



EXTRACTION ARMS

The most effective way to
remove welding fumes





Multiple arm system with KUA metal tube extraction arms and FlexMax extension cranes

DO YOU PROTECT YOUR WELDERS?

We do. Plymovent products capture and remove –among others– welding fumes, cutting fumes, grinding dust, sparks and spatter. Our products are primarily developed to protect the worker’s health and safety, and that of the people working nearby. Secondly, we want to ensure a clean and safe working environment.

Extraction arms –in particular– belong to our most effective product group: source extraction. Arms extract and remove fumes directly at the source, away from the breathing zone. Additionally, they keep the working environment clean.

Each company is required to meet the occupational health & safety regulations; a pleasant working environment will result in better work moral, higher productivity and less absence due to illness.

EXTRACTION AT THE SOURCE

Extraction arms are –by far– the most effective way to remove fumes from welding, cutting and grinding processes.

Plymovent offers various products for the removal of fumes at the source, like downdraft and backdraft workbenches, stationary and mobile filtration units.

Extraction arms are also part of the category source extraction, as an extraction arm can be placed in a certain position near the actual welding process. Only near the source, fumes can be captured and extracted directly into the extraction arm.

SAFETY FIRST

Source extraction ensures that the welder is protected as the welding fumes do not get a chance to reach the breathing zone of the welder.

Secondly, everybody in the working environment nearby is protected as well, as the welding fumes do not get a chance to accumulate throughout the workshop.

Source extraction is recommended by many health institutions, if it can be used effectively. Especially for fixed workplaces, like at or near workbenches and in welding cabins.

Source extraction, thus extraction arms, contributes significantly to a cleaner, safer and healthier working environment.

ABOUT PLYMOVENT

With 40 years of experience in the field of air cleaning –and the metalworking industry in particular– Plymovent knows about the work, the discomforts and the risks welders face on a daily basis. Our primary goal is to protect the welders, as inhaling harmful welding fumes can have a negative effect on one person's health.

Plymovent products protect the workers in the metalworking industry and ensure that the working environment stays clean and safe. On top of that we make sure that the concentration level of welding fume does not exceed the legal limits, ensuring that your company meets the occupational health and safety regulations.

Whether you need one extraction arm, a system solution, engineering advice, a customised design or technical assistance, Plymovent is the right partner for you!

For more information about Plymovent, please visit our website www.plymovent.com or contact one of our authorised distributors.

WHY PLYMOVENT?

- 40 years of experience
- Global network of sales offices and distributors
- Certified, high-quality products
- Meet today's occupational health and safety regulations
- Engineering, design and installation services
- Energy-saving solutions, thanks to advanced controls
- Maintenance services that keep your system operating to full satisfaction

Contact us to find out what genuine commitment to customer requirements really means!

FEATURES

SOURCE EXTRACTION

- **Protection;** you provide protective measures
- **Health and safety at work;** as fumes and dust cannot accumulate throughout the workshop
- **Energy (cost) saving;** a fully controlled system saves energy and operational costs

ENERGY EFFICIENT

If you are keen on saving money and being more energy efficient, ask for the fully controlled system. Sensors will make sure that you only use energy where and when necessary!



MultiSmart Arm (MSA) metal tube extraction arm



EXTRACTION ARMS AND CRANES

Plymovent offers a wide range of extraction arms and extension cranes to fulfil any source extraction need in the metalworking industry. Plymovent can give you advice –*without any obligation*– meeting your specific requirements on reach, volume and flexibility. Advice about the various types and on which arm to choose. A combination of arms is also possible, to ensure optimal extraction at each workplace.

The extraction arms and cranes of Plymovent reach from 1 m up to 9.8 m in length and from 75 mm up to 203 mm in diameter.

WHICH TYPE SUITS BEST?

Small workshops and welding cabins –*for example*– often need a compact extraction arm, whereas large welding areas often need a more flexible solution.

There are a lot of elements to consider before making a final choice, like:

- Reach (length)
- Extraction volume (diameter)
- Material, protection against impact and damages caused by activities near the arm
- Pressure drop and energy consumption
- Presence of oil in the extracted fumes
- Flexibility (number of position changes) and balance mechanism

To meet every demand three types of extraction arms are available in the product portfolio of Plymovent. Each category –*and each arm*– has its own features and benefits. The categories:

1. **PLASTIC tube extraction arms** (page 6 and 7)
2. **METAL tube extraction arms** (page 8 and 9)
3. **HOSE tube extraction arms** (page 10)

MORE INFORMATION

This brochure gives you an overview of Plymovent's variety on extraction arms and cranes. However, do consult Plymovent or one of its authorised distributors for more, specific information like product data sheets with technical specifications.

WHY PLASTIC HOSE ARMS?

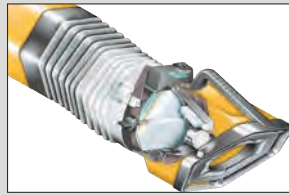
In an industrial environment extraction arms can be damaged, therefore strong polypropylene (PP) arm tubes are used. PP is also used in car bumpers to absorb shocks, and the shock absorbing feature is just one advantage of engineering plastics! The plastic tube extraction arm contains a variety of materials making the Plymovent plastic tube arm smooth, strong, light, shock absorbing and heat resistance where necessary.



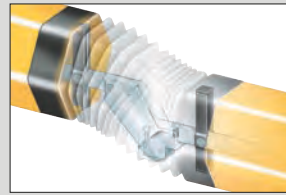
Mobile unit incl. UltraFlex

OVERALL FEATURES PLASTIC TUBE EXTRACTION ARMS

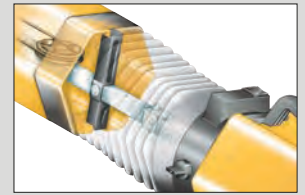
- Tubes are made of the high-quality engineering plastic polypropylene.
- Large inlet: diameter 203 mm (low air resistance).
- Precise positioning, as the hood of the arm can rotate 360° and therefore can turn optimally toward the welding fumes, thanks to the **RotaHood**¹ mechanism.
- Light-weighted.
- Solid, harmless to impact/damages and shock-absorbing.
- Ease of use, the **EasyLift**² system ensures easy movement and repositioning thanks to the friction system (only applies to the Flex extraction arms).
- The **BalanceWheel**³ spring balance system ensures ultra-light and user-friendly positioning, also by frequent repositioning (only applies to the UltraFlex extraction arms).



¹ RotaHood



² EasyLift



³ BalanceWheel

OVERALL FEATURES METAL TUBE EXTRACTION ARMS

The tubes of the metal tube extraction arms are made of aluminium or stainless steel to cope with other applications and processes –*in addition to welding, cutting and grinding fumes*– that require:

- Elevated temperatures
- Corrosive resistance
- Antistatic for among others explosive dust

Various diameter sizes are available to meet your specific –*and energy efficiency*– requirements.

The scope of this category is wider, and therefore the diversity is larger. This results in more specific features per arm.



MultiSmart Arm (MSA)



UK crane/hose

OVERALL FEATURES HOSE TUBE EXTRACTION ARMS

Hoses are often an economic choice and very suitable for the extraction of dry welding fumes. Be aware of the fact that the airflow resistance of hose tube extraction arms is higher than of plastic and metal tube extraction arms. The hoses are also more sensitive to damages by impact.

However –*depending on your requirements*– hoses can be a perfect cost-effective solution for light applications, like maintenance welding activities.

PLASTIC TUBE EXTRACTION ARMS



T-FLEX; TELESCOPIC EXTRACTION ARM

- Compact arm, ideal for workbenches/small areas like welding cabins at schools.
- Ease of use as the EasyLift friction system ensures easy movement.
- Wall-mounted arm with a maximum reach of 1.4 m.
- Cost-effective choice.

T-FLEX/CW; TELESCOPIC EXTRACTION ARM

The T-Flex/CW model has a counter weight (CW) which gives you the possibility to position the arm more precise. The maximum reach is 2.5 m. The T-Flex/CW suits applications that generate oily welding fumes better than the standard T-Flex.



FLEX-2/3/4; FLEXIBLE EXTRACTION ARM

- Cost-effective choice for stationary welding positions e.g. near workbenches.
- Ease of use as the EasyLift friction system ensures easy movement.
- 2, 3 or 4 m in length with a maximum reach of 4.5 m.

Flex is recommended for all kinds of dry welding activities, like MIG/MAG, TIG, stick, electrode and spot welding.



ULTRAFLEX-3/4; ULTRA FLEXIBLE EXTRACTION ARM

- The BalanceWheel spring balance system ensures ultra-light and user-friendly positioning, also during very frequent re-positioning.
- Low maintenance thanks to the BalanceWheel technology.
- 3 or 4 m in length with a maximum reach of 4.5 m.

UltraFlex is recommended for intensive usage (frequent repositioning) and for applications that generate oily welding fumes.

ULTRAFLEX-4/LC; ULTRA FLEXIBLE ARM FOR A LOW CEILING

This arm has the same features as the UltraFlex-4. It has been especially developed for workshops with a low ceiling. This wall-mounted arm has a maximum reach of 3.7 m.



PLASTIC TUBE EXTRACTION ARMS



NEC-2/4; EXTENSION CRANE

To cover a large area in a welding workshop an extension crane can be helpful. NEC-2 extends the reach of a plastic tube extraction arm with two metres and a NEC-4 with four metres. NEC features the HandyStop system in the mounting bracket. This system enables you to lock the horizontal movement quickly in five positions. Its technical design ensures ease of use thanks to its stable, solid construction.

NEC-4 reaches up to 8.3 m and suits the Flex-3/4 and UltraFlex-3/4 arm.

OPTIONS

The plastic tube arms can be extended with a working light (WL) inside the hood of the arm to light up a workpiece.

Another option is the automatic start/stop device which can save a lot of energy. Plymovent supplies two versions: working light and automatic start/stop (WL+AST) and the welding cable sensor (WCS).

HOW TO SELECT AN EXTRACTION ARM FOR A MOBILE UNIT?

If you want to mount an extraction arm to a mobile filtration unit be aware of the following:

- Plastic tube arms only fit the filtration units MFD, MFS and MFE.
- Metal tube arms only fit the metal filtration unit MobileOne.

Multiple arm system with UltraFlex-4 plastic tube extraction arms



METAL TUBE EXTRACTION ARMS



MINIMAN-75; EXTRACTION ARM

- Clear-thru design ensures uninterrupted airflow.
- All mechanisms are on the outside of the arm, resulting in maximum extraction.
- Compact arm, perfect for workbenches and small working areas.
- Ease of use, moving and adjusting the arm precisely is easy.
- Tube diameter: 75 mm.
- 1 or 1.5 m in length with a maximum reach of 1.5 m.
- Supplied fully assembled, to be mounted directly on top of a workbench.

Recommended for detailed work, like soldering. The MiniMan-75 is also available in the colour white for the removal of small dust and fumes in laboratories.

MINIMAN-100/160; EXTRACTION ARM

- Clear-thru design ensures uninterrupted airflow.
- All mechanisms are on the outside of the arm, resulting in maximum extraction.
- Ease of use, moving and adjusting the arm is easy.
- Tube diameter: 100/160 mm.
- 1.5 or 2.1 m in length with a maximum reach of 2.1 m.

Recommended for spot welding, grinding and polishing. The MiniMan-100 is also suitable for the removal of large amounts of dust, fumes and mist in laboratories. Therefore it is available in the colour white. Additionally, we supply the MiniMan-100 and MiniMan-160 in stainless steel, for more information see *TopGrade* products on page 9.



KUA; EXTRACTION ARM

- The frictions are on the outside of the arm, making the arm user and maintenance-friendly.
- Ease of movement thanks to the 360 degree grip on the hood.
- The ball bearings in the mounting brackets ensure accurate rotation and a long lifespan.
- Tube diameter: 160 mm.
- 2, 3 or 4 m in length with a max. reach of 4 m.

KUA is recommended for all kinds of welding processes including processes that generate oily welding fumes.

KUA is the #1 choice of our customers, thanks to its user-friendliness, flexibility and instinctive operation. The fact that the tube is made of aluminium makes it a lighter choice than competitive steel based tube arms.



External mounted middle joint



METAL TUBE EXTRACTION ARMS



MULTISMART ARM; EXTRACTION ARM

- Clear-thru design ensures uninterrupted airflow.
- All mechanisms are on the outside of the arm, resulting in maximum extraction (low pressure drop) and little maintenance.
- Recommended for large air volumes, thanks to the large diameter (200 mm) and the uninterrupted airflow.
- Extremely solid thanks to extra chassis/balance support.
- Tube diameter: 125, 160 and 200 mm.
- 3 or 4 m in length with a maximum reach of 4 m.

Recommended for the heavy industry, all kinds of welding processes, grinding and plasma cutting. The MultiSmart Arm is also suitable for the removal of oil mist, dust, toxic and chemicals.



ERC-5.8; RAIL SYSTEM

This rail system is developed to extend the reach of the KUA metal tube extraction arm and the EconomyArm hose tube extraction arm.

The rail's maximum length is 5.8 m. The ERC-5.8 is also known as the traversing-KUA. When mounted to either the KUA 4 m or EconomyArm 4 m it can **reach up to 9.8 m**.

Recommended for broad working areas in need of a wide reach.



FLEXMAX; EXTENSION CRANE

- Suitable for working areas with a low ceiling.
- Tube diameter: 160 mm.
- Reach extension of 1.5, 2.5, 3.5 or 4.5 m in length.
- Covers large welding areas with a **maximum reach of 8.8 m**.

The FlexMax can only be used in combination with the KUA metal tube extraction arm or the EconomyArm hose tube extraction arm.

TOPGRADE PRODUCTS

Additionally to these extraction arms, hoses and cranes, Plymovent also supplies TopGrade extraction arms. These arms are not recommended for welding fumes and therefore not mentioned in this brochure.

The TopGrade products are especially designed to meet the demanding requirements of the pharmaceutical, chemical and food processing industry. The TopGrade products are available in white and stainless steel.

HOSE TUBE EXTRACTION ARMS



JUNIOR LM-2; TELESCOPIC EXTRACTION ARM

- Compact arm, perfect for small areas/cabins e.g. welding schools.
- Suitable for working areas with a low ceiling.
- Ease of movement thanks to the 360 degree grip on the hood.
- Ease of use thanks to the internal spring system and light materials.
- The ball bearings in the mounting brackets ensure accurate rotation and a long lifespan.
- The counter weight enables precise positioning of the arm.
- Tube diameter: 160 mm with a maximum reach of 2 m.

Recommended for light welding activities in cabins and at schools. The Junior LM-2 is also recommended for applications that generate oily welding fumes.



ECONOMYARM; EXTRACTION ARM

- All support mechanisms are inside the arm.
- Suitable for working areas with a low ceiling.
- Ease of movement thanks to the 360 degree grip on the hood.
- Ease of use thanks to the internal friction system.
- The ball bearings in the mounting brackets ensure accurate rotation and a long lifespan.
- Tube diameter: 160 mm.
- 2, 3 or 4 m in length with a maximum reach of 4 m.

This extraction arm is a cost-effective choice and recommended for light welding activities at and near workbenches.



UK; EXTENSION CRANE AND EXTRACTION ARM

This crane/arm combination is developed to cover a large area. The hose at the end of the crane drops 3 m vertically, straight down. A perfect solution if your welding spot is always at exactly the same place and no flexibility is expected.

- Tube diameter: 160 mm.
- 3, 4.5, 6 or 8 m in length with a maximum reach of 8 m.

Recommended for all kinds of welding processes. The UK is also suitable for the removal of fumes, dust and smoke in the **heavy industry**, like the motor, plastic and chemical industry.

EXTENSION HOSES

The **SUS-5/203** hose –with nozzle and magnetic foot– can be connected to the Plymovent plastic mobile filtration units MFD, MFS, MFE and the portable fan MNF. The extension hose is 5 m long with a diameter of 203 mm.

The **SLE-30** hose –with magnetic nozzle– can be connected to the following metal and hose tube extraction arms: KUA, Junior LM-2, EconomyArm and UK. The extension hose is 3 m long with a diameter of 160 mm.

OPTIONS

A working light can be installed inside the hood of the metal and hose tube arms to light up your workpiece. A welding cable sensor (WCS) is available for ease of use, as it switches the connected fan *on* and *off* automatically. Additionally, various stanchions are available for perfect mounting, see the possibilities below.

FLOWGUARD

Optionally we offer the FlowGuard. This sensor measures the airflow in the extraction arm. This way, you always know whether the airflow is high enough or maintenance services are needed. The FlowGuard suits all extraction arms.

FlowGuard



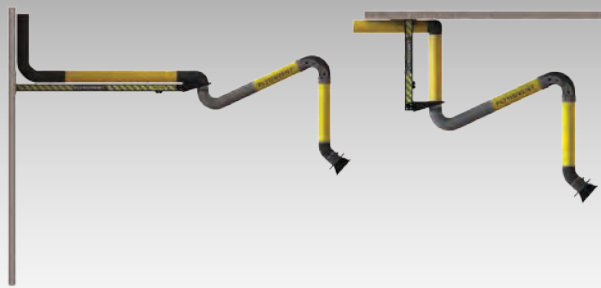
MOUNTING POSSIBILITIES



Standing version, for example on a filter.



KUA with standard mounting bracket and individual fan.



KUA wall mounted with stanchion PA-110 or PA-220.



KUA ceiling mounted with stanchion PA-110 or PA-220.



KUA floor mounted with stanchion PA-220 and individual fan.



Mobile filtration unit with UltraFlex-4 plastic tube extraction arm



Multiple arm system with UltraFlex plastic tube extraction arms

PLYMOVENT®

clean air at work

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Your authorised Plymovent distributor:

PLYMOVENT COMPLETES YOUR SYSTEM

In addition to extraction arms, Plymovent supplies all components for a multiple arm system, like single and central fans, controls and filtration units. Depending on your requirements, we can draw, install and service your entire welding fume extraction and filtration system. We can even supply a fully controlled system that ensures that your company saves energy and money, constantly.

For more information and questions, please contact Plymovent directly, one of our authorised distributors or visit www.plymovent.com.

Plymovent cares about the air you breathe. We offer products, systems and services which ensure clean air at work, anywhere in the world.

We respect the environment and we deliver high-quality products. Our expertise gained over many years and our genuine commitment to customer requirements enable us to provide precisely the solutions you need.

PLYMVENT®

clean air at work



SHIELD FIRE SAFETY SOLUTIONS

Fire risk under control in welding fume extraction systems



DO YOU CONTROL THE RISK OF FIRE AT YOUR WORKPLACE?

We do. Plymovent presents *SHIELD fire safety solutions*. This range of products reduces the risk of filter fires in the metalworking industry to a minimum. These products are designed to prevent fire and to minimise consequential damage in the unlikely event of a fire.

SHIELD products are divided into three categories: products to prevent fire, detect fire and suppress fire. Smoke, heat and sparks are detected at the earliest stages to minimise system damage and to avoid the fire from spreading and smoke from accumulating in the workshop.

Plymovent understands the causes that lead to filter fires. In response we have developed our fire safety system solution to control that risk. The SHIELD products can be combined into a customised solution and have been tested by Efectis¹ and the Dutch organisation KIWA².

¹ the European experts in fire safety.

² an independent organisation whose core business is highly qualified certification.

FIRE RISK INSIDE FILTRATION SYSTEMS

Fire is a serious risk and can occur unexpectedly inside filtration systems. Some welding and cutting applications have a higher risk than others to cause fire, due to such factors as higher temperatures, more sparks or lower flash points³. There are three key elements that cause and sustain a fire:

- **Fuel**, any combustible substance, can be a mixture of welding particulates and oil in the ductwork or inside the filter unit itself.
- The fan in the extraction system supplies fresh **oxygen** continuously, feeding the fire.
- **Heat**; sparks, smouldering or burning particles –such as cigarette butts– are potential sources of ignition. Spontaneous combustion can also occur.

HIGH-RISK WELDING APPLICATIONS

All welding and cutting applications represent a potential fire hazard⁴.

- **Robot welding of pressed, stamped or oily parts**, such as in the automotive industry, can generate welding fumes with a relatively low flash point³. These can be ignited by sparks or could spontaneously combust by sweltering⁵ in the dustbin.
- **Source extraction**, such as extraction arms, may be misused for cigarette fumes and used for dumping butts.
- **Manual, robotic and automatic welding of oily products** in general. The need for maintenance can be underestimated in oily applications. Here fires can occur not only at the time of installation, but also years later.
- **Cutting tables**; glowing materials from the cutting process create a potential risk of fire.

³ the lowest temperature at which a liquid produces enough vapours to constitute an ignitable mixture.

⁴ please note that this list is not exhaustive.

⁵ a chemical conversion process which generates heat and can cause spontaneous combustion.

ENGINEERED SOLUTION

The SHIELD programme contains several components that can be combined to create a system solution. Each product has its own unique features and benefits.

As every factory is different, Plymovent can specifically advise on how to control the fire risk in your workshop. We can design the system solution tailored to your welding applications and specific requirements.

1. PREVENTION

- **SparkShield**; this spark arrester prevents sparks, spatter and cigarette butts from entering the ductwork and reaching the filter cartridge(s) and debris in the dustbin.

- **OilShield** feeds limestone into the ductwork, where it mixes with oil/oily fumes, decreasing the combustibility of oil and preventing spontaneous combustion.

2. DETECTION

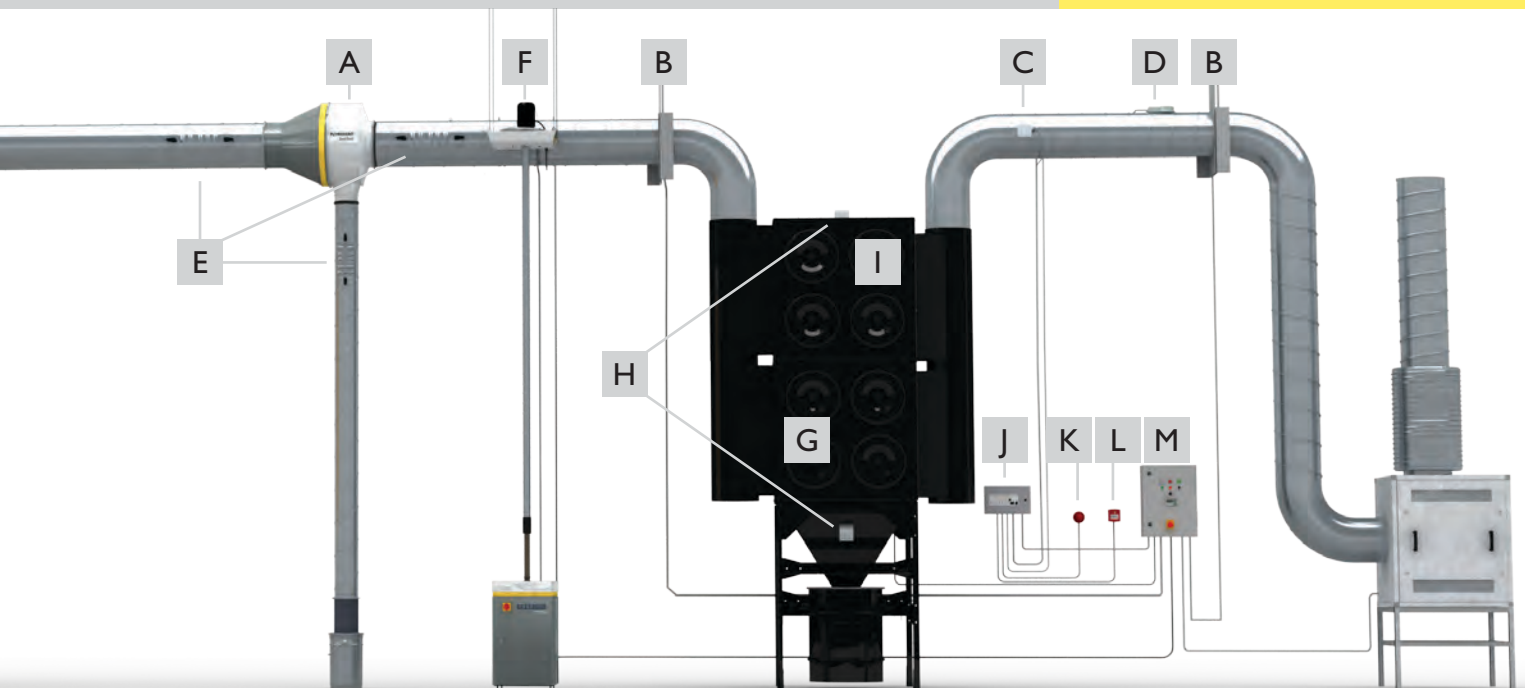
- **Detectors** ensure that heat, sparks and smoke are detected immediately.
- **ShieldControl** responds to the detectors within seconds and activates the suppression products.

3. SUPPRESSION

- **Sliding valves** stop the airflow and isolate the fire, reducing the consequential damage.
- **FlameShield**; this aerosol generator extinguishes the fire inside the filtration system.

FEATURES SHIELD FIRE SAFETY SOLUTIONS

- Reduce the risk of fire to a minimum.
- Detect possible fire starters quickly.
- Immediately suppress and extinguish any fires that start.
- Reduce system damage to a minimum.
- Minimise filter replacement and maintenance costs.
- Reduce production downtime in the event of a fire.
- Increase the effectiveness and lifespan of your entire extraction system.



SYSTEM OVERVIEW

- A. SparkShield (spark arrester)
- B. Sliding valve (2 pieces)
- C. Spark detector (set of 2)
- D. Smoke detector
- E. Inspection hatch (3 pieces)
- F. OilShield (limestone feeder)

- G. Solenoid valve (at the back of the MDB)
- H. Heat detector (set of 2)
- I. FlameShield (extinguisher inside the MDB)
- J. ShieldControl (fire detection panel)
- K. Acoustic fire alarm
- L. Manual call point
- M. System control panel

Sparks are well known as a potential ignition source leading to fires in the metalworking industry. Welding fume extraction systems without a specific spark arrester may allow sparks, spatter and dust to reach the filter cartridge(s) and debris in the dustbin. Plymovent developed SparkShield in order to prevent such fires.

SPARKSHIELD

SparkShield is a compact in-line spark arrester which requires little or no floor space. Its design is highly effective in the removal of sparks.

In addition, SparkShield is also very suitable as pre-separator for high-dust applications. Centrifugal acceleration removes many sparks from the continuous airflow. A dustbin collects all the remaining sparks at a safe distance from the main filter unit and away from the main ductwork. The dustbin can easily be removed and emptied, even during operating hours.

MAINTENANCE

Unfortunately, improper maintenance is one of the most common causes of fire in filtration systems. Spark arresters, like any other equipment, require maintenance.

Unlike competitors' products, SparkShield is designed with maintenance in mind. Inspection hatches can be placed around the spark arrester. The hatches make it possible for you to inspect the ductwork. You can determine whether cleaning is necessary.

The removable body is designed for easy maintenance. Because it is connected to the main ductwork with clamps it can easily be dismantled in sections.

Plymovent will be happy to advise you on service and maintenance frequency.



SPARKSHIELD FEATURES

- Highly effective removal of sparks and cigarette butts.
- Compact in-line design.
- Removable body for easy maintenance.
- Duct clamp connection for easy installation, service and dismantling.
- Optional hatches for regular inspections.



OILSHIELD

The Plymovent limestone feeder was developed for oily welding applications and for processes like machining where components are covered with punching oils or rust preventative.

Oily welding fumes are a potential fire risk. They can reduce the lifespan of your filter cartridges by clogging them. This may lead to high maintenance and replacement costs. OilShield® minimises that risk considerably.

OilShield is in fact a limestone dosing unit. The key characteristic of limestone is that it decreases the combustibility of oil, reducing the risk of fire.

HOW IT WORKS

The OilShield unit doses the limestone, and the booster fan on top extracts the limestone and transports it into the main ductwork. After the limestone has absorbed the oil from the welding fumes, the resulting mixture becomes easy to filter.

When cleaning –by reverse pulsing– takes place inside the filter unit, the mixture falls down into the dustbin below. This way, OilShield reduces the risk of fire not only inside the filtration system but also in the debris within the dustbin.

RELIABILITY

The high operational reliability of the OilShield is unique. The booster fan ensures that the limestone is always fed into the main ductwork according to the required settings. As soon as the supply of limestone is exhausted, a signal is activated to ensure that the responsible person nearby is immediately aware. Refilling the unit is maintenance-friendly, just open the top cover. Rim extraction prevents spills and dust when filling the unit with limestone.

As limestone has a tendency to clog, we have incorporated an anti-clog function to ensure continued operation. In addition, agitators within the hopper and feeder keep the limestone in constant motion to ensure steady and uninterrupted feeding.

OilShield offers unmatched durability and unrivalled performance reliability; we therefore highly recommend its use for oily applications in general and especially for those with a low flash point.

* patent pending.

OILSHIELD FEATURES

- Reduces the risk of fire in filtration systems.
- Reliable operation thanks to double agitator technology, booster fan, automatic start/stop and refill alarm.
- Prevents clogging of filter cartridges by oily fumes.
- Increases the lifespan of filter cartridges; reduces operational and maintenance costs.
- Integrated rim extraction prevents dust clouds and spills of limestone.
- Easy to install in new and existing systems.
- Anti-clog functionality.
- The controls can be incorporated in a system control panel.





ShieldControl

SHIELDCONTROL

ShieldControl is an important component of the entire detection programme. The connection cables to the detectors and the FlameShield extinguishing devices are monitored for open circuits and short circuits. In the event of a cable circuit failure, ShieldControl activates a warning signal.

ShieldControl includes a battery pack to ensure that in the event of a power failure the detectors remain operational and that the fire extinguishing devices are activated in the event of a fire.

This fire detection panel is compliant with European and UL standards*.

EARLY DETECTION

The detectors and the fire detection panel (ShieldControl) have been developed to detect a fire in its early stages.

Early detection –and the activation of the suppression products– reduces the consequential damage to your extraction and filtration system.

DAMAGE LIMITATION

If one of the fire detectors is activated, ShieldControl takes over.

- The fan is switched off automatically, stopping the supply of fresh air.
- The pneumatic sliding valves in the ductwork are closed immediately, isolating the fire.
- The compressed air supply (used for cleaning filter cartridges) is shut down.
- FlameShield, aerosol fire extinguishing generator, is activated.

The main goal of the detection equipment is to activate the suppression products as early as possible. This will isolate the fire and prevent any filter fire escalating into a large system fire, limiting any consequential damage.

* EN 54-2, EN 54-4, EN 12094-1 and UL 864.

WHAT DO WE DETECT?

In addition to prevention, you can also detect fires even at the earliest stages.

SHIELD detection equipment combines the detection of high temperatures, sparks (from an incipient fire) and smoke.

Fire detectors are placed inside the filter unit and within the main ductwork. They are designed to detect fire both whilst the system is in operation and also when it is switched off.



System Control Panel (SCP)

WAYS OF SUPPRESSION

The reliable detection equipment of the SHIELD programme quickly activates the suppression products, which are designed to suppress and extinguish any fire.

These products ensure that damage to the filtration system is kept to a minimum or eliminated completely. They minimise the risk of escalation and consequential damage by smoke.

The suppression products are sliding valves and aerosol fire extinguishing generators.



FlameShield

SLIDING VALVES

The main purpose of the sliding valves is to isolate the fire at an early stage by closing the sliding valves in the main ductwork. In the event of a fire –*less than five seconds after detection*– the fan is switched off, the filter cleaning system is shut down and the filter is isolated by the sliding valves. The fire is isolated, cut off from any source of oxygen or airflow. The fire is suppressed and goes out. The risks of escalation, more extensive system damage and smoke escaping into the workplace are kept to an absolute minimum.

FLAMESHIELD

FlameShield, the aerosol fire extinguishing generator, is activated seconds after the sliding valves are closed.

The ultra-fine aerosols interfere with the free radicals in the flames, extinguishing the fire rapidly. The aerosols remain active for at least 30 min. after activation, thus preventing re-ignition.

The fire extinguishing generator activates automatically at temperatures $>300^{\circ}\text{C}$ (572°F).

MAINTENANCE

The compact generators can easily be placed inside the filter unit and do not require extra air pressure or additional ductwork. Each generator has an (inactivated) service lifespan of ten years. Replacing a generator is easy.

As a sustainable company, Plymovent only uses the best materials available. The FlameShield aerosol is not harmful or toxic to people or the environment; it is ozone neutral.

A major benefit is that it does not damage electrical equipment, whereas other extinguishing media such as water destroy your equipment or other extinguishing agents are harmful if breathed in. This aerosol is safe for you, your employees and your equipment.

FLAMESHIELD FEATURES

- Effective fire suppression.
- Limit system damage.
- Low risk of a fire escalating.
- Low maintenance.
- Easy to install and replace.
- Environmentally friendly.
- Negligible residue and cleaning after activation.
- Safe for personnel and equipment.
- Activates automatically at $>300^{\circ}\text{C}$ (572°F).



Sliding valve and detectors

FIRE RISK UNDER CONTROL

Plymovent understands the causes of fire at different welding applications in the metalworking industry better than anyone. Our SHIELD programme, combined with our know-how and field experience, allows us to offer you a tailor-made solution that will keep fire risks under control.

The *SHIELD fire safety solutions* of Plymovent reduce the risk of fire to a minimum, and in the event of a fire, ensure that any consequential damage is minor.

The consequences of almost all incidences of fire will be limited, with little or no system damage and just the replacement of the filter cartridges and aerosol fire extinguishing generators.

The *SHIELD fire safety solutions* have been tested and certified by several institutes.

In addition to our *SHIELD fire safety solution*, we can also advise on service and preventive maintenance. For more information, please contact your Plymovent distributor or visit our website.



PLYMOVENT OFFERS TOTAL SOLUTIONS FOR AIR CLEANING

Plymovent *SHIELD fire safety solutions* is a total concept to prevent, detect and suppress fires in welding fume extraction and filtration systems. Modifications of existing filtration systems and/or larger filtration systems (not covered by the standard range of controls) can be provided specifically to meet your needs.

Plymovent offers complete solutions for air cleaning. We have 40 years of experience in the extraction and filtration of welding fumes, grinding dust and oil mist in the metalworking industry. We are also specialists in the extraction of vehicle exhaust fumes and the removal of other impurities from indoor air.

PLYMOVENT®

clean air at work

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Your authorised Plymovent distributor:

Plymovent cares about the air you breathe. We offer products, systems and services which ensure clean air at work, anywhere in the world.

We respect the environment and we deliver high-quality products. Our expertise gained over many years and our genuine commitment to customer requirements enable us to provide precisely the solutions you need.



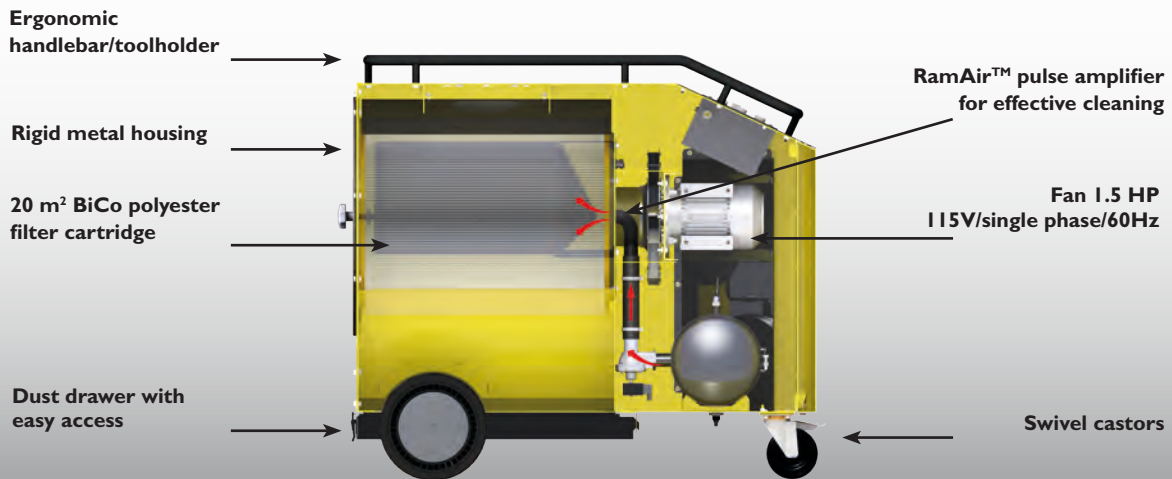
MOBILEPRO

NEW



Professional, self-cleaning,
steel mobile unit

FEATURES MOBILEPRO



A TOTAL SOLUTION

The MobilePro is suitable for many welding applications such as MIG, MAG, TIG, GMAW, FCAW and MMAW welding. The MobilePro includes a 3 meter (10') Plymovent KUA extraction arm. The unique combination of inner and outer arms made of smooth aluminum tubing connected by our unique middle joint allow for convenient movement and flexibility. The external easy-to adjust elbow joint and the spring-assisted joint supported in double ball bearing make maneuvering this arm a simple, one-movement operation. Easily position the arm exactly where you need it, when you need it.

FILTER CARTRIDGES LAST LONGER

Filter life is not only determined by cleaning efficiency but more often by the strength of the bonding between the fibers in the media. Most cartridges fail when the bonding breaks. This causes an immediate pressure drop and a decrease in airflow, the result – costly filter cartridge replacements. Plymovent's BiCo polyester filter cartridges are based upon the latest state of the art *Bio-Component Technology*. This technology guarantees consistent quality and strength which produces a much longer cartridge life.

LOW OPERATIONAL COSTS

The MobilePro features a RamAir™ pulse amplifier, a powerful part of the reverse pulse cleaning system, that enhances the cleaning efficiency. A RamAir™ pulse amplifier is placed in the filter cartridge and disperses the pulse energy directly to the filter medium. The results are significant: cleaner filter; lower pressure drop, less compressed air and energy consumption. RamAir™ means low operational costs.

WHY MOBILEPRO

Built for front line service in demanding conditions and busy work environments, The MobilePro is a premium product, without the premium price, robust and made to last.

- ✓ Compressed air cleaning with patented Ram-Air™
- ✓ Mobile & Versatile to suit most shop needs
- ✓ Self-cleaning long life filter cartridge
- ✓ Durable High Quality Product
- ✓ Steel Cabinet Construction
- ✓ Low Cost, High Quality



PLYMOVENT®
clean air at work

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