AR FILTRAZIONI®

TECHICAL DATASHEET
EASY SERIES

Mist collectors of oil mist, fume and micro-dust for machine tools working



THE ULTIMATE SOLUTION

For the filtration of oil mist in metalworking workshops

SINCE
1995

VISIT OUR WEB SITE
www.arfiltrazioni.com

STRONG POINTS

EASY SERIES

Over 30,000 units installed!

Modular



ARIA PURA
EFFICENCY UP TO 99.95%
EN 1822
D.D.U.O 12772
UNI 11304-3

Member of CISQ Federation
RINA
IQNET
CERTIFIED MANAGEMENT SYSTEM
ISO 9001

CE

UNI 11304-3

DMQP
DMG MORI QUALIFIED PRODUCTS

100% **Units tested according to** EN: 1822 D.D.U.O 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

50% **Self-cleaning** and/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

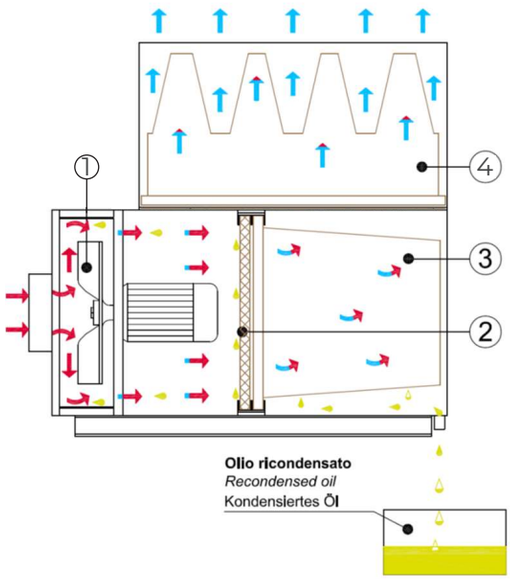
- Easy and simple maintenance, once a year; high operational reliability
- Robust mechanical parts, low space requirement
- Recovery of 80% of the re-consensed oil
- Total compliance with Italian and European regulations
- Energy saving of 800.00€/year for each mist collector
- Reduction of CO_2 emissions up to 9,000 kg/year, for each mist collector
- Protection of sensitive machine tool parts
- Health-conscious and environment-friendly

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

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www.mistcollector.com

WORKING PRINCIPLE



EASY F

1° **STAGE** CENTRIFUGE

SELF-CLEANING CENTRIFUGAL CONDENSER

- Self-cleaning
- Balanced (no vibration)
- It re-condenses 80% of the oil mist, thanks to the centrifugal effect

2°**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

3°**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 filtrering surface

4°**STAGE** H/EPA FILTER

FINAL FILTRATION WITH HIGH (EPA) OR VERY HIG (HEPA) EFFICIENCY
European standards EN1822
Filtration efficiency up to 99.95%
Particles with volume ≥ 0.15/0.3µ

- Replacement every 24/36 months



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

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OPTIONAL
PRE-FILTRATION

In case of particularly heavy work situations, in the presence of solid dust and cast iron metalworking, the unit is predisposed for the application of a specific **pre-filtration** system.

WORKING PRINCIPLE
EASY F + PRF

X STAGE PRE-FILTRATION SYSTEM
Pre-filtration chamber
· Washable

1° STAGE CENTRIFUGE
SELF-CLEANING CENTRIFUGAL CONDENSER

· Self-cleaning
· Balanced (no vibration)
· It re-condenses 80% of the oil mist, thanks to the centrifugal effect

2° STAGE METALLIC FILTER
PREFILTRATION CELL IN GALVANIZED STEEL
European standards ISO EN 16890
Filtration efficiency > 95%
Particles with volume 3 µ

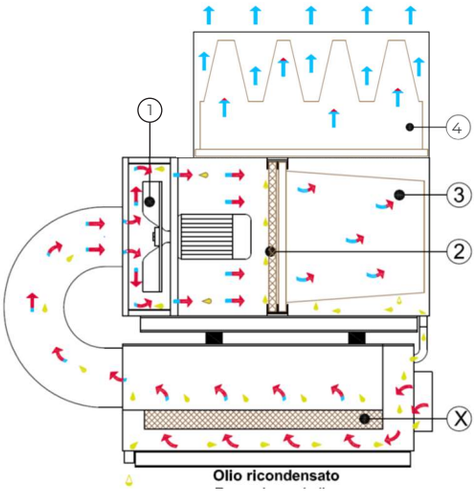
· Washable (12/18 months)
· Thanks to the robust metal frame with a safety net, it can stop any potential chip
· Its sieve effect exploits gravity to convey the re-condensed oil into the drainage tube

3° 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 filtrering surface

4° STAGE H/EPA FILTER
FINAL FILTRATION WITH HIGH (HEPA) OR VERY HIGH (HEPA) EFFICIENCY
European standards EN1822
Filtration efficiency up to 99.95%
Particles with volume ≥ 0.15/0.3µ

· Replacement every 24/36 months





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TECHNICAL DATA AIR FLOW AND POWER

EACH UNIT IS EQUIPPED WITH:

- Low consumption motor **IE3** class (ULCSA on request)
- **ABB / SIEMENS** overload cutout switch (ULCSA on request)
- Filter clogging detector; analogue/digital pressure gauge
- Up to H**EPA H13** final filter with high filtration efficiency
- Drainage tube for the recovery of re-condensed coolant (about 80%, if neat oil)



EASY 0
1250 m³/h
735 CFM

EASY 1
1500 m³/h
880 CFM

EASY 2
2500 m³/h
1470 CFM

TECHNICAL DATA

MODEL EASY	SUCTION INLET Ømm	MAX. AIR FLOW m³/h - CFM		POWER kW	TENSION FREQUENCY V Hz	NOISE dB	WEIGHT Kg
0	150	1250	735	0,55	230/400 50	67	45
0F	150	1250	735	0,55	230/400 50	67	57
1	150	1500	880	0,75	230/400 50	68	58
1F	150	1500	880	0,75	230/400 50	68	72
2	150	2500	1470	1,5	230/400 50	72	72
2F	150	2500	1470	1,5	230/400 50	72	90
PRF K0	150						35
PRF K1	150						45
PRF K23	150						50

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

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TECHNICAL DATA



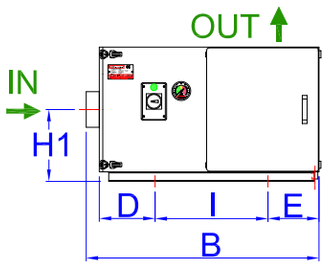
EASY SERIES

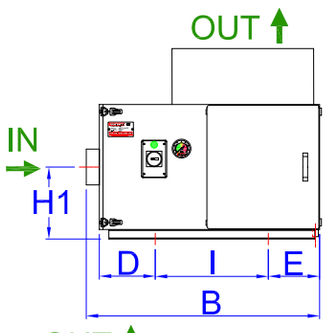


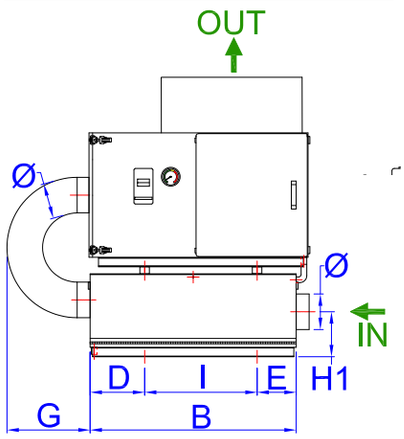
EASY F SERIES

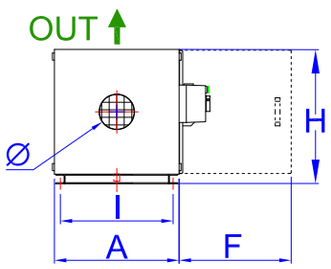


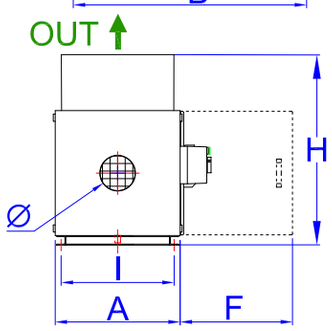
EASY F SERIES with prefilter

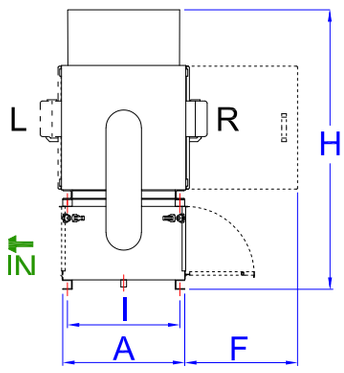












DIM. mm

MODEL EASY	A	B	D	E	F	G	H	H1	I
EASY 0	360	700	200	190	385	-	405	225	310 Ø9
EASY 0F	360	700	200	190	385	-	643	225	310 Ø9
EASY 0F + PRF K0	405	750	220	220	385	320	1005	260	310 Ø9
EASY 1	400	860	230	220	420	-	450	245	360 Ø9
EASY 1F	400	860	230	220	420	-	690	245	360 Ø9
EASY 1F + PRF K1	450	840	240	240	400	320	1070	260	360 Ø9
EASY 2	525	990	245	220	500	-	575	305	475 Ø9
EASY 2F	525	990	245	220	500	-	815	305	475 Ø9
EASY 2F + PRF K23	570	955	235	245	480	320	1235	275	475 Ø9

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

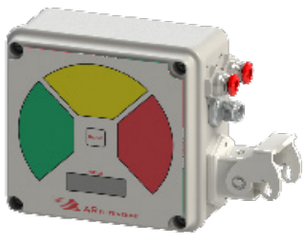
MIST COLLECTORS OF OIL MIST, FUME AND DUST FOR MACHINE TOOLS

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OPTIONAL



DIGITAL FILTER CLOGGING CONTROL DEVICE 4.0

As an alternative to the analog pressure gauge, our digital pressure gauge sends a signal to the machine tool, alerting you to do maintenance.



ARTICULATED SUCTION ARM AND TROLLEY

The flexible and portable extraction unit for all manual deburring and welding and occasional operations



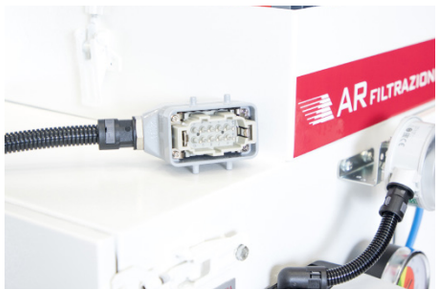
EPA E11/H13 FILTER

Final filtration with high efficiency

- European standards EN1822
- Filtration efficiency up to 99.95%
- Particles with volume ≥ 0.15 / 0.3µ

HARTING PLUG

It connects the mist collector directly to the PLC of your machine tool.





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.

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

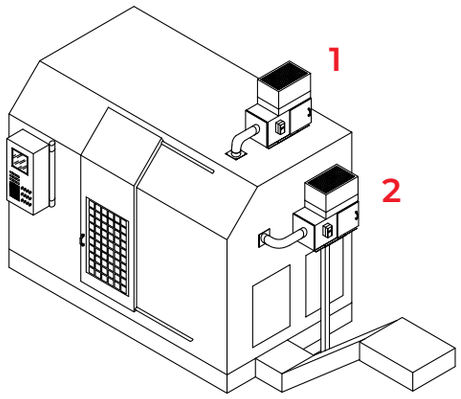
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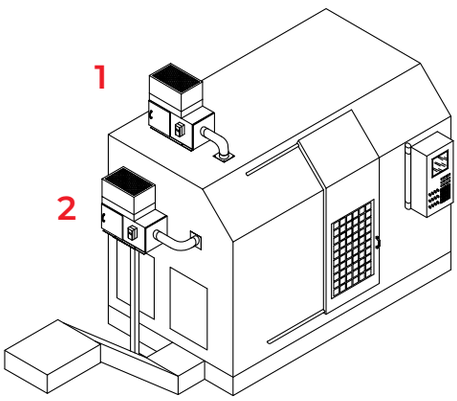
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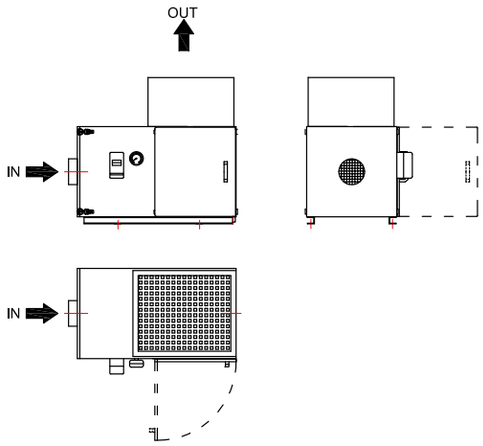
INSTALLATION

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.

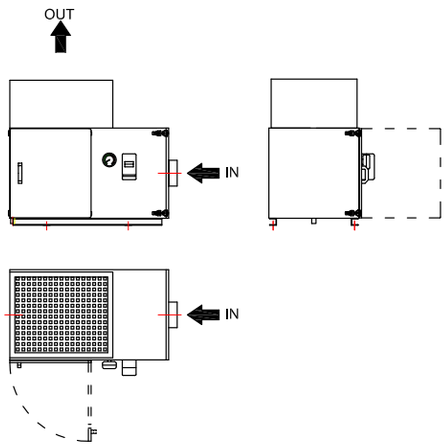




RIGHT VERSION



LEFT VERSION



ON TOP OF MACHINE WITH AD HOC SUPPORT

1



ON PLANT FASTENED TO THE FLOOR

2



ON TROLLEY

3



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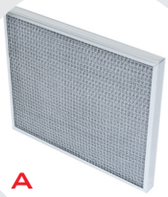
MANTEINANCE
EASY SERIES



C



B



A



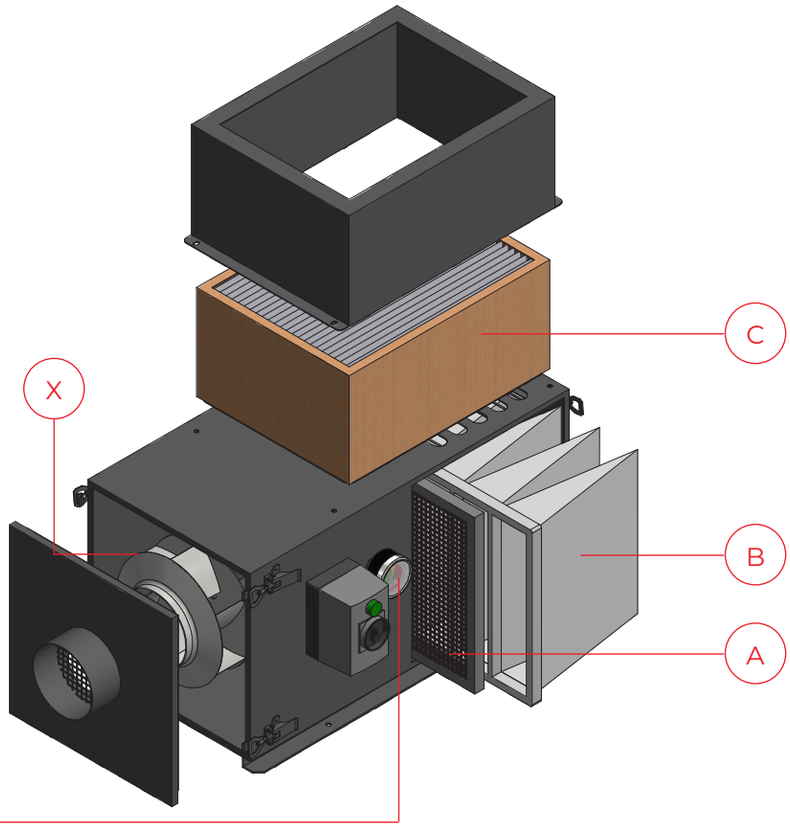
X

Replacement every 24/36 months

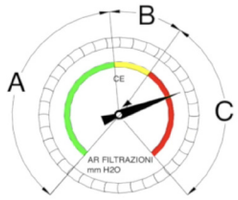
Replacement every 12/18 months

Washable

Self-cleaning



DEVICE TO MONITOR FILTER CONDITIONS
Red zone C
Clogged air cleaner



Spare part filters
to replace / to clean



This **maintenance program** shows average times result of statistics elaborated on the basis of the thousands of plants that **AR Filtrazioni** maintains annually.

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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 ≥ 95% - Particles with volume ≥ 0.4 µ
- 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

99.95%

EPA up to H13 Filter EN 1822

High efficiency filter
Filtration efficiency up to 99.95% of particles with volume ≥ 0.15 / 0.3 µ (micro-particles)



REFERRING TO THE ITALIAN EFFECTIVE RULES:
The **EASY** 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	0.14	5
Room temperature 18.5 °C			

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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 time**: 4 to 6 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.
- **Test:** Do you have an important investment to make? Put one of our systems to the test! We offer a money back guarantee

- **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.**
- **Outsorcing 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

ALGRA · MCM · DMQP DMG MORI QUALIFIED PRODUCT · Biglia · ERBA S.P.A. · OMZ · RemaControl · Top · PNEUMAX · imt intermato

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