

FAN AVAILABILITY

Unit size	0.75 kW	1.1 kW	2.2 kW	3.0 kW	4.0 kW	5.5 kW	7.5 kW	11.0 kW	15.0 kW
FF30	●								
FF60		●							
FF80			●	●					
FF120					●	●			
FF185						●	●	●	
FF220									●



Model FF220 15 kW with magnesium conversion kit

Reliable in operation and easy to maintain. Ideal for aluminium and other flammable dusts.
Flame-Free is a self-induced spray wet scrubber designed to cope with difficult fibrous dusts. It is a unique design that has evolved over many years. The Flame-Free has been developed to control dusts and keep the environment clean and safe from the pollution, produced by a wide range of modern industrial processes. The design and construction of the Flame-Free unit reduces the risk of blockages and allows quick and easy maintenance. The design also conforms to many countries' mandatory requirements for handling explosion generating dusts.

Simple eliminator change
Spray eliminators are removable for easy cleaning and reduced downtime during preventative maintenance.

Manual, hopper or mechanical discharge
316L Stainless steel option

Water level indication
A simple sight tube is fitted to allow a quick and easy check that the system operating level is correct.

Automatic level control
A simple trouble-free ball valve water control can be fitted to allow for continuous water replacement for effective air cleaning. This is standard on some of the larger models.

Acoustic treatment
Keeping the atmosphere free of pollution from industrial dusts is essential. Limiting the noise emitted by industrial equipment is another facet of keeping the environment as pure as we possibly can. The Fercell Flame-Free offers an acoustic device to keep noise levels down to acceptable limits.

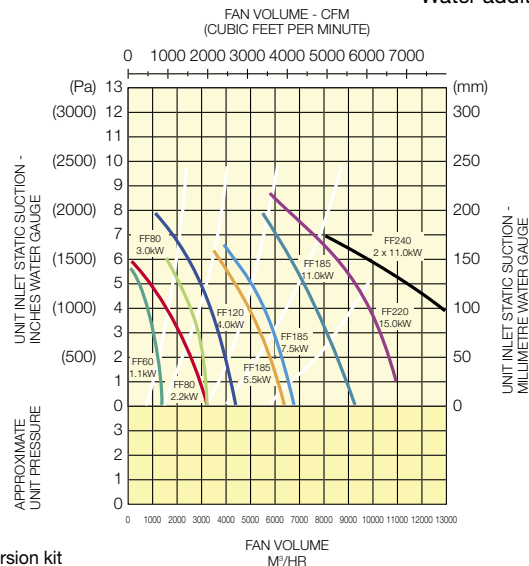
Dust collection and disposal
For the disposal of sludge and collected dust particles Fercell offer two alternatives for the smaller models and a third for larger models: a simple rake and bin, a hopper discharge, complete with sludge valve and on larger models a mechanical rake-out mechanism.

Fan
Fercell dust collectors have backward curved free vortex fans. They are directly driven at 2880 rpm (50 Hz). Experience and development has produced a series of fans with steep performance curves, which means that a large variation in system resistances causes only a small change in air volume being handled, in contrast to fans fitted in competitive units. The motor, fan back-plate and impeller assembly are mounted on anti-vibration mounts, which together with electronic balancing result in very smooth running fans.

Self-induced scrubbing
Unique to Fercell Flame-Free is the generous space between the inducer baffles, reducing the risk of blockage. The simple design evolved over many years of testing and development has produced a reliable and effective spray inducer, which generates an impressive scrubbing action. Another advantage of the generous space between the baffles is the easy access for regular maintenance checks and inspections.

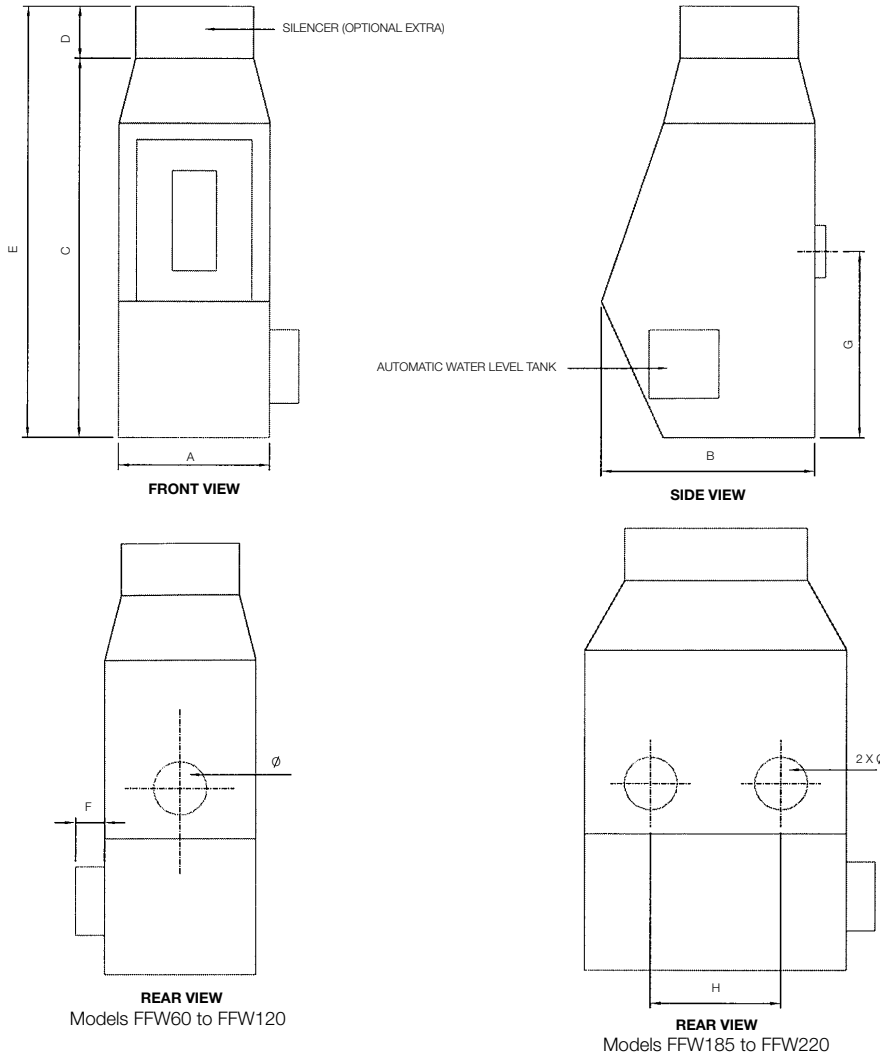
Hazardous dusts
The Flame-Free is ideal for materials that are likely to generate sparks or become unstable when being worked. Flame-Free conforms to the requirements of the aluminium regulations in the UK and USA. With the addition of special controls the magnesium and titanium requirements are also catered for.

- Optional extras**
- Anti-spark precautions
 - Acoustic ducts
 - Special water level controls
 - Weather protection
 - Frost protection
 - Total system application and design
 - Stainless steel 316L construction
 - One size available in Glass Reinforced Plastic
 - After-sales service and LEV/ COSHH testing
 - Water additives



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When magnesium dusts are to be extracted the following safety kit must be fitted (only at time of order)

The Magnesium Conversion Kit consists of:

Facility within the filter unit's control panel to only enable the dust creating equipment to be started up after the flame-free extractor has been running for approximately five minutes to clear any hydrogen that may collect in the flame-free unit and interconnecting ducting.

Automatic air proving, by means of an internally mounted switch system in the flame-free unit. If for any reason the air flow should drop by approximately 25%, the failsafe device will automatically shut down the dust creating equipment and the FerCell flame-free extractor.

Automatic water level sensing

Note: A 15mm cold water main supply must be fitted to the flame-free extraction unit.

When the water level in the scrubber section of the flame-free unit drops to a predetermined level a valve will automatically open, allowing cold water to be introduced, to ensure optimum level is maintained.

Also incorporated in this device is a failsafe that should the cold water supply be disconnected for any reason, the water level drops below the safe minimum working level, the dust creating equipment and the FerCell flame-free extraction unit will automatically shutdown.

Specification									
Model	A mm	B mm	C mm	D mm	E mm	F mm	G mm	H mm	ϕ mm
FFW60	585	864	1664	203	1867	165	795	N/A	150
FFW80/22	660	965	1905	230	2135	165	890	N/A	200
FFW80/30	660	965	1905	230	2135	165	890	N/A	200
FFW120/40	865	1220	2210	305	2515	165	1085	N/A	300
FFW120/55	865	1220	2210	305	2515	165	1085	N/A	300
FFW120/75	865	1220	2210	305	2515	165	1085	N/A	300
FFW185/75	1535	1220	2240	410	2650	165	1085	749	2 x 300
FFW185/11	1535	1220	2240	410	2650	165	1085	749	2 x 300
FFW220/15	1730	1220	2590	305	2895	165	1085	865	2 x 300
FFW220/22	1730	1220	2590	305	2895	165	1085	865	2 x 300

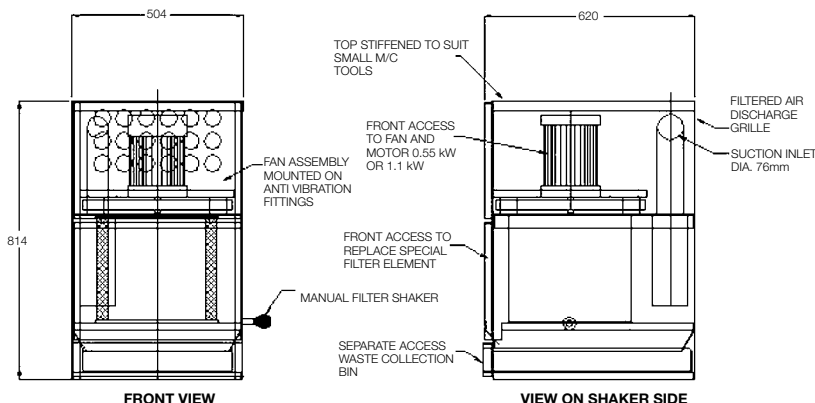
Specification							
Model	Standard Fan Rating cu/mtr/hr	Pressure Pa	Motor kW	Suction Inlet Dia. mm	Weight When Empty Kg	Weight When Full of Water Kg	Noise Level with Silencer Fitted dB(A) @ 2mtr
FFW60	850	100	1.1	150	180	398	78.5
FFW80/22	1500	100	2.2	200	245	526	81
FFW80/30	2550	100	3.0	200	250	531	81
FFW120/40	3060	120	4.0	300	430	911	81
FFW120/55	4500	120	5.5	300	440	916	81
FFW120/75	5100	120	5.5	300	440	916	81
FFW185/75	5100	120	7.5	2 x 300	560	1595	81
FFW185/11	6050	180	11.0	2 x 300	615	1650	83
FFW220/15	6800	200	15.0	2 x 300	950	1850	83
FFW220/22	10200	228	15.0	2 x 300	960	1850	83

Flame-Free Water Scrubber Services Required One x 15mm cold water mains supply with isolation valve

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Fine Dust Filter Units



SIZE MATTERS –

Large filter area – minimum footprint

The CF3 and CF5 dust extraction units have been specifically designed for fine dusts and light loads created by various processes.

The CF range utilises a powerful free-vortex fan (secured on AV mounts for smooth running), which collects dust at source, drawing it through ducting and depositing it in the filter system, with the cleaned extracted air discharged to the atmosphere.

One of the unique advantages the CF range has over similar sized equipment is their exceptionally large filter area. This large filter area allows operation at much lower filter speeds, enabling maximum filtration efficiency.

The CF3 filter is cleaned using the manual shaker mechanism at the end of each working period, when residue can be removed via the quick-release metal drawer. The CF5 filter is replaced when saturated.

As well as the versatility of their size, the CF range have numerous filter options, enabling use with all kinds of different dry dusts and fumes.

The CF3 features a dry cartridge filter, whilst the CF5 has a microglass and optional carbon filter, which is ideal for light dust and fumes. Oleophobic/hydrophobic filters can also be fitted to handle light oil, water mists and dusts. A complete range of filter types and sizes are offered with different spacings, coatings and shapes to provide solutions for virtually any problem.

Specification					
Model	Standard Fan Rating	Filter Area	Motor Power	Collection Capacity	Noise Level
CF3	510 m ³ /hr @ 70mm	3 m ²	1.1 kW 220/415/50 2 Pole	0.015 m ³	82 dB(A)@2mtrs
CF5	510 m ³ /hr @ 70mm	3 m ²	1.1 kW 220/415/50 2 Pole	0.015 m ³	82 dB(A)@2mtrs

Water Scrubber Dust Extractors



Ideal for Aluminium and other flammable dusts

Wet Dust Extractors

The FF30 unit and the larger capacity FF50 unit are continuously-rated dust collectors using a self-induced water spray to wash dust particles out of the entrapped air. Particles sink to the base of the integral collection tank, where they may be easily removed by raking into a container.

The water level in the unit (from a simple connection to the mains supply) is automatically controlled.

Wet dust collection is mandatory where explosive dusts from materials like aluminium, titanium and magnesium are involved plus special controls. Normally available in mild steel with hammer enamel finish. The units may also be specified in stainless steel when operating in more corrosive conditions.

Technical Information

Body: Constructed from 2mm sheet steel. Inside finished in water-resistant epoxy paint.

Fan: Free vortex, directly driven at 2880 rpm. Fan and motor assembly are supported on anti-vibration mounts, which together with electronic balancing results in a very smooth-running fan.

Water controls: evaporated water is automatically replenished via a simple ball float and solenoid valve (with additional fitting for special applications).

Sludge removal is carried out manually by raking the slurry into a bin for easy removal.

Specification				
Model	Height mm	Width mm	Depth mm	Spigot Dia. mm
FF30	724	795	630	76
FF50	780	795	630	125

Technical Data					
Model	Water Capacity Litres	Fan Motor kW	Motor Enclosure	Noise Level dB(A) @ 2mtrs	Capacity
FF30	60	0.75	TEFVIP 54 (min)	82	0.93m ³ at 900pa to 0.14m ³ /s at 675pa 200CFM at 3.5"wg to 300CFM at 2.75"wg
FF50	79	1.10	TEFVIP 54 (min)	78	0.19m ³ /s at 900pa to 0.25m ³ /s at 675pa 400CFM at 3.5"wg to 520CFM at 2.75"wg

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