

De-breathe

e-Flow

POWERED AIR PURIFYING RESPIRATOR



English



THE ALL-IN-ONE POWERED AIR PURIFYING RESPIRATOR:

With its new e-breathe PAPR-system, e-breathe has developed an absolute all-rounder. Thanks to its innovative and modular concept, the e-Flow belongs to the newest generation of air purifying respirators. The slim housing and ergonomic design enable an easy operation even in confined spaces. The system includes a basic unit and various filter boxes that serve as filter housings. The modular design allows the unit to be configured precisely to suit individual requirements. No matter whether the situation requires a connection with DIN round thread filters, an e-breathe ecoPAD filter or a three-filter operation, the modular e-Flow is always immediately ready for operation.

INTELLIGENT TECHNOLOGY FOR MAXIMUM SAFETY:

In addition to its universal application, the blower also convinces in terms of technology and equipment. The blower is equipped with the newest technology and offers maximum safety and protection.

• AUTOMATIC SYSTEM TEST:

The integrated software of the intelligent e-Flow carries out an automatic system test each time the device is switched on and thereby checks the functionality of the device before each operation.

• INTELLIGENT 2-STEP WARNING SYSTEM:

All the important components are permanently monitored by the electronics guaranteeing that the user is warned when the volume falls below the minimum level, when the filter is full or when the battery power is too low.

The alarm function of the e-breathe e-Flow is equipped with a 2-step warning system:

- Stage 1 - Warning: audible and visual signal
- Stage 2 - Alarm: audible, visual and mechanical (vibration alarm) signal

• RELIABLE ENERGY SOURCE:

Long-lasting and reliable blower breathing protection requires a reliable energy source, which has been implemented in the new e-breathe e-Flow as a replaceable and lightweight lithium-ion battery with fast charging function and a long service life. The communication between the system and the battery provides a real-time display of the remaining battery life.

Technical Specifications

Operation Mode Approvals:	e-breathe e-Flow Hood-System -> CE certified according to EN 12941 (TH3) e-breathe e-Flow Full Mask System -> CE certified according to EN 12942 (TM3)
Airflow (automatic readjustment):	adjustable in 3 stages on the unit 160 - 180 - 200 l/min hood system 120 - 140 - 160 l/min full mask system
Airflow Warning:	< 160 l/min hood system < 120 l/min full mask system
Battery Warning:	< 15 min remaining time
Battery:	Lithium-Ion Battery: 14,4V / 3,4Ah / 49WH
Operating Time:	approx. 8 to 10 hours (Depends on the concentration of pollutants and the adjusted airflow.)
Battery Recharging Time:	less than 4 hours (quick charge function enables rapid charging: 2 hours for 80%)
Temperature Range:	-10°C to +40°C <70% RH
Weight:	approx. 1100g (with battery / without filters / without belt)
Alarm System:	optical alarm (Display of the alarm at the color display with corresponding error code.) acoustic alarm (≥ 75 dB) vibration alarm
IP Protection Class:	IP65 with Decon Cap

FEATURES & BENEFITS

HIGH COMFORT:

- low noise level
- the system adapts optimally to every requirement due to different carrying systems
- ergonomic fit: blower fits tightly to the body and provides a high wearing comfort

MAXIMUM SAFETY:

- intelligent 2-stage warning system
- easy handling
- robust construction with reliable electronics and protection class IP 65

AIR FLOW:

- constant monitoring of the air flow, independently of battery charge status and filter saturation
- Strong air flow with an air volume control from 160l/min to 200l/min to ensure an over-pressure in the head section even under extreme conditions.

MODULAR CONSTRUCTION:

- Basic unit, which can be combined with various filter elements depending on the specific application
- easy to maintain: quick & easy replacement of spare parts and components

APPROVALS:

- EN 12941: Class TH3
- EN 12942: Class TM3
- EN 138: Class B
- PPE Regulation

1 BASIC UNIT:

The Basic Unit combines technical and intelligent electronics. The installed brush less motor made by ebm-papst impresses through above-average quality and has a significantly higher lifetime than a conventional motor.

2 FILTER-BOX:

The e-flow PAPR has a modular construction and different filter boxes. Thanks to the interchangeable filter boxes the blower unit is fully customizable. Depending on the area of application the unit can be equipped with various filter connections. The filter box can be changed quickly and easily without any tools to meet the individual requirements of the user perfectly.

Compatible with: standard connection thread RD40x1/7 according to EN 148-1, e-breathe ecoPad Filter, triple Filter operation

3 E-BREATHE ECOPAD FILTER SYSTEM:

- Effective protection against particles and gases
- Combination filter with a modular construction: to separately exchange the particle or gas filter when only one of them is saturated
- Optional spark arrestor to prevent the filter from being damaged by hot sparks: quick and simple insertion into the filter cover
- Optional pre-filter traps the coarse particles and thus prolong the lifetime of the filter

4 EXCHANGEABLE LITHIUM-ION BATTERY:

- Quick and easy exchangeable battery to work without an interruption
- Quick charge system enables rapid charging (2 hours for 80% and 4 hours for the whole battery)
- Operating Time: 8 to 10 hours (depending on filter-/headpiece combination and concentration of pollutants)

5 ADJUSTABLE AIRFLOW:

The airflow can be easily adjusted with one button from 160 l/min to 180 l/min and up to 200 l/min.. Especially during strenuous tasks or usage in hot or humid environment the adjustable airflow is a useful function to facilitate the daily work of the user.

6 HOSE CONNECTION

The standard connection thread is compatible with all e-breathe & PM headpieces and hoses.

7 WEARING COMFORT:

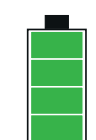
- Fitting: permanently close to the body
- Wide choice of various carrying system to best fit different areas of applications

8 USB SERVICE INTERFACE:

The e-flow can be connected to a computer via USB connection to read the system and configure the system according to the user's specific needs.

9 COLOR DISPLAY:

The system automatically runs a system test of all important components. The system test is performed to check the device when starting and to ensure maximum safety. Within a few seconds the system displays all important information on the home screen:



08:15 h

Battery Status

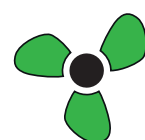
- state of charge
- remaining battery time



100 %

Filter Status

- current filter capacity



200 l/min

Airflow

- adjusted airflow
- 160 - 180 - 200 l/min



Starter Packs & Accessory

Ready Packs

ORDER INFORMATION

STARTER-PACKS E-FLOW

Articel Name	Part Number	Image
The starter pack includes: blower unit, filter adaptor, battery, charging station and comfort belt		
e-breathe e-Flow Blower Unit with PAD-Box - Hood System - Full Mask System	3220051xx 00 02	
e-breathe e-Flow Blower Unit with Filter-Box - Hood System - Full Mask System	3220050xx 99 01	
e-breathe e-Flow Blower Unit Basic	322005000	

ACCESSORY & SPARE PARTS

Articel Name	Part Number	Image
e-Flow PAD-Box (Box for ecoPAD Filter)	322005001	
e-Flow Filter-Box (Box for standard connection thread)	322005002	
e-Flow Battery Li-Ion 14,4 V / 3,4 Ah / 49WH	322002176	
e-Flow Charging Station	322005003	
e-breathe Wall Mount for Charging Station	322005004	
e-breathe Comfort Belt Pro	322003003	
e-breathe shoulder strap Pro (textile)	302063596	
e-breathe back support Pro (textile)	322001057	
Belt Textile	108062786	
Belt Decon (decontaminable)	302062996	
additional accessories: decontamination plug, disposable cover, storage case, belt extension and much more		

If you currently don't use a head piece and a blower, our Ready Packs provide a comprehensive solution. The Ready Pack consists of a complete e-flow PAPR System (including blower unit, battery, charging station, belt, Pad Box or Filter Box* and 2x ecoPad P3 Filters) and additionally includes a head piece and a breathing hose.

READY-PACKS

Articel Name	Part Number	Image
The Ready Pack includes: Blower Unit, PAD-Box, Battery, Charging Station, Comfort Belt, 2x e-breathe Particle Filters P3, Hose and Head Piece		
e-breathe Ready-Pack e-Flow with Multimask Pro	322005200	
e-breathe Ready-Pack e-Flow with Multimask Gr. M with Multimask Gr. M/L	3220052xx Size M = 10 Size M/L = 20	
e-breathe Ready-Pack e-Flow with Multi-Hood Limited-Use & Headgear or Helmetholder	3220055xx Helmet. =00 Head = 10	
e-breathe Ready-Pack e-Flow with Multi-Hood Premium & Headgear or Helmetholder	3220056xx Helmet =00 Head = 10	
e-breathe Ready-Pack e-Flow with PM Panarea Pro	322005900	
e-breathe Ready-Pack e-Flow with PM Lab Hood AV	322005300	
e-breathe Ready-Pack e-Flow with PM Chemical Hood	322005400	
e-breathe Ready-Pack e-Flow* with e-breathe Chemical Grey Inside	32200570x Size S-XXL	
e-breathe Ready-Pack e-Flow with PM Chemical Grey Outside	32200580x Size S-XXL	

Compatible Products for e-breathe e-Flow

BREATHING HOSE WITH EN THREAD				
Article Name	Number	Material	Compatible with	
Breathing Air Hose Vario Air Control Connection	322000996	PU- flexibele	e-breathe Multimask / e-breathe Multimask Pro	
	302711105	PU - fixed length		
	302711107	EPDM		
Breathing Air Hose MM free rotating Connection	322000997	PU- flexible	e-breathe Multimask / e-breathe Multimask Pro	
	302711104	PU - fixed length		
	302711106	EPDM		
Breathing Air Hose e-breathe Click	302001109	PU - flexible	e-breathe Multi-Hood, PM Lab Hood AV, PM Chemical Hood, PM Chemical Grey Outside	
	302011109	PU -fixed length		
Breathing Air Hose e-breathe Inside	302001110	PU - flexible	PM Chemical Grey Inside, e-breathe Splash Inside	
	302001111	PU - fixed length		
Breathing Air Hose e-breathe RT	302711100	PU - fixed length	PM Full Face Mask Panarea Pro	
	302711103	PU - fixed length		
	302711108	EPDM		
Cover Hose	116001041	Limited-Use	Compatible with all PM & e-breathe Breathing Air Hoses	



Areas of Application

PRODUCTS						
Application	e-breathe Multimask	Full Mask	PM Lab Hood AV	PM Chemical Hood	e-breathe Multi-Hood	PM Chemical Grey Inside & Outside
Aluminium works	x	x		x	x	
Asbestos removal		x				
Nuclear industry		x	x	x	x	x
Pharmaceutical	x	x	x	x	x	x
Lead processing		x				
Plumbing	x	x				
Paint spraying	x	x	x	x	x	x
Chemical plants		x		x	x	x
General maintenance	x	x	x	x	x	
Laboratories	x	x	x		x	x
Shipyards	x	x				
Foundries	x	x		x		
Agriculture	x	x	x	x	x	x
Grain mills and silos	x	x	x	x		
Food processing industry	x	x	x	x		
Pest control	x	x		x	x	x
Animal husbandry	x	x	x	x	x	
Grinding work	x	x				
Isocyanate Processing	x	x				
Petrochemical	x	x				x
Textile industry	x		x	x	x	
Electronics/PCB manufacture	x		x		x	
Building & Construction	x	x			x	
Purification and Sewage	x	x	x	x	x	

ecoPAD Filter System



Under the motto SIMPLE, SOLID SAFE the e-breathe develops the next generation of innovative respiratory protection equipment. Because resources are continuously becoming scarcer, more and more focus is placed on the sustainability of products. With the new ecoPAD filter system e-breathe follows this environmentally friendly and goes one step further.

SUSTAINABLE & EFFICIENT: THE ECOPAD SYSTEM ON THE NEW E-FLOW BY E-BREATHE

The e-breathe division developed a reusable filter which was designed with a screw on filter housing to reuse the filter housing and quickly and easily replace the filter fleece. The integrated fleece is exactly the same fleece, which is used in standardized encapsulated filters. The tight fit of the fleece is achieved through a special rubber coating that was developed specifically for the eco-PAD.

The top and the bottom of the filter housing can be connected at once and encloses the particulate fleece firmly. This means that the user has the highest protection against particles and aerosols and the lowest breathing resistance simultaneously.

The new e-Flow from e-breathe integrates the lower part of the filter housing directly onto the „PAD-Box“. The filter fleece is inserted into the integrated housing before using the e-Flow. The fleece will then be firmly closed with the upper part of the filter housing. Depending on the environmental air and the requirements, a particle filter or combination filter can be used.

MODULAR EXCHANGEABLE COMBINATION FILTER:

If the system is used with a combination filter, a modular exchange of the filter parts is possible when one filter is saturated. If necessary, only the particle or gas filter can be replaced separately. This offers the advantage that only the saturated filter needs to be replaced and the other filter can be used until it is saturated.

During the development of the ecoPAD, it was explicitly designed to be particularly flat and lightweight. As a result, only about one third of the space that would be required for the storage of common filters is required for the storage.

The ecoPAD respiratory filters do not only impress with space and cost savings in logistics and storage, but also contribute to the protection of the environment and material budget due to the reusable filter-housing and the modular design.



PARTICLE FILTER				
Filter	Part Number	Protection against:	Color code	Image
e-breathe Particle Filter P3 R SL	322002109	Unencapsulated Filter Solid and liquid particles of toxic agents, radioactive substances and microorganisms, e.g. bacteria and viruses		
e-breathe ecoPAD P3 R SL (VPE 5)	322002110	Replacement filter media for the e-breathe particle filter		

GASFILTER				
Filter	Part Number	Protection against:	Color code	Image
e-breathe ecoPAD GF A2	coming soon	Organic gases and vapours, e.g. solvents with a boiling point above 65°C. - replacement Gasfilter-PADs		
e-breathe ecoPAD GF A2B2	coming soon	Organic and inorganic gases and vapours. - replacement Gasfilter-PADs		
e-breathe ecoPAD GF A2B2E2K1	coming soon	Organic, inorganic and acid gases and vapours as well as ammonia. - replacement Gasfilter-PADs		

COMBINATION FILTER				
Filter	Part Number	Protection against:	Color code	Image
e-breathe Combination Filter A2-P3 R / PSL	coming soon	Organic gases and vapours, e.g. solvents with a boiling point above 65°C, solid and liquid particles, radioactive and toxic particles and micro-organisms.		
e-breathe Combination Filter A2B2-P3 R / PSL	coming soon	Organic and inorganic gases and vapours, solid and liquid particles, radioactive and toxic particles and micro-organisms.		
e-breathe Combination Filter-A2B2E2K1-P3 R / PSL	coming soon	Organic, inorganic and acid gases and vapours as well as ammonia and organic ammonia derivatives, solid and liquid hazardous particles, e.g. radioactive and toxic substances and micro-organisms.		

Ersatzte SPARE PARTS & ACCESSORY		
Article Name	Part Number	Image
e-breathe Filter Cover	322002131	
e-breathe Gasfilter - Adapter	Demnächst erhältlich	
Prefilter (VPE 20)	302052691	
e-breathe Spark Protection for ecoPAD (Pair)	322002138	
Closure Cap for filter threads	146042507	

PM Atemschutz



Willicher Damm 99 – 41066 Mönchengladbach – Deutschland

Tel: 02161 / 40 290 0 Fax: 02161 / 40 290 20

www.PM-Atemschutz.de

info@pm-atemschutz.de

PM Shop

Online-Shop

www.PM-Atemschutzshop.de

e-breathe

Development of new PPE

www.e-breathe.de

info@e-breathe.de

