

EMERGENCY BREATHING

Military, Commercial & Corporate



ESSEX[™]
INDUSTRIES

EMERGENCY BREATHING PBE



PBE FEATURES

- 15 minutes minimum of protection
- Anti-fog coating
- Multiple packaging options
- 270° visibility
- 10+ year shelf life
- FAA TSO-C116, TSO-C99, CAA, EASA, ETSO-C116, ETSO-C99, CAAC and ANAC approved

The PBE (Protective Breathing Equipment) supplies oxygen to crewmembers through the use of compressed aviator grade oxygen. The PBE dons in only 15 seconds, with a unique design that eliminates the need for an oral/nasal mask. The amber-tinted hood provides 270° of visibility and the elastic neck seal requires no adjustment. The PBE provides a minimum of 15 minutes of protection and one size fits most adults. This lightweight device takes very little stowage space and is currently used by nearly every U.S. commercial carrier, as well as many airlines in Europe, Australia, Asia, the Middle East and South America.



⚠️ WARNING: THIS PRODUCT CAN EXPOSE YOU TO CHEMICALS INCLUDING LEAD, WHICH IS KNOWN TO THE STATE OF CALIFORNIA TO CAUSE CANCER, AND BIRTH DEFECTS OR OTHER REPRODUCTIVE HARM. FOR MORE INFORMATION GO TO www.P65Warnings.ca.gov.



MR-10022N

MR-10022NAA

MR-10036N

MR-10042N

MR-10050N



PBE SPECIFICATIONS

W"x L"x H"	16 x 2 x 11 (HOOD FOLDED IN POUCH. NO BRACKET)
WEIGHT	3.2 LBS (HOOD AS WORN. NO POUCH)
TIME DURATION	UP TO 60 MINUTES, 15 MINUTES MINIMUM UNDER HEAVY WORKLOAD
SOURCE OF BREATHABLE AIR	AVIATOR GRADE COMPRESSED OXYGEN. O ₂ CYLINDER, WITH OVERPRESSURE PROTECTION TO PREVENT RUPTURE.
CARBON DIOXIDE CONTROL	PATENTED PASSIVE SCRUBBERS
DONNING TIME	LESS THAN 15 SECONDS
CARBON DIOXIDE (MAX AVERAGE)	4%
OXYGEN (MINIMUM VALUE)	18%
OXYGEN ACTIVATION	SEMI-AUTOMATIC
SHelf LIFE	10-YEARS 6-MONTHS FROM THE DATE OF MANUFACTURE
SIZING/FITTING	FITS 5TH TO 95TH PERCENTILE ADULTS WITHOUT ADJUSTMENT
VISIBILITY	270°
ORAL COMMUNICATION	EFFECTIVE AT 12 FEET
INSIDE HOOD TEMPERATURE	104°F MAX @ 68°F AMBIENT
OPERATING TEMPERATURE RANGE	5° F TO 120° F
STOWAGE TEMPERATURE RANGE	-20° F TO 185° F
CABIN PRESSURE ALTITUDE	8,000 FEET
THERMAL RESISTANCE	RADIANT HEAT - 1.0 BTU/SQ. FT. FOR UP TO 60 SECONDS, DRIPPING THERMOPLASTIC - 390°F, TRANSIENT FLAME - 1800°F FOR 5 SECONDS
PROTECTION FACTOR RATIO (TYPICAL)	260 @ 80 WATTS
STOWAGE OPTIONS	MULTIPLE STOWAGE OPTIONS AVAILABLE

EMERGENCY BREATHING EPOS & SCU



EPOS FEATURES

- Up to 60 minutes of protection
- Durable packaging
- Lightweight and portable
- 360° visibility
- 10+ year shelf life



SCU FEATURES

- Up to 60 minutes of protection
- Durable fabric pouch
- Lightweight and portable
- 360° visibility
- 10+ year shelf life



The EPOS (Emergency Passenger Oxygen System) is a self-contained protective breathing device intended for trained individuals in military aircraft emergencies such as decompression, fire, evacuation, rescue, smoke-filled cabins, toxic fumes or hazardous cargo spills. The EPOS utilizes compressed aviator grade oxygen and CO₂ scrubbers to furnish up to 60 minutes for someone at rest. The patented hood provides 360° visibility and dons in less than 15 seconds. Used by USAF and other air forces around the world.

The SCU (Self-Contained Unit) is a lightweight, portable, protective breathing device. Designed to safeguard a passenger or crewmember, the SCU provides up to 60 minutes of protection from the effects of smoke, carbon dioxide, harmful gases or oxygen deficiency during an in-flight emergency on private aircraft. The patented hood takes less than 15 seconds to don and provides 360° visibility allowing the wearer to see, hear, talk and move freely.



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EPOS & SCU SPECIFICATIONS

W"x L"x H"	2 x 9 ½ x 7 ½
WEIGHT	2 LBS.
TIME DURATION	20 MINUTES DEPENDING ON WORKLOAD LEVEL AND PHYSICAL CONDITION. UP TO 60 MINUTES FOR A PERSON SITTING, WAITING TO BE RESCUED.
SOURCE OF BREATHABLE AIR	AVIATOR GRADE COMPRESSED OXYGEN. O ₂ CYLINDER, WITH OVERPRESSURE PROTECTION TO PREVENT RUPTURE.
CARBON DIOXIDE CONTROL	PATENTED PASSIVE SCRUBBERS
DONNING TIME	LESS THAN 15 SECONDS
CARBON DIOXIDE (MAX AVERAGE)	4%
OXYGEN (MINIMUM VALUE)	18%
OXYGEN ACTIVATION	MANUAL FOR SCU AND SEMI-AUTOMATIC FOR EPOS
SHelf LIFE	10-YEARS 6-MONTHS FROM THE DATE OF MANUFACTURE
SIZING/FITTING	FITS 5TH TO 95TH PERCENTILE ADULTS WITHOUT ADJUSTMENT
VISIBILITY	360°
ORAL COMMUNICATION	EFFECTIVE AT 12 FEET
INSIDE HOOD TEMPERATURE	104°F MAX @ 68°F AMBIENT
OPERATING TEMPERATURE RANGE	5° F TO 120° F
STOWAGE TEMPERATURE RANGE	-20° F TO 185° F
CABIN PRESSURE ALTITUDE	8,000 FEET
THERMAL RESISTANCE	RADIANT HEAT - 1.0 BTU/SQ. FT. FOR UP TO 60 SECONDS, DRIPPING THERMOPLASTIC - 390°F, TRANSIENT FLAME - 1800°F FOR 5 SECONDS
PROTECTION FACTOR RATIO (TYPICAL)	260 @ 80 WATTS

VRU+ FEATURES

- Dons in 15 seconds or less
- Up to 60 minutes of protection
- Hermetically sealed
- Lightweight and portable
- 360° visibility
- 10+ year shelf life

The VRU+ (Victim Rescue Unit Plus) is a protective breathing system that can provide up to 60 minutes of visual and respiratory protection. Designed for home, security, law enforcement, first response teams, high-rise building occupants and homeland defense, the VRU+ protects a victim's respiratory system, head and vision from smoke, toxic fumes, hazardous chemical spills, and Sarin and Mustard gases for the purpose of emergency egress or escape.



W"x L"x H"	2 x 9 ½ x 7 ½
WEIGHT	2 LBS. (HOOD IN POUCH)
TIME DURATION	20 MINUTES DEPENDING ON WORKLOAD LEVEL AND PHYSICAL CONDITION. UP TO 60 MINUTES FOR A PERSON SITTING, WAITING TO BE RESCUED.
SOURCE OF BREATHABLE AIR	AVIATOR GRADE COMPRESSED OXYGEN. O ₂ CYLINDER, WITH OVERPRESSURE PROTECTION TO PREVENT RUPTURE.
CARBON DIOXIDE CONTROL	PATENTED PASSIVE SCRUBBERS
DONNING TIME	LESS THAN 15 SECONDS
CARBON DIOXIDE (MAX AVERAGE)	4%
OXYGEN (MINIMUM VALUE)	18%
OXYGEN ACTIVATION	SEMI-AUTOMATIC
SHELF LIFE	10-YEARS 6-MONTHS FROM THE DATE OF MANUFACTURE
SIZING/FITTING	FITS 5TH TO 95TH PERCENTILE ADULTS WITHOUT ADJUSTMENT
VISIBILITY	360°
ORAL COMMUNICATION	EFFECTIVE AT 12 FEET
INSIDE HOOD TEMPERATURE	104°F MAX @ 68°F AMBIENT
OPERATING TEMPERATURE RANGE	5° F TO 120° F
STOWAGE TEMPERATURE RANGE	-20° F TO 185° F
CABIN PRESSURE ALTITUDE	8,000 FEET
THERMAL RESISTANCE	RADIANT HEAT - 1.0 BTU/SQ. FT. FOR UP TO 60 SECONDS, DRIPPING THERMOPLASTIC - 390°F, TRANSIENT FLAME - 1800°F FOR 5 SECONDS
PROTECTION FACTOR RATIO (TYPICAL)	260 @ 80 WATTS

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Essex Industries is a leading manufacturer and provider of FAA, CAA, CAAC and ANAC approved and mandated emergency portable breathing and rescue life support systems. Our patented technology has been proven over years of use during emergencies in applications worldwide. Our protective breathing devices are used by security professionals for the government, CEO's, flight attendants and individuals alike.

The following chart is intended to be used as a guide for quickly comparing Essex emergency breathing equipment to user needs.

	PBE	EPOS	SCU	VRU+
VISIBILITY	270°	360°	360°	360°
DURATION	UP TO 60 MINUTES	UP TO 60 MINUTES	UP TO 60 MINUTES	UP TO 60 MINUTES
SIZE/FIT	5TH TO 95TH PERCENTILE OF ADULTS	5TH TO 95TH PERCENTILE OF ADULTS	5TH TO 95TH PERCENTILE OF ADULTS	5TH TO 95TH PERCENTILE OF ADULTS
HERMETICALLY SEALED	✓	✓	✓	✓
DIMENSIONS (W"xL"xH")	16 x 11 x 2 IN FABRIC POUCH	2 x 9 ½ x 7 ½ IN FABRIC POUCH	2 x 9 ½ x 7 ½ IN FABRIC POUCH	2 x 9 ½ x 7 ½ IN FABRIC POUCH
WEIGHT	3.3 LBS. IN FABRIC POUCH	2 LBS. IN FABRIC POUCH	2 LBS. IN FABRIC POUCH	2 LBS. IN FABRIC POUCH
PACKAGING	SOFT POUCH AND HARD CASES AVAILABLE	SOFT POUCH ONLY	SOFT POUCH ONLY	SOFT POUCH ONLY
VARIOUS STOWAGE OPTIONS	✓	✓	—	✓
ACTIVATION	SEMI-AUTOMATIC	SEMI-AUTOMATIC	MANUAL	SEMI-AUTOMATIC
SYSTEM TYPE	CLOSED CIRCUIT REBREATHING SYSTEM	CLOSED CIRCUIT REBREATHING SYSTEM	CLOSED CIRCUIT REBREATHING SYSTEM	CLOSED CIRCUIT REBREATHING SYSTEM
THERMAL RESISTANCE	UP TO 1800° F	UP TO 1800° F	UP TO 1800° F	UP TO 1800° F
CABIN PRESSURE ALTITUDE	8,000 FEET	8,000 FEET	8,000 FEET	8,000 FEET
ANTI-FOG	✓	✓	✓	✓
HUMIDITY INDICATOR	✓	✓	✓	✓
SERVICE INDICATOR	✓	—	—	—
TAMPER-EVIDENT SEALS	✓	✓	—	—
PROTECTION FACTOR RATIO	260 @ 80 WATTS	260 @ 80 WATTS	260 @ 80 WATTS	260 @ 80 WATTS
PROVIDES PROTECTION AGAINST	TOXIC FUMES AND SMOKE	TOXIC FUMES, SMOKE AND HEAT	TOXIC FUMES, SMOKE AND HEAT	TOXIC FUMES, SMOKE, CHEMICAL SPILLS, SARIN AND MUSTARD GASES
WARRANTY	10-YEARS 6-MONTHS FROM DATE OF MFR.	10-YEARS 6-MONTHS FROM DATE OF MFR.	10-YEARS 6-MONTHS FROM DATE OF MFR.	10-YEARS 6-MONTHS FROM DATE OF MFR.



ORDERING INFORMATION

PBE

MR-10022N
CONCEALED MOUNTING HOLES AND VIEWING WINDOW

MR-10022NAA
CONCEALED MOUNTING HOLES AND VIEWING WINDOW - AMERICAN AIRLINES

MR-10022NC
CONCEALED MOUNTING HOLES AND VIEWING WINDOW - CHINESE

MR-10022NEMB
CONCEALED MOUNTING HOLES AND VIEWING WINDOW - EMBRAER

MR-10022NU
PBE WITH CONCEALED MOUNTING HOLES AND CLEAR LID.

MR-10034N
BRACKET MOUNTED CASE (STOWAGE BOX A)



MR-10035N
FLAME-RESISTANT FABRIC POUCH

MR-10036N
BRACKET MOUNTED CASE (STOWAGE BOX C)

MR-10036NC
BRACKET MOUNTED CASE (STOWAGE BOX C) - CHINESE

MR-10037N
FLANGE CASE (STOWAGE BOX B)



MR-10039N
BRACKET MOUNTED CASE AND VIEWING WINDOW



MR-10042N
OPEN ENDED STOWAGE BRACKET

MR-10042NWA
OPEN ENDED STOWAGE BRACKET - DELTA

MR-10046NS
CLOSED ENDED STRAIGHT STRAP BRACKET

MR-10046NY
CLOSED ENDED Y-STRAP BRACKET

MR-10049N
CLOSED ENDED Y-STRAP BRACKET AND HUMIDITY INDICATOR WINDOW



MR-10049NA
CLOSED ENDED Y-STRAP BRACKET AND HUMIDITY INDICATOR WINDOW - AIRBUS

MR-10050N
CONCEALED MOUNTING HOLES AND VIEWING WINDOW



MR-10051N
FLAME-RESISTANT FABRIC POUCH

MR-10052N
FLAME-RESISTANT POUCH AFFIXED TO WALL MOUNT ASSEMBLY



CP-3156
PBE IN BARRIER POUCH (NO MOUNTING BRACKET)



EPOS

MR-10093AF
TRAINING UNIT

MR-10096AF
SOFT POUCH

MR-10097AF
SOFT POUCH WITH CARRY STRAP



SCU

MR-10010N
SOFT POUCH

MR-10012N
TRAINING UNIT



VRU+

MR-10060N
SOFT POUCH

MR-10027N
TRAINING UNIT



TYPICAL DONNING PROCEDURE

STEP ONE

Pull Tab, Open Pouch



STEP TWO

Unfold Hood, Activate the Oxygen



STEP THREE

Insert Hands to Open Neckseal



STEP FOUR

Pull Over Head



WARNING: Remove the hood immediately if the hood fails to slowly inflate after donning or if it collapses up against the face.
Example shown is for the SCU only.



For more information on any of our products or services, please visit our website at essexindustries.com or contact us by email, info@essexind.com.

