



TECHNICAL DATA COALFILTER

The Coalfilter series is suitable for the suction and purification of large quantities of neat oil mist generated under severe working conditions.

The optimal oil mists filtering solution for operating islands with multiple machine tools.



THE ULTIMATE SOLUTION

For the filtration of oil mist in metalworking workshops

VISIT OUR WEB SITE
www.arfiltrazioni.com

SINCE
1995

STRONG POINTS

COALFILTER

Powerful!
Up to 10.000 m³/h



CE

UNI 11304-3



100%

Units tested
according to
EN: 1822
D.d.u.o.n 12772
UNI 11304-3

100%

With relevant test
certificate
for each unit

99%

Recovery of re-
condensed coolant,
which can be
led back into the
machine tool

100%

Coalescence
effect

At **AR Filtrazioni** we are producers of a new generation of mist collectors for the re-condensation and purification of every type of atmospheric pollutant generated during the machining processes of machine tools (machining centers, lathes, grinders, laser and washing machines, etc.), working up to three shifts.

ADVANTAGES



- Easy and simple maintenance, once a year; high operational reliability
- Robust mechanical parts
- Recovery of 80% of the re-condensed oil
- Total compliance with Italian and European regulations
- Energy savings
- Reduction of CO₂ emissions
- Protection of sensitive machine tool parts
- Health-conscious and environment-friendly

MIST COLLECTORS OF OIL MIST, FUME AND DUST FOR MACHINE TOOLS

AR FILTRAZIONI S.R.L.
Via dell'Industria 59/61
Bergamo BG 24126

+ 39 035 533822
web@arfiltrazioni.it

www.arfiltrazioni.com
www.mistcollector.com

WORKING PRINCIPLE

The Coalfilter series is suitable for the suction and purification of large quantities of neat oil mist generated under severe working conditions.

It is suitable for the filtration of particles of different sizes, thanks to the interchangeable filters with different filtering efficiency used.

The Coalfilter series is well-suited to semi-centralised solutions. Thanks to its modularity, each mist collector is equipped with a **High (EPA Filter) or Very High (HEPA Filter) efficiency filtration stage** - in accordance with European standards **EN 1822** - making it suitable for the extraction of micro-mists and fumes.

COALFILTER

BY MEANS OF THE COALESCENCE EFFECT, THE LARGE FILTERING SURFACE AREA AND SEVERAL STAGES OF FILTRATION, A VERY HIGH (H13) FINAL EFFICIENCY IS ACHIEVED

1°STAGE METALLIC FILTER + MULTILAYER CELLS

PREFILTRATION CELL IN GALVANIZED STEEL

European standards ISO EN 16890

Filtration efficiency > 95%

Particles with volume 3μ

- Washable (12/18 months)
- Thanks to the robust metal frame with a safety net, it can stop any potential chip
- Its sieve effect exploits gravity to convey the re-condensed oil into the drainage tube

2°STAGE POCKET FILTER

COALESCENCE FILTER

European standards ISO EN 16890

Filtration efficiency up to 95%

Particles with volume $\geq 0.4 \mu$

- Replacement every 6/18 months
- Glass-fibre fabric with a wide filtering surface

3°STAGE COALESCENCE FILTER

BLACK PANEL FILTER BY COALESCENCE EFFECT

• Washable

• Diffusor

• Silencer

4°STAGE EPA FILTER

FINAL FILTRATION WITH HIGH (EPA) EFFICIENCY

European standards EN1822

Filtration efficiency up to 99.5%

Particles with volume $\geq 0.15\mu$

- Replacement every 24/36 months

5°STAGE HEPA FILTER

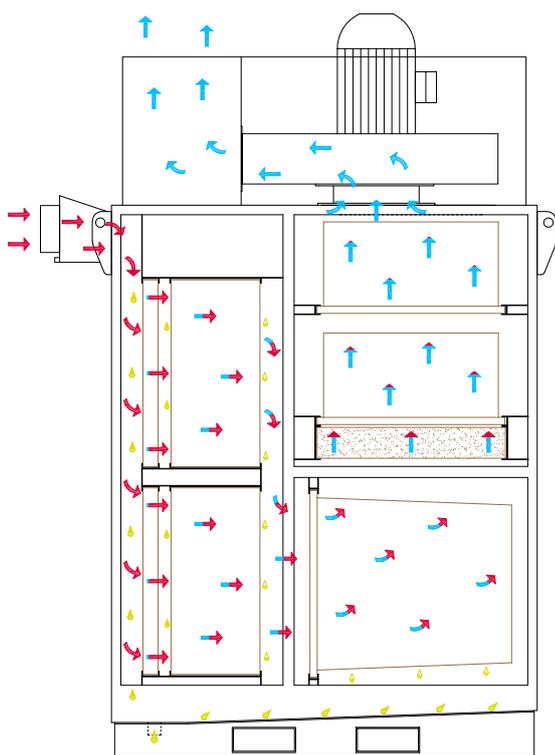
FINAL FILTRATION WITH VERY HIGH (HEPA) EFFICIENCY

European standards EN1822

Filtration efficiency up to 99.95%

Particles with volume $\geq 0.15/0.3\mu$

- Replacement every 24/36 months



Olio ricondensato
Recondensed oil
Kondensiertes Öl

TECHNICAL DATA

EACH UNIT IS EQUIPPED WITH:

- Low consumption motor **IE3** class (ULCSA on request)
- **ABB / SIEMENS** (ULCSA on request) overload cutout switch / electrical control panel
- Electronic filter clogging detector / analogue/digital pressure gauge
- Drainage tube for the recovery of re-condensed coolant
- Up to **HEPA H13** final filter, with very high filtration efficiency



COALFILTER 4C56

4000 / 5000 m³/h

COALFILTER 8C56

6000 / 10000 m³/h

SUITABILITY FOR POLLUTANT

• HUGE QUANTITIES OF FUMES / NEAT OIL MISTS

> **COALFILTER SERIES**

MODEL	SUCTION INLET Ømm	MAX. AIRFLOW m ³ /h	POWER kW	TENSION FREQUENCY V Hz	NOISE dBa	WEIGHT Kg
COALFILTER 4C56	250/300	4000/5000	4/5,5	230/400 50	78	700
COALFILTER 8C56	2 x 300	6000/10000	7,5/11	400/690 50	80	1400

Air flow capacity may vary based on filters type and combination.

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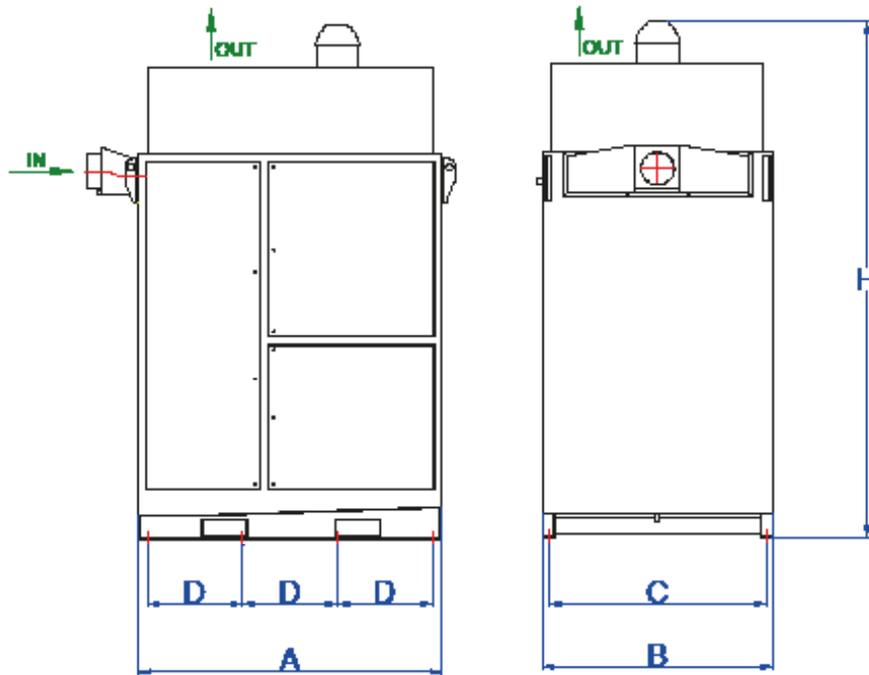
TECHNICAL DATA



COALFILTER 4C56 SERIES



COALFILTER 8C56 SERIES



MODEL	A	B	C	D	H
	mm	mm	mm	mm	mm
COALFILTER 4C56	1340	1020	960	420	2430
COALFILTER 8C56	1340	2150	960	420	2850

AR Filtrazioni reserves the right to make any change necessary to improve its products, at any moment and without notice. The technical data of this data sheet are not binding.

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OPTIONAL:

SUPPORT WITH TANK

Ideal for collecting re-condensed coolant



DIGITAL FILTER CLOGGING CONTROL DEVICE

+ ELECTRICAL CONTROL PANEL

Our digital pressure gauge sends a signal to the machine tool, alerting you to do maintenance.



ACTIVATED CARBON CELL

It eliminates odours, fume, VOCs and formaldehyde.



SELF-ADJUSTING CONTROL OF THE REQUIRED AIR FLOW RATE, THROUGH INVERTER

AR FILTRAZIONI Technology



R&D OFFICE

In addition, AR Filtrazioni stands for constant research. The R&D office is daily engaged in the research and development of innovative technical solutions for the purification of oil mists, fumes and micro-dusts generated during the machining processes of machine tools.

All series of mist collectors and accessories have a "Made in Italy" certificate.

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INSTALLATION

At **AR Filtrazioni** we always offer turn-key solutions, installing the filters at the customer's premises thanks to our specialized personnel. Otherwise, we leave complete autonomy to the customer: each system comes complete with an installation kit and an instruction manual, which make the installation of our filter units incredibly intuitive all over the world.



COALFILTER INSTALLATION ON JUNKER GRINDING MACHINE



COALFILTER INSTALLATION ON MCM MACHINING CENTRE

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INSTALLATION

COALFILTER INSTALLATION ON SACMA AUTOMATIC PRESSES



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REGULATIONS



EN 1822 - ISO 29463

UNI 11304-3

D.d.u.o. n.12772

- **UNI 11304-3:** Filtration units for oil mist, to be treated with a machine-mounted filter for the re-introduction of the air inside of the workplace
- European Standards **ISO EN 16890** (ex EN779) with a filtration efficiency of $\geq 95\%$ - Particles with volume $\geq 0.4 \mu$
- Final filtration stage according to **EN1822** and Italian standards, with High (EPA) or Very High (HEPA) filtration efficiency up to 99.95% of particles with 0.15 / 0.3 μ volume (micro-mists, micro-dusts, fume)
- Device to monitor filter conditions
- Overload cutout switch (in accordance with CE standards)
- Test certificate for each unit

HEPA Filter up to H13 EN 1822

Very high efficiency filter

Filtration efficiency up to 99.95% of particles with volume $\geq 0.15 / 0.3 \mu$ (micro-particles)



99.95%

REFERRING TO THE ITALIAN EFFECTIVE RULES:



The **COALFILTER** series complies with the **Technical Annex n.32** of 10 January 2012 - **D.d.u.o. n.12772 of 23/12/11** referring to extracted and filtered emissions by on-board filter with clean air returned to the workshop, through the top of the unit.

FILTER UNIT TEST BY *Studio Ambiente S.N.C*

MIST COLLECTOR'S OUTPUT ON AUTOMATIC LATHE 6/32

Parameter	Determined values (mg/m ³)	Reference levels (TLV/TWA) (mg/m ³)
Mineral oil / oil mist	0.04	5

Room temperature 18.5 °C (65.3 °F)

Specific sampling to evaluate the efficiency of the suction and filter system after periodical maintenance with filter replacement (ARNO 2CF filter unit no. 13 serial no. 04607/2007 with new ABSOLUTE filter HEPA) placed to control an automatic lathe for machining the bar in AVP with neat oil coolant.

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VALUE

Forty-year-long
know-how

Free consultancy

Free of charge technical
inspection and analysis

Sales and Assistance with
non-binding quotation

After-sales
Assistance

Installation

24 months warranty

Maintenance contract

PLUS

- **Filters and spare parts supply time:** always in stock and ready for delivery
- **Environmental and technical consultancy:** free of charge both during the order phase and throughout the life of the plant
- **Delivery date of filtration units:** 4 / 6 weeks
- **Warranty:** 2 years

- Design, study and realization of *ad hoc* industrial filtration systems with an on-the-spot investigation and data collection of the various machine tools and study of the most suitable system for your needs.
- Outsourcing maintenance. We carry it out and we are responsible! We release a maintenance certificate with legal value for each one of our units.
- Do you use non-original spare parts for your mist collectors? Do not lose the guarantee on the air cleaner and the filtering efficiency. Contact us and find out how to save money.



REFERENCES

Some customers who chosen AR Filtrazioni mist collectors



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CONTACT US

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Member of CISQ Federation



CERTIFIED MANAGEMENT SYSTEM
ISO 9001



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