

rpb T100 /Z100 SERIES

INSTRUCTION MANUAL



Employers: Read this manual and the flow control device Instruction Manual and carry out the Employer Responsibilities (page 9).

Product users: Read this manual and the flow control device Instruction Manual and follow the Product User Safety Instructions (page 11).

Make sure this manual is available to all users for reference.

Español: www.rpbsafety.com/product/t100-series/ and www.rpbsafety.com/product/z100-series/

PROTECTING YOU FOR
LIFE'S BEST MOMENTS®



RPB T100™ /Z100™ SERIES

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



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 www.rpbsafety.com.

RPB® Safety LLC is an ISO9001 certified company.

INTRODUCTION

The T100™ and Z100™ Series Respirators can be used for general purpose applications, including Pharmaceutical Manufacturing, Chemical and Pesticide Handling, Tank Cleaning, Spray Painting, Grinding and other industrial or agricultural applications in which respiratory protection is needed.

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.

RPB® SAFETY - GLOBAL HEADQUARTERS

2807 Samoset Rd, Royal Oak, MI 48073, USA.

T: 1-866-494-4599 F: 1-866-494-4509 E: sales.us@rpbsafety.com rpbsafety.com

RPB® SAFETY - APAC

1 Ivan Jamieson Place, Christchurch Airport, Christchurch 8053 New Zealand.

T: +64-3-357-1761 F: +64-3-357-1763 E: sales.nz@rpbsafety.com rpbsafety.com

RPB® SAFETY - EMEA

Unit 2, Teardrop Industrial Park, London Road, Swanley, BR8 8TS, United Kingdom

T: +44-800-689-5031 E: sales@rpbsafety.co.uk rpbsafety.com

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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



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 9). 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/importantsafetyinformation/ 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 9).

Product users: Read this manual and the air supply device Instruction Manual and follow the Product User Safety Instructions (page 11).

PROTECTION PROVIDED AND LIMITATIONS

RESPIRATION

The RPB® T100™ and Z100™ are approved by NIOSH as a Type C respirator in the categories as follows:

Powered Air

The **RPB® T100™**, when properly fitted and used with all required components, including the Breathing Tube Assembly and the O3-901 RPB® PX4 AIR® Powered Air Purifying Respirator, is a NIOSH approved powered air purifying respirator with an assigned protection factor of 1000. As such, it significantly reduces, but does not completely eliminate, the breathing of contaminants by the respirator wearer. Specific protection depends on the filter selected for use in the RPB® PX4 AIR® PAPR (see PX4 AIR® Instruction Manual).

Supplied Air

The **RPB® T100™ and Z100™**, 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 respirator with an assigned protection factor of 1000. As such, it significantly reduces, but does not completely eliminate, the breathing of contaminants by the respirator wearer. Use with an airline filter, such as the O4-900 RPB® RADEX® Airline Filter. Specific protection depends on the setup of the airline filter (see the RPB® RADEX® Instruction Manual). These respirators are approved with O3-101 Constant Flow Valve, the NV2016 Flow Control Valve, or the 4000-40 Cool Air Tube Flow Control Devices.

HAZARD LIMITATIONS

The RPB® T100™ and Z100™ 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.
- In abrasive blasting applications.
- 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, PX4 AIR®.

FACE AND EYES:

- The T100™ and Z100™ with **Safety Lens** meets ANSI/ISEA Z87.1 requirements and designed for grinding, painting, and other industrial applications.
- Models without the Safety Lens do not meet the ANSI/ISEA Z87.1 standard.
- The T100™ and Z100™ is not 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 T100™ and Z100™ 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 T100™ and Z100™ when used with the optional **hard hat** meets the ANSI/ISEA Z89.1 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.
- When used without the optional hard hat, head protection is not provided.

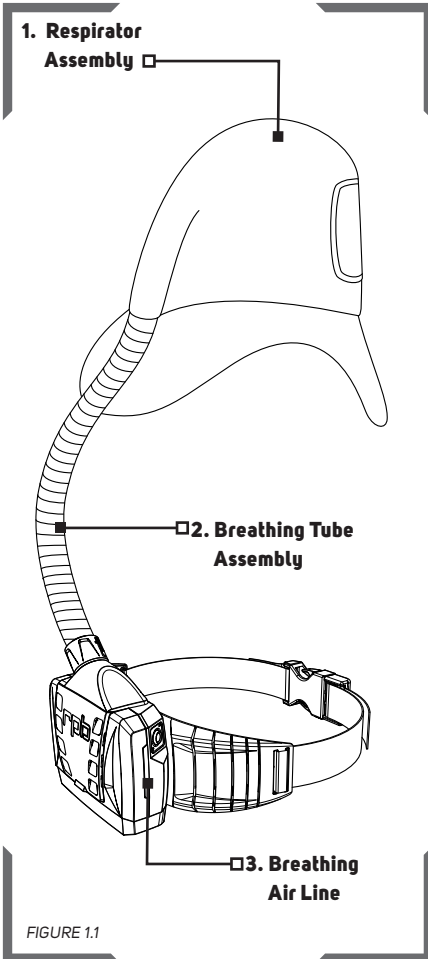
HEARING:

- The T100™ and Z100™ do not provide hearing protection.
- Ear muffs or other hearing protection, such as earplugs, must be properly fitted and worn where noise levels exceed the OSHA permissible exposure levels.

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RESPIRATOR COMPONENT DIAGRAM - PAPR

The T100™ consists of 3 main components:



- C. Do not exceed maximum use concentrations established by regulatory standards
- F. Do not use powered air-purifying respirators if airflow is less than 4CFM (115lpm) for tight fitting facepieces or 6CFM (170lpm) 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 which have not been evaluated as an ignition source 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's 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.
- S. Special or Critical User Instructions and/or specific limitations apply. Refer to "S-Special or Critical User Instructions" in the PX4 Air® Instruction Manual before donning.

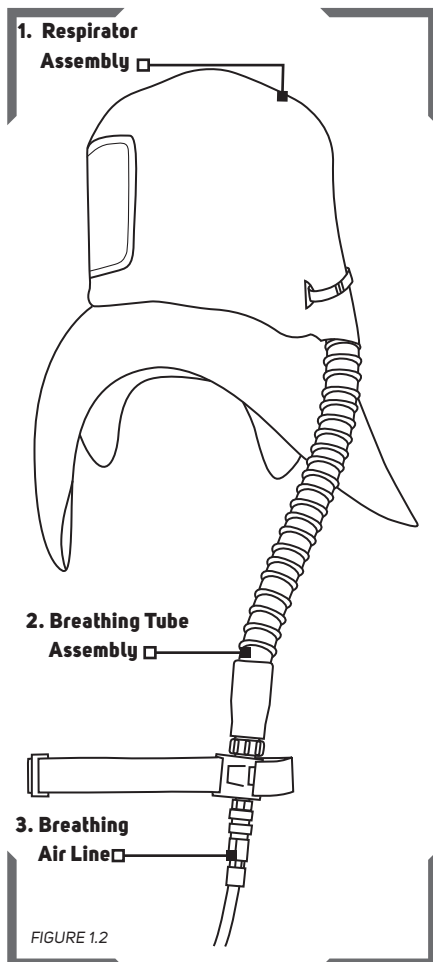
NIOSH – CAUTIONS AND LIMITATIONS

- 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.

PLACE NIOSH APPROVAL LABEL HERE.

RESPIRATOR COMPONENT DIAGRAM - SAR

The T100™ and Z100™ consists of 3 main components:



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.
- 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's 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.
- S. Special or critical user's instructions and/or specific limitations apply. Refer to user Instructions on page 14 (breathing air pressure table) before donning.

T100™ /Z100™ SERIES

AIR SOURCE, FITTINGS, AND PRESSURE

AIR SOURCE

Powered Air - T100™ ONLY

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 PX4 AIR® PAPR Instruction Manual for more details.

Supplied Air - T100™ and Z100™

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® T100™ and Z100™ does not purify air or

DANGER

filter contaminants. A carbon monoxide monitor must be used at all times.

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 on page 14.

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/importantsafetyinformation/ 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 PX4 AIR® PAPR or 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 T100™ and Z100™'s use, maintenance, and limitations.

Appoint a qualified individual who is knowledgeable about the RPB® T100™ and Z100™ 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

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EMPLOYER RESPONSIBILITIES CONTINUED

at the site;

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

Train each T100™ and Z100™ 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 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@rpbsafety.com

Web: rpbsafety.com

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 PX4 AIR® PAPR or the flow control device Instruction Manual (additional copies available at www.rpbsafety.com/resources/) 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® T100™ and Z100™ 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 T100™ and Z100™ to serve as a complete NIOSH approved respirator:

- Respirator Assembly (T100™ or Z100™)
- Breathing Tube Assembly
- Flow Control Device (PX4 AIR® [T100™ only], Constant Flow Valve, Flow Control Valve, or Cold Air Tube)
- Breathing Air Line (Supplied Air)

See *Respirator Component Diagram* (page 6-7). The RPB® T100™ or Z100™ is only approved to be used with the RPB® PX4 AIR® PAPR (T100™ only), RPB® Constant Flow Valve, RPB® Flow Control Valve, or RPB® Cold 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 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 hood or hard hat 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 hoods 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.

VERIFY THAT YOU HAVE THE APPROPRIATE EQUIPMENT FOR YOUR ACTIVITY

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PRODUCT USER SAFETY INSTRUCTIONS CONTINUED

Verify that the T100™ or Z100™ 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.)

Choose the hood that is correct for your application. Use Z100™ for applications involving sparks or heat, T100™ in Tychem® 4000 with sealed seams for applications that need more protection from liquids or other materials, "S" models with Safety Lens where there is a risk of impact to the face from debris. Make sure the neck seal is tied snug to your neck and the inner bibs are tucked in, as they are part of the respiratory seal to prevent toxic or hazardous gases, liquids or dust from entering the helmet. An incomplete or improperly worn respirator assembly could provide inadequate respiratory and impact protection. *See Respirator Setup and Care (page 16). See Donning (page 21) for fit information.*

BEFORE DONNING THE T100™ or Z100™:

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 PX4 AIR® 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.
- 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).

- A flammable or explosive atmosphere is present when used with systems including electrical parts that are not intrinsically safe, PX4 AIR®.

LEAVE THE WORK AREA IMMEDIATELY IF:

- Any product component becomes damaged.
- Vision is impaired.
- Airflow stops or slows down, or alarm sounds. Do not use Powered Air Purifying Respirators if airflow is less than 6 cfm (170 lpm).
- 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 hood 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

Sparks

For grinding and other applications that produce sparks, be sure to use the Z100™ hood that is made of Zytac® fire retardant material.

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.

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BREATHING AIR PRESSURE TABLE

S - SPECIAL OR CRITICAL USERS INSTRUCTIONS - SAR TABLE 1.1

This table lists air pressure ranges needed to provide the T100™ and Z100™ with the volume of air that falls within the required range of 6-15cfm or 170-425 lts/min according to US government regulations.

1. AIR SOURCE	2. AIR SUPPLY HOSE	3. FLOW CONTROL DEVICES WITH NV2021F BREATHING TUBE ASSEMBLY	4. SUPPLY HOSE LENGTH (FT)	5. MAX NUMBER OF SECTIONS	6. PRESSURE RANGE (PSIG AIR)
Portable or Stationary Compressor	NV2028 (25ft) NV2029 (50ft) NV2027 (100ft) 04-352-25-RZ (25ft) 04-352-50-RZ (50ft) 04-352-100-RZ (100ft)	03-101 Constant Flow Valve Assembly (High Pressure)	25	1	10 - 14
			50	1	12 - 14
			100	2	17 - 19
			150	3	21 - 23
			200	4	25 - 27
			300	5	28 - 31
		NV2016 Flow Control Valve Assembly	25	1	27-28
			50	1	28-30
			100	2	30-33
			150	3	33-36
			200	4	36-38
			300	5	38-39
		4000-40 Climate Control Tube Assembly (Silenced Cooler)	25	1	55-56
			50	1	55-57
			100	2	60-62
			150	3	65-67
			200	4	70-72
			300	5	75-77
			6	78-80	

WARNING

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.

1. AIR SOURCE	2. AIR SUPPLY HOSE	3. FLOW CONTROL DEVICES WITH NV2021F BREATHING TUBE ASSEMBLY	4. SUPPLY HOSE LENGTH (FT)	5. MAX NUMBER OF SECTIONS	6. PRESSURE RANGE (PSIG AIR)
Portable or Stationary Compressor	04-342-25 (25ft) 04-342-50 (50ft) 04-342-100 (100ft)	03-101 Constant Flow Valve Assembly (High Pressure) with Schrader Fittings	25	1	18-20
			50	1	22-24
			100	2	26-28
			150	3	30-32
			200	4	34-36
			250	5	38-40
		300	6	42-44	
		NV2016 Flow Control Valve Assembly with Schrader Fittings	25	1	28-30
			50	1	30-32
			100	2	33-35
			150	3	36-38
			200	4	40-42
			250	5	44-46
		300	6	48-50	
		4000-40 Climate Control Tube Assembly (Silenced Cooler) with Schrader Fittings	25	1	60-65
			50	1	60-65
			100	2	65-70
			150	3	70-75
200	4		75-80		
250	5		80-85		
300	6	85-90			

⚠ 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.

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.

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RESPIRATOR SETUP

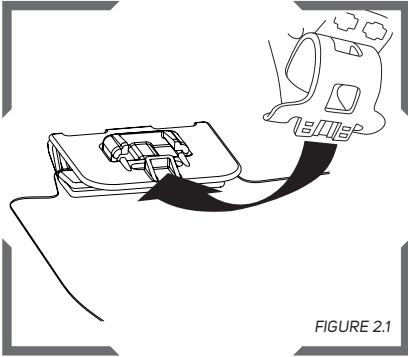


FIGURE 2.1

Attach 07-920 Head Suspension:

Place the head suspension inside the respirator and connect it by sliding the front two tabs into the clips attached to the lens until they click into place.

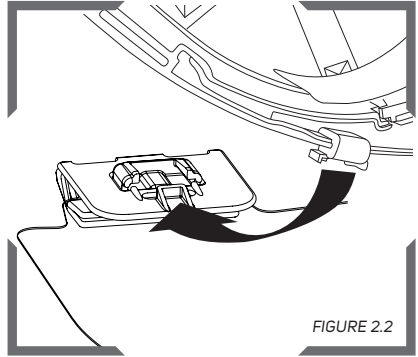


FIGURE 2.2

Attach 07-126 Hard Hat:

Place the hard hat inside the respirator and connect it by sliding the front two tabs into the clips attached to the lens until they click into place.

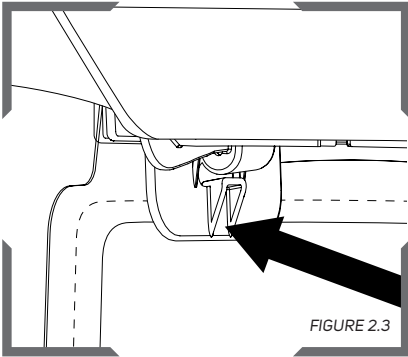


FIGURE 2.3

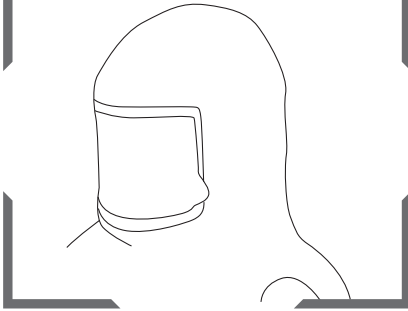
Remove 07-920 or 07-126:

Press the bottom of the clip until the tab clears and allows the head suspension or the hard hat to slide down, out of the clip.

PEEL OFF LENSES

Peel-off lenses (07-123) are optional and are used to increase the life of your main lens. Peel-off Lenses come in packets of 50 each with double sided tape already in place.

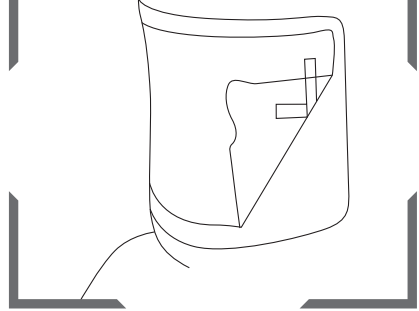
FIGURE 3.1



Apply Lens

Remove tape backing and adhere lens onto the center of the main lens on the respirator.

FIGURE 3.2



Remove Lens

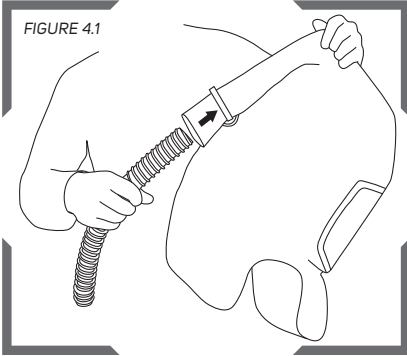
Pull on the tab and the adhesive will give way.

rpb T100™ /Z100™ SERIES

RESPIRATOR SETUP CONTINUED

CONNECT THE AIR SUPPLY - POWERED AIR

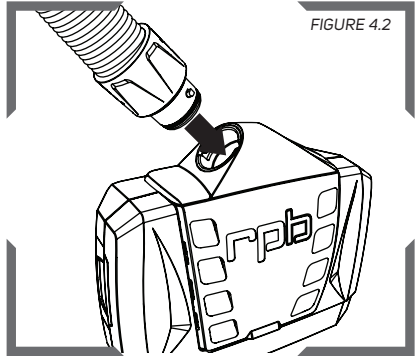
FIGURE 4.1



Connect Breathing Tube

Place the breathing tube into the inlet at the rear of the hood. Tighten the clamp to hold it in position. Test the connection by pulling down on the Breathing Tube.

FIGURE 4.2



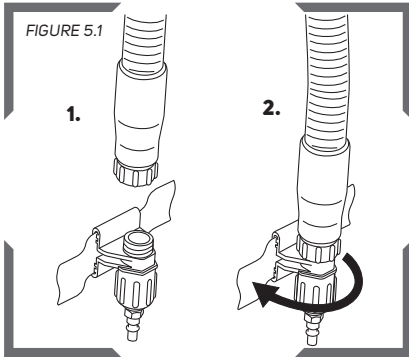
Insert the bayonet end of the breathing tube into the outlet of the PX4 AIR® PAPR and twist it in until it is secure.

FOR USE WITH RPB® PX4 AIR® - SEE THE PAPR USER MANUAL

When the T100™ Respirator is being used in conjunction with the RPB® PX4 AIR® PAPR, please refer to the RPB® PX4 AIR® PAPR Instruction Manual for set up and use of the assembly.

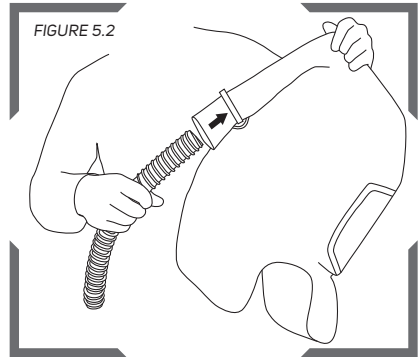
Note: The RPB® PX4 AIR® is a Powered Air Purifying Respirator, therefore care must be taken when selecting the correct filter for the application the respirator will be used in.

CONNECT THE AIR SUPPLY - SUPPLIED AIR



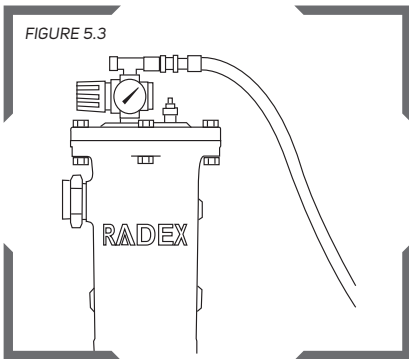
Attach Flow Control Devices

Thread on the loose running nut of the NV2021F Breathing Tube on to the Flow Control Device (e.g O3-101). Screw the running nut in a clockwise direction until tight.



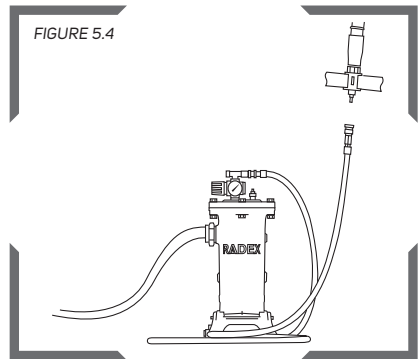
Connect Breathing Tube

Place the breathing tube into the inlet at the rear of the hood. Tighten the clamp to hold it in position. Test the connection by pulling down on the Breathing Tube.



Connect air supply hose

Adjust the air pressure at the point of attachment according to the Breathing Air Pressure Table on page 10.



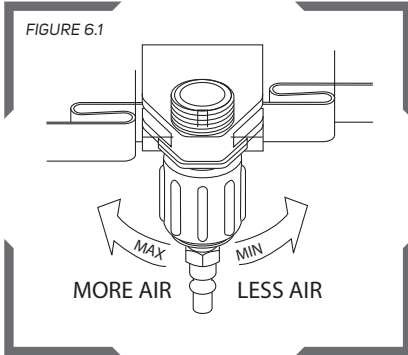
Adjust Air Pressure

Connect a RPB® Air Supply Hose insuring the maximum sections and lengths are within the specifications on page 10.

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RESPIRATOR SETUP CONTINUED

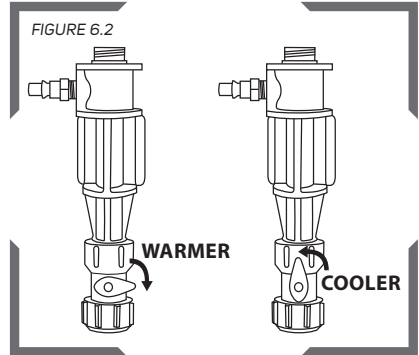
NV2016 - ADJUSTING THE FLOW RATE



Air flowing into the respirator is controlled by the NV2016 as shown in the illustration to the left.

Note: With the pressure set according to the Breathing Air Pressure Table the flow rate of air through the respirator should always exceed the minimum of 170 l/min.

4000-40 - ADJUSTING THE TEMPERATURE

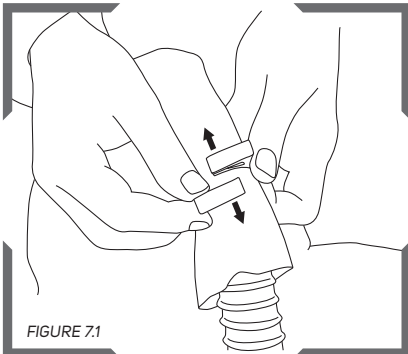


To obtain cooler air turn the regulator control knob counterclockwise so it is aligned along the length of the tube. This will increase the air flow out of the exhaust port. Similarly, turn the knob clockwise 90°, this will increase the temperature of the air closer to the ambient temperature of your air supply.

⚠ WARNING

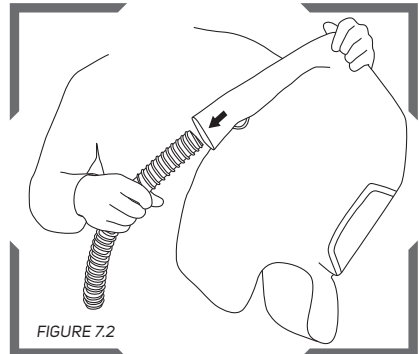
Do not use the 4000-40 when ambient temperature is below 68° (20°C) as ice could form in the cold air outlet resulting in insufficient airflow. Do not ingest ice that is formed on the 4000-40. Ice may have contaminants in it that could be dangerous to your health.

REMOVING THE BREATHING TUBE ASSEMBLY



Remove Hose Clamp

Release the hose clamp by sliding the locks sideways in opposite directions.



Detach Tube From Respirator

Remove the Breathing Tube from the respirator.

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® T100™ or Z100™. Firstly check inside the hood to ensure that it is free of dust, dirt or contaminants. Then open the bottom of the hood, with the air flowing from the air source, put the respirator onto your head. Pull the cape down or make sure the face seal is sealing around your neck

FIGURE 6.1

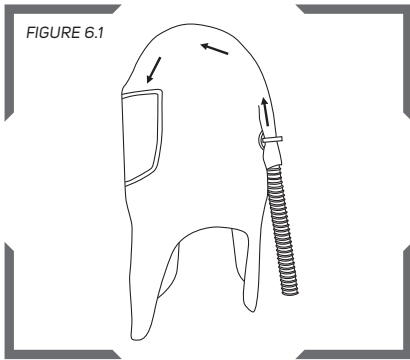
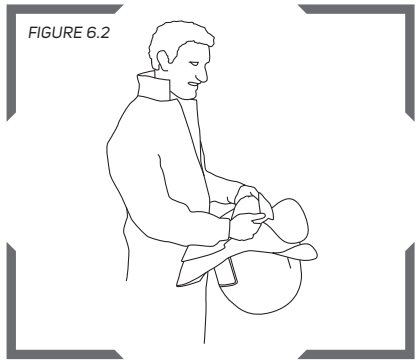


FIGURE 6.2



Check Air Flow

Before donning your T100™ or Z100™, check that the air is flowing into it and it contains no dust, dirt or contaminants.

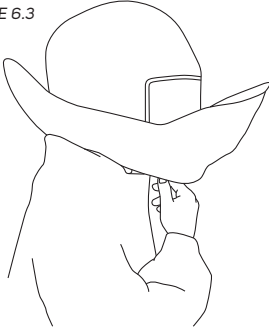
Put on Respirator

With air flowing, place the respirator over your head, and make sure that the head suspension or hard hat is sitting comfortably and securely on your head.

rpb T100™ /Z100™ SERIES

DONNING AND DOFFING CONTINUED

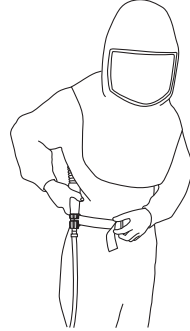
FIGURE 6.3



Tuck in the Bib

Tuck the inner bib into your clothing to create a positive pressure effect for the respirator. The air can also aide in cooling your body. Pull the outer collar down at the front, back and sides.

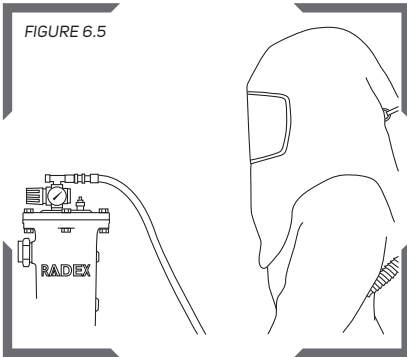
FIGURE 6.4



Fasten Belt

Connect the flow control device belt around your waist. It is recommended to have the device placed over your hip.

FIGURE 6.5

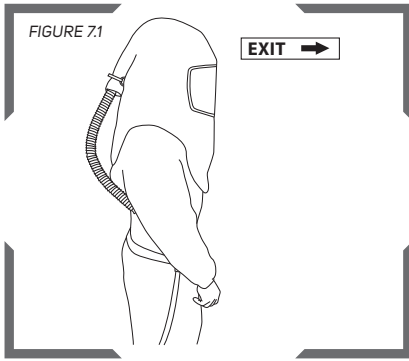


Check Air Pressure

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.

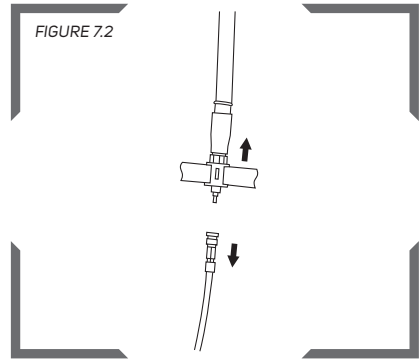
DOFFING YOUR HELMET

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 hood and your work garments before removing the respirator. A workplace cleaning program may be necessary.



Leave Work Area

Leave the work area while still wearing the respirator. The air must be flowing into the respirator until you have departed from the contaminated area. Once in a clean environment, undo the belt and remove the respirator.



Disconnect Air Supply

It is now safe to disconnect the air supply hose using the quick disconnect coupler.

STORAGE

Before storing the respirator, clean the unit following the cleaning instructions in this instruction manual. Be sure it is clean, both inside and out. After use, store the respirator by hanging it up in a clean, dry place, away from the work area. If the T100™ or Z100™ isn't going to be used for a longer period of time, store in a container or a bag. Store in a cool dry place between -10°C to +45°C (14°F to 113°F) <90%rh.

PX4 AIR® may need to be stored separately, refer to the PX4 AIR® Instruction manual for specific storage instructions.

T100™ /Z100™ SERIES

INSPECTION, CLEANING & STORAGE

The T100™ and Z100™ have a limited service life, and therefore a regular inspection and replacement program must be conducted.

All components of this respirator assembly including the Breathing Air Line should be inspected for damage and wear and tear, before use. If any damaged or worn parts are found, they should be replaced immediately, or the Respirator disposed of. Use only parts and components that are part of the NIOSH approved respirator assembly as set out in this instruction manual. Refer to the parts list for the correct part numbers.

RESPIRATOR

- Inspect the material for rips, tears, or damage including loose or missing threads, that may reduce the protection of the respirator.
- Inspect the lenses for cracks, scratches, or distortions that may reduce the clarity or protection of the lens. Do not wipe the lens with strong solvents, as they may damage, or distort the lens.
- Inspect the neck seal for elasticity and to ensure that there are no tears, missing treads, or other damage.
- If any part is damaged, replace them with parts and components that are part of the NIOSH approved respirator assembly only, or dispose of the respirator, and replace it with a new one.
- Clean or dispose of the respirator hood according to your company program.

HEAD SUSPENSION AND HARD HAT

- Remove the head suspension or hard hat from the respirator. Inspect for cracks,

worn adjustment slots, or broken parts.

Any parts that are damaged or worn must be replaced immediately.

- The brow pad can be removed, and cleaned in a conventional washing machine, or be rinsed with a mild detergent and water. Do not clean with volatile chemicals.

BREATHING TUBE

- Inspect the breathing tube for any damage or wear and tear. Replace with a new breathing tube if there is any damage or significant wear.

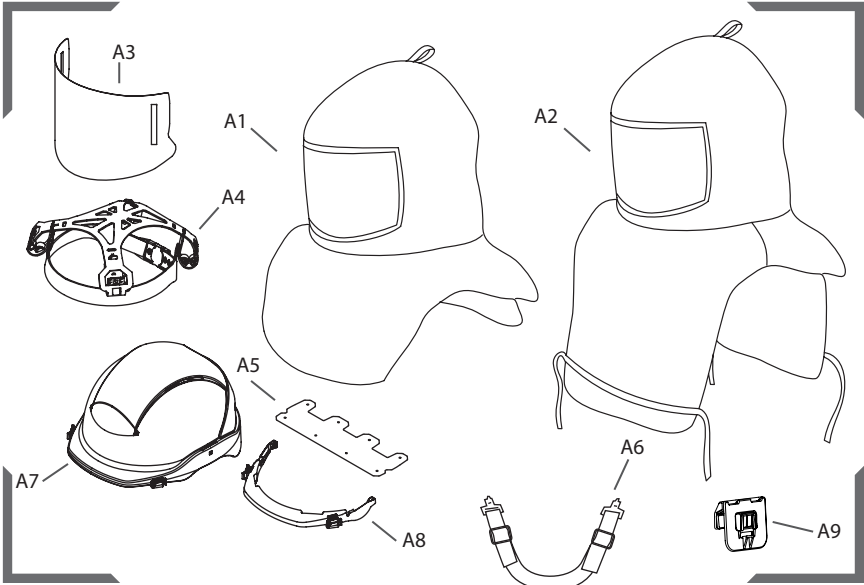
BREATHING AIR LINE

- 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 disconnect couplings and use compressed air to remove any particles that may jam the coupler.

PARTS LIST

HOODS AND HARD HAT

FIGURE 8.1



ITEM NO.	PART NO.	DESCRIPTION
----------	----------	-------------

A1	07-110	Tychem® 2000 Fabric Hood w/Regular Bib
	07-110-S	Tychem® 2000 Fabric Hood w/Regular Bib and Safety Lens
	07-150	Tychem® 4000 Fabric Hood, Sealed Seams and Regular Bib
	07-150-S	Tychem® 4000 Fabric Hood, Sealed Seams and Regular Bib and Safety Lens
	07-160-S	Zytec® FR material Hood, w/Regular Bib and Safety Lens
A2	07-110-X	Tychem® 2000 Fabric Hood w/Extra Length Bib
	07-110-SX	Tychem® 2000 Fabric Hood w/Extra Length Bib and Safety Lens
	07-150-X	Tychem® 4000 Fabric Hood, Sealed Seams and Extra Length Bib
	07-150-SX	Tychem® 4000 Fabric Hood, Sealed Seams, Extra Length Bib and Lens
Safety		
A3	07-123	Peel-off Lens (Pkt. of 50)
A4	07-920	Head Suspension
A5	07-924	Head Suspension Brow Pad (Pkt. of 5)
A6	07-926	Optional Chin Strap
A7	07-126	Hard Hat (Incl. 07-125)
A8	07-125	Hard Hat, Clip Adapter
A9	07-121	Head Harness Mounting Clip (Pair)

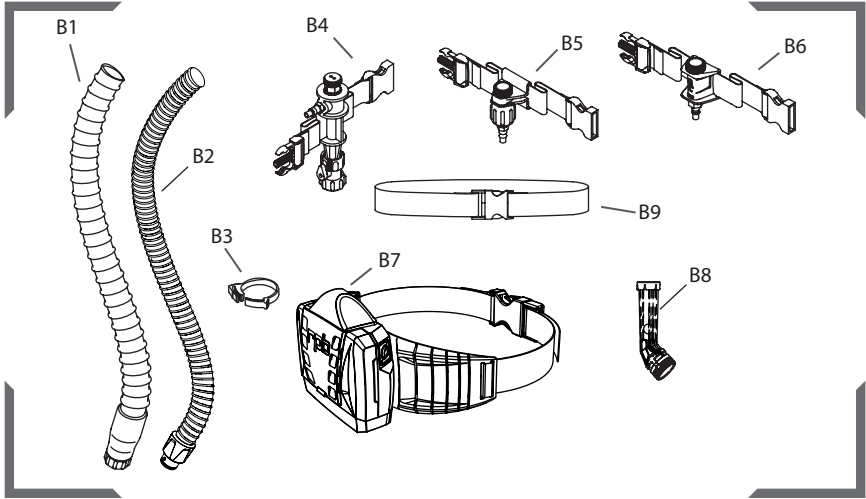
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RPB T100™ /Z100™ SERIES

PARTS LIST CONTINUED

BREATHING TUBE AND CONTROL DEVICES






FIGURE 8.2

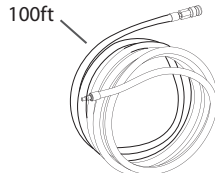
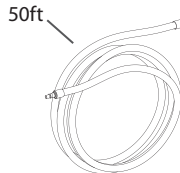
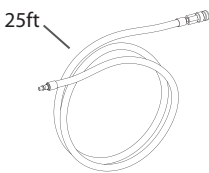


ITEM NO.	PART NO.	DESCRIPTION
B1	NV2021F	Breathing Tube
B2	04-836	RPB® Twist Connect Breathing Tube (Bayonet Connector for PX4 AIR®)
B3	07-122	Hose Clamp for Breathing Tube
B4	4000-40	Cold Air Tube (Silenced)
B5	NV2016	Flow Control Valve
B6	03-101	Constant Flow Valve
B7	03-901	RPB® PX4 AIR® PAPR (see 7.20524 PX4 PAPR for more details)
B8	08-091	PX4 AIR® Air Flow Tester
B9	NV2022	Replacement Belt flow control valves
	07-765	Replacement 2" Belt for PX4 AIR®

AIR SUPPLY HOSES

Figure 8.3

SERIES	1. COUPLERS	2. PLUGS	3. SUPPLIED-AIR HOSE ASSEMBLIES
RPB® Quick Disconnect	NV2025 1/4" FM NPT 		NV2028 RPB 25ft 3/8" NV2029 RPB 50ft 3/8" NV2027 RPB 100ft 3/8"
Schrader Twist Lock	03-042-CF 1/4" FM NPT 	03-042-PM 1/4" M NPT 03-043-PM 3/8" M NPT 03-042-PMS 1/4" M NPT Swivel 	04-342-25 Schrader 25ft 04-342-50 Schrader 50ft 04-342-100 Schrader 100ft
RPB® RZ Quick Connect	03-052-CB-RZ RZ Coupler 	03-052-PB-RZ RZ Plug Hose Tail 03-052-PM-RZ RZ Plug 1/4" Male Thread Plug 	04-352-25 RZ 25ft 04-352-50 RZ 50ft 04-352-100 RZ 100ft



T100™ /Z100™ SERIES

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.

PROPOSITION 65 - CALIFORNIA RESIDENTS

WARNING: This product contains a chemical known to the State of California to cause cancer.

WARNING: This product contains a chemical known to the State of California to cause birth defects or other reproductive harm.

NOTES

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NOTES

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OTHER PRODUCTS

ISO9001
CERTIFIED COMPANY

RPB® C40™ CLIMATE CONTROL

Looking for an advanced climate control device that can heat and cool your supplied air just by the slide of a lever? Look no further than the RPB® C40™. From the searing heat of an Arizona summer to a severe Scandinavian winter the RPB® C40™ will keep you comfortable.



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.



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