

# CLEAN-FLOW

# At MICRONAIR our total focus is on designing and building the best systems to efficiently extract and capture Dust, Fibers and Fumes.



### Flexible design means better results

We custom match fan types, motors, types of filter media and cleaning techniques with waste bin sizes and waste storage and disposal systems. This flexibility allows us to efficiently meet individual demand levels and special requirements.

### Clean air and negative pressure benefits

Our clean-air fans protect against abrasive dust damage to the fans. With our negative pressure extraction chambers air is 'drawn through' the filter chamber rather than blown in under pressure dust sealing is 100%. Even if there were a void in a seal it would simply draw air in at that point - not expel dust. This also makes sealing to waste bins simple and effective.



#### Australian designed and manufactured

MICRONAIR design and manufacture our Extractors here in Australia and have a 15 year track record and experience in this market. In addition to Extractors we supply a full Ducting design and install service.





### Our basis for selection. A professional calculation

Our specialized software is the basis for our Extractor Model and Fan & Motor selection. It performs its calculation based on the machines to be connected, their simultaneous use (%) and their individual airflow and air-speed requirements. From this the optimal main trunk diameter is also calculated. It is important this is correct!

# **CLEANFLOW** Models from 12 to 252 filters – larger on request!













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**CLEANFLOW** continuously and progressively cleans

the banks of Filter Cartridges while the Extractor is operating. This eliminates any need to shut your machines down while maintaining the same high filter performance throughout the working day. This makes then ideal for heavy duty applications with high dust loads.

# ULTRA-FLOW

**ULTRAFLOW** technology used in all Cleanflow models outperforms other Reverse Pulse systems. High- tech valves open and close in 1/10<sup>th</sup> of a second. This reduces compressed air consumption but with a more aggressive pulse that travels down the filter evenly and effectively.

The short cycle reduces re-deposition of dust with more complete cleaning than shaker or reverse-air cleaning. The continuous cleaning allows the filters to operate at higher air-to-cloth ratios, minimizing space required and capital costs



#### The best filters

We use the best polyester filter material with anti-static earthing combined with a pre-separation chamber to effectively separate the heavier waste straight into the collection bins and then circulate the fines downwards in a spiral motion over the filters. This is a very important advantage as it stops these fines being entrained in the filters. Filtration capability below 1 Micron (1/1000<sup>th</sup> of a Millimeter!) ensures a clean, safe working environment.



The filters are suspended and taper inwards from top to bottom. The taper greatly assists in the 'fall away' of the dust from the filters during the cleaning cycle – and no dust built up is possible around cartridge bases. The open pleat design (45 pleats per filter) avoids dust being trapped in the pleats and filter area is around 6 times greater than an equivalent sized sock

## Built to perform. Built to last. Inside or outside!



Galvanized steel panels, powder coated for extra corrosion protection. Galvanized subframe and fan casing. Stainless steel fittings.

Laser cut precision for air-tight assembly. A dedicated and specialized Production Team.

It all adds up to a professionally built Extractor equally at home inside or outside.





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## CLEAN-FLOW

# **High efficiency Fan and Motor**

We use WEG motors throughout our range.

MEPS energy efficiency rated motors. High efficiency backward swept

fans.Low noise, higher volumes with reduced power consumption









## **Keeping things quiet**

Our efficient Rockwool lined Industrial Silencer is standard. The discharge direction can be chosen to suit the site - horizontal, vertical - connected to external venting of the exhaust etc.

Where even quieter outputs are required we offer a range of custom designed Silencers

## Wheelie Bins - quick and easy

Our wheelie bin system ensures simple efficient waste collection and feature our 'quick-lock' release and replace system. This is based on location guides and an effective Cam Lock that takes the guess work out or Bin alignment.

The bins can be used with or without bin liners. Standard bin size is 240 liter with other sizes on request.



When waste volumes are higher our Dump Bin system is the answer. The 'quick fit' your choice of Dump-Bin from 1.5 to 3 cube with larger sizes on request. Bins are released and resealed at the flick of a switch. pneumatically operated seal is designed to fit





#### Waste Transfer systems and continuous extraction bin changes.



When you want to transfer waste to a remote collection point we can supply a range of blower

and auger transfer options. We also supply Rotary valves and hoppers with slides for continuous operation even during bin changes.







### CLEAN-FLOW



The Magna-helic Gauge tells you at a glance the degree of caking of dust on the filters. Alerting you immediately if a more aggressive cleaning cycle needs to be set.



#### **You're in Control**

Cleanflow incorporates automatic star delta start up of the fan with touch control activation An automatic electronic timer ensures the filters are cleaned in sequence. The duration of this cleaning cycle is fully adjustable to fine tune to your workshops needs.





#### **Optional Energy (money!) saving Controls**

A VSD (Variable Speed Drive) is the best way to control a fan motor as there is great flexibility with parameters to control start up, power overload and the speed of the fan all of which greatly affect your electrical consumption.







**OPTIFLOW** automatically controls the fan speed to maintain constant flow in the duct while making very significant savings in electrical consumption.

A Start and Stop button is also fitted in addition to the fully programmable Keypad, Isolator Switch, pressure sensor and controller.

**OPTIFLOW** gates automatically shut off air-flow when the machine is shut down. They don't rely on your operators. They open

them again automatically on start-up. This increases system efficiency dramatically. Air-flow is closed in a controlled way via an electric motor drive. No sudden 'shut-offs' like pneumatic gates which cause duct work stress and even collapse.

Reliable, efficient and automatic - with a rapid payback of your investment.



## STANDARD CLEANFLOW MODELS

	CF12	CF18	CF30	CF42	CF63	CF84	CF126	
Filters	12	18	30	42	63	84	126	
Filter area sq. meters	24	36	60 &	147	220	294	441	
			105					
Height mm	3400	3400	3600	4200	4200	4600	4600	

## **FAN PERFORMANCE** (Typical examples - others available for specific applications)

Power KW	5.5	7.5	11	15	18.5	22	30	45	55
AIRFLOW cubic m/hour	2100	5500	7900	11000	9900	15200	16350	23110	26347
	to	to	to	to	to	to	to	to	to
	3230	8200	10045	14000	20000	31400	34200	47820	54514
PRESSURE Pascal's	3800	2850	2700	2900	2000	1460	1723	1365	1760
	to	to	to	to	to	to	to	to	to
	4300	3250	3400	3500	5400	3937	4650	3684	4752

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