

ILC Dover SCape® CO/CBRN30 Respirator



ILC Dover SCape Respirators are the only NIOSH-approved air-purifying escape respirators with a powered ventilation system. SCape provides 30 minutes of mission critical protection from carbon monoxide, chemical, biological, radiological and nuclear contaminants.

In life-threatening emergencies, SCape users have a panoramic field of view and can perform a wide range of critical tasks, such as using a cell phone or mobile radio. The system's battery-operated blower provides positive airflow inside the respirator hood, eliminating the sense of claustrophobia, reducing panic, and allowing the wearer to stay in complete control.

Rapid Deployment

Individuals responding in emergency situations must be able to react quickly and calmly if they are going to escape and help others who may be having difficulty. The SCape CO/CBRN30 system was engineered to deploy quickly and with minimal user effort.

Consolidated Storage

Each SCape CO/CBRN30 respirator is stored in its own (easily opened) sealed container. All parts of the SCape respirator are integrated into one assembly. Individual respirators can be safely stored in their containers within cabinets, drawers, on shelves, or in bins for fast distribution throughout a facility.

Stays On

The SCape respirator uses an integral blower to provide air and keep the clear hood inflated, delivering increased protection.

Easy Donning

The SCape system can be donned quickly and fluidly by opening the neck dam and then drawing it over the head. Once in place, the neck dam automatically adjusts to the wearer, creating a tight, comfortable seal.

Instant Activation

The blower is activated automatically when the unit is removed from its container, so no additional steps are required for activation once SCape is in place.

One Size

Single size unit eliminates logistics burden of using a sized product.

Positive Airflow

The system's battery-operated blower provides positive airflow inside the respirator hood, eliminating the sense of claustrophobia, reducing panic, and allowing the wearer to stay in complete control.

Extreme Comfort

No nose-cup or mouth-bit increases comfort and ability to see the wearer's face

Panoramic View

SCape users have a panoramic field of view and can perform a wide range of critical tasks, such as using a cell phone or mobile radio.

ILC Dover SCape® CO/CBRN30 Respirator Specifications

SCape CO/CBRN30 System	
Certifications/Compliance	NIOSH CBRN Air-Purifying Escape Respirator — only CAP 2 (30 minute) approved system with CO protection
Shelf Life	5 yrs
Storage	Self-contained in sealed container — easily stowed in/on cabinets, drawers, shelves or bins
EScape Hood	
Protection	Average laboratory respiratory level (LRPL) 50,000 in breathing zone vs. 2,000 NIOSH requirement
Inhalation Resistance	Average 5.1 mm H ₂ O vs. 50 mm H ₂ O NIOSH requirement — easy to use, easy to breathe
Material	High performance polyolefin/barrier laminate
Sizing	Universal — comfortable one-size neck seal; hood easily accommodates glasses, beards, long hair — No fit testing required
Adjustment	No nose cup or adjustment straps necessary
Visor	Clear hood and large visor—360-degree panoramic field of view
Exhaust System	Exhaust valve regulates/maintains positive pressure within the hood
Blower	
Material	Integral polycarbonate blower assembly with automatic actuation
Flow Rate	64 lpm clean filtered air delivered to the wearer
Filter	
Canister	Advanced carbon layering technology incorporating catalyst and P100 particulate filtering media
Duration	30 minutes of NIOSH verified protection
Protections*	30 minute protection against carbon monoxide, plus protection against mustard (HD) vapor, mustard (HD) liquid, sarin (GB) vapor, as well as a number of chemicals, including ammonia, benzene, chloride, hydrogen cyanide, hydrogen sulfide and phosgene*

ILC Dover SCape® CO/CBRN30 Respirator Chemical Performance

NIOSH Testing: System Level Agent (Smartman)

Test Agent	Challenge Concentration	Service Time
Mustard (HD)	Vapor: 50 mg/m ³	> 30
Mustard (HD)	Liquid: 0.43-0.86 ml	> 30
Sarin (GB)	Vapor: 210 mg/m ³	> 30

NIOSH Testing: Chemical Test Agents (Filter Gas Life)

Test Agent	Challenge Concentration (ppm), (64 L/min AT 25% AND 80% RH)	Allowable Breakthrough (ppm)	Service Time (min)
Ammonia (NH ₃)	1,250	25	> 30
Cyanogen Chloride (CK)	150	2	> 30
Cyclohexane (C ₆ H ₁₂)	1,300	10	> 30
Formaldehyde (CH ₂ O)	250	10	> 30
Hydrogen Cyanide (HCN)	470	10	> 30
Hydrogen Sulfide (H ₂ S)	500 / 1,500*	30	> 30
Nitrogen Dioxide (NO ₂)	100	1	> 30
Phosgene (COCl ₂)	125	1.25	> 30
Phosphine (PH ₃)	150	0.5	> 30
Sulfur Dioxide (SO ₂)	750	5	> 30

*1,500 ppm supplemental testing conducted on SCape® CO/CBRN30 at AT labs

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ILC Dover SCape® CO/CBRN30 Respirator Chemical Performance (cont.)

Supplemental Chemical Testing

Test Agent	Challenge Concentration (ppm)	Allowable Breakthrough (ppm)	Service Time (min)
Acetic Acid	1,000	5	> 30
Acrolein*	100	1	> 30
Acrylonitrile	1,000	10	> 30
Benzene	1,000	1	> 30
Boron Trifluoride	100	5	> 30
Chlorine	1,000	5	> 30
Chlorine Dioxide	1,000	2	> 30
Fluorine	100	5	> 30
Hexane	2,000	10	> 30
Hydrogen Chloride	500	5	> 30
Hydrogen Fluoride	70	3	> 30
Nitric Acid	100	2	> 30
Toluene	1,000	10	> 30

*Testing only conducted for SCape CO/CBRN30 / Testing conducted by AJE Testing and Research, Boalsburg, PA and AT Labs, Livermore, CA

SCape CO/CBRN30 Carbon Monoxide (CO) Penetration Performance

CO Challenge Concentration	3600 ppm
Maximum Allowable Peak Excursion (Detected CO Levels in Parts Per Million) at 30 Minute Identified Service Life Duration	500 ppm
Resulting Maximum Peak Excursion (Detected CO Levels in ppm)	< 200 ppm

CO Challenge Concentration	3600 ppm
Maximum Allowable Concentration Time (CT) (ppm-Minutes) for 30 Minute Identified Service Life Duration**	12,075
Resulting Concentration Time (CT) (ppm-Minutes) at 30 Minutes	< 2000