ISO9001
ACCREDITED COMPANY

rpb® T100 SERIES™

SUPPLIED AIR RESPIRATORS

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

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

RESPIRATORY COMPONENTS													
TC No.	Protection[1]	Model	Hood	Suspension	Breathing Tube	Alternate Flow Control Devices			Alternate Hoses		Accessories		Cautions and Limitations[2]
			07-110	07-920	NV2021F	03-101	NV2016	4000-40	NV2028	NV2029	07-123	07-926	
TC-19C-480	SA / CF	T100	X	X	X	X	X	X	X	X	X	X	ABCDEJMNOS

1. PROTECTION

CF – Continuous Flow SA – Supplied Air

2. CAUTIONS AND LIMITATIONS

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

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

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

D - Air-line respirators can be used only when the respirators are supplied with respirable air meeting the requirements of CGA G-7.1 Grade D or higher quality.

E - Use only the pressure ranges and hose lengths specified in the User's Instructions.

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

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

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

O - Refer to user instruction and/or maintenance manuals for information about use and maintenance of these respirators.

S - Special or critical User's Instructions and/or specific use limitations apply. Refer to User's Instructions before donning.

2. INTRODUCTION

The **T100** is approved by NIOSH as a Type C continuous flow supplied air respirator. It can be used for general purpose applications, including Pharmaceutical Manufacturing, Chemical and Pesticide Handling, Tank Cleaning, Spray Painting, and other industrial or agricultural applications in which respiratory protection is needed.

The **T100** has been designed for use in atmospheres that are NOT IMMEDIATELY DANGEROUS TO LIFE OR HEALTH (IDLH); and from which the user can escape without the aid of the respirator; or that do not exceed the concentrations allowed by OSHA, EPA, NIOSH, or ACGIH regulations and recommendations.

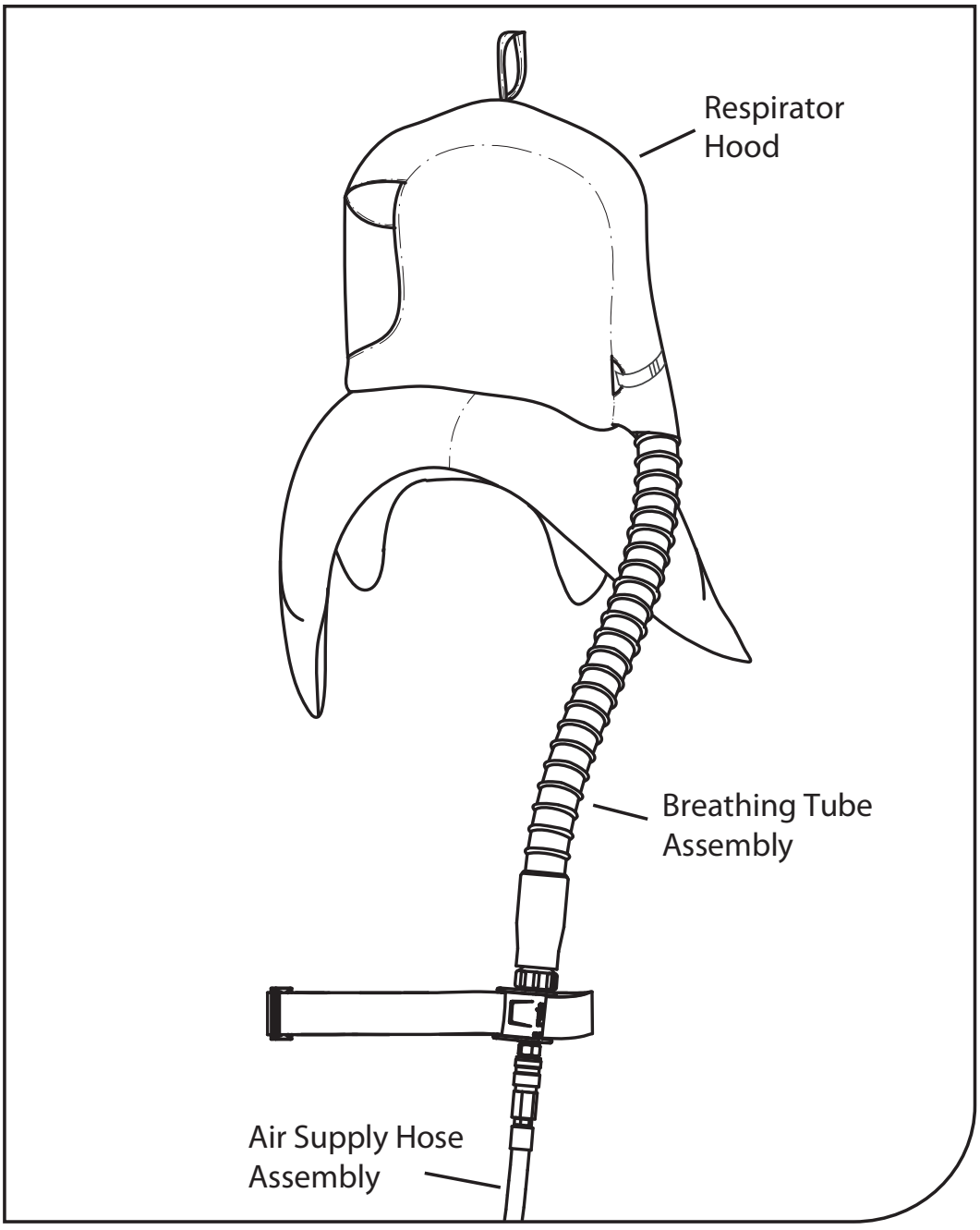
The **T100** is approved for use with any one of the following flow control devices:

03-101	*Constant Flow Valve (High Pressure)*
NV2016	*Flow Control Valve*
4000-40	*Cool Air Tube*

All RPB Respiratory products are covered by a manufactures warranty of 3 months. The manufacturer warranty covers defects in material, workmanship and does not cover damage caused by misuse or abuse. RPB Respiratory's only obligation and your exclusive remedy shall be to repair, replace or refund the purchase price of such parts or products upon the presentation of proof of purchase. Maximum liability is in no case to exceed the value of the RPB Respiratory Product involved.

2.1 RESPIRATORY COMPONENT CONCEPT

The **T100** consists of 3 main components:



WARNING

Failure to use genuine RPB Respiratory NIOSH approved parts and components will void the approval of the entire respirator assembly.

3. WARNINGS

1. Do not use this respirator until you have been trained in the respirators use, maintenance and limitations by a qualified individual (appointed by your employer) who has extensive knowledge of the T100 Series Respirator.

2. Before using this respirator ensure your employer has determined that airborne contaminant concentrations do not exceed those allowed by applicable OSHA, EPA, NIOSH or ACGIH regulations and recommendations for continuous-flow supplied air respirators. Federal law requires that the employer measures and monitors airborne contaminant levels in the work area.

3. DO NOT WEAR this respirator if any of the following conditions exist: - Atmosphere is immediately dangerous to your life or health. - You CAN NOT escape without the aid of the respirator. - Atmosphere contains less than 19.5% Oxygen. - Work area is poorly ventilated. - Contaminants are in excess of regulations or recommendations.

4. Do not modify or alter this respirator. Use only NIOSH approved RPB Respiratory components and replacement parts. The use of non approved parts voids the NIOSH approval of the entire respirator assembly.

5. Inspect all components daily for signs of damage or wear that may reduce the level of protection originally provided.

6. Do not use this respirator in abrasive blasting applications.

7. Do not wear this respirator until you have passed a complete physical exam maybe including a lung X-ray conducted by qualified medical personnel.

8. Improper use of this respirator may cause injury or death. Improper use may also cause life threatening delayed lung disease such as silicosis, pneumoconiosis or asbestosis.

9. This respirator, when properly fitted and used, significantly reduces but does not completely eliminate the breathing of contaminates by the respirator wearer.

10. Be certain your employer has determined that the breathing air source provides at least Grade D breathable air. The respirator must be supplied with clean breathable air at all times.

11. Do not connect the respirator's air supply hose to nitrogen, toxic gases, inert gases or other non-breathable non Grade D air source. Check the air source before using the respirator. Failure to connect the supply hose to the proper air source could result in serious injury or death.

12.DO NOT use this respirator in poorly ventilated areas or confined spaces unless the area is well ventilated and that the contaminant concentrations are below those recommended for this respirator. Follow all procedures for confined space entry, operation and exit as defined in applicable regulations and standards including 29 CFR 1910.146.

13. Tychem® QC is not flame-resistant and should not be used around heat, flame, sparks or in potential flammable or explosive environments. DuPont™ Tychem® Fabric is rated "Class 1: Normal Flammability" when tested as directed by the Flammable Fabrics Act -16 CFR Part 1610.

14.LEAVE WORK AREA IMMEDIATELY IF: - Any respirator component becomes damaged. - Airflow stops or slows down. - Breathing becomes difficult. - You become dizzy, nauseous, too hot, too cold, or ill. - Vision is impaired.

15. The material that the respirator is made of may create static electricity under low humidity. Tychem® is coated in an antistatic agent that is water soluble so can be washed off with water. For more information regarding this Dupont® Tychem® QC, contact your employer or call 1-800-44-TYVEK.

16. This respirator does not provide head protection.

17. This respirator does not provide hearing protection. Approved ear muffs (ear defenders) or ear plugs must be properly fitted when exposed to noise levels that exceed OSHA permissible exposure levels.

18. This respirator does not provide eye protection. It is recommended that adequate eye protectors be worn at all times.

19. This respirator provides only limited face protection. Use approved face protectors when exposed to face hazards.

3.1 AIR FILTRATION & CARBON MONOXIDE MONITORING

It is an OSHA requirement that the T100 supplied air respirator be supplied with CGA G-7.1 Grade D air. To achieve this, RPB recommends using the Radex™ Airline Filter (04-900) and a Radex™ Carbon Monoxide Monitor (08-200). Further information is available by contacting RPB Respiratory on 1-866-494-4599 or from your nearest authorized RPB Respiratory distributor.

3.2 NIOSH – Cautions & 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's instructions and/or specific limitations apply. Refer to user Instructions on page 7 (breathing air pressure table) before donning.

4. Respirator Operation

4.1 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 **T100** does not purify air or filter contaminants.

4.2 Air Source

Locate the air source in a clean air environment; always use a filter on the inlet of your air source. Do not park vehicles beside your air inlet as this will cause carbon monoxide to be drawn into your air supply. Always use suitable after coolers / dryers with filters and carbon monoxide alarms to ensure clean breathable air is supplied at all times. The air should be regularly sampled to ensure that it meets Grade D requirements.

4.3 Breathing Air Supply Hoses & Fittings

NIOSH approved RPB Respiratory 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 approved length and the amount of sections must be within the number specified in the breathing air pressure table on page 7.

4.4 Breathing Air Pressure

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

WARNING: failure to supply the minimum required air pressure (for the length of air supply hose) at the point of attachment could result in contaminants being inhaled. This risk is due to the pressure in the helmet becoming negative when the peak inhalation flow (at high work rates) exceeds that of the supplied air.

The **T100** Breathing Air Pressure table on page 7 defines the air pressure ranges needed to provide the respirator with a volume of air which falls in the required range of 6-15cfm (170-425 lts/min).

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

- Determine your air source (column 1)
- Identify your breathing tube assembly (column 2)
- Confirm the part number of the air supply hose you are using (column 3)
- Check your RPB Respiratory Air Supply Hose is within the NIOSH approved length (column 4)
- Set the air pressure at the point of attachment within the range specified (column 6) for your breathing tube assembly, hose length and number of hose sections. (column 5)

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

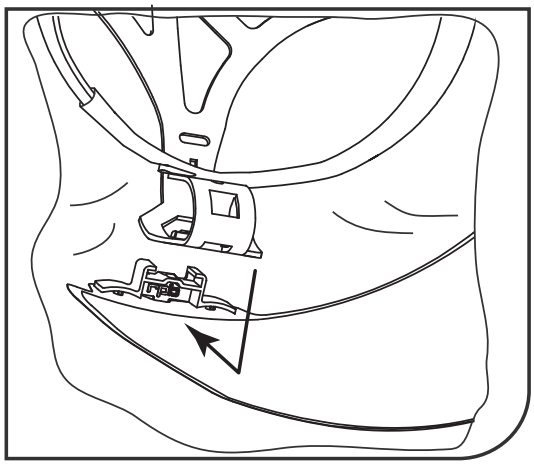
4.5 BREATHING AIR PRESSURE TABLE

This table lists air pressure ranges needed to provide the **T100** 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.

1. Air Source	2. Breathing Tube Assembly	3. Air Supply Hose	4. Supply Hose Length (ft)	5. Max Number of Sections	6. Pressure Range (PSIg)
Portable or Stationary Compressor	NV2021F / 03-101 Constant Flow Valve Assembly (High Pressure)	NV2028	25	1	10-11
		NV2029	50	1	12-14
		NV2029	100	2	17-19
		NV2029	150	3	21-23
		NV2029	200	4	25-27
		NV2029	250	5	28-31
		NV2029	300	6	31-34
Portable or Stationary Compressor	NV2021F / NV2016 Flow Control Valve Assembly	NV2028	25	1	27-28
		NV2029	50	1	28-30
		NV2029	100	2	30-33
		NV2029	150	3	33-36
		NV2029	200	4	36-38
		NV2029	250	5	38-39
		NV2029	300	6	39-43
Portable or Stationary Compressor	NV2021F / 4000-40 Climate Control Tube Assembly (Silenced Cooler)	NV2028	25	1	55-56
		NV2029	50	1	55-57
		NV2029	100	2	60-62
		NV2029	150	3	65-67
		NV2029	200	4	70-72
		NV2029	250	5	75-77
		NV2029	300	6	78-80

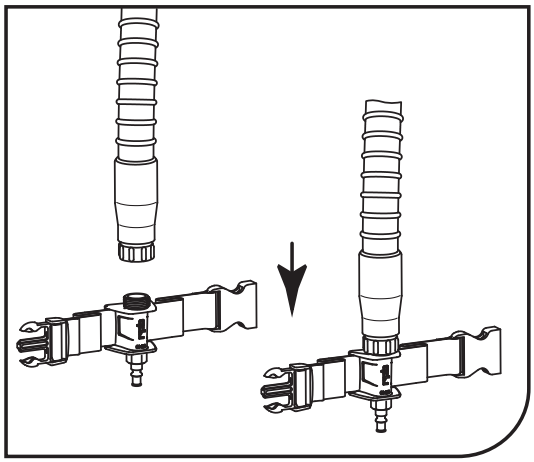
5. Respirator Assembly & Setup

5a Attach Head Suspension



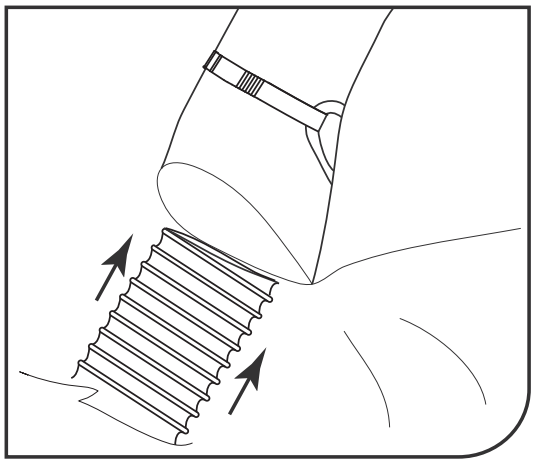
Place the head suspension inside the respirator and connect it by sliding up into the two mounts located at the top of the lens.

5b Attach Flow Control Device



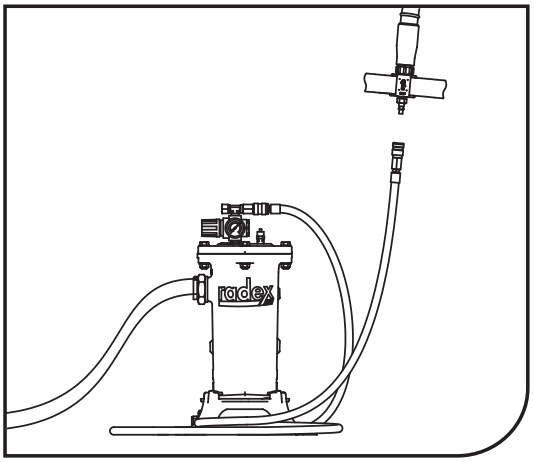
Connect an approved RPB® flow control device to the Breathing Tube (NV2021F). Tighten the fitting by hand.

5c Connect Breathing Tube.



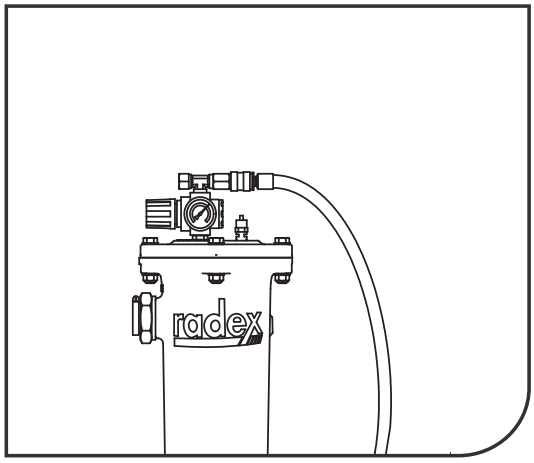
Place the breathing tube into the inlet at the rear of the hood. Tighten the clamp to hold it in position. Test the connection by pulling down on the Breathing Tube.

5d Connect air supply hose



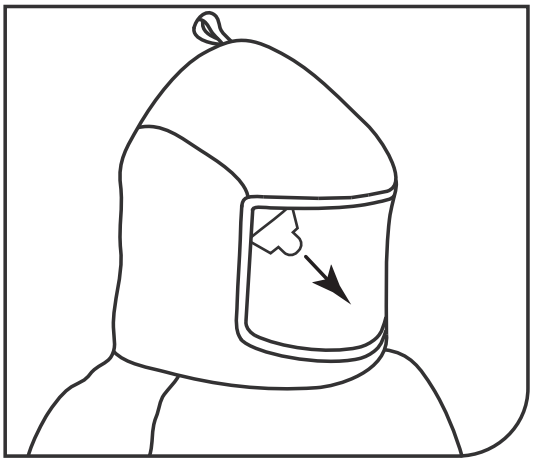
Connect an approved RPB Air Supply Hose insuring the maximum sections and lengths are within the specifications on page 7.

5e Adjust Air Pressure



Adjust the air pressure at the point of attachment according to the Breathing Air Pressure Table on page 7.

5f Uncover Lens

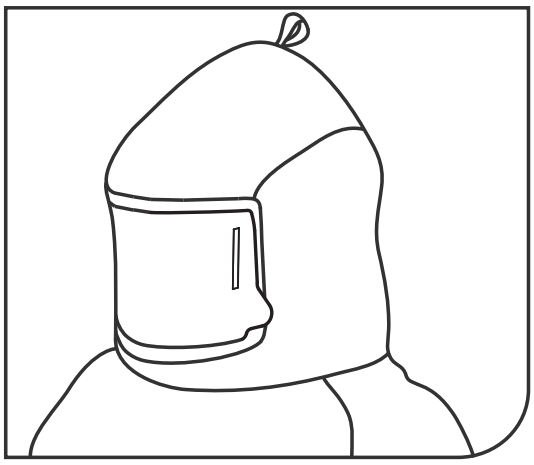


Remove the protective covering from over the lens.

5.1 PEEL-OFF LENSES

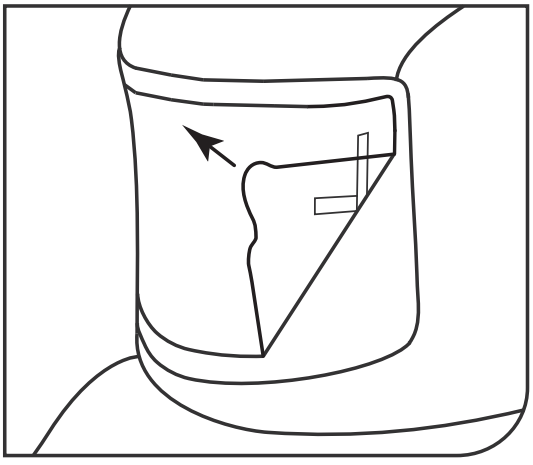
Peel-off lenses (07-123) are optional and are used to increase the life of your main lens. Peel-Off Lenses come in packets of 50 each with double sided tape already in place.

5g Apply Lens



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

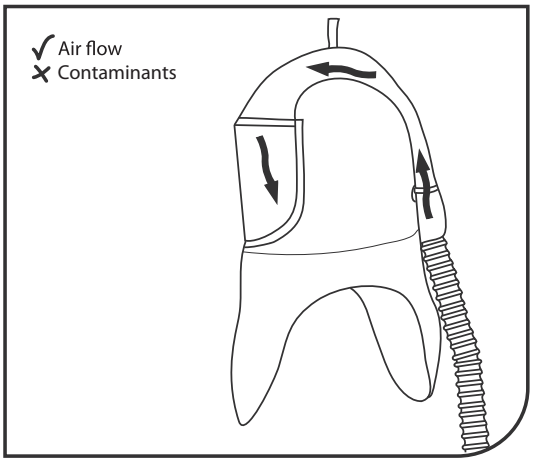
5h Remove Lens



Pull on the tab and the adhesive will give way.

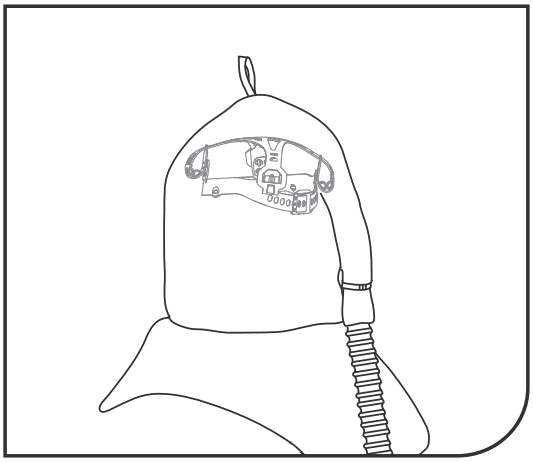
6. Donning The Respirator

6a Check Air Flow



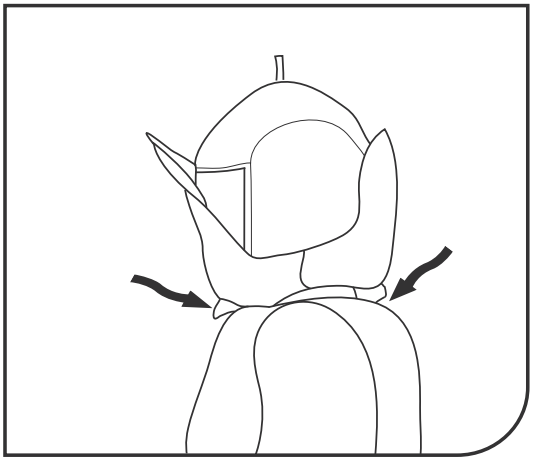
Before donning your 07-100, check that the air is flowing into it and it contains no dust, dirt or contaminates.

6b Put on Respirator



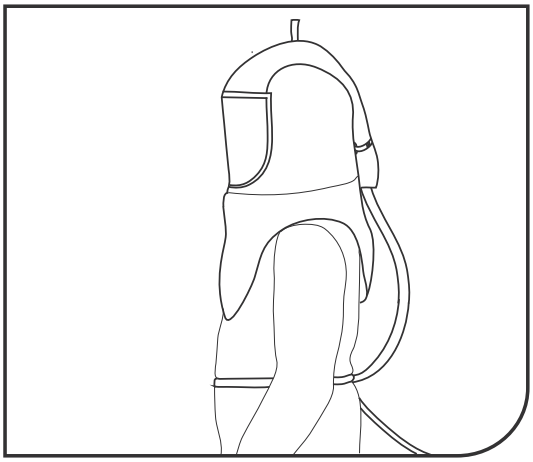
With air flowing, place the Respirator over your head, and make sure that the head suspension is fitting comfortably and securely on your head.

6c Tuck in inner collar



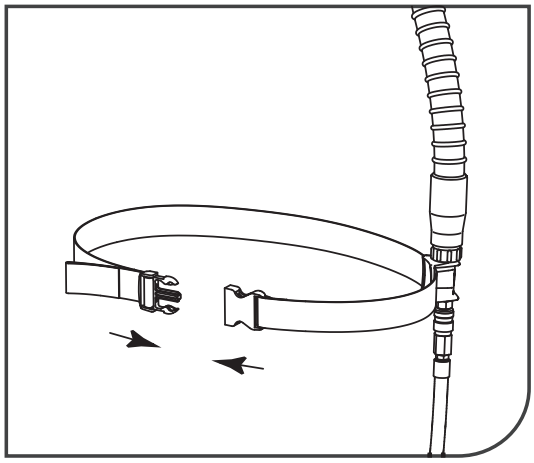
Tuck the inner collar into your clothing to create a positive pressure effect for the respirator. The air can also aide in cooling your body.

6d Flatten Bib



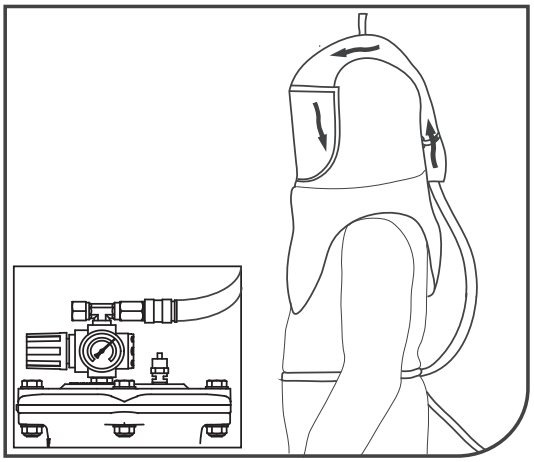
Pull the outer collar down at the front, back and sides.

6e Fasten Belt



Connect the Flow Control device belt around your waist. It is recommended to have the device situated over your hip.

6f Check Air Pressure



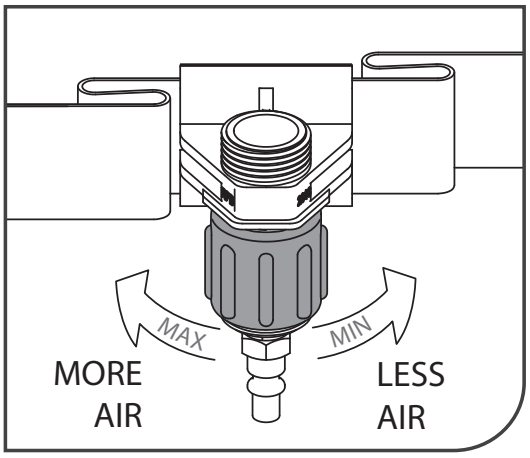
Re-check the air pressure at the point of attachment and adjust it if necessary. Ensure you are comfortable with the flow of air inside the respirator.

You are now ready to enter the work area

Immediately leave the work area and remove the respirator if any of the following occur:

- The flow of air ceases or decreases.
- You feel ill (nauseous, dizzy, hot or cold)
- You feel breathless or have difficulty breathing.
- Any component in the respirator assembly becomes damaged.
- The pressure at the point of attachment dips below that recommended.
- You can see, smell or taste contaminates inside the respirator.
- You cannot see clearly

6.1 NV2016 - Adjusting The Flow Rate

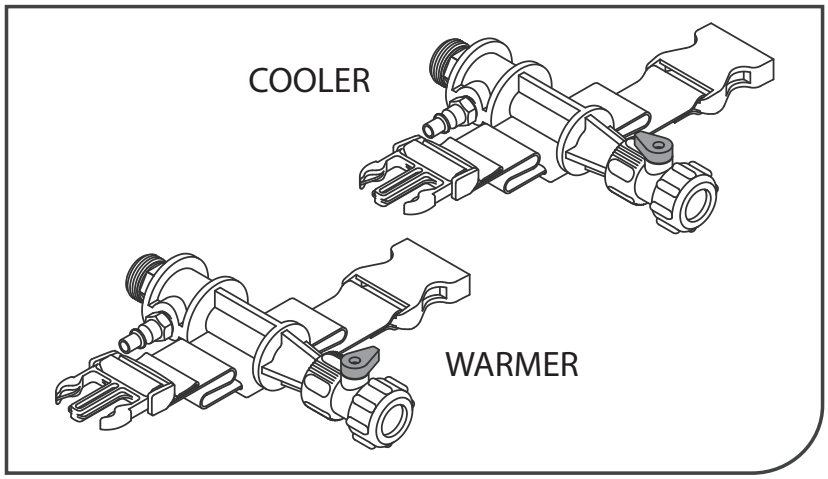


Air flowing into the respirator is controlled by the NV2016 as shown in the illustration to the left.

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.

6.2 4000-40 - Adjusting The Temperature

To obtain cooler air turn the regulator control knob anticlockwise so it is aligned along the length of the tube. This will increase the airflow 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.

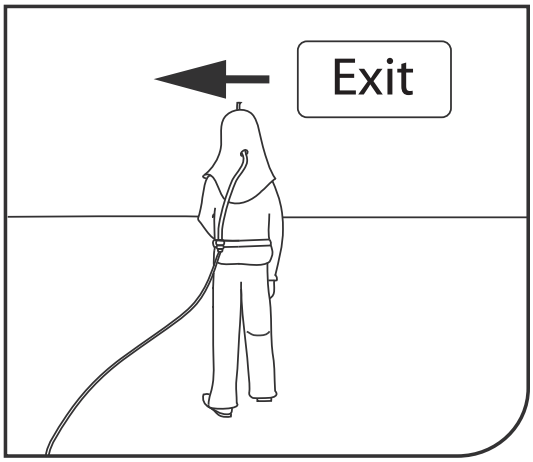


WARNING

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.

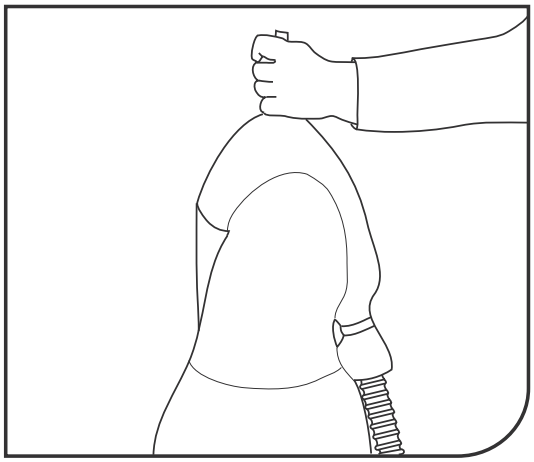
7. DOFFING YOUR RESPIRATOR

7a Leave Work Area



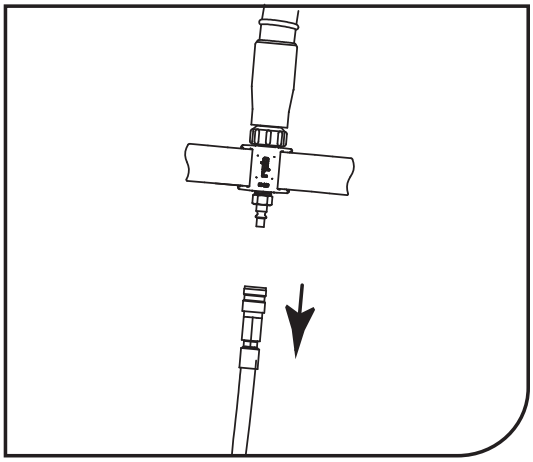
Leave the work area while still wearing the respirator. The air must be flowing into the respiratory until you have departed from the contaminated area.

7b Remove Respirator



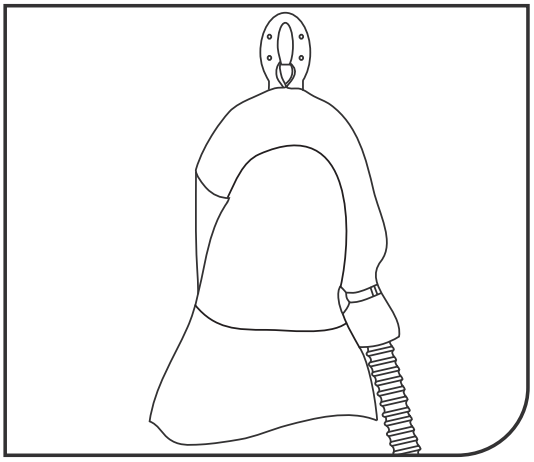
Once in a clean environment, undo the belt and remove the respirator.

7c Disconnect Air Supply



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

7d Store the Respirator



Always hang the respirator and its components in a clean environment while not in use.

8. INSPECTION CLEANING & STORAGE

The **T100** has a limited service life, and therefore a regular inspection and replacement program must be conducted. All components of this Respirator Assembly including the Air Supply Hoses 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 the NIOSH approved parts as set out in this instruction manual**. Refer to the parts list on page 16 for the correct part numbers.

8.1 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 inner bib for elasticity and to ensure that there are no tears, missing treads, or other damage.
- If any part is damaged, replace them with approved parts only, or dispose of the respirator, and replace it with a new one.
- Cleaning the Respirator is not recommended. When the Respirator becomes dirty, it should be replaced or disposed of.

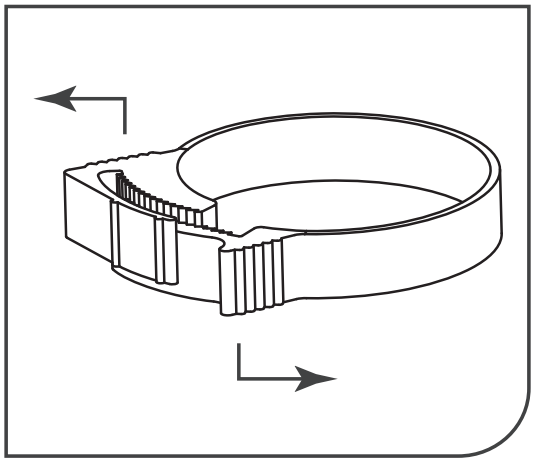
8.2 HEAD SUSPENSION

- Remove the Head Suspension 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 light detergent and water. Do not clean with volatile chemicals.

8.3 Breathing Tube Assembly

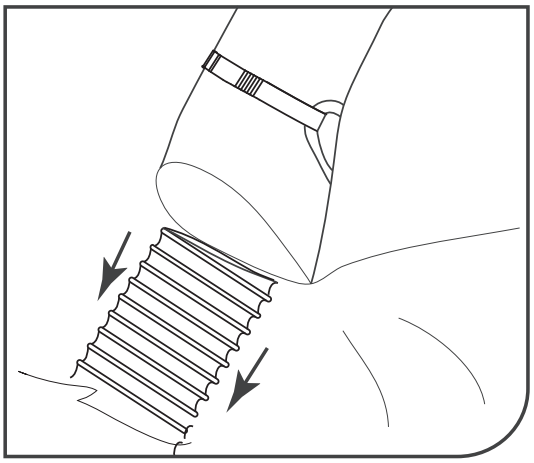
Disconnecting the Breathing Tube

8a Remove Hose Clamp



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

8b Detach Tube From Respirator



Remove the Breathing Tube respirator

Inspect the Breathing Tube for cracks or excessive wear. Check that the fittings are secured into the hose tightly and are not allowing any air to escape. Replace the Breathing Tube as soon as signs of damage or excessive wear become evident.

⚠ WARNING ⚠

Air leaks will cause a drop in air flow resulting in less protection.

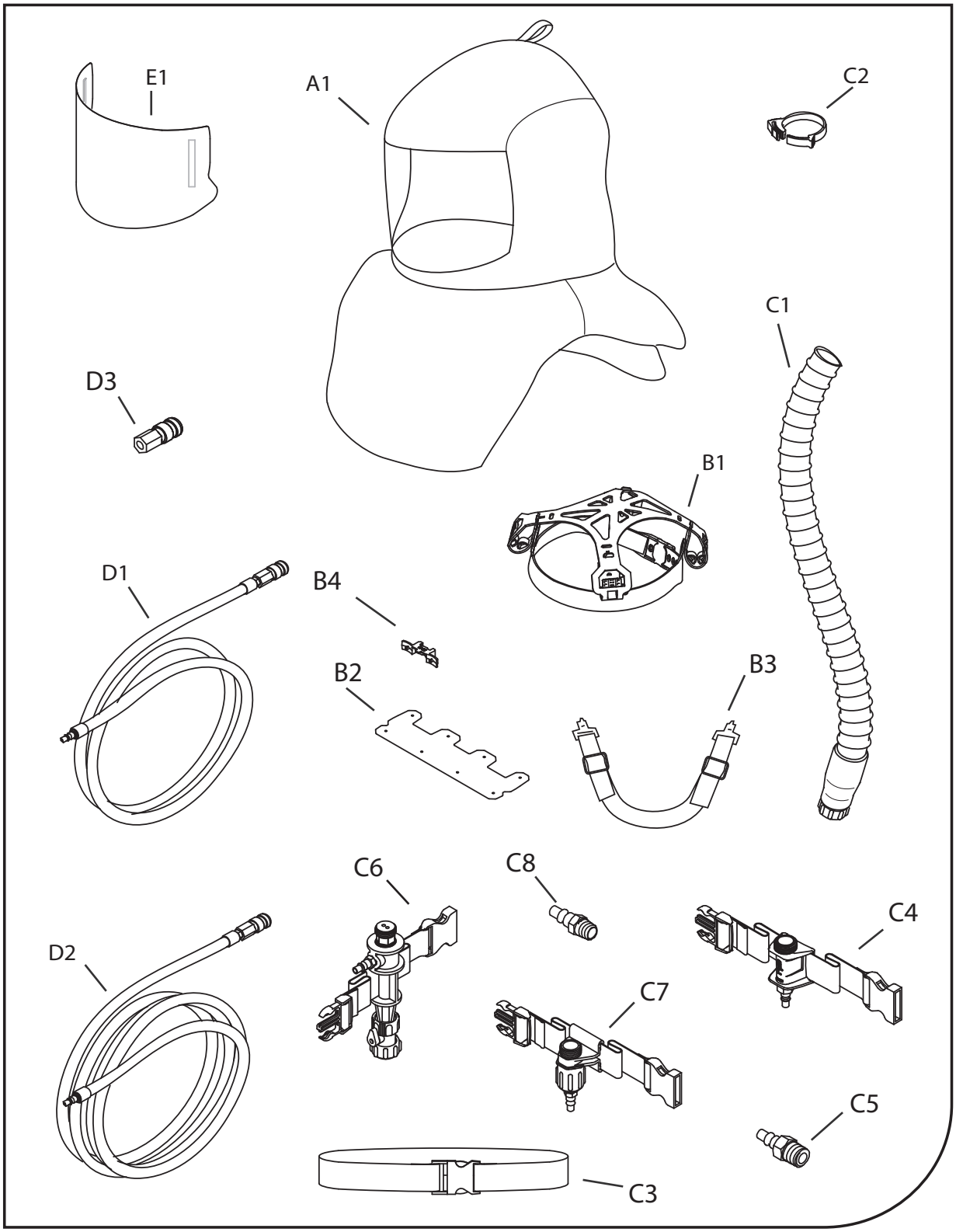
8.4 Air Supply Hoses

Inspect the Air Supply Hose 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.

8.5 Storage

After the respirator and the components have been inspected and cleaned, place them in an air tight container, or plastic bag. Store Respirator parts away from contaminates, direct sunlight, heat, extreme cold, moisture, or harmful chemicals.

9. PARTS LIST



Item	Description	Part Number
A1	Tychem® QC Respirator Hood Only (Pkt. of 10)	07-110
B1	Head Suspension	07-920
B2	Head Suspension Brow Pad (Pkt. of 5)	07-924
B3	Optional Chin Strap	07-926
B4	Head Suspension Mount	07-121
C1	Breathing Tube	NV 2021F
C2	Hose Clamp for Breathing Tube	07-122
C3	Replacement Belt	NV 2022
C4	Constant Flow Valve	03-101
C5	Quick Disconnect Tail, 3/8" NPT	03-111
C6	Cold Air Tube (Silenced)	4000-40
C7	Flow Control Valve	NV 2016
C8	Quick Disconnect Tail, 1/4" BSPT	4000-06
D1	Air Supply Hose 25ft	NV 2028
D2	Air Supply Hose 50ft	NV 2029
D3	Quick Disconnect Coupler, 1/4" BSPP	NV 2025
E1	Peel-off Lenses (Pkt. of 50)	07-123

Packages

07-101: 07-110 + 07-920 + 07-122 + NV2021F + 03-101
07-102: 07-110 + 07-920 + 07-122 + NV2021F + NV2016
07-103: 07-110 + 07-920 + 07-122 + NV2021F + 4000-40

WARNING

Use only genuine RPB, NIOSH Approved components.
Failure to adhere will void all NIOSH approvals.

OTHER PRODUCTS

DID YOU KNOW

We can also supply you with the following...

NOVA 2000 BLASTING HELMET

The **NOVA 2000** has been designed for blasting professionals.
The **NOVA 2000** is the most advanced abrasive blasting helmet available, with fully padded pillow foam liner for extra comfort and noise attenuation, wide angle vision, even air distribution assures a pleasant working environment, optional climate control devices and an optional communication system. Things cannot get much better.

ASTRO BLASTING HELMET

ASTRO is your number one choice economic Abrasive Blasting Helmet which meets safety standards worldwide.
This is the lightweight, robust helmet you have been waiting for. It helps to reduce fatigue, reduce down time and increase productivity.

RADEX AIRLINE FILTER

The **RADEX Airline Filter** offers you more capacity, versatility & filtration. You can combine the versatility of either floor or wall mounting with increased filtration capacity.
Our range of optional equipment means you can customize your filter to meet your requirements.

FILTER CARTRIDGE

These large capacity six stage Filter Cartridges remove moisture and particulates to 0.5 micron & odor from the compressed air stream, providing you with clean breathable air.

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