PLYMOVENT®
clean air at work

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.

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ABOUT PLYMOVENT

With more than 35 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 primarily 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?

- 35+ 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.

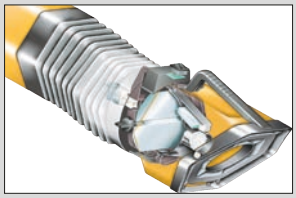
WHY PLASTIC HOSE ARMS?

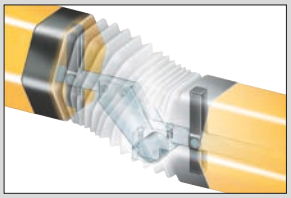
In an industrial environment extraction arms can be damaged, therefore strong polypropylene (PP) arm tubes are used. PP is also used in car bumpers to absorb shocks, and the shock absorbing feature is just one advantage of engineering plastics! The plastic tube extraction arm contains a variety of materials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

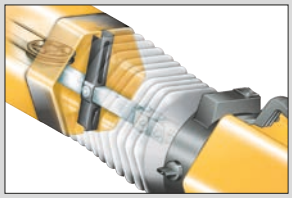
Mobile unit incl. UltraFlex

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.

External mounted middle joint

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.

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.

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

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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.

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.

Plymovent reserves the right to make design changes.

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