

DILUTER SYSTEM



Prevent accumulation of
welding fumes in your workshop



DO YOU CONTROL WELDING FUMES?

We do. Controlling welding fumes in a welding workshop significantly contributes to a better work environment. Simply by keeping the background concentration of welding fumes as low as possible. This can be realised by using the right welding processes and by using a high-quality welding fume extraction and filtration system that prevents the accumulation of welding fumes in your workshop.

As a specialist in air cleaning technology, Plymovent offers various solutions to control welding fumes in the metal-working industry, like source extraction, extraction hoods and general ventilation and filtration systems. All designed to remove and control welding fumes as best possible.

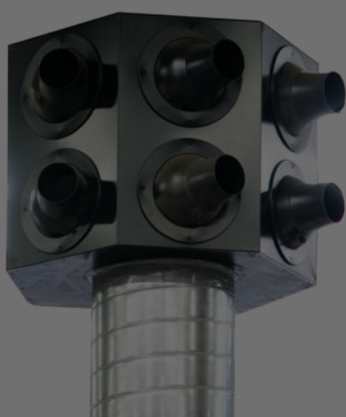
DILUTER SYSTEM

The Diluter system is a stand alone general filtration system, developed to reduce and control the background concentration of welding fumes in a workshop. It makes sure that legal limits for welding fumes are not exceeded.

Diluter systems are the ideal solution if source extraction and hoods are not an option, for example when large work pieces are being fabricated, various welding processes take place at changing locations or when ductwork is difficult to install.

HOW DOES IT WORK

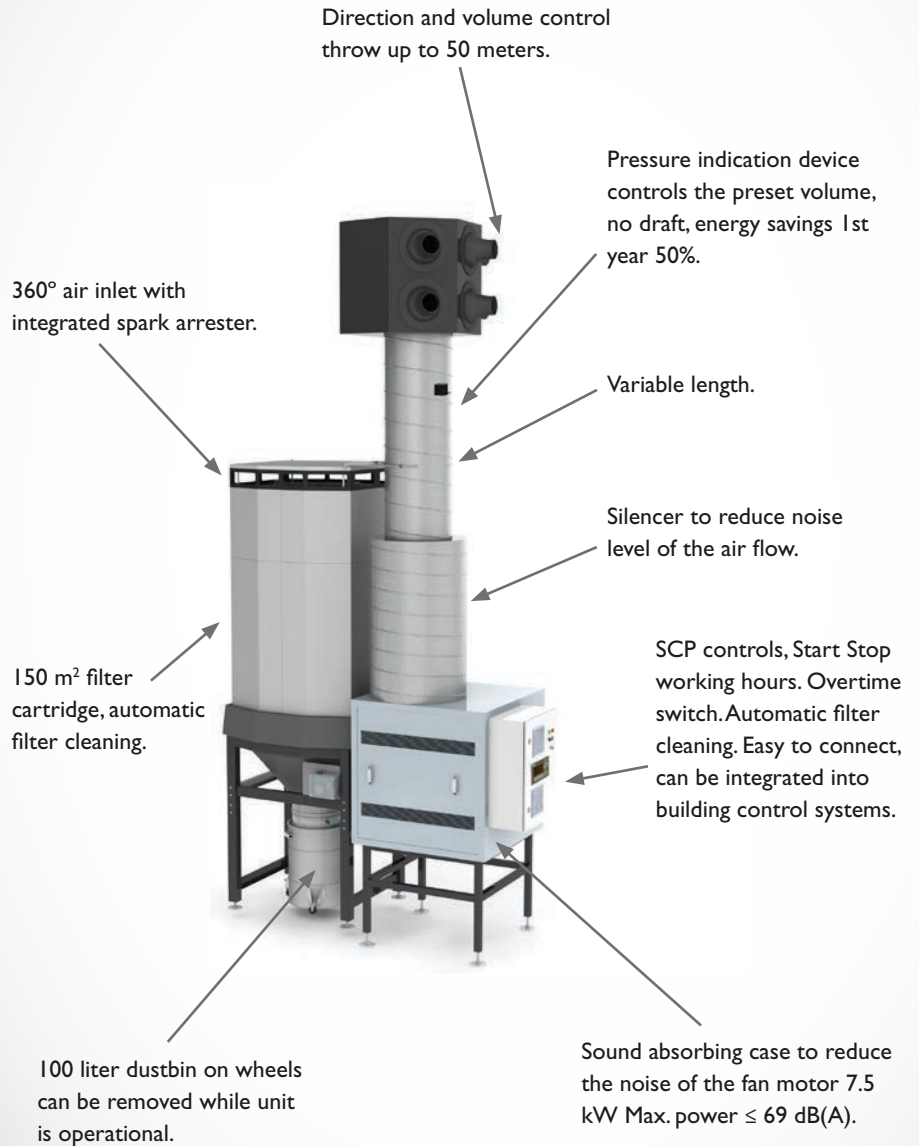
- The Diluter system by means of the multi-directional outlet nozzles continuously mixes/dilutes the layer of welding fumes with clean, filtered air. The layer of welding fumes concentrate before four and six meters above the work floor because of the heat generated by welding processes, To optimise the airflow, each nozzle can be rotated individually. Positioning the nozzles inside the layer of welding fumes, gives the best result and minimises the background concentration of welding fumes in the workshop. You and your personnel will notice this immediately, as the visual blue layer of welding fumes disappears.
- The polluted air from the workshop is captured by a filter unit. The air is cleaned and sent back into the workshop via the outlet nozzles.
- The residue of fume dust is collected in a dustbin, that can be emptied easily.
- The fan speed and thus the airflow is adaptable to your requirements and once set, kept by a frequency inverter. This ensures a reliable operation plus it saves energy and expands the lifespan of the filter cartridge(s).



ENERGY SAVING

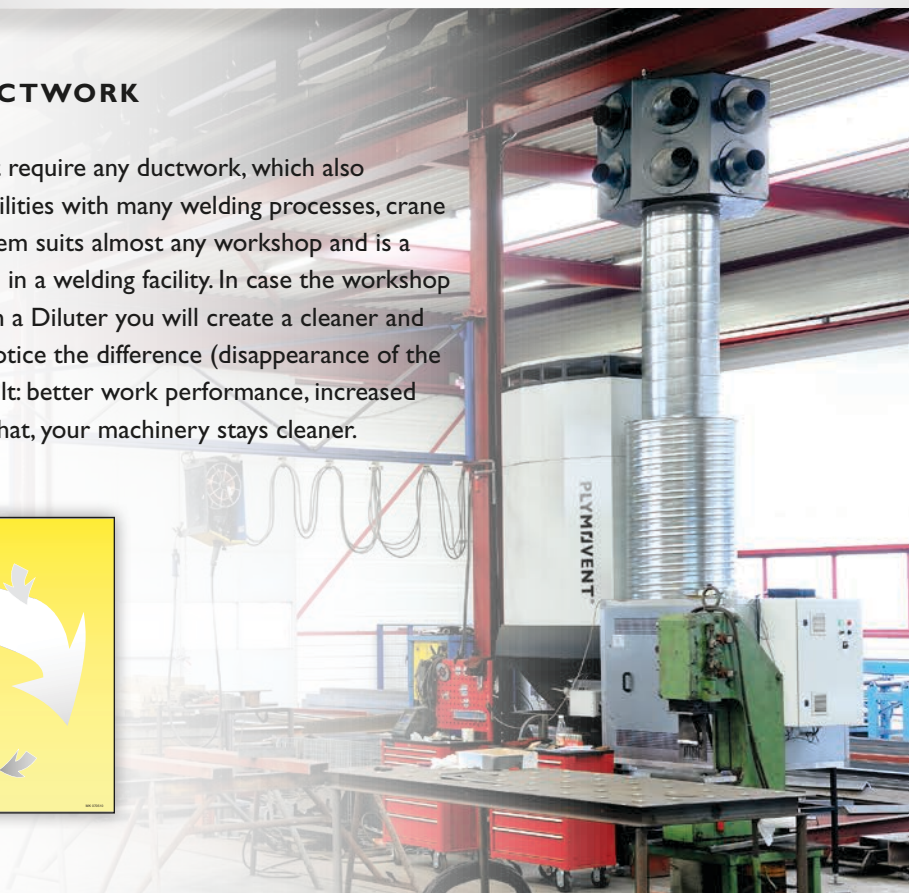
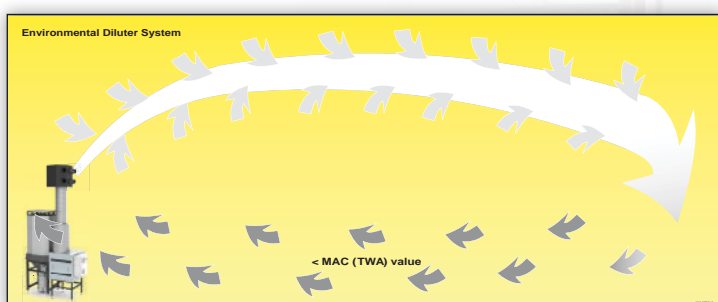
The Diluter is a high-quality re-circulation concept. The central filter system extracts polluted air and brings clean, filtered air back into the workshop via the outlet nozzles. Expensively heated or cooled air stays within the workshop, reducing your costs and your operational impact on the environment.

The system contains a SCP control platform as a standard. This platform contains a variable frequency controller with PID controller that, in combination with a pressure sensor, can keep the flow constant over the life span of the filter cartridge. A filter system requires up to 2.5 times less energy at the beginning than at the end of the filter life to move the same volume of air. The SCP control will keep the flow constant and saves up to 50% of energy plus it will be preventing overloading of the new filter, stretch filter life.



THE SMART SOLUTION WITHOUT DUCTWORK

The Diluter system is easy to install because it does not require any ductwork, which also reduces labour costs. It is a very flexible solution for facilities with many welding processes, crane transport and changing work locations. The Diluter system suits almost any workshop and is a relatively small investment for controlling welding fumes in a welding facility. In case the workshop layout changes, the Diluter can easily move around. With a Diluter you will create a cleaner and healthier environment. Welders and other people will notice the difference (disappearance of the visual blue layer of welding fumes) immediately. The result: better work performance, increased productivity and less absence due to illness. On top of that, your machinery stays cleaner.

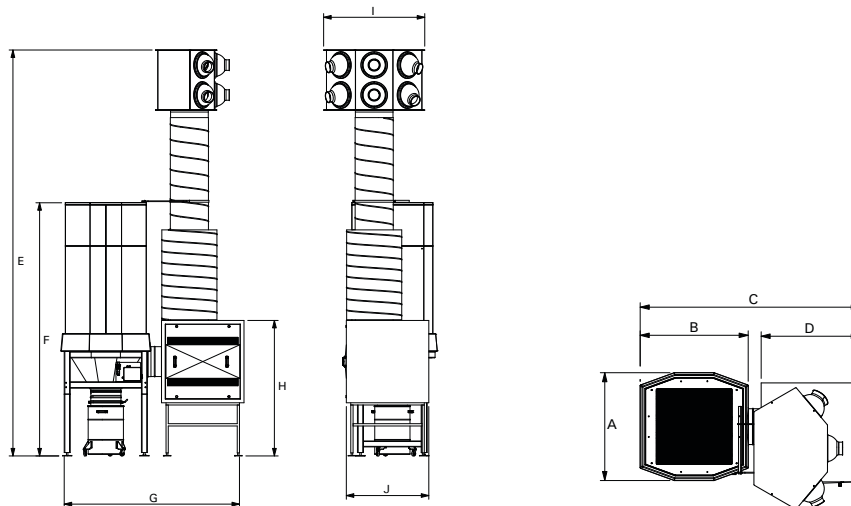


TECHNICAL SPECIFICATIONS

Weight (net)	800 kg (1764 lbs)	Power connection	400-690V/3 phase / 50Hz
Fan type	radial	Motor protection	by PTC
Power consumption fan	7,5 kW (10 HP)	Filter control	PLC with LCD display
Connection voltage	400-690V/3~/50Hz	Fan control	VFD with Pressure sensor
Insulation class fan	F with PTC	Panel	IP 54
Nominal current	13,9 A	Fan speed control	Variable Frequency Drive with PID control function
Protection class	IP 54	Instruments	PID set point measured by pressure sensor and transmitter
Filter area	150 m ² (1615 ft ²)	Fan power	7,5 kW (10Hp)

DIMENSIONS

	mm	inch
A	1200	47.2
B	1200	47.2
C	2440	96.1
D	1100	43.3
E	4186	164.8
	5425	213.6
F	3385	133.3
G	2340	92.1
H	1810	71.3
I	1350	53.2
J	1100	43.3



PLYMOVENT®

clean air at work

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PLYMOVENT OFFERS TOTAL SOLUTIONS FOR AIR CLEANING

For over 35 years, Plymovent has been gaining experience in the field of air cleaning. We not only have extensive knowledge of the extraction and filtration of welding fumes and oil mist in metalworking industries, we are also specialised in the removal of vehicle exhaust fumes.

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.