

The Leading Brands in Portable LEV Fume Extraction

Portable LEV captures welding fume at the source, protecting the welder, and stopping the spread of fume throughout the workshop.

Portable systems can be manoeuvred around the workplace to provide effective protection from welding fume and are a perfect solution for workplaces where extraction is required across a range of different situations or positions.

Portable systems can be a more economical option when compared to fixed installations and can offer more flexibility as requirements change over time.

AWS has teamed up with the world's leading brands in Local Exhaust Ventilation to launch a range of portable LEV systems designed specifically for the welding industry.

The range has been hand-picked to cater for all common welding processes including TIG, MMA, MIG, and FCAW.

Designed and manufactured by Nederman and Bomaksan, these portable welding fume extractors capture fumes at the source, which is the most effective way to collect and remove fumes.









NEW Lower Welding Fume Exposure Standard

There is officially a lower Workplace Exposure Standard (WES) for Welding Fume in Australia. In January 2024, Work Health and Safety Ministers agreed to an immediate 80% reduction to the WES for welding fume - now 1mg/m³.

This reduction to the legal limit sends a clear message to the welding industry: welding fume is serious, and action is required.

The important point to understand is that while the risk posed by welding fume is serious, keeping yourself safe can be straightforward.

The 2017 IARC reclassification of welding fume as 'carcinogenic to humans' simply confirmed what was already known – welding fume is extremely bad for health and workplaces must protect their workers.

Excessive exposure to welding fume can cause multiple types of cancer, including lung, larynx, and urinary tract.

'Welders present, on average, a 43% increased risk of lung cancer when compared with those who have never welded or been exposed to welding fume'¹. 'This increased risk of lung cancer is regardless of the type of steel welded, the welding process and independent of exposure to smoking'¹.

Simple Takeaway

Welding fume is serious, action is required.

Precedent for workers' compensation based on a link between welding fume and cancer was established in the Australian courts back in 2014, opening the door for future compensation claims.

Aside from cancer, welding fume can also cause serious long-term health effects like lung function abnormalities, including bronchial asthma, chronic obstructive pulmonary disease (COPD), pneumoconiosis and other pulmonary fibrosis, as well as stomach ulcers, kidney damage and nervous system damage.

The reduced WES and knowing the serious health risks associated with welding fume exposure should encourage all employers of welders to review their risk assessments and revise their control measures.

What controls do you have in place to minimise exposure?

Nederman

Nederman Welding Fume Protection System 860

Part Number: FPS180



The Nederman 860 is a practical and lightweight LEV system, designed to be carried to and from the working area, and built specifically for welding environments.

Connected to an on-gun welding torch or to an extraction nozzle, the Fume Eliminator 860 extracts welding fume directly at the source with an automatic start/stop function.

The Nederman 860 will notify the welder when the filter is 85% and 100% full and needs replacing. Suitable for most welding applications.

- Disposable 'no-touch' filter (99.7% efficiency)
- Portable and easy to carry (16kg)
- Simple operation with low service costs
- Automatic start/stop function
- Maintains desired extraction flow automatically (fully adjustable)
- Suitable for On-Gun Fume Extraction
- Variety of extraction nozzles available for bench welding.

Extraction nozzles sold separately.





Focused nozzle funnel

Wide nozzle funnel



	FPS180
Wire Suitability	0.9 - 1.6mm wire
Occasional TIG	Yes
Regular TIG	Yes
Continuous TIG	Yes
Occasional MMA	Yes
Regular MMA	Yes
Continuous MMA	ок
Occasional MIG	Yes
Regular MIG	Yes
Continuous MIG	ок
Occasional Flux Cored	Yes
Regular Flux Cored	ок
Continuous Flux Cored	ОК
Number of Nozzles/Arms	1
Length of Arms or Hose (m)	2.5
Filter Efficiency	99.7% (F9)
Filter Type	Disposable
Filter Surface (m²)	5.3
Airflow (m³/h)	Max. 180
Number of Filters	1
Fume Tray Volume (I)	N/A
Working Hour Counter	No
Filter Sensor & Indicator	Yes
Fan Rotation Direction Indicator	No
Weight (without arm)	16kg
Dimensions (H x W x D)	406 x 222 x 800 mm
Power Voltage (V) / Phases	230 / 1
Noise Level (dB(A))	73
Warranty	1 year
Compliance	CE Certified

Nederman

Nederman Welding Fume Protection System 900

Part Number: FPS900

	FPS900
Wire Suitability	0.9 - 1.2mm wire
Occasional TIG	Yes
Regular TIG	Yes
Continuous TIG	Yes
Occasional MMA	Yes
Regular MMA	Yes
Continuous MMA	ОК
Occasional MIG	Yes
Regular MIG	Yes
Continuous MIG	ОК
Occasional Flux Cored	ОК
Regular Flux Cored	Not Recommended
Continuous Flux Cored	Not Recommended
Number of Nozzles/Arms	1
Length of Arms or Hose (m)	3
Filter Efficiency	>99% (E12)
Filter Type	Cleanable
Filter Surface (m²)	12
Airflow (m³/h)	500 - 900
Number of Filters	1
Fume Tray Volume (I)	10
Working Hour Counter	No
Filter Sensor & Indicator	No
Fan Rotation Direction Indicator	No
Weight (without arm)	150kg
Dimensions (H x W x D)	1200 x 665 x 780 mm
Power Voltage (V) / Phases	230 / 1
Noise Level (dB(A))	72
Warranty	1 year
Compliance	CE Certified



The FPS900 is a mobile, single-arm welding fume extraction unit, offering easy and trouble-free operation.

Featuring a flexible 3 metre extraction arm that can be swivelled 360 degrees, the unit is easy to position, ensuring there is no impact on the welding process.

Suitable for use across all medium welding fume producing applications, the cleanable long-life cartridge filter ensures running costs are kept to a minimum.

- Cleanable filter ensures low running costs
- · 3-metre arm with 360-degree swivel
- Extraction hood provides superior performance
- Easy to move and manoeuvre
- Blow gun included for cleaning.



Bomaksan PRO

Part Number: BPR013

	BPR013
Wire Suitability	0.9 - 1.6mm wire
Occasional TIG	Yes
Regular TIG	Yes
Continuous TIG	Yes
Occasional MMA	Yes
Regular MMA	Yes
Continuous MMA	Yes
Occasional MIG	Yes
Regular MIG	Yes
Continuous MIG	Yes
Occasional Flux Cored	Yes
Regular Flux Cored	ок
Continuous Flux Cored	ок
Number of Nozzles/Arms	1
Length of Arms or Hose (m)	3
Filter Efficiency	99.99% (H13 HEPA) or >95% (F9)*
Filter Type	Cleanable
Filter Surface (m²)	20 or 24*
Airflow (m³/h)	1400
Number of Filters	1
Fume Tray Volume (I)	16
Working Hour Counter	Yes
Filter Sensor & Indicator	Yes
Fan Rotation Direction Indicator	Yes
Weight (without arm)	183kg
Dimensions (H x W x D)	1320 x 650 x 815 mm
Power Voltage (V) / Phases	400 / 3
Noise Level (dB(A))	72
Warranty	2 years
Compliance	CE Certified



The Bomaksan PRO is a professional, mobile, single-arm welding fume extraction unit, available with a HEPA class (99.99%) cleanable filter.

The large 24m² filter surface area makes the Bomaksan PRO suitable for use across all medium-to-high welding fume producing applications.

- · Cleanable filter ensures low running costs
- Large filter surface area of 24m²
- · 3 metre arm with 360-degree swivel
- Control and signal panel with operating hour counter
- Extraction hood provides superior performance
- Easy to move and manoeuvre.

^{*} The Bomaksan PRO can be used with either the NanoBLEND filter (F9 > 95%) or the PolyMIGHT PTFE filter (HEPA Filter 99.99%). The NanoBLEND filter has a higher filter surface area so it will offer longer run times between cleaning and is better suited to low alloy materials. The PolyMIGHT PTFE filter is better suited to high alloy materials and has a lower surface area so will need to be cleaned more often. Both filters are available. The PRO systems will come standard with the NanoBLEND filter to increase surface area.



Bomaksan PULSE

Part Number: BPULSE13

	BPULSE13
Wire Suitability	ALL
Occasional TIG	Yes
Regular TIG	Yes
Continuous TIG	Yes
Occasional MMA	Yes
Regular MMA	Yes
Continuous MMA	Yes
Occasional MIG	Yes
Regular MIG	Yes
Continuous MIG	Yes
Occasional Flux Cored	Yes
Regular Flux Cored	Yes
Continuous Flux Cored	Yes
Number of Nozzles/Arms	1
Length of Arms or Hose (m)	3
Filter Efficiency	99.99% (H13 HEPA)
Filter Type	Auto Pulse Cleaning
Filter Surface (m²)	10 x 2 (Auto Cleaning)
Airflow (m³/h)	1400
Number of Filters	2
Fume Tray Volume (I)	16
Working Hour Counter	Yes
Filter Sensor & Indicator	Yes
Fan Rotation Direction Indicator	Yes
Weight (without arm)	242kg
Dimensions (H x W x D)	1760 x 890 x 810 mm
Power Voltage (V) / Phases	400 / 3
Noise Level (dB(A))	73
Warranty	2 years
Compliance	CE Certified



The Bomaksan PULSE is an industry leading, HEPA rated, mobile, single arm welding fume extraction unit.

Featuring automatic jet-pulse cleaning (compressed air 80 PSI), this unit is suitable for heavier welding fume environments and is suitable for all common welding applications including TIG, MIG, MMA, and Flux Cored.

The jet-pulse automatic cleaning system allows continuous operation and less frequent maintenance.

- 2 x HEPA class (99.99%) cleanable filters with automatic jet-pulse cleaning
- · 3 metre arm with 360-degree swivel
- Control and signal panel with operating hour counter
- Extraction hood provides superior performance
- Easy to move and manoeuvre.

^{*} The Bomaksan PULSE can be used with either the NanoBLEND filter (F9 > 95%) or the PolyMIGHT PTFE filter (HEPA Filter 99.99%). The NanoBLEND filter has a higher filter surface area so it will offer longer run times between cleaning and is better suited to low alloy materials. The PolyMIGHT PTFE filter is better suited to high alloy materials and has a lower surface area so will need to be cleaned more often. Both filters are available. The PULSE systems will come standard with the premium PolyMIGHT PTFE filters as jet-pulse cleaning negates the need for a larger surface area.

Nederman

Nederman Welding Fume Protection System 1800

Part Number: FPS1800

	FPS1800
Wire Suitability	0.9 - 1.2mm wire
Occasional TIG	Yes
Regular TIG	Yes
Continuous TIG	Yes
Occasional MMA	Yes
Regular MMA	Yes
Continuous MMA	ок
Occasional MIG	Yes
Regular MIG	Yes
Continuous MIG	ок
Occasional Flux Cored	ок
Regular Flux Cored	Not Recommended
Continuous Flux Cored	Not Recommended
Number of Nozzles/Arms	2
Length of Arms or Hose (m)	3
Filter Efficiency	>99% (E12 Class)
Filter Type	Cleanable
Filter Surface (m²)	12 x 2
Airflow (m³/h)	500 - 900 x 2
Number of Filters	2
Fume Tray Volume (I)	10
Working Hour Counter	No
Filter Sensor & Indicator	No
Fan Rotation Direction Indicator	No
Weight (without arm)	210kg
Dimensions (H x W x D)	1450 x 665 x 780 mm
Power Voltage (V) / Phases	400 / 3
Noise Level (dB(A))	72
Warranty	1 year
Compliance	CE Certified



The FPS1800 is a mobile, twin-arm welding fume extraction unit, offering easy and trouble-free operation.

Featuring two flexible 3 metre extraction arms that can be swivelled 360 degrees, the unit is easy to position, ensuring there is no impact on the welding process.

Suitable for use across all medium welding fume producing applications, the two cleanable long-life cartridge filters ensure running costs are kept to a minimum.

- 2 x cleanable filters ensure low running costs
- · 2 x 3-metre arms with 360-degree swivel
- Extraction hood provides superior performance
- · Easy to move and manoeuvre
- Blow gun included for cleaning.



Bomaksan PRO2

Part Number: BPR023

	BPR023
Wire Suitability	0.9 - 1.6mm wire
Occasional TIG	Yes
Regular TIG	Yes
Continuous TIG	Yes
Occasional MMA	Yes
Regular MMA	Yes
Continuous MMA	ок
Occasional MIG	Yes
Regular MIG	Yes
Continuous MIG	ок
Occasional Flux Cored	ок
Regular Flux Cored	ок
Continuous Flux Cored	ок
Number of Nozzles/Arms	2
Length of Arms or Hose (m)	3
Filter Efficiency	99.99% (H13 HEPA) or >95% (F9)*
Filter Type	Cleanable
Filter Surface (m²)	20 or 24*
Airflow (m³/h)	1100 x 2
Number of Filters	1
Fume Tray Volume (I)	16
Working Hour Counter	Yes
Filter Sensor & Indicator	Yes
Fan Rotation Direction Indicator	Yes
Weight (without arm)	201kg
Dimensions (H x W x D)	1320 x 650 x 815 mm
Power Voltage (V) / Phases	400 / 3
Noise Level (dB(A))	72
Warranty	2 years
Compliance	CE Certified



The Bomaksan PRO2 is a professional, mobile, twin-arm welding fume extraction unit, available with a HEPA class (99.99%) cleanable filter.

The Bomaksan PRO2 is suitable for use across all medium welding fume producing applications.

- Cleanable filter ensures low running costs
- Large filter surface area of 24m²
- 2 x 3 metre arms with 360-degree swivel
- Control and signal panel with operating hour counter
- Extraction hood provides superior performance
- · Easy to move and manoeuvre.

^{*} The Bomaksan PRO can be used with either the NanoBLEND filter (F9 > 95%) or the PolyMIGHT PTFE filter (HEPA Filter 99.99%). The NanoBLEND filter has a higher filter surface area so it will offer longer run times between cleaning and is better suited to low alloy materials. The PolyMIGHT PTFE filter is better suited to high alloy materials and has a lower surface area so will need to be cleaned more often. Both filters are available. The PRO systems will come standard with the NanoBLEND filter to increase surface area.



Bomaksan PULSE2

Part Number: BPULSE23

	BPULSE23
Wire Suitability	ALL
Occasional TIG	Yes
Regular TIG	Yes
Continuous TIG	Yes
Occasional MMA	Yes
Regular MMA	Yes
Continuous MMA	Yes
Occasional MIG	Yes
Regular MIG	Yes
Continuous MIG	Yes
Occasional Flux Cored	Yes
Regular Flux Cored	Yes
Continuous Flux Cored	Yes
Number of Nozzles/Arms	2
Length of Arms or Hose (m)	3
Filter Efficiency	99.99% (H13 HEPA)
Filter Type	Auto Pulse Cleaning
Filter Surface (m²)	10 x 2 (Auto Cleaning)
Airflow (m³/h)	1100 x 2
Number of Filters	2
Fume Tray Volume (I)	16
Working Hour Counter	Yes
Filter Sensor & Indicator	Yes
Fan Rotation Direction Indicator	Yes
Weight (without arm)	260kg
Dimensions (H x W x D)	1760 x 890 x 810 mm
Power Voltage (V) / Phases	400 / 3
Noise Level (dB(A))	75
Warranty	2 years
Compliance	CE Certified



The Bomaksan PULSE2 is an industry leading, HEPA rated, mobile, twin-arm welding fume extraction unit.

Featuring automatic jet-pulse cleaning (compressed air 80 PSI), this unit is suitable for heavier welding fume environments and is suitable for all common welding applications including TIG, MIG, MMA, and Flux Cored.

The jet-pulse automatic cleaning system allows continuous operation and less frequent maintenance.

- 2 x HEPA class cleanable filters with automatic jet-pulse cleaning
- 2 x 3 metre arms with 360-degree swivel
- Control and signal panel with operating hour counter
- Extraction hood provides superior performance
- Easy to move and manoeuvre.

^{*} The Bomaksan PULSE can be used with either the NanoBLEND filter (F9 > 95%) or the PolyMIGHT PTFE filter (HEPA Filter 99.99%). The NanoBLEND filter has a higher filter surface area so it will offer longer run times between cleaning and is better suited to low alloy materials. The PolyMIGHT PTFE filter is better suited to high alloy materials and has a lower surface area so will need to be cleaned more often. Both filters are available. The PULSE systems will come standard with the premium PolyMIGHT PTFE filter as jet-pulse cleaning negates the need for a larger surface area.



Bomaksan BENCH

Part Number: BBENCH

	BBENCH
Wire Suitability	ALL
Occasional TIG	Yes
Regular TIG	Yes
Continuous TIG	Yes
Occasional MMA	Yes
Regular MMA	Yes
Continuous MMA	Yes
Occasional MIG	Yes
Regular MIG	Yes
Continuous MIG	Yes
Occasional Flux Cored	Yes
Regular Flux Cored	ОК
Continuous Flux Cored	ОК
Number of Nozzles/Arms	-
Length of Arms or Hose (m)	-
Filter Efficiency	99.99% (H13 HEPA) or >95% (F9)*
Filter Type	Cleanable
Filter Surface (m²)	30 or 40*
Airflow (m³/h)	2600
Number of Filters	2
Fume Tray Volume (I)	24
Working Hour Counter	Yes
Filter Sensor & Indicator	Yes
Fan Rotation Direction Indicator	Yes
Weight (without arm)	500kg
Dimensions (H x W x D)	1260 x 1500 x 1600 mm
Power Voltage (V) / Phases	400 / 3
Noise Level (dB(A))	67
Warranty	2 years
Compliance	CE Certified



The Bomaksan BENCH combines all the benefits of a mobile LEV fume extraction system with a downdraft bench and is suitable for use across all medium-to-high welding fume producing applications.

- Equipped with a filter clog display, fan rotation direction display, ON/OFF switch, and working hour counter.
- Includes 2 x 230 V plugs and 1 compressed air plug for operators' hand tools.
- Expandable side panels allow you to expand the work-area.
- HEPA class (99.99%) cleanable cartridge filters extend filter lifetime and lower the cost of ownership.

Once connected to power, the Bomaksan Bench is completely self-sufficient, not requiring any ducting.

^{*} The Bomaksan BENCH can be used with either the NanoBLEND filter (F9 > 95%) or the PolyMIGHT PTFE filter (HEPA Filter 99.99%). The NanoBLEND filter has a higher filter surface area so it will offer longer run times between cleaning and is better suited to low alloy materials. The PolyMIGHT PTFE filter is better suited to high alloy materials and has a lower surface area so will need to be cleaned more often. Both filters are available. The BENCH will come standard with the NanoBLEND filter to increase surface area.



AWS was established in 1994 and has played a key role in the welding industry ever since.

As an advocate for welders' safety in Australia and New Zealand, AWS has published numerous Welding Safety White Papers, Welding Industry Reports, and Welding Fume Control Frameworks. AWS is a company that specialises in welding safety equipment, and it is our goal to raise awareness on the important issues that welders face.

As the sole agent for the 3M™ Speedglas™ range of welding helmets with integrated respiratory protection, the Nederman and Bomaksan range of portable local exhaust ventilation fume protection systems, the Translas on-gun welding fume extraction range, the range of Guide welding gloves, and a 3M personal protective equipment wholesaler, AWS are extremely well placed to help businesses understand the different types of product controls that can be introduced into the workplace to better protect welders and those who work in close proximity to welders.

For more information on welding fume monitoring, welding PPE, or welding fume LEV extraction options, please contact AWS.

www.apexweldingsafety.com.au

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References

1. 2019 Honaryar MK, Lunn RM, Luce D, et al. Occup Environ Med 2. J.L. Perry, J.H. Agui and R. Vijayakumar, "Submicron and Nanoparticulate Matter Removal by HEPA-Rated Media Filters and Packed Beds of Granular Materials", May 2016, NASA STI Program.

