LOSMA®

WORKING CLEAN, BREATHING HEALTHY

Air filters

Liquid filters

Engineering

Darwin

Mist Collector

ENG

Darwin

Darwin series is a range of centrifugal filters for cleaning air containing oil mists, micro-mists and smokes produced when using coolants (emulsion or neat oil).

It can be used with a majority of machine tools for all machining processes.

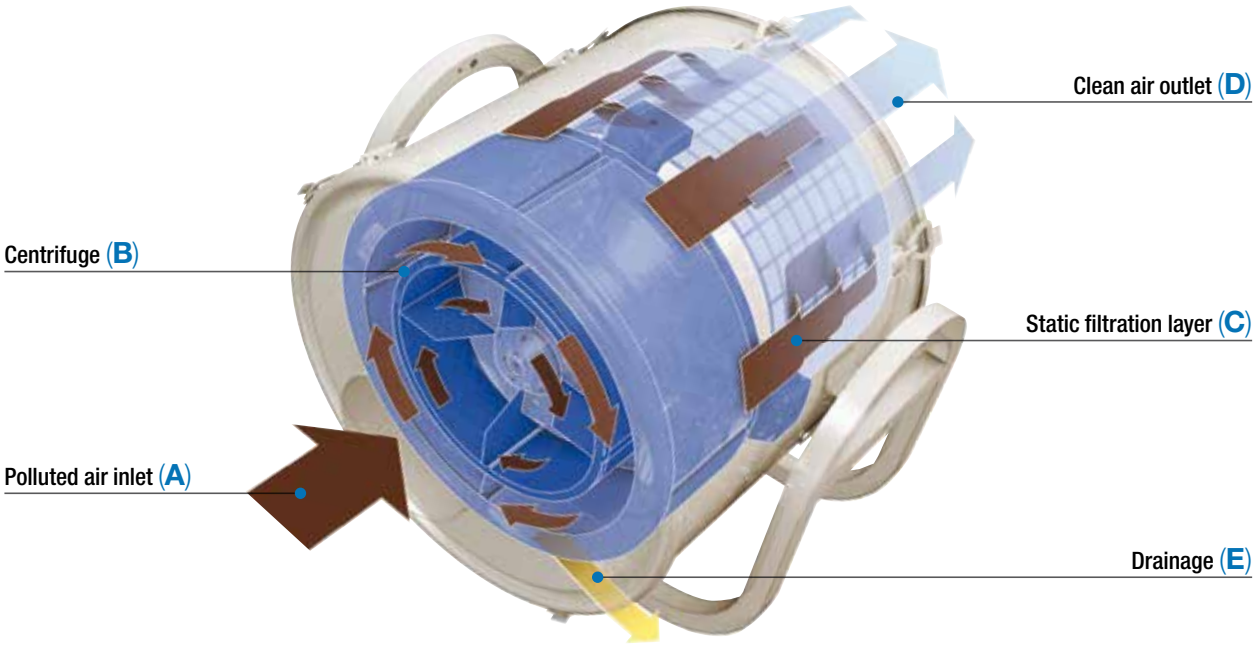
It is available in 4 sizes with three different, interchangeable filtration technologies.

Throughputs available are from 600 to 3.000 m^3/h, with different combination for increasing filtration efficiency, up to 99,97%.

ALL FILTERS ARE TESTED BEFORE DELIVERY

LOSMA grants that every single system is tested through strict control procedures.
Every unit is provided with a qualitative and functional test certificate.

Working principles



1 Polluted air is drawn into the system (**A**) thanks to the depression generated from the rotation of the centrifuge (**B**), which gives the air a swirling movement.

2 Air passes through the special expanded polyurethane foam inserts positioned in the centrifuge (only in mono and double version) and then into a net. The combination of all these elements facilitates the re-coalescing of oil particles - including the finer ones.

3 Air crosses a further static filtration layer (**C**) before being re-introduced into the working environment (**D**). The re-condensed liquid is eliminated through the drainage tube in constant positive pressure (**E**).

4 Darwin series grants a filtration efficiency of over 95%, also for pollutant particles below one micron; this efficiency rate can be increased to 99,97% with the use of an absolute post-filter (HEPA FILTER) according to EN 1822 norms.

Turbine

Suitable for surface machining (sharpeners, grinders, honing, lapping and similar finishing processes) also in the presence of heavy particulates.

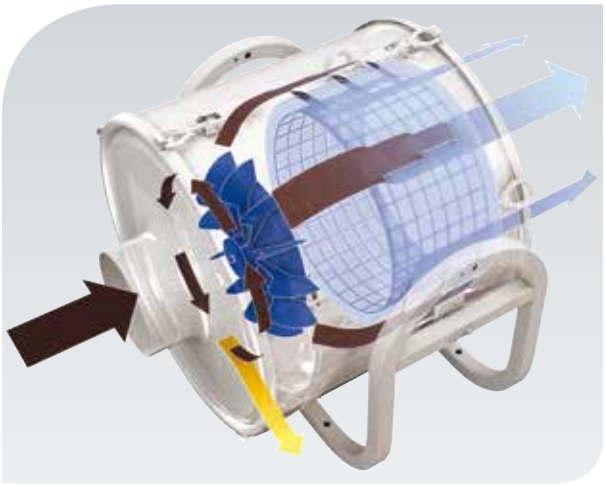
Mono centrifuge

Suitable for all machining processes (emulsion or neat oil).

Double centrifuge

Suitable for all machining processes (emulsion or neat oil) in particular for heavy machining conditions such as use of high pressure which generates micro-mists and vapours.

Plus



TWO-STAGE FILTRATION

Darwin series uses a double filtration combination: dynamic (given from centrifuge rotation) and static (with integrated post-filtration system) to grant high performances.

CONDENSATION AND DRAINAGE

Compared to the most common static air filtration systems, Darwin series grants incomparable capacity of re-condensation and drainage; overpressure inside the filter is used to continuously discharge coolant which may then be collected and recycled.

VERSATILITY AND MODULARITY

Darwin series, unique in its category, offers 12 different combinations of filtration technologies and corresponding aspiration power, facilitating the choice of a suitable solution for all requirements, so avoiding energy waste caused by over-sized systems or, on the other hand, inefficiency caused by under-sized systems.

EASY INSTALLATION

All Darwin systems can be mounted either horizontally or vertically thanks to an exclusive cradle, which allows the filter to rotate on its axis and also allows installation in very small spaces.

QUICK AND EASY MAINTENANCE

Access to the filtering section is very easy and immediate and does not require unscrewing or disassembly of any parts. Simply open the cover which is shut with pressure hooks to access the filters. They can be extracted and changed very easily and quickly.

STAINLESS STEEL VERSION

All Darwin series models can be supplied in stainless steel, in order to be used in applications where painted steel is not ideal.

Optional

Clipper

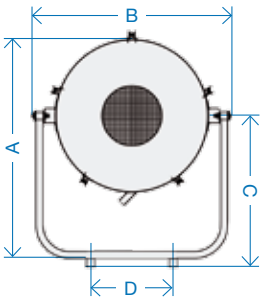
Available with F9 filtration level (95%) or H13 efficiency, up to 99,97% following EN 1822 norms.Useful in case of micro-mists and smoke.

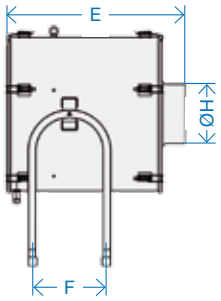
Guard

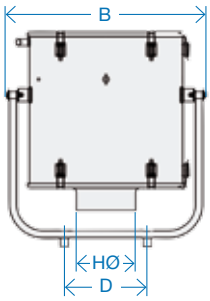
Pre-Filtration module for swarf, chips and dust, working through metallic and synthetic filtration stages.
Useful to optimize the air suction efficiency in case of high production of oil mists containing dusts and metallic swarf chips.

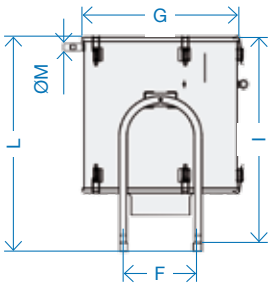
Installations

Technical data









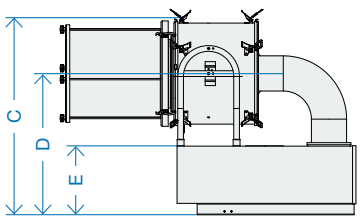
MODELS	Dimensions (mm)										
	A	B	C	D	E	F	G	Ø H	I	L	Ø M
Darwin 600	487	457	300	180	324	170	365	100	382	412	25
Darwin 1200	563	574	428	275	460	245	457	150	589	619	25
Darwin 2000	563	574	428	275	510	245	457	150	614	644	25
Darwin 3000	576	665	505	275	594	245	523	200	684	714	25

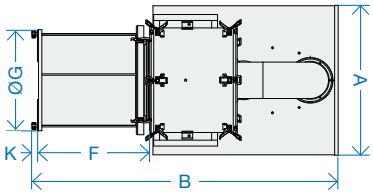
MODELS	Flow Rate*		Noise level	Inlet	RPM (rpm)		Net Weight	Power (kW)	
	50 (Hz)	60 (Hz)	(dba)	(mm)	50 (Hz)	60 (Hz)	(kg)	50 (Hz)	60 (Hz)
Darwin 600 T	600		72	100	2800	3400	21	0.37	0.43
Darwin 600 M	600		67	100	2800	3400	21	0.37	0.43
Darwin 600 D	600		67	100	2800	3400	21	0.37	0.43
Darwin 1200 T	1350	1650	76	150	2800	3400	35	1.50	1.75
Darwin 1200 M	1270	1500	76	150	2800	3400	35	1.50	1.75
Darwin 1200 D	1270	1500	76	150	2800	3400	35	1.50	1.75
Darwin 2000 T	1920	2370	78	150	2800	3400	39	2.20	2.55
Darwin 2000 M	1950	2430	78	150	2800	3400	39	2.20	2.55
Darwin 2000 D	1800	2180	78	150	2800	3400	39	2.20	2.55
Darwin 3000 T	3000	3300	79	200	2800	3400	62	3.00	3.45
Darwin 3000 M	2900	3200	77	200	2800	3400	62	3.00	3.45
Darwin 3000 D	2900	3200	76	200	2800	3400	65	3.00	3.45

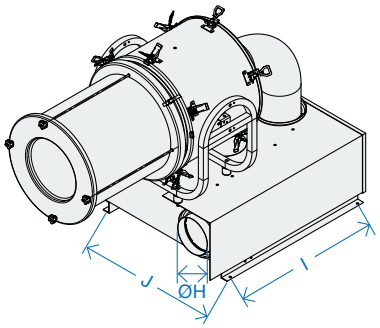
* Free inlet

Standard voltage: 50 HZ 230V/400V - 60 Hz 265V/400V

Guard + Darwin + Clipper







ASSEMBLY	Dimensions (mm)										
	A	B	C	D	E	F	ØG	ØH	I	J	K
Guard 10+Darwin 600+Clipper	560	1074	860	612	300	363	365	98	542	513	19.5
Guard20a+Darwin 1200+Clipper	655	1338	860	618	300	483	407	148	642	608	19.5
Guard20a+Darwin 2000+Clipper	655	1364	860	618	300	483	407	148	642	608	19.5
Guard30a+Darwin 3000+Clipper	655	1382	905	631	300	388	523	198	765	608	19.5

Health | Savings | Efficiency | Environment | Safety

newtarget

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ISO 9001 TÜV SÜD Certified Company

ISO 14001 TÜV SÜD Certified Company

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