



## TECHNICAL DATA AR 10.000

Ideal for the suction and purification of smoke, vapours, oil-water emulsion and micro-dusts.

Optimal oil mist filtering solution for operating islands with multiple machine tools.



### THE ULTIMATE SOLUTION

For the filtration of oil mist in metalworking workshops

VISIT OUR WEBSITE  
[www.arfiltrazioni.com](http://www.arfiltrazioni.com)

SINCE  
**1995**

## STRONG POINTS

## AR 10.000

Powerful!  
Up to 10.000 m<sup>3</sup>/h



Member of CISOQ Federation



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

80%

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

100%

Self-cleaning  
or regenerable  
filters

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 saving of 800.00€/year for each air cleaner
- Reduction of CO<sub>2</sub> 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

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www.mistcollector.com

# WORKING PRINCIPLE

The AR 10.000 Series is suitable for the suction and purification of large quantities of oil mist and fume produced during wet machining processes and for purifying particles of different sizes, by simply using interchangeable filters with different degrees of filtration efficiency.

The AR 10.000 Series is suitable for semi-centralized solutions.

Thanks to its modularity, each unit is equipped with a stage of High (with EPA filter) or Very high (with HEPA filter) filtration efficiency - tested in compliance with the European norm EN 1822 - and suitable for holding micro-mist and smoke.

The series is equipped with low power consumption motor IE2/IE3 class, with electric control panel and pressure gauge to monitor filter conditions.

For specific requirements it's possible to opt for different impellers.

A drainage pipe allows the recovery of re-condensed coolant liquid.

## AR 10.000

### 1°STAGE METALLIC FILTER

#### PREFILTRATION CELL IN GALVANIZED STEEL

European standards ISO EN 16890

Filtration efficiency > 95%

Particles with volume 3 μ

- 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 0.4 μ

- 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
- Noise attenuator

### 4°STAGE HEPA FILTER

#### FINAL FILTRATION WITH HIGH (EPA) or VERY HIGH (HEPA) EFFICIENCY

European standards EN1822

Filtration efficiency up to 99.95%

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

# TECHNICAL DATA

## EACH UNIT IS EQUIPPED WITH:

- Low consumption motor **IE3** class (ULCSA on request)
- Electrical control panel star-delta start
- Filter clogging detector, digital pressure gauge
- Up to **HEPA H13** final filter with very high filtration efficiency
- Drainage tube for the recovery of re-condensed coolant (about 80%, if neat oil)



**AR 10.000**  
9600 m<sup>3</sup>/h

## SUITABILITY FOR POLLUTANT

- LARGE QUANTITIES OF FUMES/ OIL-WATER EMULSION/MICRO-DUSTS

> **AR 10.000 SERIES**

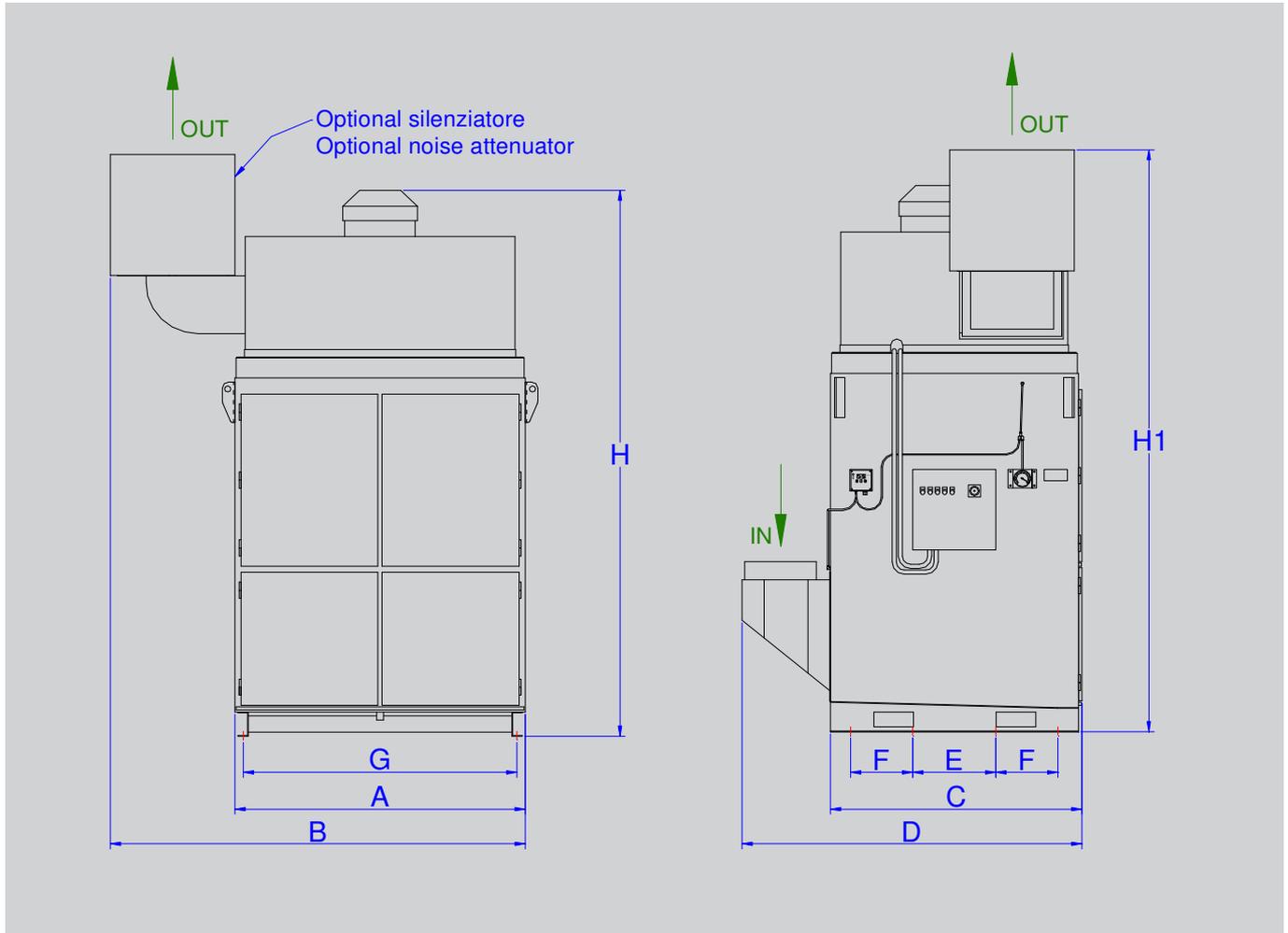
## TECHNICAL DATA

MODEL	SUCTION INLET Ømm	MAX. AIRFLOW m <sup>3</sup> /h	POWER kW	HEAD mm/H <sub>2</sub> O	TENSION FREQUENCY V Hz	NOISE dBa	WEIGHT Kg
AR 10.000	350/400	9.600	9	200	400/690 50	79	780

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

# TECHNICAL DATA

## DIMENSIONS



A	B	C	D	H	H1	E	F	G
mm	mm	mm	mm	mm	mm	mm	mm	mm
1400	2060	1200	1700	2720	2970	365	315	1320

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.

**OPTIONAL****ACTIVATED CARBON CELL**

It eliminates odours, fume, VOCs and formaldehyde.

84 Kg active carbon

**SILENCER WITH OGIVE**

To reduce noise

**DIGITAL FILTER CLOGGING CONTROL DEVICE + SWITCHBOARD**

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

**SUPPORT WITH TANK**

Ideal to collect recondensed coolant

**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.

# 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.



AR 10.000 installation on SACMA automatic presses



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AR 10.000 installation on Pietro Carnaghi lathes



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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  $0.15 / 0.3 \mu$  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 **AR 10.000** 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 <sup>3</sup> )	Reference levels (TLV/TWA) (mg/m <sup>3</sup> )
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.

## 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 time:** 2 to 4 weeks
- **State-of-the-art technology** is not enough for AR FILTRAZIONI: the service capability and the proximity to our customers guarantee an optimal and technically sophisticated solution, even for special customer needs.

- 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 chose AR Filtrazioni mist collectors



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CONTACT US

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CERTIFIED MANAGEMENT SYSTEM  
ISO 9001



[www.mistcollector.com](http://www.mistcollector.com)

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