Hot Air Tube has a limited service life, and therefore a regular inspection and replacement program must be conducted. All components of a Respirator Assembly including the Breathing Air Line, Head-top and Flow Control Devices should be inspected for damage and wear and tear, before use. Before each use inspect the Hot Air Tube device. If any damaged or worn parts are found, they should be replaced immediately, or the unit disposed of. Use only parts and components that are part of the NIOSH approved respirator assembly as set out in this instruction manual or that of the head-top. Refer to the parts list on page 14 for the correct part numbers to replace parts of the Hot Air Tube.

Store the Hot Air Tube in a cool dry environment with the rest of the respirator assembly, or by itself in a sealed container or bag outside of the work environment.

Breathing Air Line

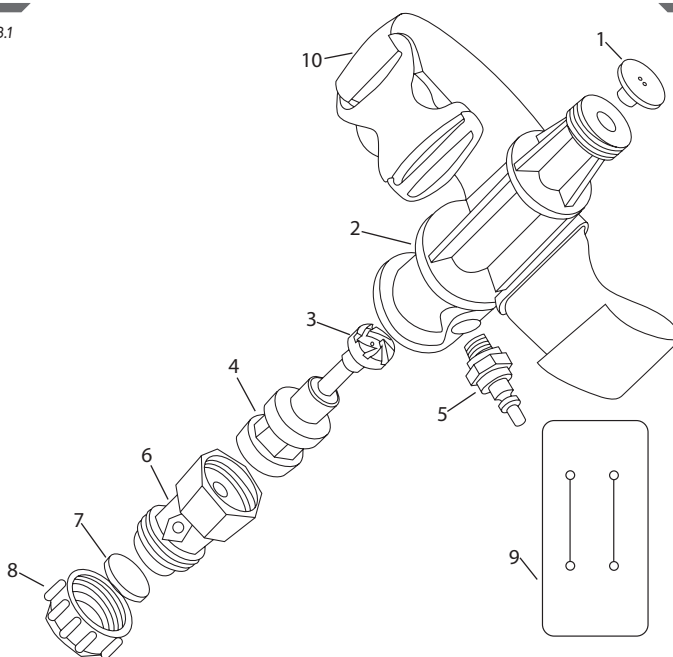
Inspect the Breathing Air Line for cuts, cracks, blisters and excessive wear. Ensure the hose has not been crushed or kinked and that fittings are tightly crimped to the hose so air cannot escape. Replace the hose immediately if there are any signs of damage or wear.

Do not run water through the inside of the hose. Check Quick Connect Couplings and use compressed air to remove any particles that may jam the coupler.

RPB HOT AIR TUBE

PARTS LIST

FIGURE 3.1



Item Number	Description	Part Number
1	Flow Reducer	4000-14
2	Body	4000-05
3	Air Spinner Hot	4000-13
4	Threaded Cap	4000-03
5	1/4" RPB® Quick Connect Connector	03-012-PM
	1/4" Schrader Connector	03-042-PM
	1/4" RPB® RZ® Quick Connect Connector	03-052-PM-RZ
6	Outlet Valve	4000-15
7	Silencer Disk	4000-16
8	Nut	4000-17
9	Heat Shield	4000-12
10	Belt	NV2022

LIMITED WARRANTY

RPB® warrants that its Products will be free from defects in materials and workmanship for one (1) year, subject to the terms of this limited warranty. The Products are sold only for commercial use, and no consumer warranties apply to the Products. This limited warranty is for the benefit of the original Product purchaser, and cannot be transferred or assigned. This is the sole and exclusive warranty provided by RPB®, and ALL CONDITIONS AND IMPLIED WARRANTIES (INCLUDING ANY WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE) ARE EXCLUDED AND DISCLAIMED FROM WARRANTY COVERAGE. RPB's® limited warranty coverage does not apply to damage resulting from accident, improper use or misuse of the Products, wear and tear resulting from the normal use of the Products, or the failure to properly maintain the Products.

RPB's® limited warranty coverage runs from the original date of purchase of the Products, and applies only to warranted defects which first manifest themselves and are reported to RPB® within the warranty period. RPB® retains the right to determine to its reasonable satisfaction whether any claimed defect is covered by this limited warranty.

If a warranted defect occurs, RPB® will repair or replace the defective Product (or a component of the Product), in its sole discretion. This "repair or replacement" remedy is the sole and exclusive remedy under this limited warranty, and under no circumstances shall RPB's® liability under this limited warranty exceed the original purchase price for the Products (or the applicable component). RPB® has no responsibility for incidental or consequential damages, including loss of use, maintenance and other costs, and ALL INCIDENTAL AND CONSEQUENTIAL DAMAGES ARE EXCLUDED AND DISCLAIMED from this limited warranty. Contact RPB® to obtain warranty service. Proof of purchase must be provided to obtain warranty service. All costs of returning the Products to RPB® for warranty service must be paid by the purchaser.

RPB® reserves the right to improve its Products through changes in design or materials without being obligated to purchasers of previously manufactured Products.

LIABILITY

RPB® Safety cannot accept any liability of whatsoever nature arising directly or indirectly from the use or misuse of RPB® Safety products, including purposes that the products are not designed for. RPB® Safety is not liable for damage, loss or expense resulting from the failure to give advice or information or the giving of incorrect advice or information, whether or not due to RPB® Safety's negligence or that of its employees, agents or subcontractors.

OTHER PRODUCTS

ISO9001
CERTIFIED COMPANY

RPB® NOVA 3® RESPIRATOR

The RPB® NOVA 3® combines breakthrough protection technology with advanced comfort and functionality, surpassing even the most rigorous industry standards and the demands of the most quality-conscious companies. Designed to optimize safety and productivity, and to minimize worker downtime, the helmet has a host of features that maximize its lifetime value.



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 QUALITY MONITORING

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



MAN-02

rpb®