SE40
positive pressure demand respirator for emergency response in CBRN environments
Clever thinking. Easy breathing.

The SE40 positive-pressure demand PAPR (powered air-purifying respirator) is approved according to the NIOSH CBRN-PAPR standard. Specially designed for first responders, SE40 provides protection against a wide variety of chemical, biological, radiological and nuclear warfare agents.

The SE40 is not like a conventional continuous-flow PAPR. It operates on the demand principle, much like a breathing apparatus. The air supply opens on inhalation, and closes on exhalation. This leads to much less air moving through the filter canisters, greatly extending the life of both filter canisters and battery.

The self-monitoring respirator alerts the user to any event that calls for attention, such as low battery power. In addition, the fan unit can maintain positive pressure at hard work without ‘dipping’ into negative pressure and consequent inward leakage, as can be the case in conventional PAPRs.

SE40 is worn on a padded back-pack. Voice communication is maintained through a powerful loudspeaker. The NIOSH-approved SE40 respirator can be used with a variety of protective suits, and is supplied in a stackable military-grade bag, always at the ready.
Every breath counts.

Breathe easier. Work longer. Feel more comfortable. Talk, move, act, respond. Trust your protection 100%.

Full technical specifications: www.theseagroup.com/se40
**NIOSH-approved**

The SE40 and all its parts are approved according to the NIOSH CBRN PAPR standard (approval no. TC-14G-0290).

| 1. Fan unit | 8. Chest harness |
| 3. Head harness | 10. Waist harness |
| 4. Face piece | 11. Pre-filter |
| 5. Inner mask | 12. Pre-filter holder |
| 6. Demand valve | 13. Loudspeaker |
| 7. Filter canister | 14. Battery |

**Fan unit**

The SE40 fan unit substantially exceeds NIOSH requirements for air flow. The fan unit is capable of delivering air flows over 400 l/min. It continually monitors the user’s breathing pattern, measures the pressure in the mask, alerts the user to any dips in the pressure in the mask, end of canister service life, and provides alerts for low battery, mask pressure, air flow, and electronic circuitry. The unit performs a self-test every time it is turned on, and can be set to run a thorough test at any time. The unit adjusts itself for optimum performance, and no further recalibrations are required from the user.

**Demand valve**

The demand valve means that air goes through the respirator only during inhalation. This allows the respirator to supply air to the user at very high flow rates, thus maintaining positive pressure even at hard work. The demand valve also means a very significant increase in the operating time of the battery and the life of the filter canisters. Compared with conventional continuous-flow PAPRs operating at equal flows, the SE40 takes in less than half the volume of air through the filter canisters.

**Self-monitoring**

The microprocessor constantly performs self-checks and provides alerts for low battery, mask pressure, air flow, and electronic circuitry. The unit performs a self-test every time it is turned on, and can be set to run a thorough test at any time. The unit adjusts itself for optimum performance, and no further recalibrations are required from the user.

**Breathing hose**

The flexible breathing hose connects the fan unit with the face piece. The hose connections cannot be accidentally dislodged, and the hose can be swivelled at both ends.

**Battery**

The SE40 can be fully integrated with a military-grade encapsulated protective suit, chemical-resistant, and impervious to warfare agents. The suit can be pressurized by excess air from the fan unit.

**Suit integration**

Should the fan unit cease to function properly, the SE40 turns into a negative-pressure respirator, allowing the wearer to safely leave the hazard area.

**Voice communication**

A powerful dip-on mini-loudspeaker lets you talk with the mask on your face. Apart from volume control, the single button can also be used to turn the SE40 on, and to de-mist the visor with a boost of air.

**Alarms**

The visor gives you a wide field of vision and is continually de-misted. Additional de-mist boosts can be done at any time. Available in various materials.

**Visor**

Built for CBRN

The SE40 has many features that have been specially designed for use in CBRN environments. The exhalation valve shield is one.

**CBRN canisters**

The filter canisters have been tested to NIOSH stringent standards, and have been subjected to a wide range of industrial chemicals and CBRN warfare materials such as sarin, phosgene, mustard gas, nerve gas, cyanogen and many more.

**Back-up**

When the filter canisters have been subjected to a wide range of industrial chemicals and CBRN warfare materials, the SE40 automatically and continuously de-mists the visor.

**Display panel**

A display of 5 LED lights keep you informed of the function of the respirator. An additional LED is fitted within your field of vision in the face piece. Visual displays are complemented by audible alarms.

**Deployement bag**

The SE40 is supplied in a rugged, military-grade, stackable bag that accommodates the complete respirator, filter canisters, recharger, back pack and other items of your choice, such as suits, gloves, and more.

**Dual battery**

A dual battery configuration effectively doubles the operation time of the unit.

**Full technical specifications: www.theseagroup.com/se40**