

DIVERSIFIED AIR SYSTEMS, INC.

MINICART™

Affordable portable filtration unit



- *750 to 800 CFM at the hood*
- *High efficiency cartridge*
- *Ideal for welding applications*
- *MAXFLO 6" X 10' fume arm included*
- *Filter pressure status gauge*
- *Plug and play system*
- *4" swivel casters with foot brakes for stability*

SUPERIOR TECHNOLOGY GENERATING SUBSTANTIAL OPERATING SAVINGS

MINICART™

High-Productivity Innovative Products

MINICART *Affordable portable filtration unit*

Welding applications do not always require expensive filtration units with options not necessary to perform adequately. The MINICART is a basic no nonsense high efficiency portable unit which is designed for fume and dust filtration. The MINICART base unit comes complete with starter, power cord and MAXFLO fume arm for source capture. Options such as pulse cleaning system, HEPA and charcoal after-filters are available.

Industrial Air Specialists

With our headquarters in Louisville, Kentucky, Diversified Air Systems, Inc. has been providing quality air solutions to industrial and commercial facilities since 1981. During our more than thirty years of operation, Diversified Air Systems, Inc. has established two important company traditions: offering state-of-the-art equipment at competitive prices and achieving long-term customer satisfaction.

The staff of Diversified Air Systems, Inc. includes five application engineers, with a combined experience of more than 75 years in the air filtration and HVAC industry. Whether your facility requires an air filtration system for dust, mist, or fumes, or an HVAC solution to meet ventilation needs, Diversified Air Systems, Inc. has the equipment and expertise to meet the need.



Services include air quality analysis, system design, equipment sales, turnkey installation, onsite servicing, and supply of replacement filters and accessories.

Other Filtration Systems available:

Air Cleaners

Containment Booths

Decontamination Booths

Downdraft Tables

Dust Collectors

Fans and Blowers

Gas & Odor Control

High Vacuum Systems

Mist Collectors

Paint Booths

Stainless Steel Collectors

Vehicle Exhaust Systems

Wet Dust Collectors

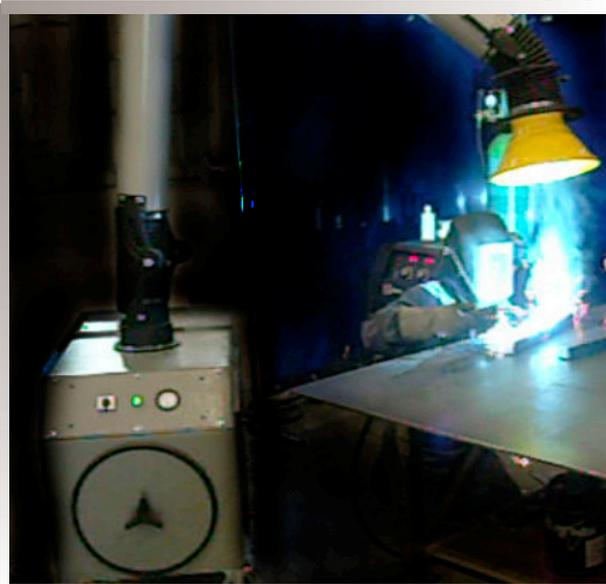
MINICART PORTABLE WELDING AND GRINDING FILTRATION UNIT

Portable, powerful, affordable.

Most of our competitors do not include these standard features :

- 750 C.F.M. at the hood (355 L/s)
- Spark deterrent pre-filter
- Easy maintenance
- Convenient tool tray
- 68 dB(A) at 3' (1 meter)
- Spark proof backward inclined impeller

- Portable source capture
- TIG/MIG welding fume capture
- Easy/very low cost maintenance of unit
- Shipped fully assembled (except for arm mount)
- Dusty air filtration and recirculation possibility
- Minimal or no spare parts required



Welding process facility managers are well aware of the dangers resulting from lingering and airborne pollutants often causes of lung diseases and respiratory problems

The MINICART unit with the MAXFLO bellmouth design hood is a perfect solution for source capture of those pollutants.

Buffing, sanding, deburring and grinding applications on various types of surfaces always create volatile airborne contaminants.

Depending on their granular weight, these airborne contaminants are easily breathed in by the employees.

The increased face velocity at the hood allows the workers to perform in a dust free environment.



*Safety note : units are not designed to collect possible explosive dusts such as aluminum, magnesium, wood chips or similar. Refer to **ASHRAE** industrial ventilation handbook for references. If used for such applications, it is highly recommended to empty dust collector drawers in units between applications. **DO NOT MIX COLLECTION OF EXPLOSIVE DUSTS IN UNITS.***

MINICART PORTABLE WELDING FUME AND DUST FILTRATION UNIT

Most of our competitors do not include these standard features :

- Spark deterrent filter
- 99% at 2 microns efficiency
- Powerfull 1 H.P. motor
- Filter pressure status gauge
- Easy access to filter cartridge
- Very low noise level

Ready to be used

750 to 800
C.F.M.
at the hood



Integrated starter with indicator light

Filter pressure status gauge

Convenient grab handles (2)

Spark deterrent aluminum pre-filter

260 square feet cellulosic extended pleat cartridge



Convenient tool tray

Clean air exhaust louver

15' power cord with stress relief and 3 prong plug

Hammertoned paint finish

Sealed frame access door

Centrally positioned fume arm for proper balance



Heavy duty cartridge support yoke

Quick access to cartridge

4" swivel casters with foot brakes

MINICART MODEL SELECTION SYSTEM

CHART 1

Model	Unit description	Model	Unit description
MINI-1700	Unit without MAXFLO fume arm (no air pulse cleaning system)	MINI-1700P	Unit without MAXFLO fume arm with air pulse cleaning system
MINI-1707	Unit with 6" X 7' MAXFLO fume arm (no air pulse cleaning system)	MINI-1707P	Unit with 6" X 7' MAXFLO fume arm with air pulse cleaning system
MINI-1710	Unit with 6" X 10' MAXFLO fume arm (no air pulse cleaning system)	MINI-1710P	Unit with 6" X 10' MAXFLO fume arm with air pulse cleaning system

Note : units with standard 115/1/60 motors are supplied with starter, 15' power cord and 3 prong plug.

TECHNICAL DATA

CHART 2

Unit		
Weight without arm	lb / kg	280 / 127
Weight with arm (7' or 10")	lb / kg	335 / 151
Motor	TEFC	Frame 56 / C face
Power supply	V / Hz	115 / 1 / 60
Power	HP / kW	1 / 0.75
Amperage draw		12
R.P.M.		3450
Airflow with arm	CFM / L/s	750 / 340
Airflow without arm	CFM / L/s	850 / 400
Noise level	dB(A)	69 @ 3' (1m)
Dust storage capacity	Bottom of unit	2 gallon

CHART 4

Pulse cleaning operation (optional)	
Manual	Push button
Air pulse	Through venturi / reverse pulse
Valve	Diaphragm
Constant air connection	Not required
Tank fill time	4 to 6 seconds
Air pulse duration	200 ms
Air tank capacity	3 gallon
Required air pressure	80/90 psi
Compressed air requirement	Dry and clean

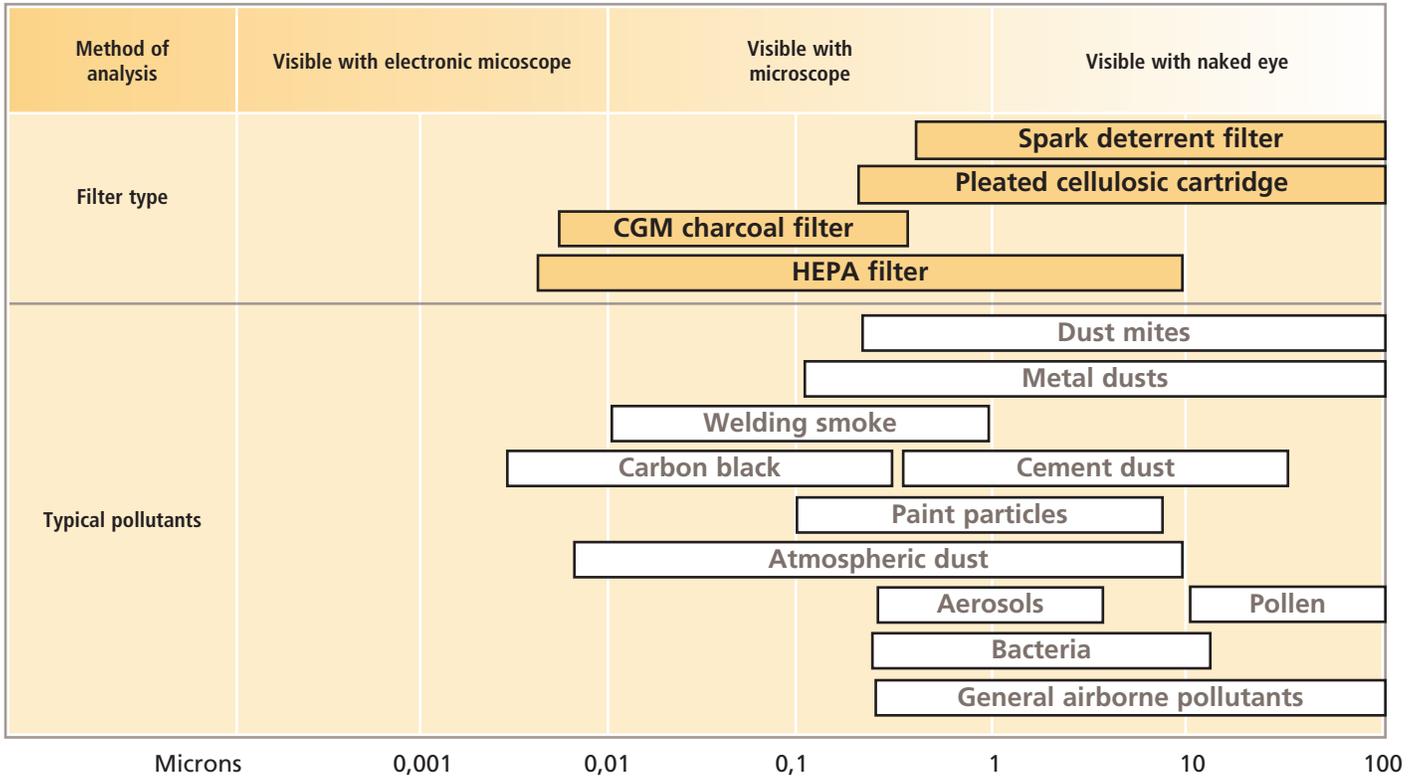
CHART 3

Filters		
Prefilter (aluminium)		
Quantity		1
Dimensions (nominal)	in / mm	10 x 21 ^{3/4} x 1
Filtering efficiency		25% @ 10 microns
Maintenance		Washable / replaceable
Main filter cartridge (cellulosic, 260 sq. ft.)		
Quantity		1
Dimensions (exact)	in / mm	13.75 x 26 / 342 x 660
Filtering efficiency		99% @ 2 microns
Maintenance		Cleaned by air pulse / replaceable
CGM granular activated charcoal filter (optional)		
Quantity		1
Dimensions (nominal)	in / mm	12 x 24 x 1
Filtering efficiency		60-90% molecular
Maintenance		Disposable/Replaceable
HEPA filter (optional)		
Quantity		1
Dimensions (nominal)	in / mm	12 x 24 x 6
Filtering efficiency		99.97% @ 0.3 micron (PAO test)
Maintenance		Disposable/Replaceable

Notes :

1. For better cartridge cleaning results, it is a recommended to shut unit off 30 seconds prior to activating pulse.
2. Do not operate pulse cleaning while access door is opened.
3. Optional HEPA / charcoal after-filters could decrease air volume by 15-20 %.

CHARACTERISTICS OF PARTICLE SIZES VERSUS FILTER EFFICIENCY



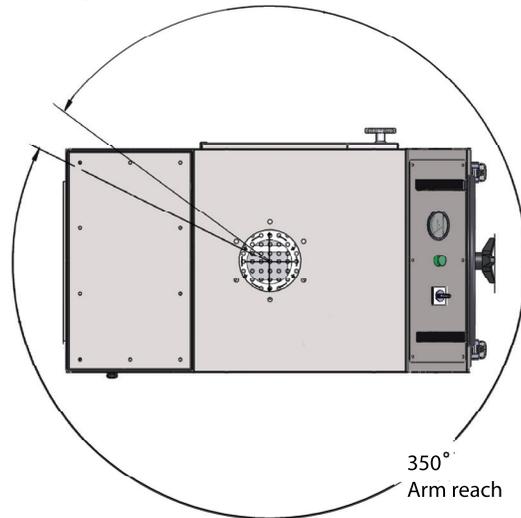
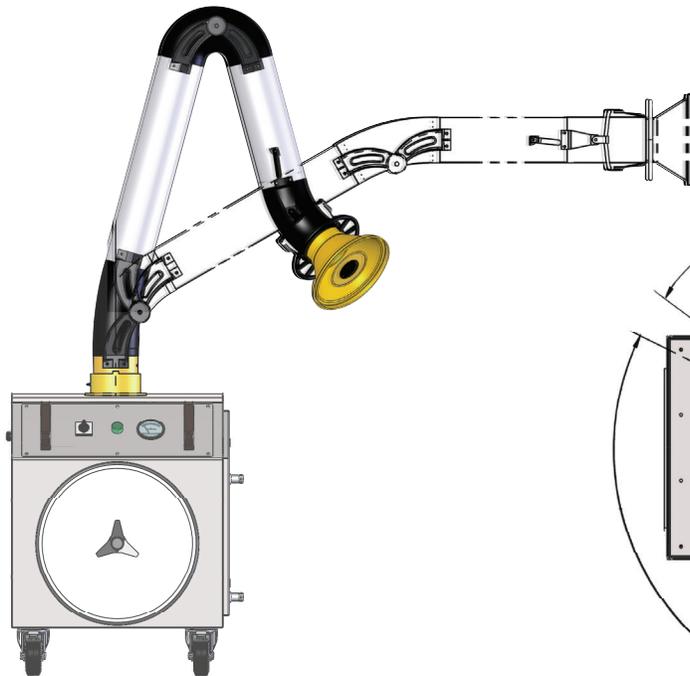
MINICART MAXIMUM ARM REACH

CHART 5

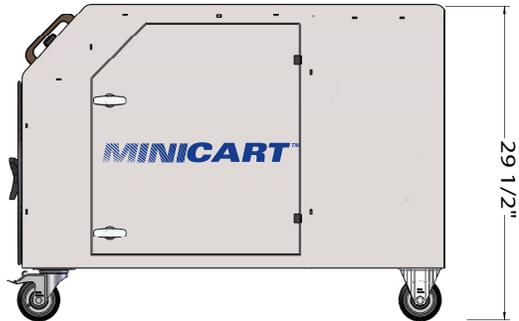
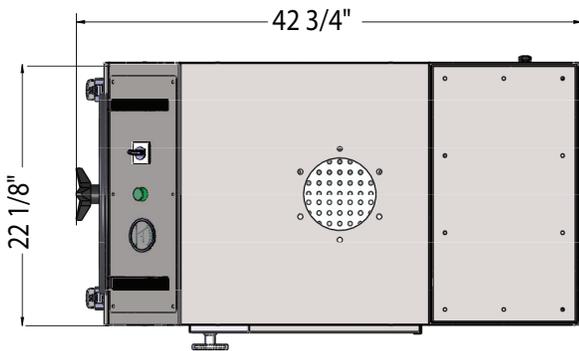
Reach (Rmax) of MAXFLO fume arms with portable units

7' (2.1 m) arms	5' / 155 cm
10' (3.0 m) arms	7' / 215 cm

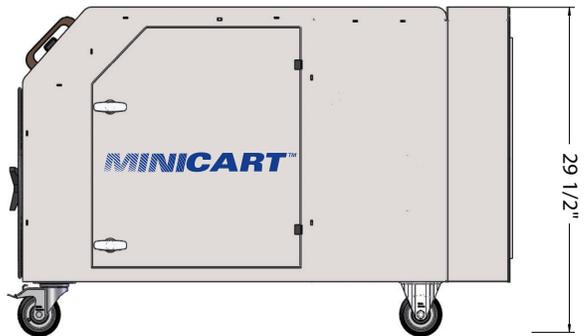
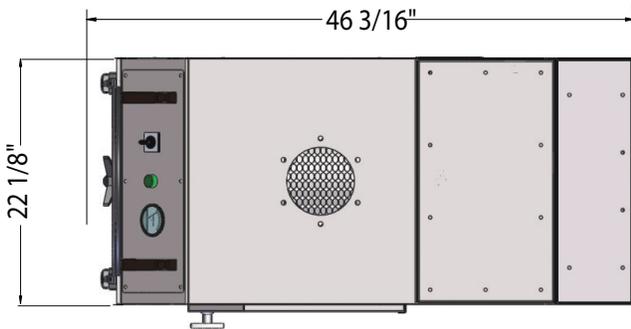
Note : it is not recommended to use a 14' (4 m) long arm with this unit. Risk of cabinet tipping.



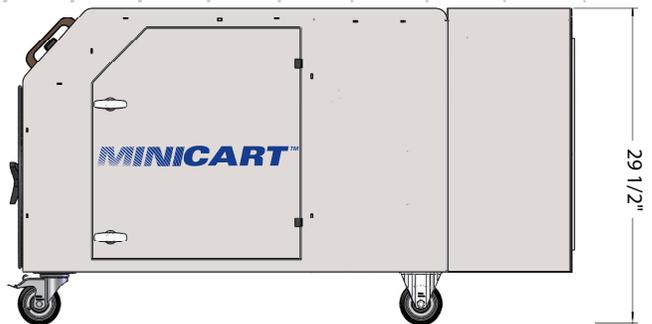
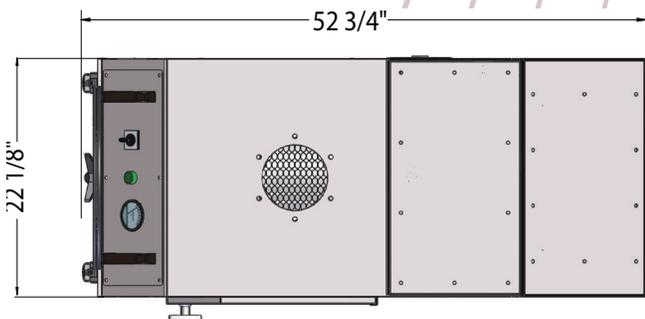
MINICART DIMENSIONS (STANDARD UNIT)



MINICART DIMENSIONS WITH CHARCOAL FILTER



MINICART DIMENSIONS WITH HEPA/CHARCOAL FILTERS



Notes : unit dimensions indicated above are with or without pulse cleaning system.

MINICART FILTERS



(standard with unit)
 Spark deterrent washable aluminum pre-filter.
 25% @ 10 microns
 Life duration : permanent



(standard with unit)
 Pleated cellulosic main cartridge. Cleaned by unit air pulse action or by facility shop compressed air system.
 99% @ 2 microns
 Life duration : + or - 24 months



(optional)
 CGM granular activated charcoal filter
 60-90% molecular weight
 Life duration : 12 to 18 months



(optional)
 HEPA after filter
 99.97% @ 0.3 micron
 Life duration : 18 to 24 months

CREATE YOUR MINICART SPECIFICATION

1. CABINET SHOULD HAVE THE FOLLOWING COMPONENTS :

Powder coat hammertoned painted steel housing, 14 gauge, 1 HP TEFC direct drive motor / fan assembly with spark proof backward inclined impeller, 3450 RPM, cartridge status pressure gauge, 15' power cord with 3 prong plug, cabinet design for low noise reduction 68 dB(A), swivel casters with foot brakes, sealed access door with turn knob, heavy duty yoke for proper horizontal cartridge support, spark deterrent primary filter, main filter cartridge (99 % efficiency), cabinet grab handles, starter with overload protection and reset, unit ON indicator light, center cabinet arm location for proper unit balancing.

2. INLET CONNECTION TO BE EQUIPPED WITH :

- A) MAXFLO fume arm FA-1PPG6-07 (6" X 7')
- B) MAXFLO fume arm FA-1PPG6-10 (6" X 10')
- C) flanged inlet for ducting or flexible hose connection

3. UNIT SHOULD BE EQUIPPED WITH :

- A) manual pulse cleaning with reserve air tank
- B) CGM granular activated charcoal filter in extended housing
- C) HEPA (99.97 %) final filter in extended housing

4. UNIT SHOULD INCLUDE :

- A) spare main filter cartridge
- B) spare CGM charcoal filter
- C) spare HEPA (99.97 %) final filter
- D) spare spark deterrent filter

Note : specifications listed above may be modified to suit application. Contact D.A.S. or representative for information.

Diversified Air Systems, Inc.

10801 Electron Drive, Louisville, Kentucky 40299

Toll free : **(800) 264-8958**

Tel. : **(502) 267-0333** • Fax : **(502) 267-4241**

Website : www.diversair.com • email : info@diversair.com