IMQ

CE

GENERAL CATALOG 2025

ETC GROUP S.R.L

AIR FILTRATION TECHNOLOGIES

www.etcgroupsrl.it

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“

THE WORLD
DOESN’T CHANGE
WITH YOUR OPINION
BUT WITH YOUR
EXAMPLE.

”

ETC GROUP S.R.L
AIR FILTRATION TECHNOLOGIES

ETC GROUP S.R.L DESIGNS AND MANUFACTURES SYSTEMS AND MACHINES FOR COMPLETE AIR TREATMENT, ALSO OFFERING A WIDE RANGE OF FILTERS, PURIFIERS, AND SMOKE AND FINE PARTICLE PRECIPITATORS WITH WATER-BASED OPERATION.

OUR MACHINES ARE USED ON WOOD, COAL, AND BIOMASS BURNERS SUCH AS:
STOVES, PIZZA OVENS, BREAD OVENS, BIOMASS BOILERS, GRILLS, KILNS, COFFEE ROASTERS, AND LASER MACHINES.

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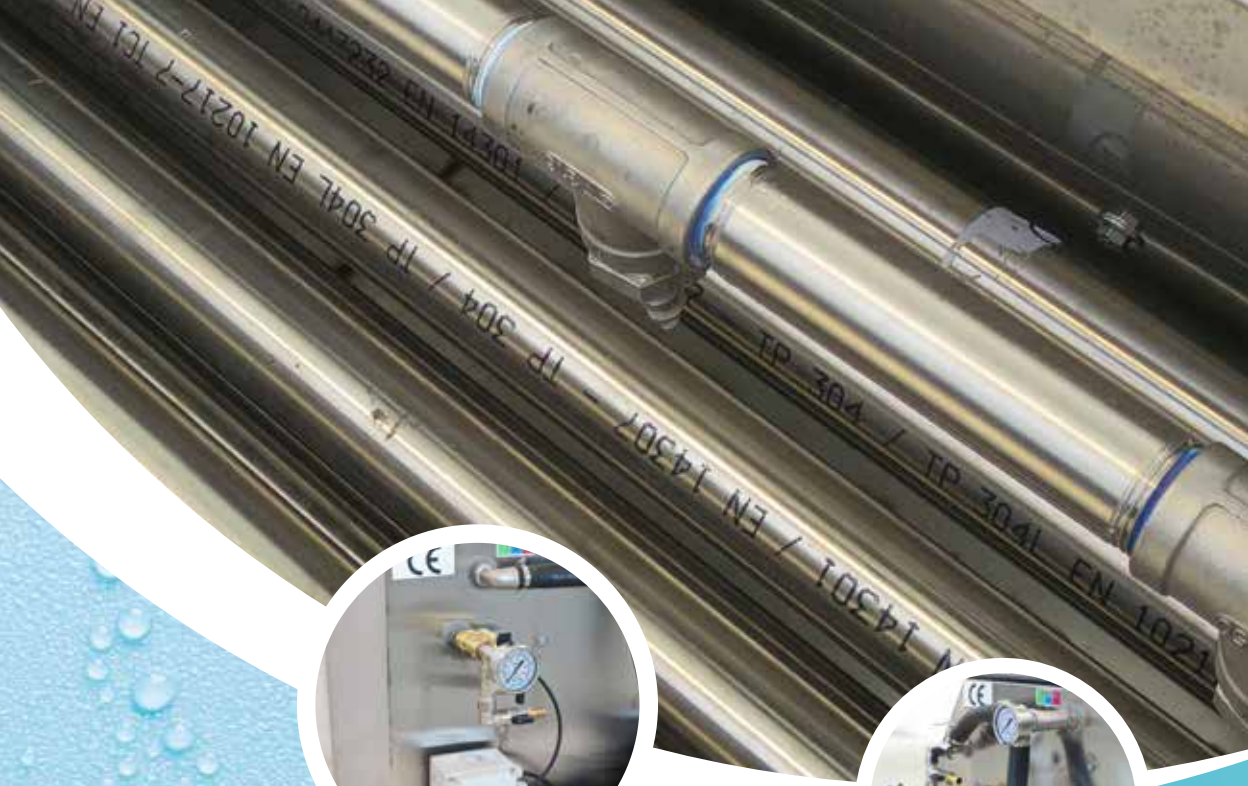

WATER-BASED
SOOT PRECIPITATORS

FOR WOOD-BURNING OVENS, BIOMASS BOILERS,
CHARCOAL GRILLS, SMOKE TREATMENT
FOR COFFEE ROASTERS,
PARTICULATE MATTER REMOVAL,
SMOKE TREATMENT FOR LASER MACHINES.

SOOT PRECIPITATORS

SMOKE AND GREASE WITH WATER-BASED OPERATION

The soot precipitators manufactured by **ETC GROUP S.R.L.** are characterized by high efficiency, certified at 95%, very low water and electricity consumption, low maintenance, and can be installed at any point of the flue.

Particle purification is achieved through the water washing of combustion gases. Here, the fumes pass through a series of spiral nozzles with very fine misting, which then wet the particles and bind them to the water. These particles are deposited in the body of the precipitator, and the fume, free of microparticles, is then expelled through the chimney.

The combustion gas to be cleaned is introduced through the fume inlet into the purifier, passing through the misted water from stainless steel spiral nozzles (specially developed for fume washing), with continuously recycled water through the precipitator's pump.

Our soot precipitators feature a dual water washing system, as if they were two precipitators in one. The speed of the fumes slows down due to the effect of the change in section from the flue to the precipitator. The misted water inside the system traps the impurities and precipitates them downward (settling).

THE BLAST CHILLERS
PRODUCED BY
ETC GROUP S.R.L
ARE THE ONLY ONES
TO BE CERTIFIED CE

IMQ


TP 304
4301 / EN 14307 - TP 304 / TP 304L EN 10217-7 TC1 EN 103

SOOT PRECIPITATORS

SMOKE AND GREASE WITH WATER-BASED OPERATION

The position and shape of the precipitator and its internal baffles are designed to create vortices that help trap the wet particles from the fumes and cause them to agglomerate (coalescence), increasing the effectiveness of the settling process. Another cleaning factor is the surface tension of the water present at the bottom, in the water particles, and on the internal baffles, which attracts the lighter particles when the fume current is forced to pass close to them
The sections of the machine through which the fumes are cleaned include the inlet (equipped with spiral misting nozzles) and the center of the machine, where another series of nozzles are located.

The machine expels air saturated with steam at a temperature of about 40-60 degrees Celsius, free from carbonaceous particulates and suspended impurities (up to 95% particle removal). Odors are reduced by 50-70%. Additionally, the precipitator removes CO2 by 60%.

Thanks to the energy released during the water pumping process, the system benefits from autonomous draft, for small machines with natural draft (static measurement, with the machine disconnected from the flue: exit velocity > 2m/s).
The water that exits as steam after washing is continuously replaced with clean water via a float switch that automatically regulates the machine's functions. The water saturated with microparticles must be replaced if the particle concentration is high, and therefore replaced with fresh water. Depending on the operating time and the amount of microparticles treated, the machine must be emptied, either manually, electrically, or automatically through optional accessories.

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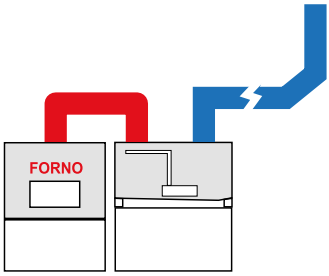
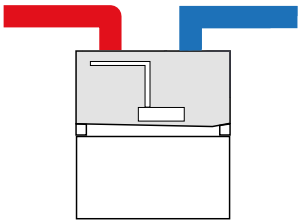
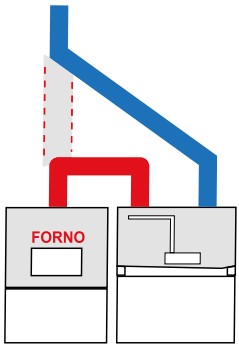
CONNECTION OF SOOT PRECIPITATORS WITH CHIMNEYS



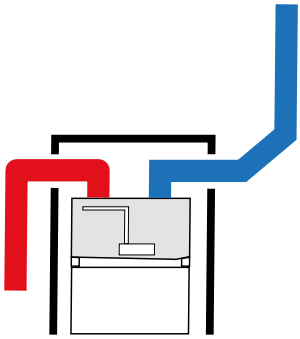
Connection to
the vertical flue



Connection to
the horizontal flue



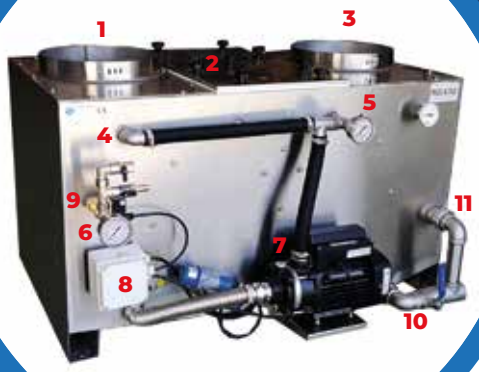
Precipitator mounted
with interception
of the existing vertical flue



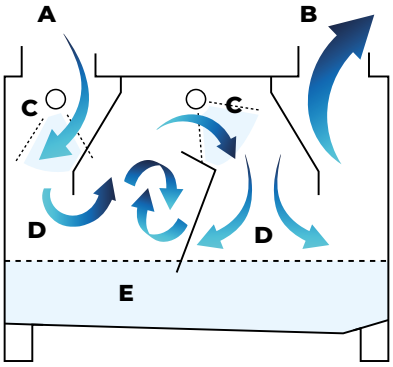
Precipitator mounted
on the terrace or on the roof
outside the building

MAIN ELEMENTS

1. Fume inlet
2. Inspection door
3. Fume outlet
4. Water inlet to the first nozzles
5. Water inlet to the central nozzles
6. Thermometer
7. Pump
8. Electric box of the float switch
9. Water supply solenoid valve
10. Drain
11. Overflow drain



MODELS OF
SOOT PRECIPITATORS
SMOKE, AND GREASE

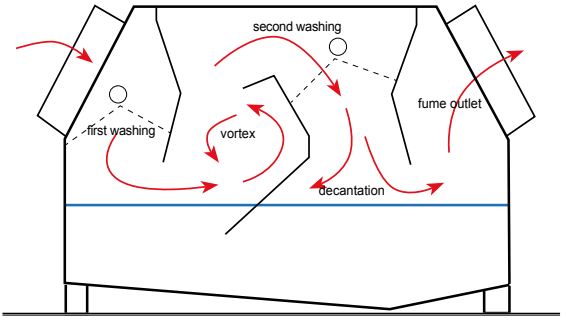


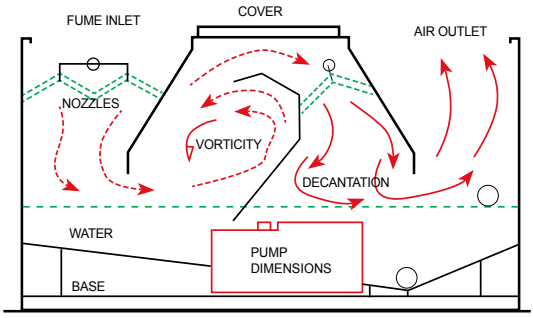
A. Inlet
B. Outlet
C. Washing
D. Settling
E. Water

	AH Ø200	AH Ø250	Clinear AH Ø250L	AH Ø300
Width	74,5 cm	94 cm	99 cm	110 cm
Total height including 90° bends	67 cm 98 cm	67 cm 100 cm	67 cm 69 cm	67 cm 120 cm
Total depth of the casing + pump dimensions	56 cm 36 cm + 20 cm	61 cm 42 cm + 19 cm	74 cm 55 cm + 19 cm	85 cm 65 cm + 20 cm
Dry weight	49 Kg	57 Kg	62 Kg	80 Kg
Water content	42 liters	63 liters	81 liters	110 liters
Treatment	200 m^3/h without fan	350 m^3/h without fan	350 m^3/h without fan	2.500 - 3.500 m^3/h with extractor
Pump power	0,50 kw 3,1 - 2,8 A (Grundfos cm 3-3)	0,50 kw 3,1 - 2,8 A (Grundfos cm 5-3)	0,50 kw 3,1 - 2,8 A (Grundfos cm 5-3)	0,50 kw 3,1 - 2,8 A (Grundfos cm 5-3)
Installable fans	from 0,37 to 0,50 kw (up to 800 m^3/h of treatment)	0,50 kw (up to 1.300 m^3/h of treatment)	from 0,37 to 0,55 kw (up to 1.300 m^3/h of treatment)	from 0,5 to 1,5 kw (up to 3.500 m^3/h of treatment)
PRICE	**5.000 €**	**5.500 €**	**5.900 €**	**6.600 €**

NOTE: The pump seal, being a wear part, **is not covered by warranty**

MODELS OF
SOOT PRECIPITATORS,
SMOKE, AND GREASE





	AH Ø400	AH Ø500	AH Ø600
Width	135 cm	Casing dimensions: L 1.580 x P 1.300 x H 870 mm	Casing dimensions: L 1.580 x P 1.300 x H 870 mm
Total height including 90° bends	76 cm 130 cm	80 cm 125 cm	80 cm 125 cm
Total depth of casing + pump dimensions	90 cm 90 cm + 24 cm	Overall dimensions: L 1,700 x W 1,540 x H 910 mm (with base)	Overall dimensions: L 1,700 x W 1,540 x H 910 mm (with base)
Dry weight	130 Kg	260 Kg	260 Kg
Water content	250 liters	500 liters	500 liters
Treatment	5.000 - 6.000 m^3/h with extractor	10.000 m3/h without fan	14.000 m3/h without fan
Pump power	0,9 kw 5,4 - 5,0 A (Grundfos cm 5-3)	2,2 kw	2,2 kw
Installable fans	From 1.1 to 3.0 kW (up to 6,000 m^3/h of treatment)	4.0 kW (up to 11,000 m^3/h of treatment)	4,0 kw (up to 15.000 m^3/h of treatment)
PRICE	**13.500 €**	**19.200 €**	**21.000 €**

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SOOT PRECIPITATORS FOR WOOD-FIRED OVENS AND BIOMASS BOILERS

SOOT PRECIPITATOR AH 200

Water-based soot precipitator for small wood-burning ovens and small wood stoves.
Ideal for the purification of volatile organic odor substances.

Perfect for treating a pizza oven with a capacity of 4-5 pizzas simultaneously.
Home garden barbecues, pellet and wood stoves.
Biomass boilers up to 20 kW.
(It is recommended to have a technician's assessment).

AIRFLOW RATE 200 M³/H UP TO 800 M³/H
(WITH **STAINLESS STEEL FAN 4 EBR250**)

Machine **tank dimensions:** (LxWxH) 745 x 360 x 670 mm;
Machine dimensions + protrusions (motors, pressure gauges):
(LxWxH) 745 x 560 x 670 mm;
Weight: 49 kg

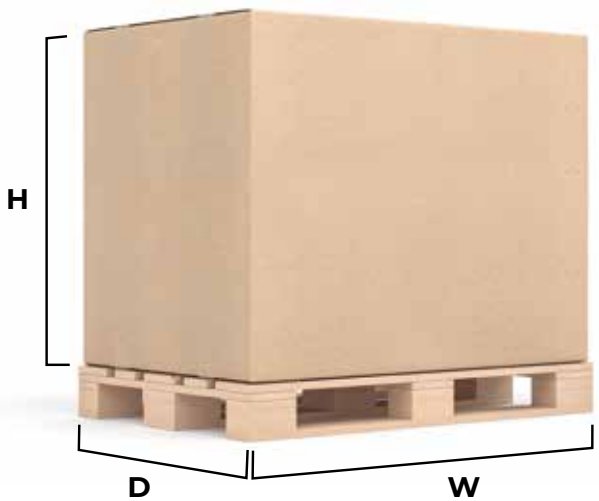
1. The machine uses an efficient water recycling system in the tank. This allows for low and controlled water consumption. **42 liters** per working cycle. At the end of the cycle, the water must be discharged from the machine as required.

2. Effective management of electrical energy is achieved through the Grundfos CM 3-3 pump; 0.5 kW; 3A. This results in energy savings and minimal electricity consumption.

3. The weighted **A** sound emission level, measured 1 meter from the surface of the machine and at a height of 1.6 meters from the ground, does not exceed 70 dB(A).

PACKAGING DIMENSIONS AND WEIGHT:
Width W: 790 mm
Depth D: 610 mm
Height H: 820 mm
Weight: 60Kg

PRICE:
€ 5.000 + VAT



SOOT PRECIPITATOR AH 250

Water-based soot precipitator for small wood-burning ovens and small wood stoves.
Ideal for purifying volatile organic odor substances.
Perfect for treating a pizza oven with a capacity of 8-10 pizzas simultaneously.
Home garden barbecues, pellet and wood stoves.
Biomass boilers up to 90 kW.
(It is recommended to have a technician's assessment).

AIRFLOW RATE 350 M³/H UP TO 1.300 M³/H
(WITH **STAINLESS STEEL FAN 4 EBR250**)

Machine **tank dimensions:** (LxWxH) 940 x 420 x 670 mm;
Machine dimensions + protrusions (motors, pressure gauges):
(LxWxH) 940 x 610 x 670 mm;
Weight: 57 kg

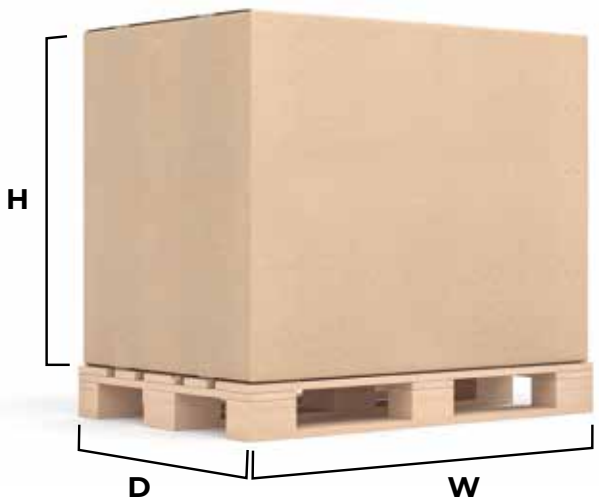
1. The machine uses an efficient water recycling system in the tank. This allows for low and controlled water consumption. **63 liters** per working cycle. At the end of the cycle, the water must be discharged from the machine as required.

2. Effective management of electrical energy is achieved through the Grundfos CM 5-3 pump; 0.5 kW; 3A. This results in energy savings and minimal electricity consumption.

3. The weighted **A** sound emission level, measured 1 meter from the surface of the machine and at a height of 1.6 meters from the ground, does not exceed 70 dB(A).

PACKAGING DIMENSIONS AND WEIGHT:
Width W: 980 mm
Depth D: 660 mm
Height H: 820 mm
Weight: 65Kg

PRICE:
€ 5.500 + VAT



SOOT PRECIPITATOR
Clinear 250L

Water-based soot precipitator for small wood-burning ovens and small wood stoves.
Ideal for purifying volatile organic odor substances.
Perfect for treating a pizza oven with a capacity of 8-10 pizzas simultaneously.
Home garden barbecues, pellet stoves, and wood stoves.
Biomass boilers up to 90 kW.
(It is recommended to have a technician's assessment).

AIRFLOW RATE 350 M³/H UP TO 1.300 M³/H
(WITH **STAINLESS STEEL FAN 4 EBR250**)

Machine **tank dimensions:** (LxWxH) 990 x 550 x 660 mm;
Machine dimensions + protrusions (motors, pressure gauges):
(LxWxH) 990 x 740 x 660 mm;
Weight: 62 kg

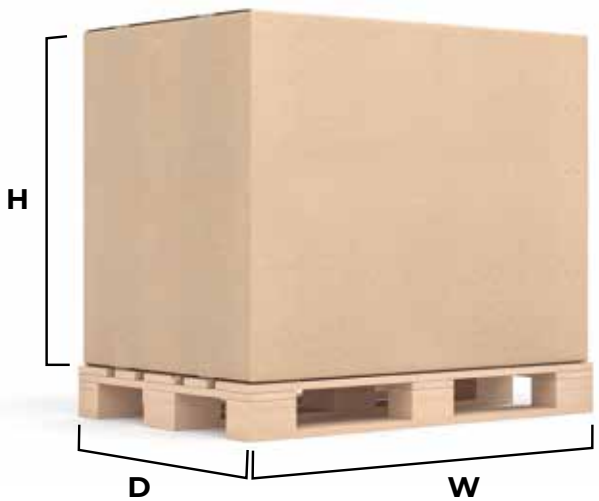
1. The machine uses an efficient water recycling system in the tank. This allows for low and controlled water consumption. **63 liters** per working cycle. At the end of the cycle, the water must be discharged from the machine as required.

2. Effective management of electrical energy is achieved through the Grundfos CM 5-3 pump; 0.5 kW; 3A. This results in energy savings and minimal electricity consumption.

3. The weighted **A** sound emission level, measured 1 meter from the surface of the machine and at a height of 1.6 meters from the ground, does not exceed 70 dB(A).

PACKAGING DIMENSIONS AND WEIGHT:
Width W: 1.020 mm
Depth D: 800 mm
Height H: 820 mm
Weight: 73Kg

PRICE:
€ 5.900 + VAT



SOOT PRECIPITATOR AH 300

Water-based soot precipitator for pizza ovens and charcoal grills;

Purification of organic, odorous, volatile, and water-soluble substances (e.g., fumes produced by the combustion of wood and charcoal).

Biomass boilers up to 150 kW.
(It is recommended to have a technician's assessment).

AIRFLOW RATE 650 M³/H UP TO 3.500 M³/H
(WITH **STAINLESS STEEL FAN 4 EBR280**)

Machine **tank dimensions:** (LxWxH) 1.100 x 650 x 670 mm;
Machine dimensions + protrusions (motors, pressure gauges):
(LxWxH) 1.100 x 850 x 670 mm;
Weight: 93 kg

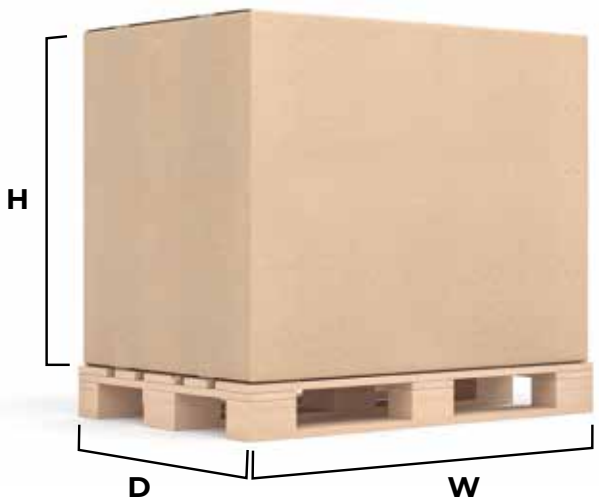
1. The machine uses an efficient water recycling system in the tank. This allows for low and controlled water consumption. **110 liters** per working cycle. At the end of the cycle, the water must be discharged from the machine as required.

2. Effective management of electrical energy is achieved through the Grundfos CM 5-5 pump; 0.9 kW; 5A. This results in energy savings and minimal electricity consumption.

3. The weighted **A** sound emission level, measured 1 meter from the surface of the machine and at a height of 1.6 meters from the ground, does not exceed 70 dB(A).

PACKAGING DIMENSIONS AND WEIGHT:
Width W: 1.140 mm
Depth D: 900 mm
Height H: 1.000 mm
Weight: 95Kg

PRICE:
€ 6.600 + VAT



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SOOT PRECIPITATORS
FOR CHARCOAL GRILLS

SOOT PRECIPITATORS FOR SMOKES AND GREASES
AH 300 PLUS+

Enhanced Water-Based soot precipitator with Dual Washing stage and additional nozzles. Ideal for wood-fired ovens, professional barbecues, and biomass boilers.

Constructed in AISI 304 stainless steel, offering high efficiency and low maintenance.
(It is recommended to have a technician's assessment).

AIRFLOW RATE 850 M³/h UP TO 3.200 M³/h
(WITH **STAINLESS STEEL FAN 4 EBR280**)

Machine **tank dimensions:** (LxWxH) 1.100 x 650 x 670 mm;
Machine dimensions + protrusions(hoppers, motors, pressure gauges):
(LxWxH) 1.100 x 850 x 820 mm;
Weight: 125Kg

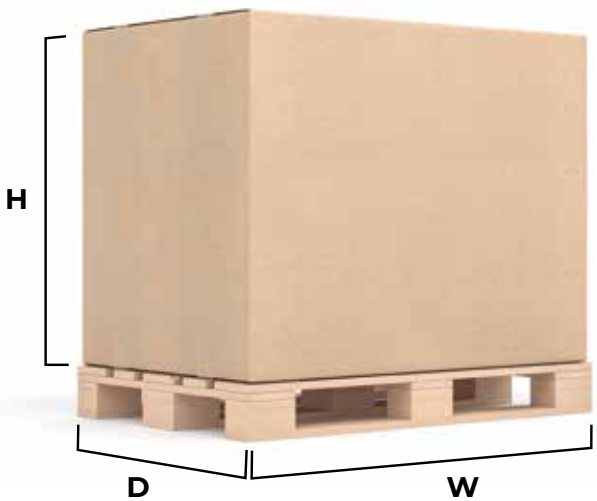
1. The machine uses an efficient water recycling system in the tank. This allows for low and controlled water consumption. **170 liters** per working cycle. At the end of the cycle, the water must be discharged from the machine as required.

2. Efficient electrical energy management through the 220V single-phase pump CM 8-30b 1.1 kW.
This results in energy savings and minimal power consumption.

3. The weighted **A** sound emission level, measured 1 meter from the surface of the machine and at a height of 1.6 meters from the ground, does not exceed 70 dB(A).

PACKAGING DIMENSIONS AND WEIGHT:
Width W: 1.140 mm
Depth D: 900 mm
Height H: 1.200 mm
Weight: 135Kg

PRICE:
€ 8.980 + VAT



SOOT PRECIPITATORS FOR SMOKES AND GREASES
AH 350

High-performance water-based system for charcoal grills, wood-fired rotisseries, wood-fired baking ovens, and biomass boilers.
Ensures effective abatement of smoke and particulate matter, operational safety, and compliance with European regulations, featuring a robust stainless steel structure and simplified maintenance.
(It is recommended to have a technician's assessment).

AIRFLOW RATE 950 M³/h UP TO 4.000-4.500 M³/h
(WITH **STAINLESS STEEL FAN 4 EBR350**)

Machine **tank dimensions:** (LxWxH) 1.225 x 775 x 760 mm;
Machine dimensions + protrusions(hoppers, motors, pressure gauges):
(LxWxH) 1.225 x 1.025 x 1.115 mm;
Weight: 110Kg

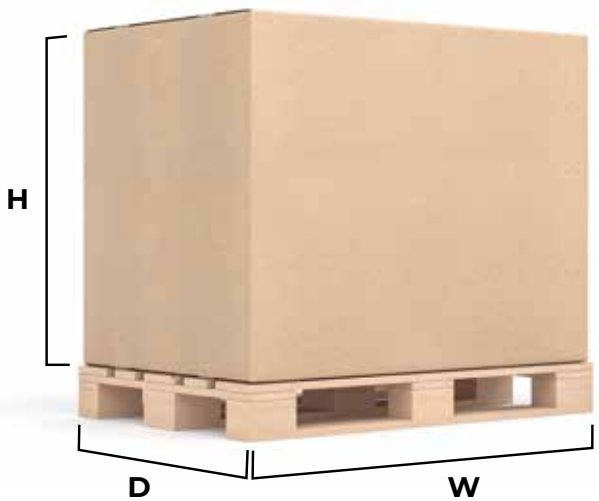
1. The machine uses an efficient water recycling system within the tank. This allows for low and controlled water consumption.
210 liters per operating cycle. Operating weight: 350 kg.
At the end of the cycle, the water must be discharged from the machine.

2. Efficient electrical energy management through the 220V single-phase pump CM 8-40b, 1.5 kW, with a water flow rate of 14,000 m^3/h and a head of 23 meters. This results in energy savings and minimal electricity consumption.

3. The weighted **A** sound emission level, measured 1 meter from the surface of the machine and at a height of 1.6 meters from the ground, does not exceed 70 dB(A).

PACKAGING DIMENSIONS AND WEIGHT:
Width W: 1.300 mm
Depth D: 1.100 mm
Height H: 1.300 mm
Weight: 120Kg

PRICE:
€ 11.500 + VAT



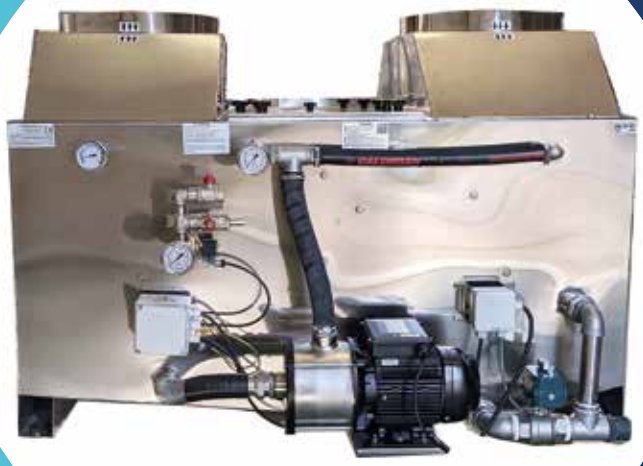
SOOT PRECIPITATORS FOR SMOKES AND GREASES
AH 400

Water-based soot precipitator for pizza ovens and charcoal grills; Purification of organic, odorous, volatile, and water-soluble substances (e.g., fumes produced by the combustion of wood and charcoal).

Large biomass boilers. *(It is recommended to have a technician's assessment).*

UPON REQUEST, two hoppers can be installed as shown in the figure.

AIRFLOW RATE 6.000 M³/H
(WITH **STAINLESS STEEL FAN 4 EBR350**)



Machine **tank dimensions:** (LxWxH) 1.350 x 900 x 760 mm;
Machine dimensions + protrusions (motors, pressure gauges):
(LxWxH) 1.350 x 1.140 x 760 mm;
Weight: 130 kg

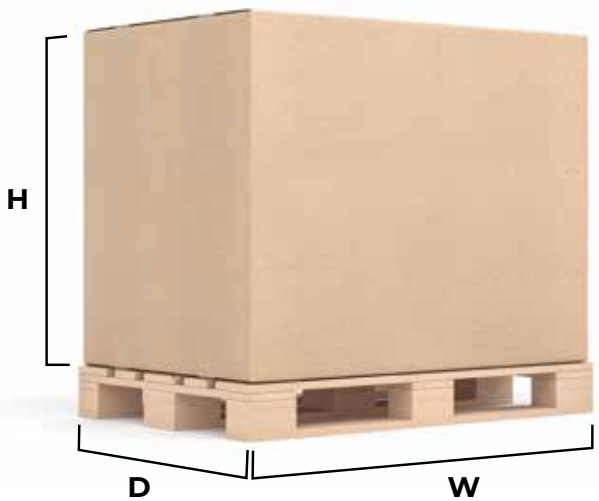
1. The machine uses an efficient water recycling system in the tank. This allows for low and controlled water consumption. **250 liters** per working cycle. At the end of the cycle, the water must be discharged from the machine as required.

2. Effective management of electrical energy is achieved through the E-Tec Franklin EH 9/4 pump; 1.5 kW; 8.2A. This results in energy savings and minimal electricity consumption.

3. The weighted **A** sound emission level, measured 1 meter from the surface of the machine and at a height of 1.6 meters from the ground, does not exceed 70 dB(A).

PACKAGING DIMENSIONS AND WEIGHT:
Width W: 1.140 mm
Depth D: 1.250 mm
Height H: 1.000 mm
Weight: 150Kg

PRICE:
€ 13.500 + VAT



SOOT PRECIPITATORS FOR SMOKES AND GREASES
AH 500

Water-based soot precipitator. It is mainly used for smoke treatment in large charcoal grills, large pellet stoves, wood and biomass stoves, and other large burners with smoke rich in carbon residues and particulate matter.

The machine requires the installation of a fan, placed downstream of the precipitator. *(It is recommended to have a technician's assessment).*

UPON REQUEST, the machine can be equipped with two hoppers to increase its treatment efficiency. 304 stainless steel casing, 1.5 mm thickness; Ø500 mm female connections; Hopper height: 45 cm.

AIRFLOW RATE 10,000 M³/H

Machine **tank dimensions:** (LxWxH) 1.580 x 1.300 x 870 mm;
Machine dimensions + protrusions (motors, pressure gauges):
(LxWxH) 1.580 x 1.650 x 1.485 mm;
Weight: 260 kg

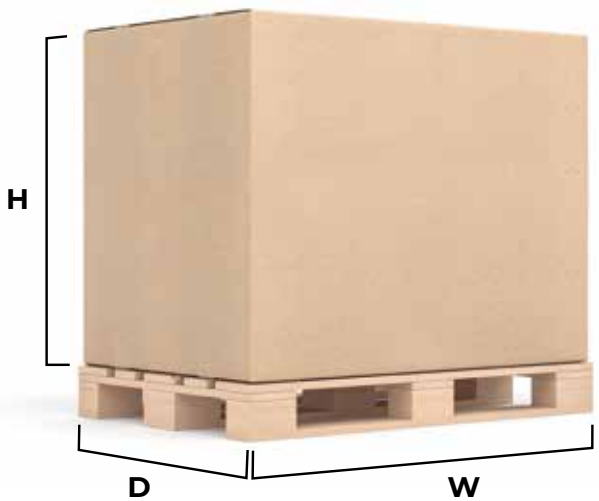
1. The machine uses an efficient water recycling system in the tank. This allows for low and controlled water consumption. **500 liters** per working cycle. At the end of the cycle, the water must be discharged from the machine as required.

2. Effective management of electrical energy through the E-Tec Franklin EH15/3 pump; 12.1A, Power 2.2 kW. Water flow 233 liters with 2.3 bar; 220 - 240 volts.

3. The weighted **A** sound emission level, measured 1 meter from the surface of the machine and at a height of 1.6 meters from the ground, does not exceed 70 dB(A).

PACKAGING DIMENSIONS AND WEIGHT:
Width W: 1.650 mm
Depth D: 1.700 mm
Height H: 1.550 mm
Weight: 300Kg

PRICE:
€ 19.200 + VAT



SOOT PRECIPITATORS FOR SMOKES AND GREASES
AH 600

Water-based soot precipitator. It is mainly used for smoke treatment in large charcoal grills, large pellet stoves, wood and biomass stoves, and other large burners with smoke rich in carbon residues and particulate matter.

The machine requires the installation of a fan, placed downstream of the precipitator. *(It is recommended to have a technician's assessment).*

UPON REQUEST, the machine can be equipped with two hoppers to increase its treatment efficiency. 304 stainless steel casing, 1.5 mm thickness; Ø500 mm female connections; Hopper height: 45 cm.

AIRFLOW RATE 14.000 M³/H

Machine **tank dimensions:** (LxWxH) 1.580 x 1.300 x 870 mm;
Machine dimensions + protrusions (motors, pressure gauges):
(LxWxH) 1.580 x 1.650 x 1.485 mm;
Weight: 270 kg

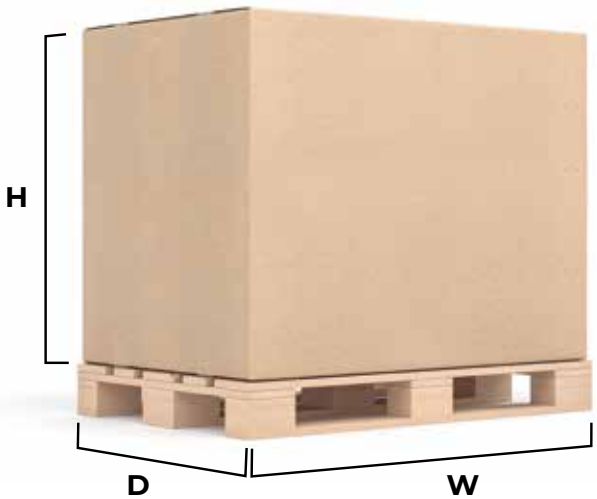
1. The machine uses an efficient water recycling system in the tank. This allows for low and controlled water consumption. **440 liters p**er working cycle. At the end of the cycle, the water must be discharged from the machine as required.

2. Effective management of electrical energy through the E-Tec Franklin EH15/3 pump; 12.1A, Power 2.2 kW. Water flow 233 liters with 2.3 bar; 220 - 240 volts.

3. The weighted **A** sound emission level, measured 1 meter from the surface of the machine and at a height of 1.6 meters from the ground, does not exceed 70 dB(A).

PACKAGING DIMENSIONS AND WEIGHT:
Width W: 1.650 mm
Depth D: 1.700 mm
Height H: 1.200 mm
Weight: 310Kg

PRICE:
€ 22.400 + VAT



ELECTRIC MOTORIZED VALVE

AND CONTROL PANEL

The **electric motorized exhaust valves** become essential accessories for the proper functioning of the scrubbers, especially in cases where it is not possible, convenient, or safe to discharge the soot scrubber machine every day.

Furthermore, the electric motorized exhaust valves also become indispensable when soot scrubbers operate in conditions with excessive micro-particle production or when continuous 24-hour operation is required (such as in biomass boilers).

The valves are made of stainless steel and are of excellent craftsmanship, with powerful motors designed to operate even in harsh conditions.

MODELS

CODE VVM.INOX.CI.1”1/4

Electric motorized valve stainless steel 304 DIN Ø32, 230 volt, full bore 1”1/4 with manual opening option.

(for models AH 200, AH 250, AH 300, Clinear 250L)

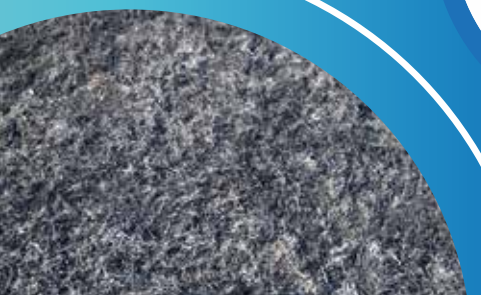
PRICE: € 720

CODE VVM.INOX.CI.1”1/2

Electric motorized valve stainless steel 304 DIN Ø50, 230 volt, full bore 1”1/2.

(for model AH Ø400)

PRICE: € 880



CODE VVM.INOX.CI. 2”

Electric motorized valve stainless steel 304 DIN Ø50, 230 volt, full bore 2”

(for models AH Ø400mm, AH Ø360mm)

PRICE: € 960

CODE QDCSS.230

Control panel for machine on/off 230V. Useful in all cases where access to the machine’s drains is not easily possible.

PRICE: € 380

CODE QDCST.230

Control panel for machine on/off 230V. Useful in all cases where access to the machine’s drains is not easily possible and in all situations where continuous water replacement is needed to maintain a stable pH level and keep accumulated sludge at predominantly low levels.

PRICE: € 490

Electric motorized valve stainless steel 304 DIN Ø32, 230 volt, full bore 1”1/4 with manual opening option.

(for models AH 200, AH 250, AH 300, Clinear 250L)

+ Control panel for machine on/off 230V, with timer

CODE VVQCT.230 1”1/4

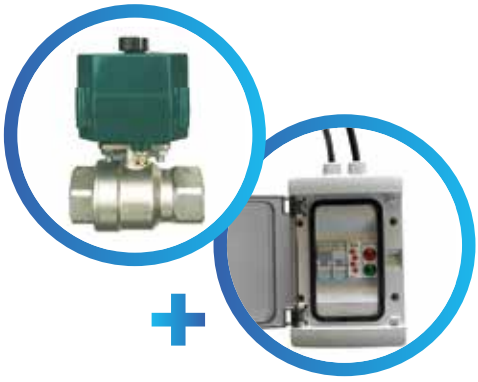
PRICE: € 1.080

CODE VVQCT.230 1”1/2

PRICE: € 1.240

CODE VVQCT.230 2”

PRICE: € 1.350



OUTDOOR COVER FOR SCRUBBERS

When the scrubber is placed outdoors, an external cover or adequate protection against atmospheric agents is mandatory to prevent frost and rain from damaging the machine's electrical components.

The **outdoor cover** must also be installed in all cases where the machine's noise could cause disturbances or nuisances. Even though the scrubber operates at a very low noise level, the cover is especially necessary at night when legal noise limits are lower.

The full outdoor covers are constructed with a profiled aluminum frame and enclosed with 25 mm thick sandwich panels.
These panels have an internal and external support made of pre-painted aluminum in white-gray color, with 0.5 mm thick closed-cell polyurethane foam (over 95%), a density of 47 kg/m³, thermal conductivity W/(m°C) 47±2, and acoustic insulation of 40 dB, while maintaining an extremely lightweight structure.

The covers are designed to extend 20 cm beyond each side of the corresponding machine. They are not standard but can be assembled according to customer requirements.

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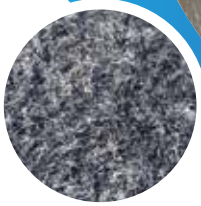

MODELS

SCRUBBER COVER AH 250
SCRUBBER COVER 250 + EXTRACTOR

Total outdoor cover; AH 250.
Structure made of extruded aluminum profiles with 20 mm insulated sandwich panels.
Version A: Scrubber cover only.
Version B: Scrubber and fan cover.

PRICE A: € 1.520

PRICE B: € 1.880

SCRUBBER COVER AH 300
SCRUBBER COVER 300 + EXTRACTOR

Total outdoor cover; AH 300.
Structure made of extruded aluminum profiles with 20 mm insulated sandwich panels
Version A: Scrubber cover only.
Version B: Scrubber and fan cover.

PRICE A: € 1.720

PRICE B: € 2.180

SCRUBBER COVER AH 400
SCRUBBER COVER 400 + EXTRACTOR

Total outdoor cover; AH 300.
Structure made of extruded aluminum profiles with 20 mm insulated sandwich panels.
Version A: Scrubber cover only.
Version B: Scrubber and fan cover.

PRICE A: € 2.050

PRICE B: € 3.620

SCRUBBER COVER AH 500/600
SCRUBBER COVER 500/600 + EXTRACTOR

Total outdoor cover; AH 500/600.
Structure made of extruded aluminum profiles with 20 mm insulated sandwich panels.
Version A: Scrubber cover only.
Version B: Scrubber and fan cover.

PRICE A: € 2.670

PRICE B: € 4.450

STAINLESS STEEL COVERS FOR SCRUBBERS

Our AISI 304 stainless steel covers are specifically designed to protect and enhance the operational efficiency of soot scrubbers.

Key Features:

High-Quality Material: Made of AISI 304 stainless steel, known for its corrosion resistance and durability, even in harsh environments.
Functional and Elegant Design: The covers seamlessly integrate with our scrubbers, ensuring a professional appearance and optimal protection.
Polished Finish: The polished surface not only provides a modern aesthetic but also facilitates cleaning and maintenance.
Advanced Protection: They provide a barrier against dust, moisture, and external elements, extending the operational life of the scrubber.
Versatility: Available for various scrubber models, including AH200, AH250, AH300, AH400, AH500, and AH600.

Benefits:

Increased resistance to atmospheric agents for scrubbers installed outdoors.
Reduced maintenance costs thanks to protection against wear and tear.
Preservation of operational efficiency of scrubbers even in extreme conditions.
Stainless steel covers are the ideal solution for those seeking reliability, protection, and design in a single product.

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MODELS

STAINLESS STEEL COVER 200

Partial outdoor cover for AH 200.
Structure in AISI 304 stainless steel, non-insulated, designed to cover only the electrical components.

PRICE: € 660

STAINLESS STEEL COVER 250

Partial outdoor cover for AH 250.
Structure in AISI 304 stainless steel, non-insulated, designed to cover only the electrical components.

PRICE: € 680

STAINLESS STEEL COVER 300

Partial outdoor cover for AH 300.
Structure in AISI 304 stainless steel, non-insulated, designed to cover only the electrical components.

PRICE: € 750

STAINLESS STEEL COVER 400

Partial outdoor cover for AH 400.
Structure in AISI 304 stainless steel, non-insulated, designed to cover only the electrical components.

PRICE: € 920

STAINLESS STEEL COVER 500

Partial outdoor cover for AH 500.
Structure in AISI 304 stainless steel, non-insulated, designed to cover only the electrical components.

PRICE: € 1.180

STAINLESS STEEL COVER 600

Partial outdoor cover for AH 600.
Structure in AISI 304 stainless steel, non-insulated, designed to cover only the electrical components.

PRICE: € 1.280

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DEVICES FOR ELECTRIC OVENS

FILTERPACK FE 500
K1 1000 M
K1 2000 M

GENERAL INFORMATION

CONDENSATION PURIFIERS FOR ELECTRIC OVENS

These devices are **air purification and treatment systems** designed to reduce smoke, odors, and suspended particles from electric pizza ovens of various sizes. Depending on the required airflow, it is possible to choose the most suitable model for each environment. The devices can be installed both indoors, in workspaces such as professional kitchens and laboratories, and outdoors. They use a condensation and filtration process to capture and treat vapors and contaminants, ensuring a healthier working environment and compliance with environmental regulations.

To ensure optimal conditions, it is essential that the environment has adequate air exchange in accordance with regulations, thus preventing the accumulation of harmful substances. Each model offers different capacity and airflow, allowing the selection of the most suitable device based on the size of the environment and its specific ventilation needs.
To guarantee a healthy working environment and compliance with current regulations, it is crucial to ensure adequate air exchange. In Italy, **UNI 10339:1995** establishes the requirements for the design, installation, and maintenance of ventilation and air conditioning systems in buildings, with the goal of ensuring indoor air quality.

ACCORDING TO UNI 10339, SYSTEMS MUST ENSURE:

• **Introduction of external air:** the supply of fresh air must be suitable for the intended use of the spaces and the number of occupants.
For example, for offices, the standard requires an air exchange ratio ≥ 1/8 and an hourly air change rate n ≥ 0.5.
• **Air filtration:** the supplied and recirculated air must be filtered with appropriate devices to ensure the removal of pollutants and particulate matter.
• **Controlled Airflow Management:** The airflow speed within indoor spaces must be regulated to avoid uncomfortable drafts and ensure occupant comfort.

IT IS IMPORTANT TO NOTE THAT IN THE ABSENCE OF SUFFICIENT NATURAL VENTILATION, THE INSTALLATION OF MECHANICAL VENTILATION SYSTEMS IS MANDATORY TO GUARANTEE THE MINIMUM AIR EXCHANGE NECESSARY FOR WORKERS' WELL-BEING.

The adoption of air purification systems, such as the **Filterpack FE 500, K1 1000M and K1 2000M** models, helps improve indoor air quality by reducing the concentration of smoke, odors, and suspended particles. However, it is essential that these devices are integrated into a ventilation system that complies with current regulations, ensuring adequate air exchange in work environments.

FILTERPACK FE 500

K1 1000M

K1 2000M

For further details and technical specifications, it is recommended to consult the UNI 10339 standard and the guidelines provided by the relevant authorities on occupational health and safety.

THE MODELS

INTRODUCTION TO THE MODELS

The **Filterpack FE 500, K1 1000M, and K1 2000M** models are designed for the treatment of smoke and odors in work environments such as professional kitchens and laboratories. These condensation purifiers capture vapors and particles, reducing air pollution in indoor spaces.
The devices vary in size and airflow capacity, offering solutions suitable for light, medium, and intensive flows.

SAFETY WARNINGS

The safe use of the **Filterpack FE 500, K1 1000M, and K1 2000M** models requires adherence to certain precautions during installation, operation, and maintenance. Following these instructions will help prevent accidents, ensure maximum device efficiency, and properly manage the treated airflow.

GENERAL WARNINGS:

1. Read the Manual: Before installing or using the purifier, carefully read all sections of the user and maintenance manual.

2. Qualified Personnel: Installation and maintenance must be carried out by qualified personnel. Do not attempt to install or repair the device without the necessary expertise.

3. Electrical Power Supply: Ensure that the electrical connection complies with the device specifications (230V or 380V, depending on the model) and that the power supply has a reliable grounding system.

4. Proper Use: Use the device only for the treatment of smoke and vapors from electric or gas ovens, as described in the introductory section.
Do not use the purifier for treating smoke from wood-fired ovens or flammable, explosive, volatile, or highly corrosive gases.

PRECAUTIONS FOR THE INSTALLATION AND USE OF THE EXTRACTOR:

1. Connecting the Air Exhaust Duct:
· The air exhaust duct of the extractor must be connected to a ducting system that directs the treated air to a safe area. There are two options:

• **External Discharge:** The duct can be connected to a pipeline that expels the air outside the building through a wall opening. This ensures that the treated air is completely removed from the environment.

• **Internal Discharge in a Designated Area:** If external discharge is not possible, the exhaust duct can be positioned in a corner of the room where the treated

air will not cause discomfort to occupants. In this case, ensure that air circulation is sufficient to maintain a safe environment.

• **Exhaust Duct Requirements:** Regardless of the chosen discharge type, the exhaust duct must have a minimum length of 1 meter to ensure that the treated air is properly dispersed and does not accumulate near the device.

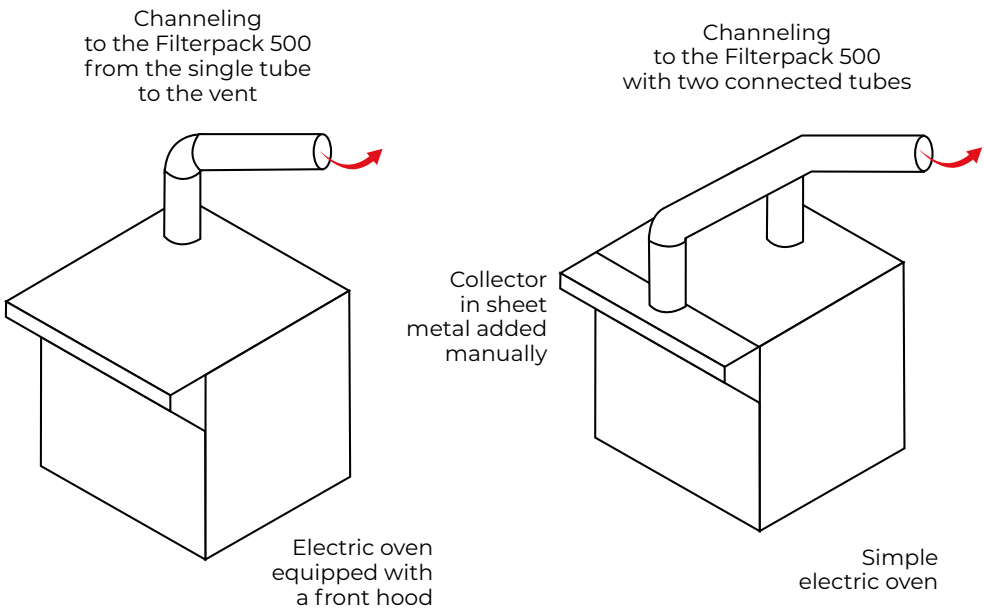
2. Stability of the Duct and Pipelines:

• Ensure that the exhaust duct and pipelines are firmly secured and do not have leaks. The connections must be airtight to prevent the dispersion of contaminated air.

• Use joints and clamps to securely fasten the duct. In cases of extended or complex installations, supports may be useful to prevent movement or detachment of the duct.

3. Airflow Monitoring:

After installing the exhaust duct, turn on the extractor and check the airflow. Ensure that the air flows freely through the duct without obstructions and that there is no backflow of contaminated air into the device.



TECHNICAL FEATURES

This section presents the main technical specifications of the **Filterpack FE 500, K1 1000M, and K1 2000M** models.

The three models share the same core technology but differ in size, suction capacity, and airflow rate to meet different purification needs.

Filterpack FE 500 is designed as a mixed-effect scrubber to eliminate the steam flow generated by an electric oven, coarse and medium suspended impurities (filtration class G4), cooking odors, and steam.

FILTERPACK FE 500

PRICE: € 3.910 + VAT

SPECIFICATIONS BY MODEL

MODEL	Height (cm)	Width (cm)	Depth (cm)	Airflow (m^3/h)	Pressure (Pa)	Power Supply (V)	Weight (kg)
FILTERPACK FE 500	105	106	60	1200	500	230 o 380	40 Included extractor
K1 1000M	120	120	65	1800	700	230 o 380	45 +13 Kg Small extractor
K1 2000M	135	135	70	2400	900	230 o 380	85 +13 Kg Small extractor +27 Kg Big extractor

The **K1 1000M and K1 2000M** models have larger dimensions and wider filtering surfaces, allowing them to process greater air volumes compared to the Filterpack FE 500. The extractors for each model are sized to ensure optimal efficiency in relation to their respective airflow rates and pressures.

K1 1000M

PRICE: € 5.500 + VAT

K1 2000M

PRICE: € 7.400 + VAT

MAIN COMPONENTS

All models include the following essential components, designed to work in synergy and ensure maximum air purification efficiency.

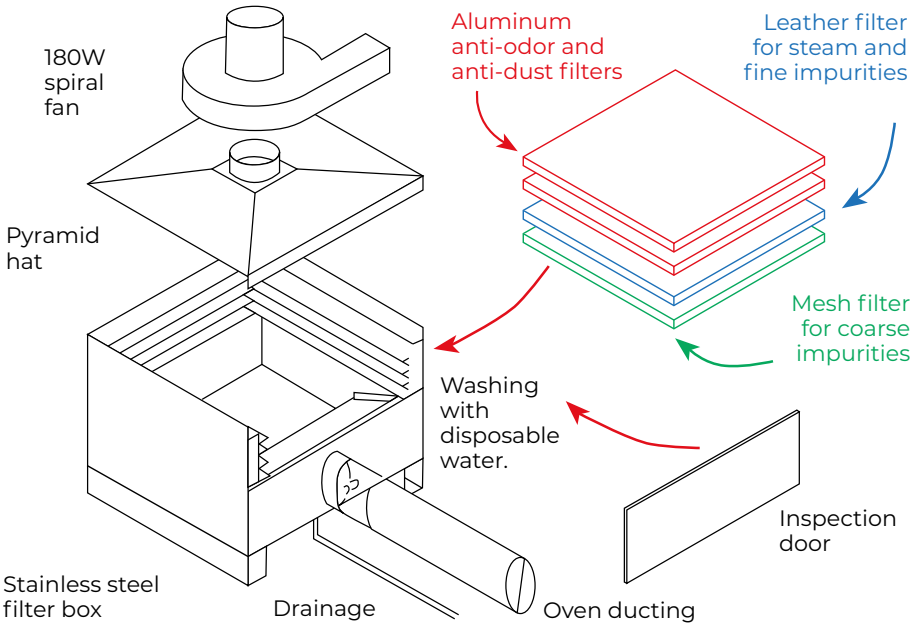
1. CENTRIFUGAL EXTRACTOR

Each model is equipped with a centrifugal extractor made of AISI 304 stainless steel. The extractors have variable capacities and airflow depending on the model's requirements::

- **Filterpack FE 500:** Extractor with 1200 m^3/h, 500 Pa
- **K1 1000M:** Extractor with 1800 m^3/h, 700 Pa
- **K1 2000M:** Extractor with 2400 m^3/h, 900 Pa

2. WATER CONDENSATION SYSTEM

All models feature a **water condensation system** to capture steam and treat fumes. The system condenses steam, eliminates CO_2 and other pollutants, and directs the condensate into the drainage system through integrated outlets.
This feature allows the purifier to cool the fumes before filtration, enhancing overall efficiency and ensuring a safer and cleaner working environment.

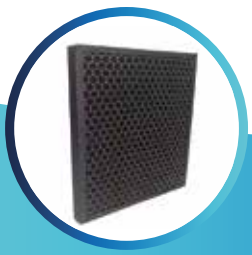


3. MULTIPLE FILTERS

Each model is equipped with a series of high-efficiency filters to remove grease, odors, and contaminant particles, including:

- **Activated Geolite Filter:** Reduces odors and removes organic particles.
- **Activated Alumina Filter:** Designed to trap harmful particles and odors.
- **High-Density Glass Wool Filter:** Provides an electrostatic effect, compliant with EN 779:2002 standards, with a maximum operating temperature of 265°C.
- **4V High-Efficiency Filter:** Features F9 filtration class, ISO ePM1 85-90%, designed to capture microparticulates and other impurities.

Active Geolite filter



Active Alumina filter

Glass wool filter

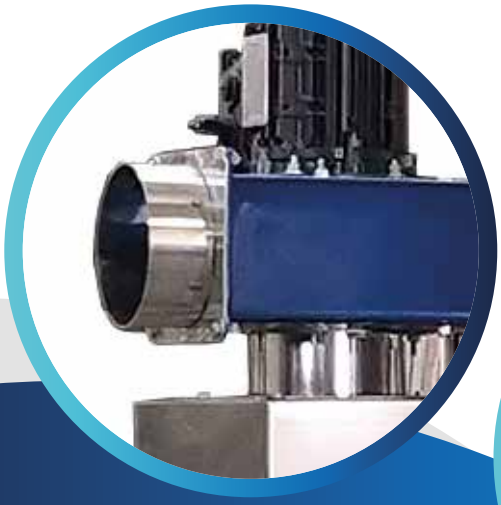
4V filter
high-efficiency

INLETS AND OUTLETS

DUCT DIAMETER FOR INLET/OUTLET

The diameters vary according to the model's capacity, ensuring optimal airflow management:

- **Filterpack FE 500:** Ø150 mm
- **K1 1000M:** Ø150 mm
- **K1 2000M:** Ø200 mm



K1 1000M: Ø150 mm

K1 2000M:
Ø200 mm

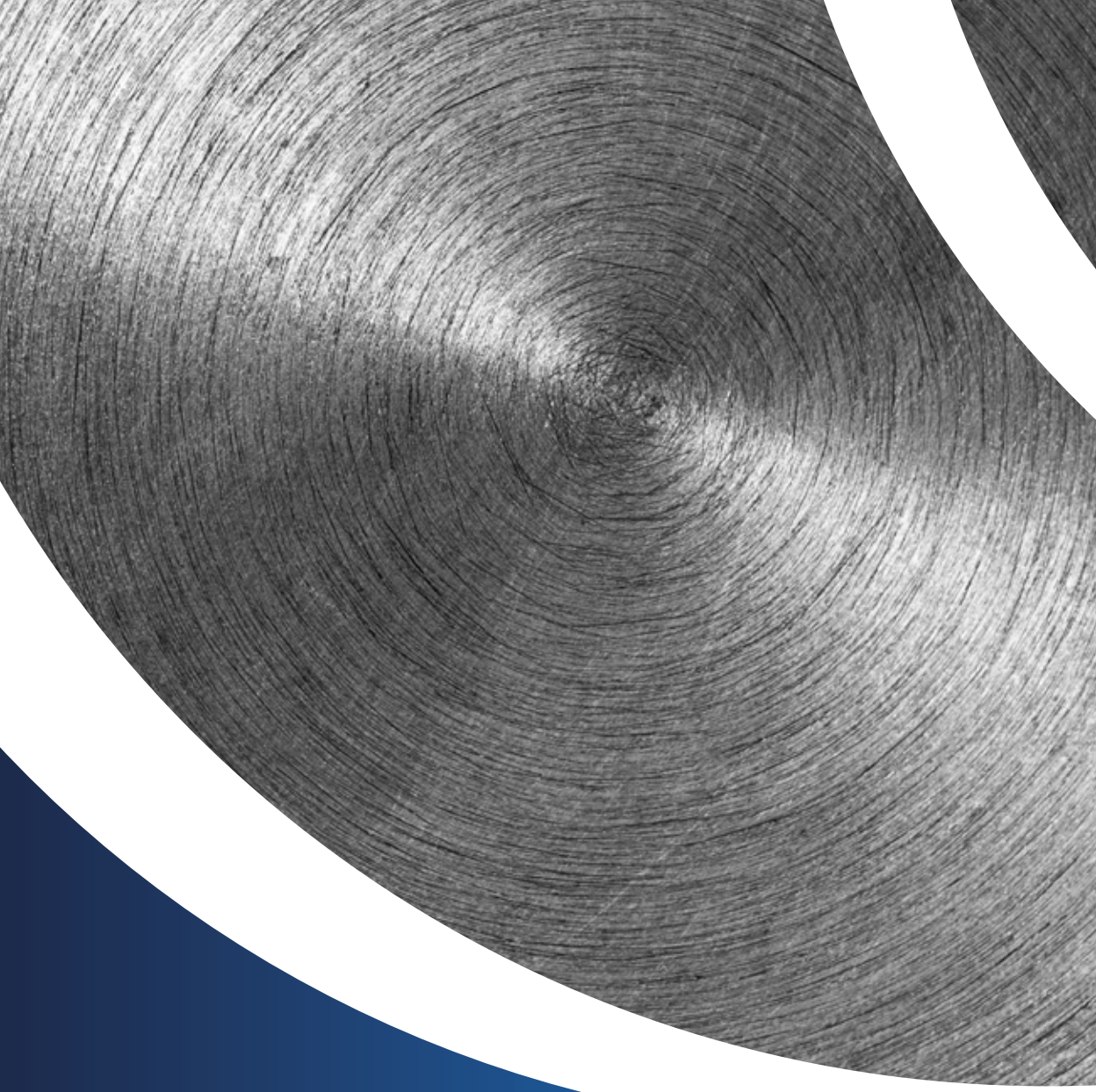
Filterpack FE 500:
Ø150 mm

FILTERPACK FE 500

K1 1000M

K1 2000M

CONTROL PANEL



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EXTRACTORS FANS IN ALUMINUM AND PAINTED STEEL

HIGH-TEMPERATURE EXTRACTORS AND FANS 300°C

EXTRACTORS AND FANS

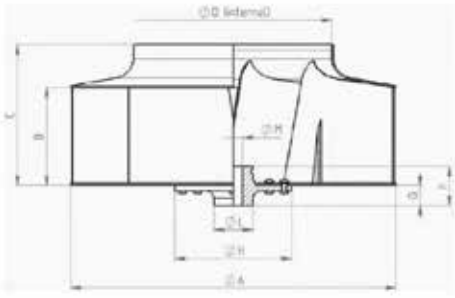
FOR HIGH TEMPERATURES 300°C
CAST ALUMINUM ALLOY

Housing made of cast aluminum alloy, impeller in galvanized steel with forward-curved blades for excellent pressure performance. Motor: 2800 RPM, power supply 230V / 380V. Inlet with external Ø suitable for connection to round flue pipes.

TECHNICAL FEATURES:

Centrifugal duct extractor made of cast aluminum alloy

- **Suitable for temperatures from -20°C to 300°C**
- **High-efficiency impeller** with backward-curved blades
- Standard models only with **LG rotation in B5** configuration
- **Static and dynamic balancing** according to ISO 140 standards
- Adjustable **orientation** in 6 positions
- Available with **LG rotation in B5**
- **Suction and discharge nozzle** provided in a round shape, suitable for round flue pipes
- **Asynchronous three-phase** motor (230/400V) suitable for continuous operation
- IP55 motors are of **standard UNELMEC sizes**, self-ventilated with ball bearings



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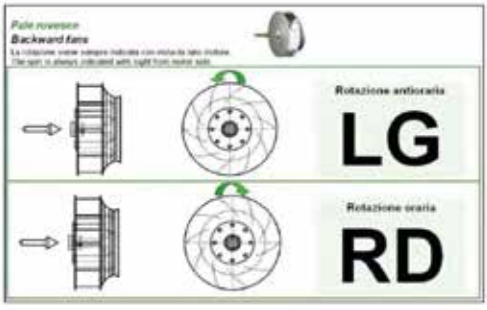
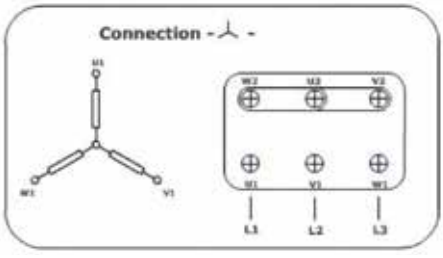
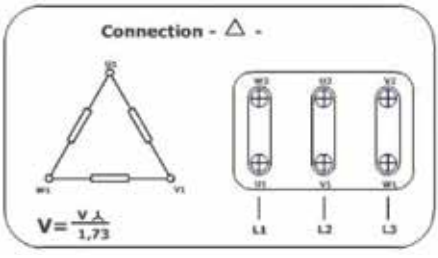


Standard Three-Phase Motor Connection 230/400 Volt



Input Voltage 400V
Three-Phase



Input Voltage 230V
Three-Phase

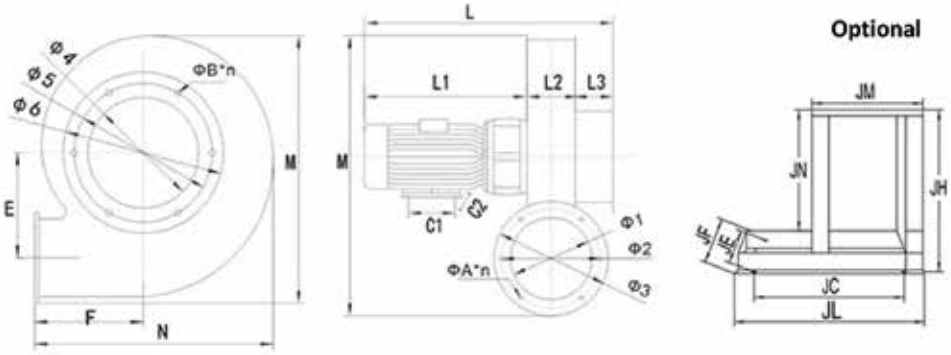
MODEL	Power Kw	Volt V	Frequency Hz	Speed r/min	Airflow m³/h	Head Pascal Pa
EYNGL750	750w	220/380	50	2800	1810	790

MODEL	Power Kw	Air outlet flange dimensions				Air inlet flange dimensions			
		Ø1	Ø2	Ø3	ØA*n	Ø4	Ø5	Ø6	ØB*n
EYNGL750	0,75	140	180	198	Ø7*6	210	248	262	Ø7*8

MODEL	Pow Kw	Scroll dimensions										Seat dimensions (optional)						
		C1	C2	L1	L2	L3	L	M	N	E	F	JM	JN	JH	JL	JC	JF	JE
EYNGL750	0,75	90	112	265	125	46	440	394	355	134	155	150	180	210	240	154	230	175

Tipo		P inst. [kW]	n	LpA [dB(A)]	Tolleranza sulla portata ±5%																		
Ventilatore	Motore				Q [m³/h]																		
					360	400	430	470	540	650	720	790	865	935	1000	1225	1370	1440	1620	1800	2160	2520	2880	3100	3600
					pt[mmH₂O]																		
Eyngl750	80	0,75	2850	61						122	121	120	120	118	114	110	103	100	88	79					
Eyn5-47-2.2	90	2,2	2920	68											164	161	158	155	153	149	144	138	135	128	

INSTALLATION DIMENSION



FANS AND VENTILATORS

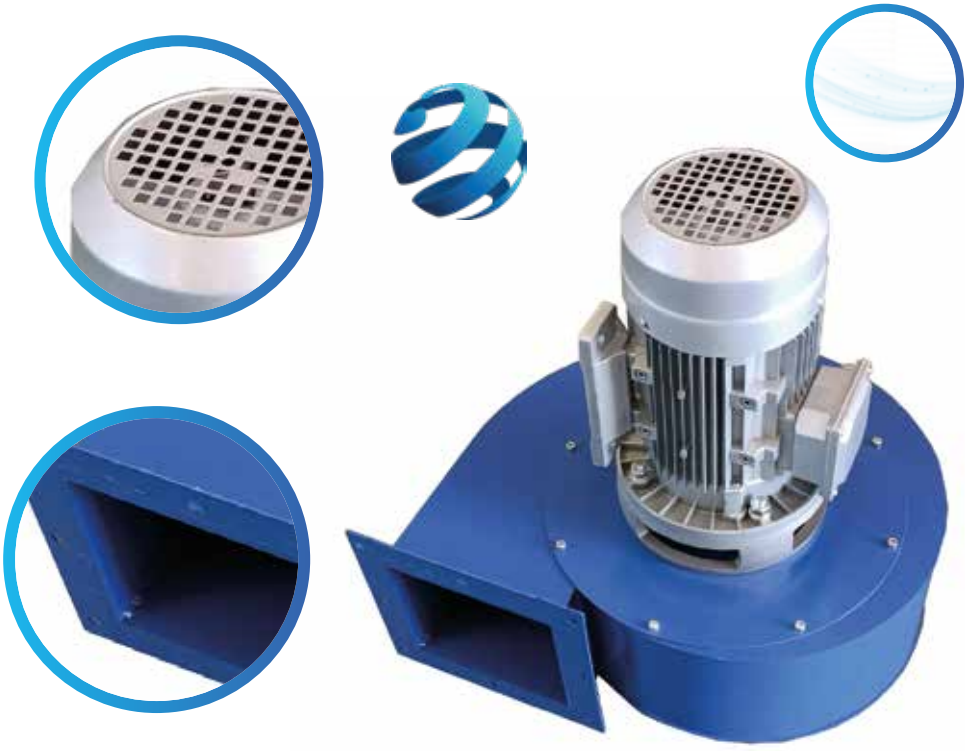
FOR HIGH TEMPERATURES UP TO 300°C IN PAINTED STEEL SHEET

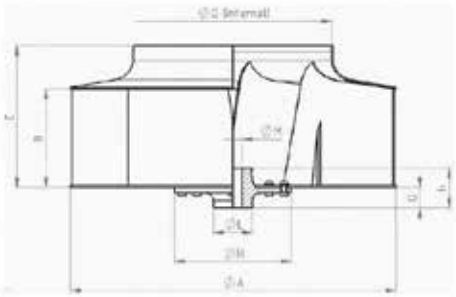
Centrifugal fan with single intake, casing made of painted steel for high temperatures, impeller in galvanized steel with forward-curved blades for excellent pressure.
Airflow from 2500 - 3100 m³/h with 1230 Pascal.
Motor with 2800 rpm, power 230V - 380V.
Inlet with external Ø suitable for connection with round flue pipes.

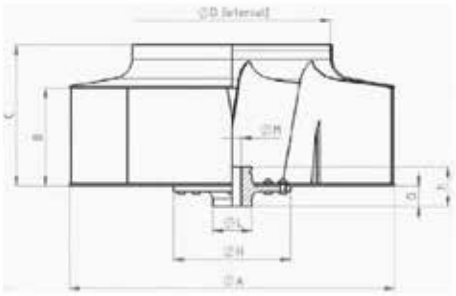
TECHNICAL SPECIFICATIONS:

Robust Construction for Professional Applications
Centrifugal Duct Fan in Painted Steel for High Temperatures

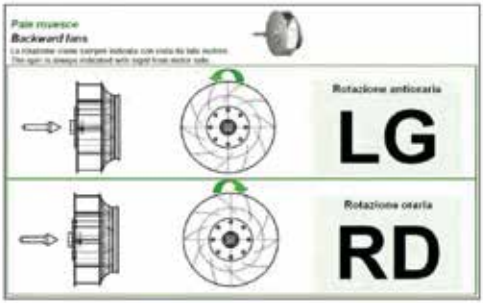
- **Suitable for temperatures from -20°C to 300°C**
- **High-efficiency impeller** with reversed blades
- Standard models available only with **LG rotation in B5**
- **Static and dynamic balancing** according to ISO 140 standards
- Adjustable **orientation** in 6 positions
- Available in LG **rotation in B5**
- **Intake nozzle** supplied as round, suitable for round flue pipes
- **Three-phase asynchronous** motor (230/400V) suitable for continuous service. IP55 motors are of standard UNELMEC sizes, self-ventilated with ball bearings

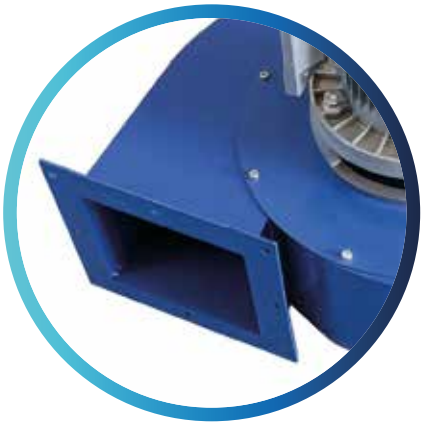




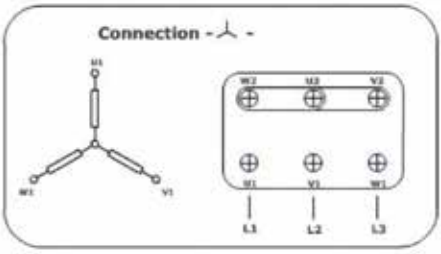


CODE EYN5-47-2.2KW

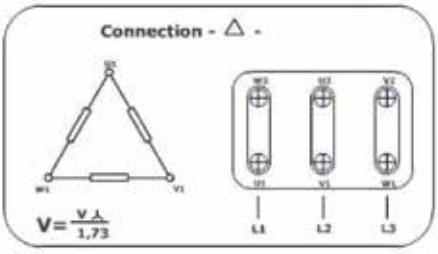




Standard Three-Phase Motor Connection 230/400 Volt



Input Voltage 400V
Three-Phase



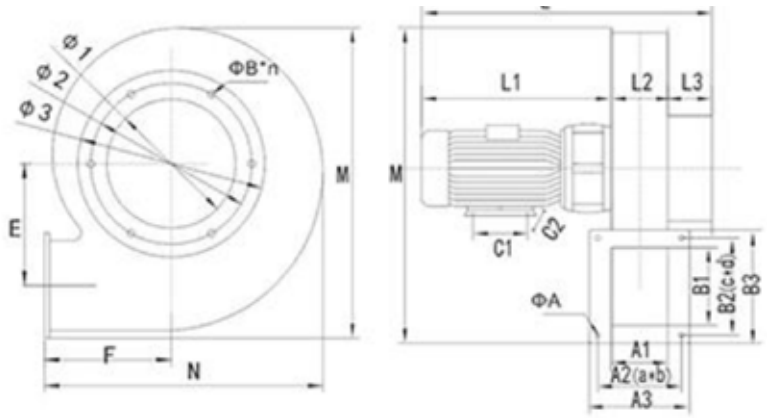
Input Voltage 230V
Three-Phase

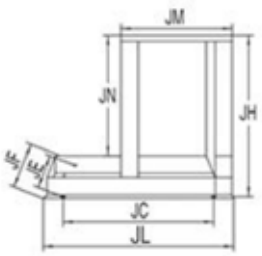
MODEL	Power Kw	Volts V	Frequency Hz	Speed r/min	Airflow mc/h	Pressure Pascal Pa
EYN5-47-2.2KW	2,2	220/380	50	2800	3100	1280

MODEL	Pow. Kw	Scroll Dimensions								Mounting Bracket Dimensions (optional)				Flanges Inlet/Outlet	
		A1	A2	A3	Øa*b	B1	B2	B3	Øc*d	Ø1	Ø2	Ø3	ØB*n	ØD Inlet	ØD Outlet
EYN5-47-2.2KW	2,2	130	161	206	1*161	206	246	272	2*123	186	230	254	Ø11*6	190	190

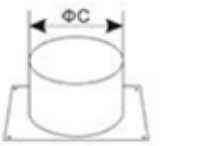
MODEL	Pow. Kw	Scroll Dimensions										Mounting Bracket Dimensions (optional)						
		C1	C2	L1	L2	L3	L	M	N	E	F	JM	JN	JH	JL	JC	JF	JE
EYN5-47-2.2KW	2,2	125	140	345	135	45	525	549	478	186	222	190	215	241	280	193	253	195

INSTALLATION DIMENSIONS

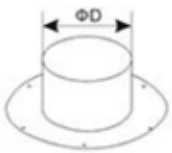




Tripod(ptional)

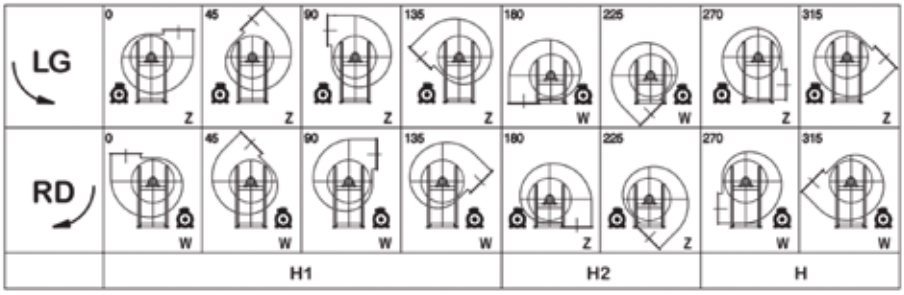


Air outlet outlet(ptional)



Air inlet interface(ptional)

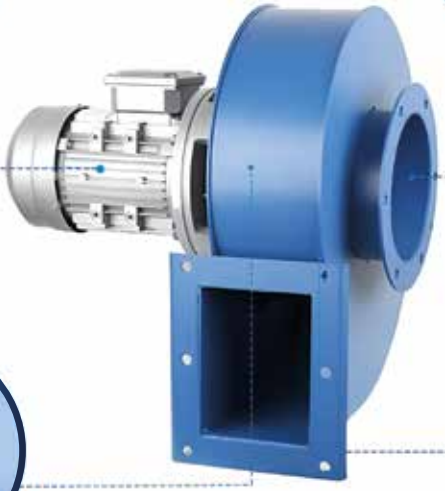
MOTOR SIDE VIEW

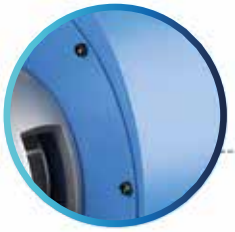


PRODUCT ADVANTAGES

International Y2 aluminum alloy motor, strong power, rotate 2800 times per minute.

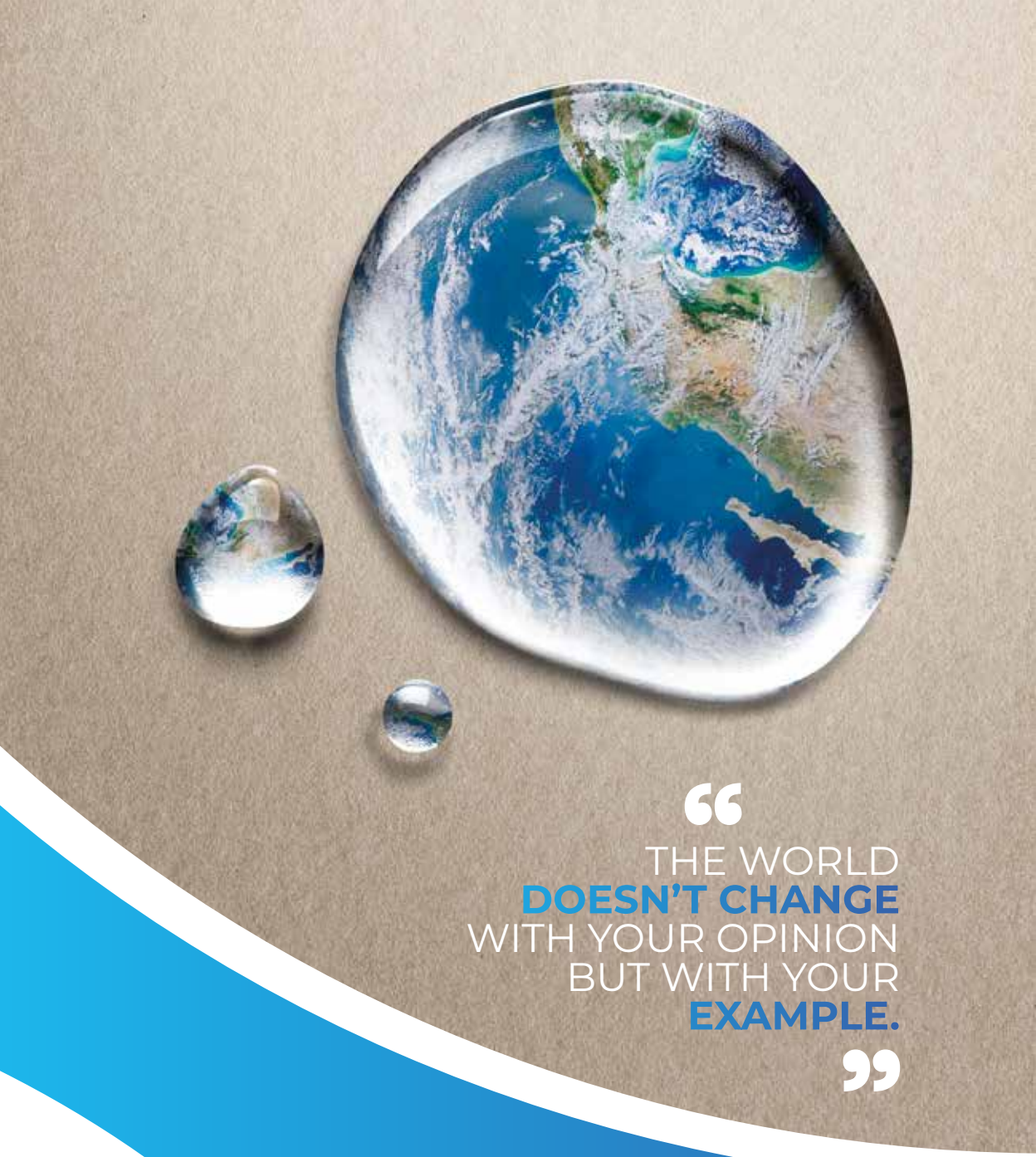
Air inlet with integrated molding. High Intensity laser cutting. High Installation accuracy.





The air shell and fan bracket are made of thickened steel plate materlal with good strength and beautiful appearance.

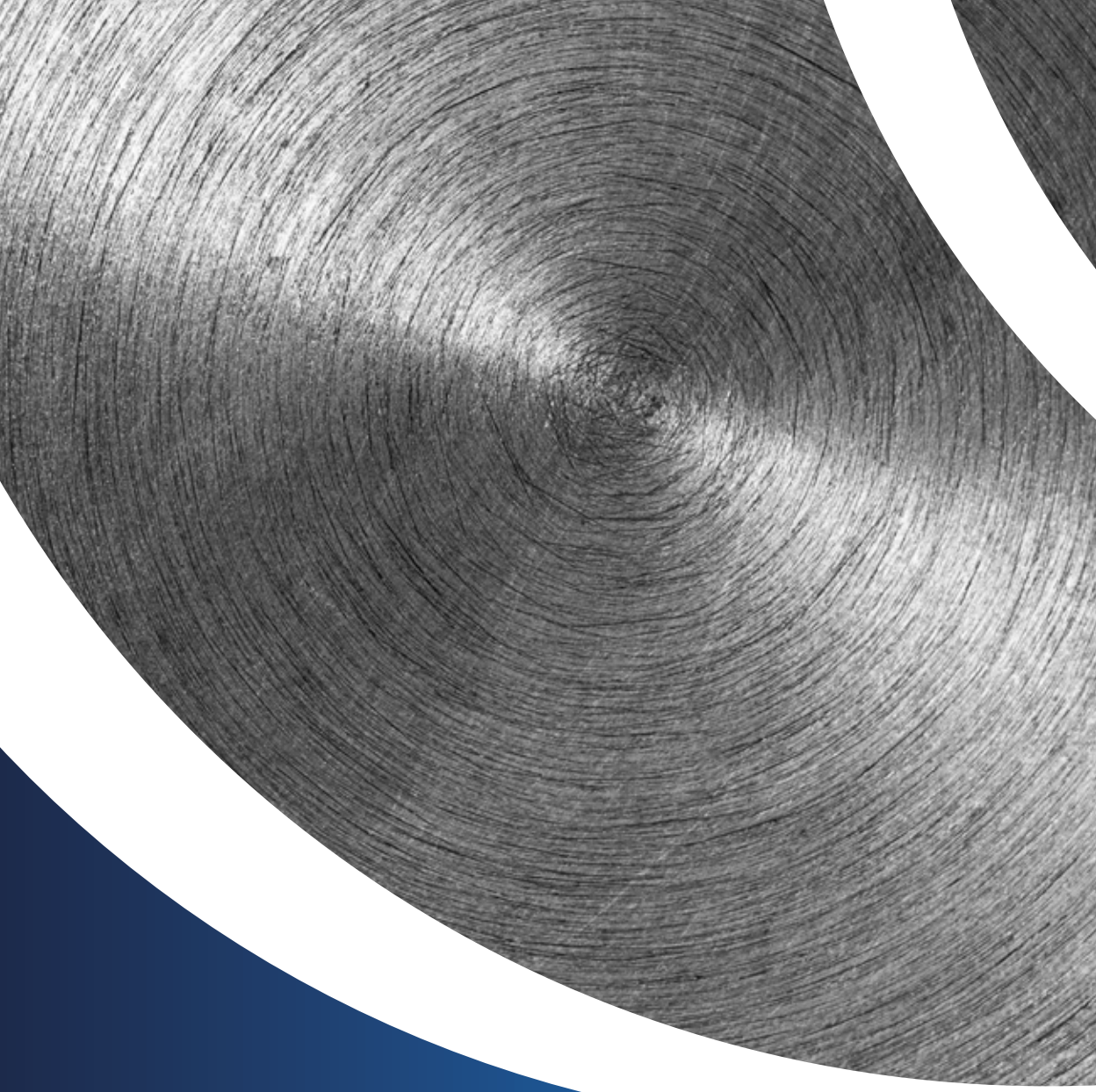
The blade adopts advanced dynamic design. Low nolse. High efficlency and strong suction.



“THE WORLD **DOESN’T CHANGE** WITH YOUR OPINION BUT WITH YOUR **EXAMPLE.**”

ETC GROUP S.R.L.
AIR FILTRATION TECHNOLOGIES

www.etcgroupsrl.it



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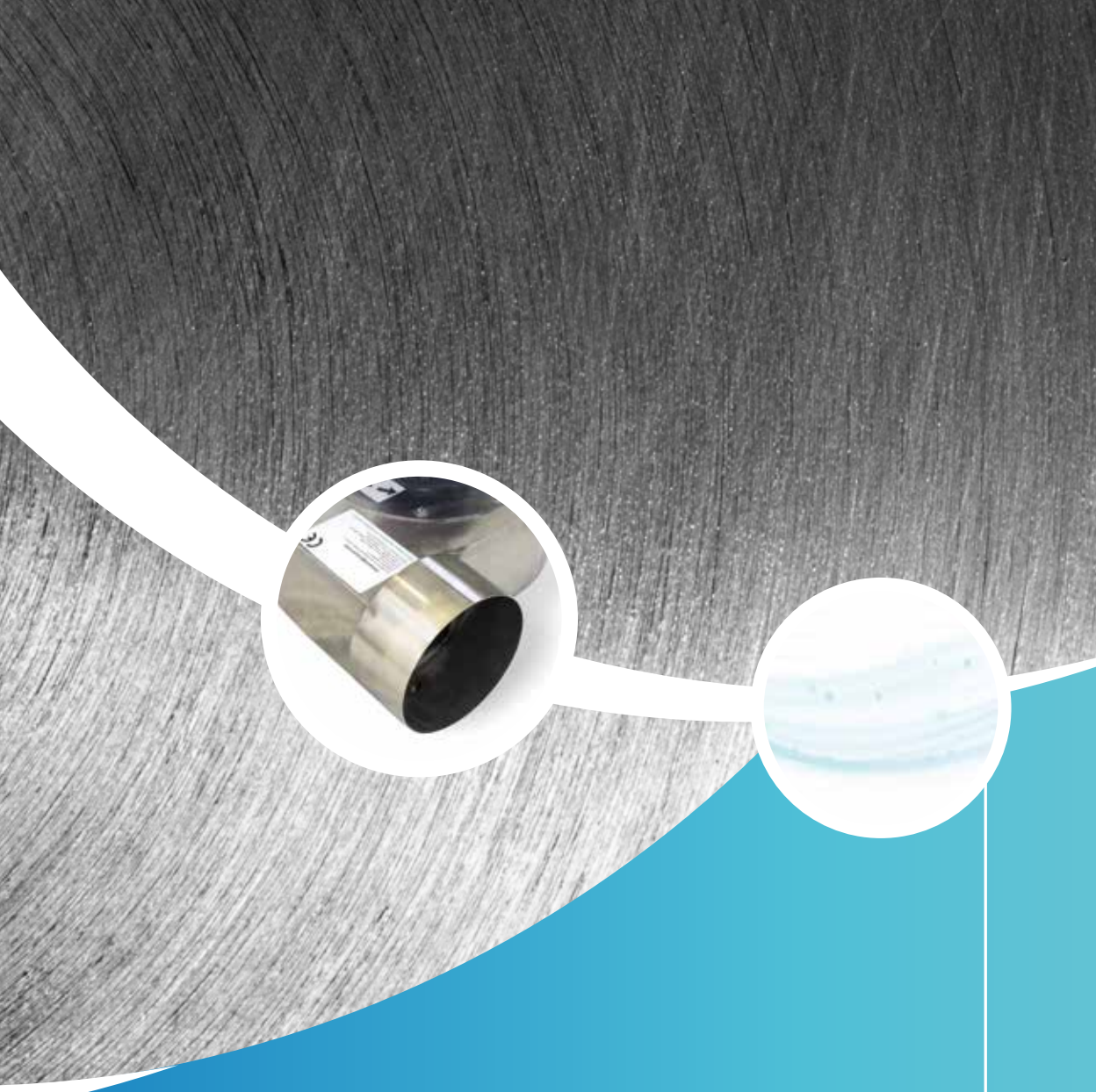


EXTRACTORS FANS IN STAINLESS STEEL

STAINLESS STEEL EXTRACTORS AND FANS
WITH MEDIUM FLOW RATES
AND MEDIUM-HIGH PRESSURE

EXTRACTORS AND FANS

IN STAINLESS STEEL: PERFORMANCE AND EXCELLENCE

304 Stainless Steel Extractors and Fans represent an advanced solution for extraction and ventilation systems, designed to offer high performance and durability in demanding industrial environments.
Thanks to their robust construction and high-level technical features, these devices are ideal for a wide range of applications.

SUPERIOR QUALITY CONSTRUCTION

304 Stainless Steel Extractors and Fans represent an advanced solution for extraction and ventilation systems, designed to provide high performance and durability in demanding industrial environments.
Thanks to their robust construction and high-level technical features, these devices are ideal for a wide range of applications.

Premium Materials: Fully made of satin-finish 304 stainless steel, they ensure resistance to corrosion and long-lasting durability, even in harsh conditions.

TIG Technology: The casing is precisely welded using the TIG welding method, ensuring a completely sealed and leak-free structure.

Reinforced Bases: The 20/10 thickness of the bases provides strength and stability to the entire structure.

NEW: The extractor features a ½" welded connection for condensate drainage.

OPTIMAL PERFORMANCE

Wide Range of Airflows: Air capacity ranges from 600 m^3/h with a static pressure of 82 H2/O up to 14,000 m^3/h with a final static pressure of 64 H2/O, suitable for various extraction needs.
Energy Efficiency: Motors available in 2800 rpm or 1400 rpm configurations, with power ratings compatible with 230V or 380V 50 Hz power supplies.
Operating Temperatur: Designed to operate at temperatures up to 90°C, making them suitable for high-temperature applications.

VERSATILITY AND ADAPTABILITY

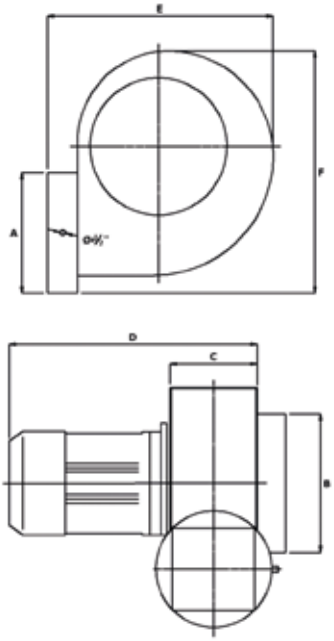
Optimized Connections: The external diameter inlet and internal diameter outlet are compatible with round flue pipes, ensuring a simple and secure installation.
B5 and LG Rotation: Flexible configurations to suit various system requirements.

ADVANTAGES OF STAINLESS STEEL EXTRACTORS

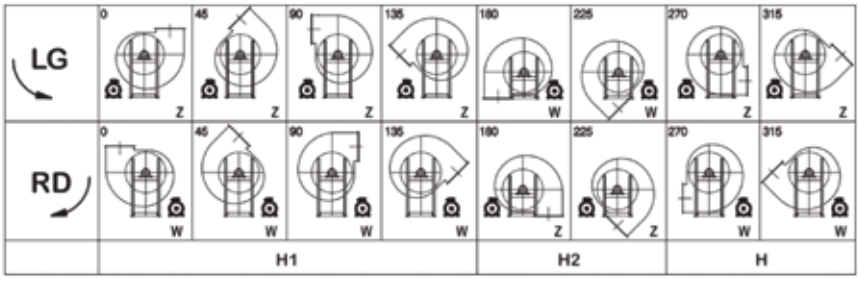
Corrosion Resistance: Ideal for humid environments or those with aggressive chemical substances.
Reduced Maintenance: The build quality and materials used ensure lower maintenance requirements and greater reliability.
Aesthetics and Hygiene: The satin finish not only provides a professional appearance but also facilitates cleaning and maintaining hygiene, making them suitable for the food industry.
Long-lasting Durability: The structural robustness and high-quality materials allow these extractors to withstand daily wear and difficult operating conditions.

MODEL	Power Supply V-Hz	Motor Power kW	RPM	Max Flow Rate m³/h	Max Pressure Pa	Packaging dimensions in cm	Packaging Weight in kg	PRICE
INOX 2 EBR250	230/400-50	0,37	2.800	1.100	640	80x60xh67	30	**€ 2.270**
INOX 2 EBR280	230/400-50	1,1	2.800	3.800	520	80x60xh67	40	**€ 2.650**
INOX 2 EBR350	230/400-50	3	2.800	7.650	970	120x80xh90	75	**€ 5.632**
INOX 4 EBR450	230/400-50	4	2.800	14.000	1.100	120x80xh90	75	**€ 7.540**

INSTALLATION DIMENSIONS



MOTOR SIDE VIEW



EXTRACTORS

CASED FANS - VCTF BMP

CASED BELT-DRIVEN FANS, FOR LOW TO MEDIUM PRESSURES, WITH ALUMINUM STRUCTURE AND INSULATION WITH SANDWICH PANELING.

VCTF BMP Cased Fan - Composed Model.

The casing consists of a structure made of extruded anodized aluminum profiles (P40) and fiberglass-reinforced nylon corners, sealed with 25 mm thick sandwich paneling. Internal and external support made of pre-painted aluminum in gray-white color with a thickness of 0.5 mm.

The interior is equipped with polyurethane foam with closed cells (over 95% efficiency), with a density of 47 kg/m³, thermal conductivity of W/(m°C) 47+_2, and acoustic insulation of 40 dB. The structure is extremely lightweight. Maximum operating temperature: -20°C to +50°C.

Inspection door on the transmission side with CE-compliant closure, complete with handle and fastening blocks.

The fan is a reinforced centrifugal type with dual transmission, mounted on rubber anti-vibration supports, and powered by a three-phase asynchronous motor (400V/50Hz), IP 55 protection according to UNELMEC standards. IE3 = Premium Efficiency (the new efficiency class in Europe today, identical to “NEMA Premium” in the United States for 60 Hz), **in compliance with IEC 60034-30 and IEC 60034-2-1.2007** testing methods.

1 - 40 x 40 mm Aluminum Profiles
2 - Omega Aluminum Profiles
3 - 25 mm Thick Sandwich Paneling with Closed-Cell Expanded Polyurethane Foam. The exterior and interior are coated with 0.5 mm aluminum sheet or 0.4 mm painted steel.

VCTF BMP

The **VCTF BMP** belt-driven cased fans are used for air duct extraction systems and to reduce noise in installations. They are commonly used in both industrial and civil engineering applications.

The fans in the VCTF BMP series are designed for low-to-medium airflows and low-to-medium pressures, offering very low noise levels and are suitable for handling clean or lightly dusty air.
Airflows range from 1,500 m^3/h to 30,000 m^3/h, and static pressures range from 20 H2O to 130 H2O.

The **VCTF BMP** series, using centrifugal fans with backward-curved impellers, offers high-level performance with advantageous efficiency and low noise levels.

EXTRACTOR STRUCTURE

- Load-bearing structure with aluminum frame and profiles. The casing is made of an aluminum profiled frame and sealed with 25 mm thick sandwich paneling, with internal and external supports made of pre-painted aluminum in gray-white color with a thickness of 0.5 mm or painted steel with a thickness of 0.4 mm.
Closed-cell expanded polyurethane foam (over 95% efficiency), density 47 kg/m^3, thermal conductivity W/(m°C) 47+_2, acoustic insulation of 40 dB, with an extremely lightweight structure.
- The fan is mounted on rubber anti-vibration supports to isolate the structure and system from any vibrations.
- Inspection door on the transmission side with CE-compliant closure.

FANS

Centrifugal fans with double intake, scrolls, and frames made of galvanized steel sheet, with backward-curved impellers made of treated and epoxy-coated steel. Sealed, self-aligning bearings and shaft locking with an eccentric ring. Their theoretical minimum lifespan with standard mounted transmissions and proper maintenance is 30,000 hours..

MOTORS

Three-phase asynchronous motor, 400V/50 Hz,
IP 55 protection according to UNEL-MEC standards.
IE3 = Premium Efficiency (the new efficiency class in Europe today, equivalent to “NEMA Premium” in the United States for 60 Hz), in compliance with IEC 60034-30 and IEC 60034-2-1.2007 testing methods.
Installed with 2, 4, or 6 poles depending on the required transmission.
The motor is mounted on a 304 stainless steel frame, welded for all sizes. All models feature a belt tensioning slide.
Minimum fluid temperature: -20°C.
Maximum fluid temperature: +60°C.

ETC GROUP S.R.L.
AIR FILTRATION TECHNOLOGIES

ACCESSORIES

- Rainproof roof.
- Discharge nozzle with protective mesh on the air outlet.
- Filter holder nozzle in a ductable version.
- Inverter speed controller.
- Support feet.
- External air intake grille.
- Damper for adjustment.
- Electrical panel in compliance with inverter standards.
- ON/OFF switch.
- Pressurized and suction silencer.
- Lock with key.
- Stainless steel 304 extractor supports.

MODEL	FAN	FLOW RATE M^3/H	PRESSURE (RMP - KW)	PRICE
VCTF BMP	TDS SR 7/7	1.900	500 - 900-0,75	€ 2.356
VCTF BMP	TDS SR 7/7	2.500	700 - 1200-1,1	€ 2.450
VCTF BMP	TDS SR 9/9	3.000	600 - 1000-1,1	€ 2.640
VCTF BMP	TDS SR 9/9	4.500	700 - 1200-1,5	€ 2.770
VCTF BMP	TDS SR 10/10	5.000	600 - 1000-1,5	€ 3.190
VCTF BMP	TDS SR 10/10	6.000	600 - 1300-2,2	€ 3.360
VCTF BMP	TDS SR 12/12	6.500	700 - 900-2,2	€ 4.420
VCTF BMP	TDS SR 12/12	8.000	600 - 950-3	€ 4.710
VCTF BMP	TDS SR 15/15	9.000	600 - 750-3	€ 5.576
VCTF BMP	TDS SR 15/15	11.000	700 - 650-4	€ 5.700
VCTF BMP	TDS SR 18/18	15.000	600 - 650-4	€ 7.080
VCTF BMP	TDS SR 18/18	16.000	800 - 650-5,5	€ 7.200
VCTF BMP	TDS SR 20/20	20.000	500 - 650-5,5	€ 5.220
VCTF BMP	TDS SR 25/25	30.000	500 - 650-7,5	€ 6.670
VCTF BMP	TDS SR 30/25	40.000	500 - 650-11	€ 8.840

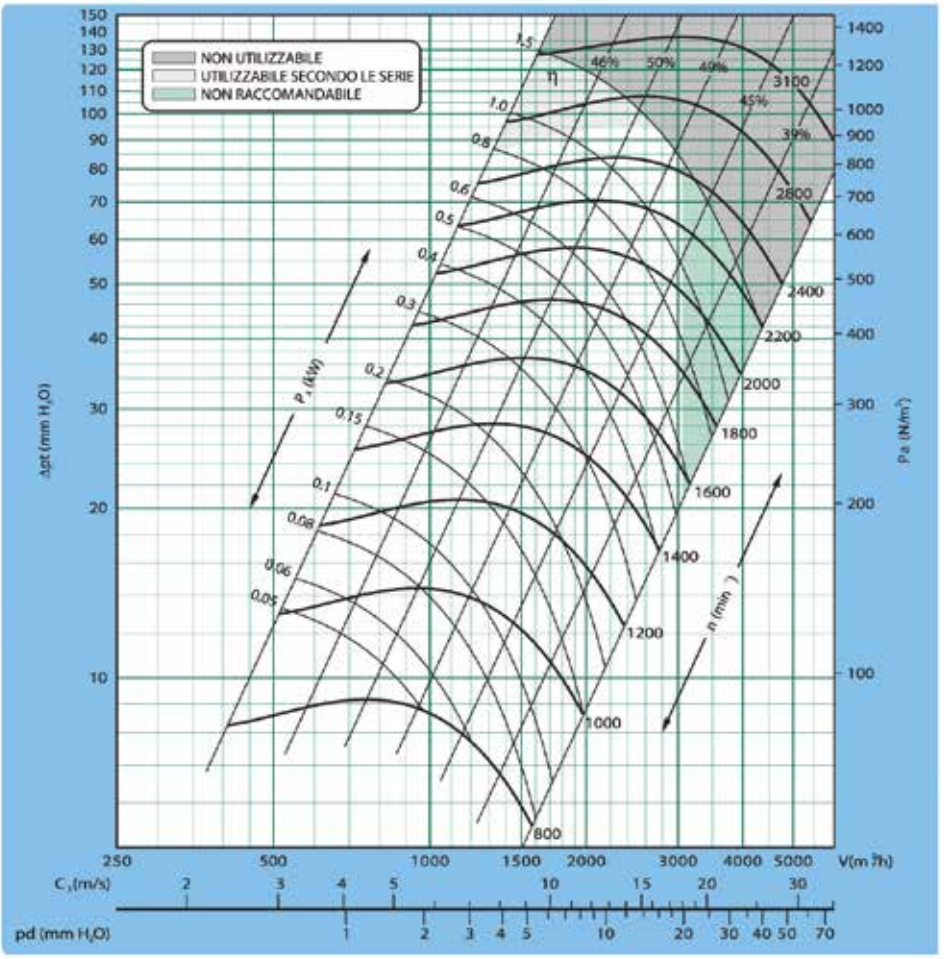
The table above is for quick reference only. For more accurate data, consult the performance curves for proper model selection. Variants of extractors with different power ratings can be assembled for optimal performance. It is recommended to allow a tolerance of 10%-15% when calculating flow rates and pressure to better match the actual data from the graphs.

CASED FANS

THREE-PHASE FOR LOW AND MEDIUM PRESSURES

Curves and technical specifications of the **TDA 7/7 FAN**

SERIES			L	SR	R	T2L	T2SR	T2R	T3R
Operating Limit	n max.	rpm kW	2.500 1	2.700 1.2	3.100 1.5	2.400 1.5	2.500 1.5		
Tangential Speed	u	m/s	n (min^{-1}) x 0.0097						
Moment of Inertia	$PD^2/4$	Kg m^2	0.02	0.02	0.02	0.04	0.04		
Fan Weight		Kg	5	6	7	11.5	13		
Correction Coefficient	V	m^3/h	x 1	x 1	x 1	x 2	x 2		

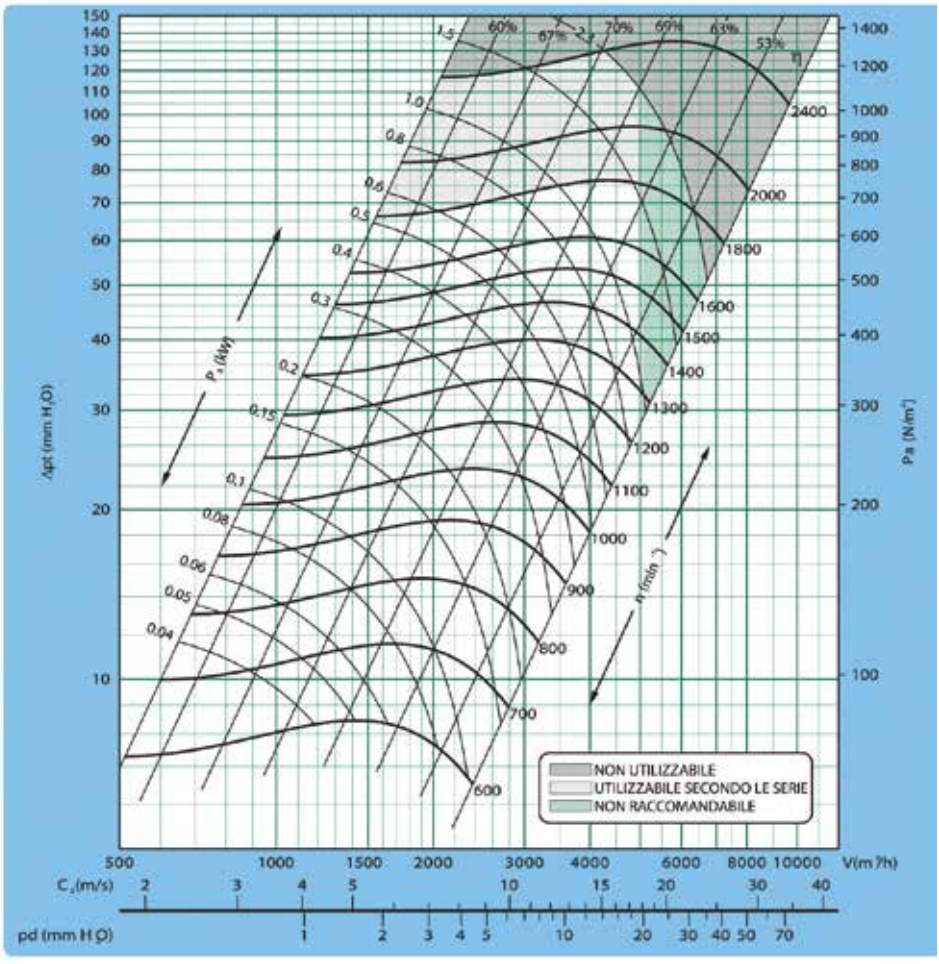


CASED FANS

THREE-PHASE FOR LOW AND MEDIUM PRESSURES

Curves and technical specifications of the **TDA 9/9 FAN**

SERIES			L	SR	R	T2L	T2SR	T2R	T3R
Operating Limit	n max.	rpm kW	2.000 1.5	2.100 1.7	2.400 2.3	1.800 1.7	2.100 2	2.100 2	2.100 2
Tangential Speed	u	m/s	n (min^{-1}) x 0.0140						
Moment of Inertia	$PD^2/4$	Kg m^2	0.06	0.06	0.06	0.11	0.11	0.11	0.16
Fan Weight		Kg	9	11.5	12.5	20.5	22	30	58
Correction Coefficient	V	m^3/h	x 1	x 1	x 1	x 2	x 2	x 2	x 3

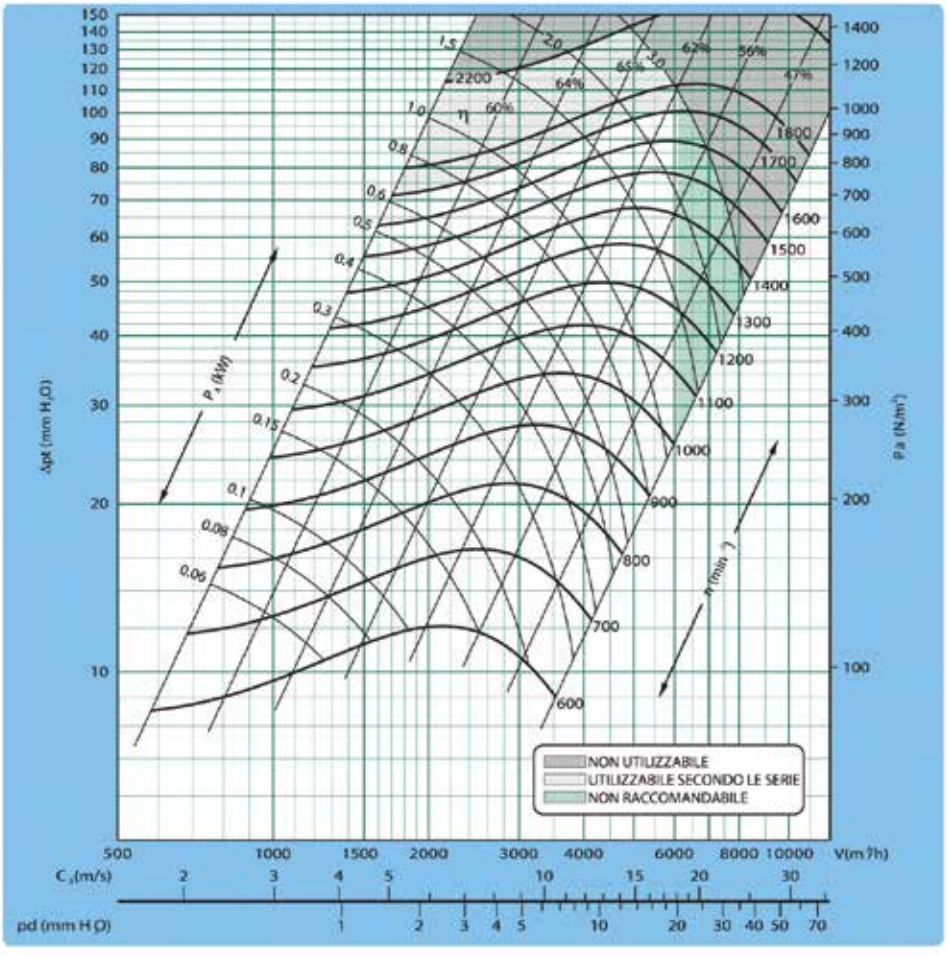


CASED FANS

THREE-PHASE FOR LOW AND MEDIUM PRESSURES

Curves and technical specifications of the **TDA 10/10 FAN**

SERIES			L	SR	R	T2L	T2SR	T2R	T3R
Operating Limit	n max.	rpm kW	1.700 2	1.900 2.5	2.200 3	1.700 2.5	1.900 3	2.200 4.5	1.700 6
Tangential Speed	u	m/s	n (min^{-1}) x 0.0140						
Moment of Inertia	$PD^2/4$	Kg m^2	0.06	0.06	0.06	0.11	0.11	0.11	0.16
Fan Weight		Kg	10.5	13.5	14	24.5	28	34	60
Correction Coefficient	V	m^3/h	x 1	x 1	x 1	x 2	x 2	x 2	x 3

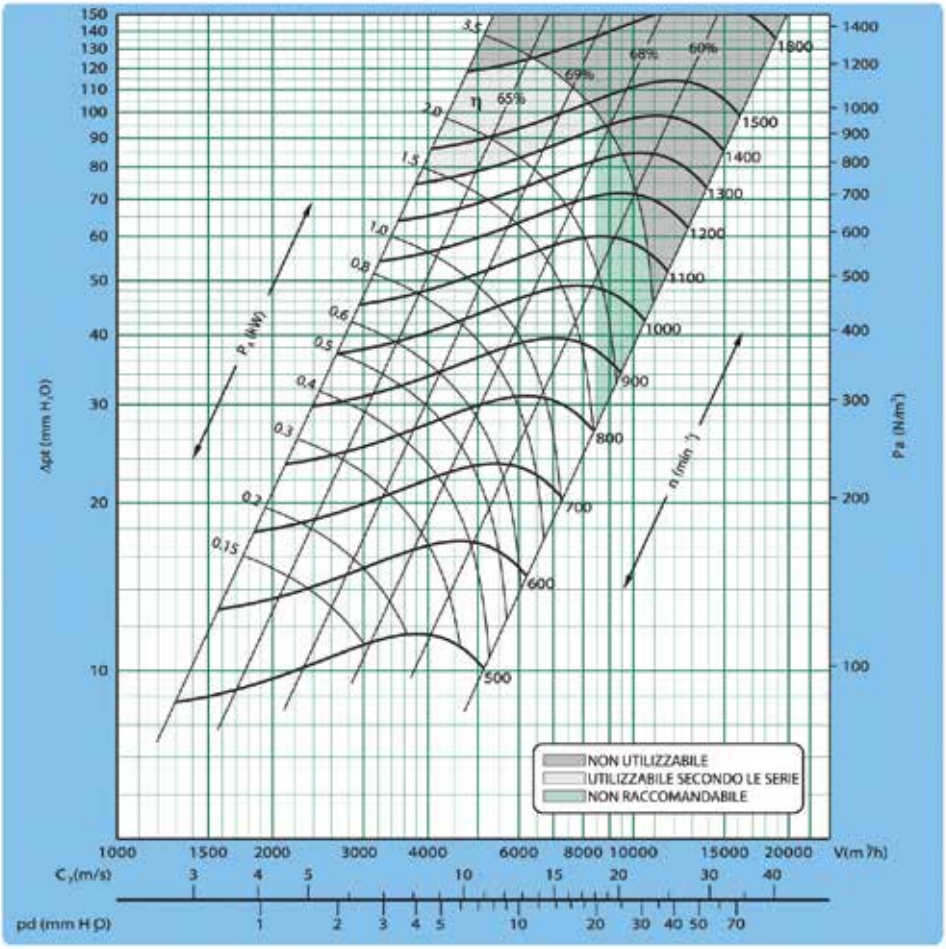


CASED FANS

THREE-PHASE FOR LOW AND MEDIUM PRESSURES

Curves and technical specifications of the **TDA 12/12 FAN**

SERIES			L	SR	R	T2L	T2SR	T2R	T3R
Operating Limit	n max. kW	rpm	1.500 3	1.600 3	1.800 3.5	1.400 3	1.600 3.5	1.800 5.5	1.400 7
Tangential Speed	u	m/s	n (min^{-1}) x 0.0169						
Moment of Inertia	$PD^2/4$	Kg m^2	0.11	0.11	0.11	0.22	0.22	0.22	0.33
Fan Weight		Kg	15.5	18.5	19.5	34	40	52	80
Correction Coefficient	V	m^3/h	x 1	x 1	x 1	x 2	x 2	x 2	x 3

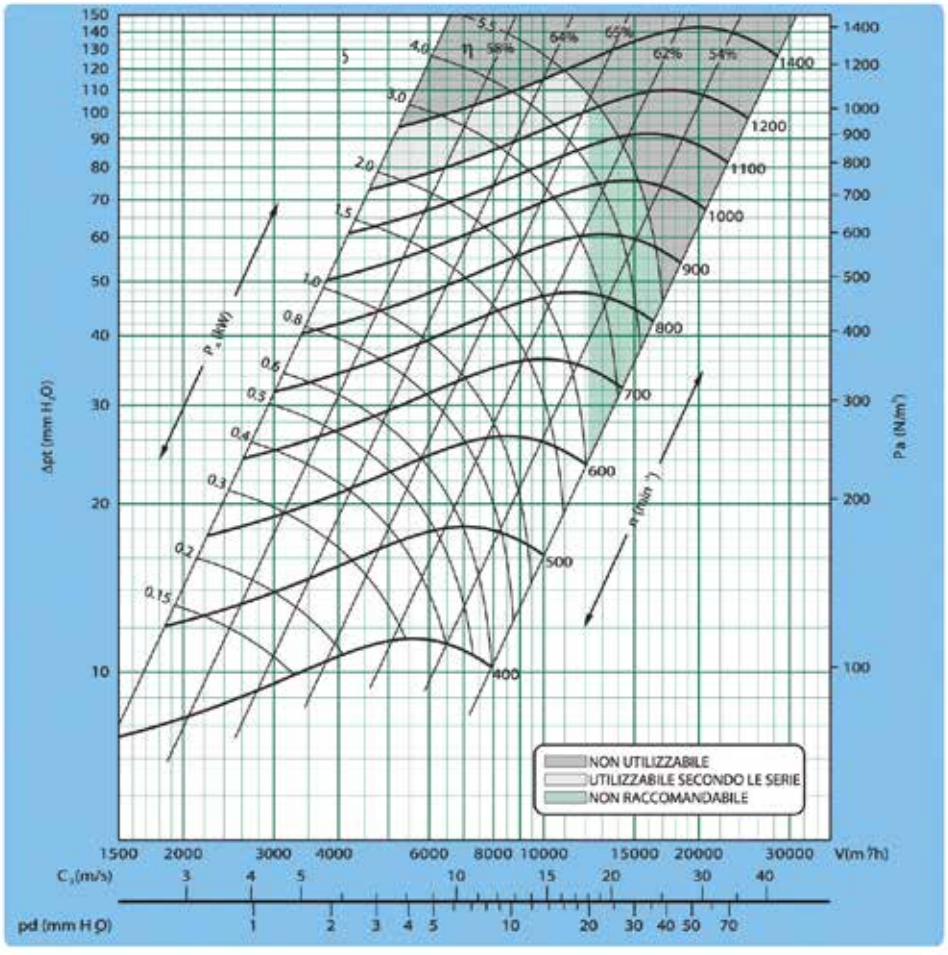


CASED FANS

THREE-PHASE FOR LOW AND MEDIUM PRESSURES

Curves and technical specifications of the **TDA 15/15 FAN**

SERIES			L	SR	R	T2L	T2SR	T2R	T3R
Operating Limit	n max.	rpm kW	1.200 4	1.300 4.5	1.400 5.5	1.000 5.5	1.100 6	1.200 8	1.100 9
Tangential Speed	u	m/s	n (min^{-1}) x 0.0203						
Moment of Inertia	$PD^2/4$	Kg m^2	0.27	0.27	0.27	0.54	0.54	0.54	0.80
Fan Weight		Kg	24	27.5	28.5	52.5	60	71	115
Correction Coefficient	V	m^3/h	x 1	x 1	x 1	x 2	x 2	x 2	x 3



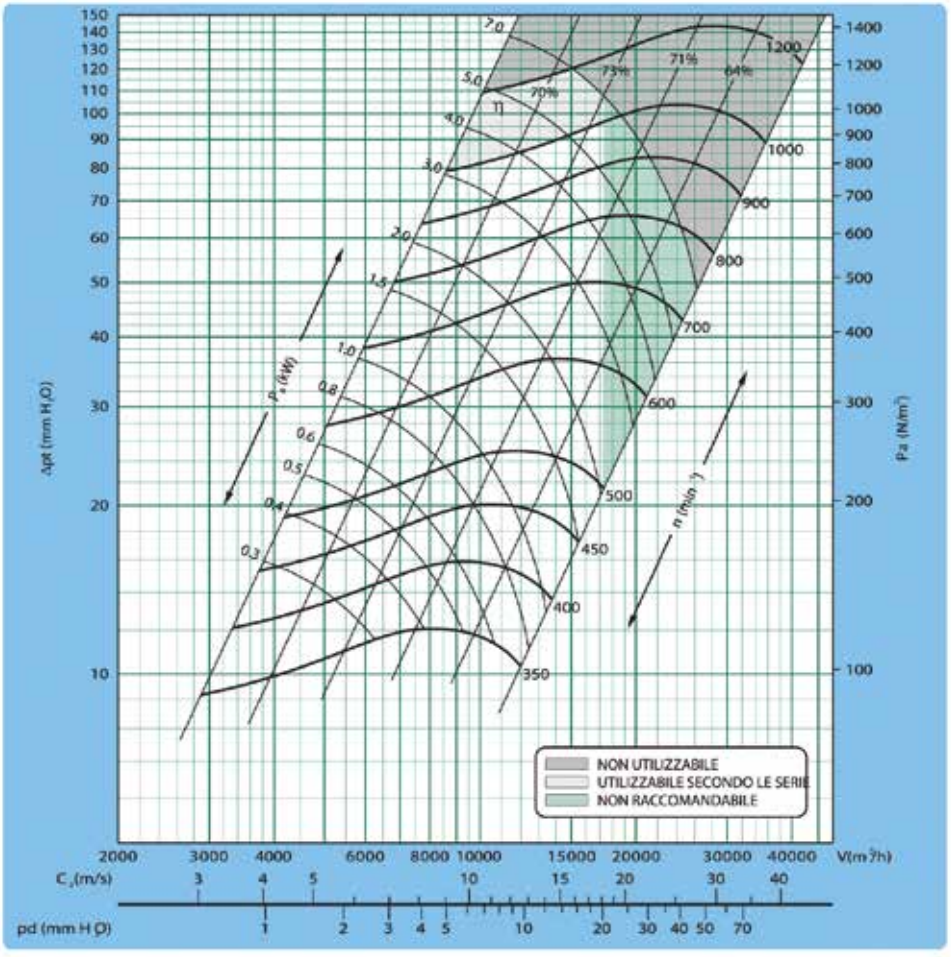
EXTRACTORS - VCTF BMP

CASED FANS

THREE-PHASE FOR LOW AND MEDIUM PRESSURES

Curves and technical specifications of the **TDA 18/18 FAN**

SERIES			L	SR	R	T2L	T2SR	T2R	T3R
Operating Limit	n max.	rpm kW	1.000 5	1.100 6	1.200 7	900 6	1.000 7	1.100 11	900 13
Tangential Speed	u	m/s	n (min^{-1}) x 0.0241						
Moment of Inertia	$PD^2/4$	Kg m^2	0.59	0.59	0.59	1.18	1.18	1.18	1.77
Fan Weight		Kg	33.5	38.5	40	73	82	97	163
Correction Coefficient	V	m^3/h	x 1	x 1	x 1	x 2	x 2	x 2	x 3

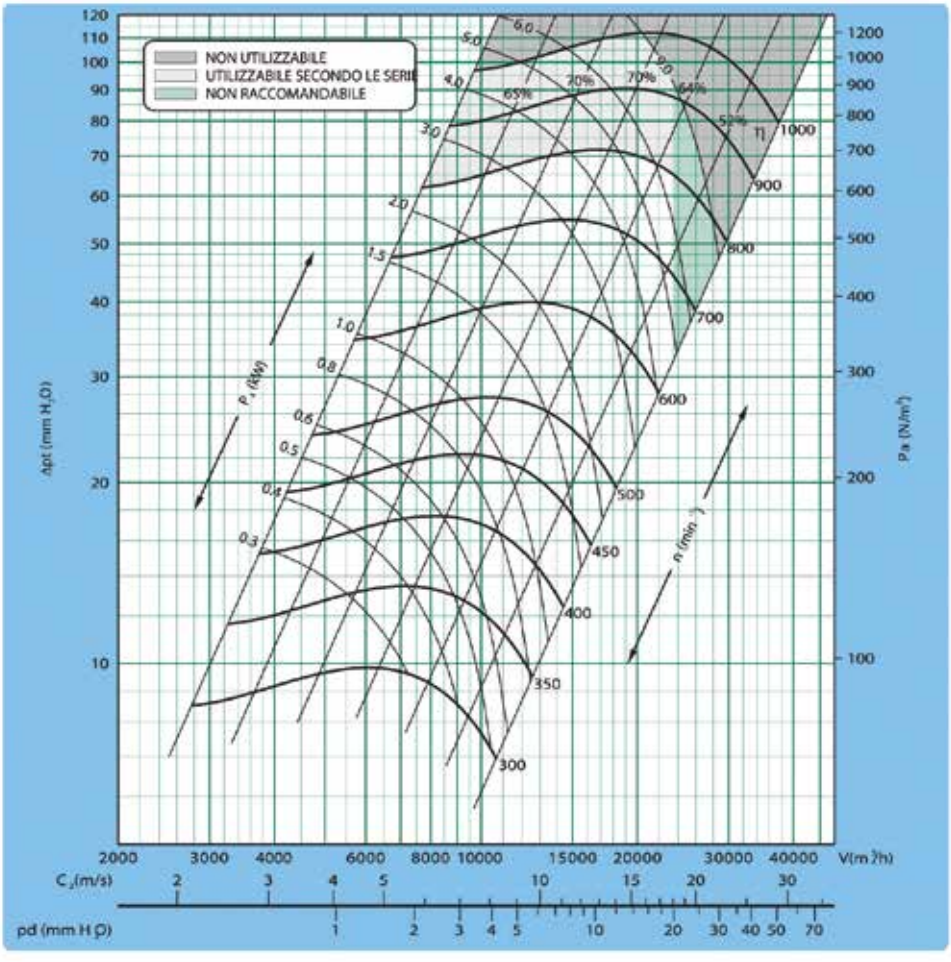


CASED FANS

THREE-PHASE FOR LOW AND MEDIUM PRESSURES

Curves and technical specifications of the **TDA 20/20 FAN**

SERIES				SR	R			T2R	T3R
Operating Limit	n max.	rpm kW		800 7.5	900 9			950 17	900 20
Tangential Speed	u	m/s	n (min^{-1}) x 0.0288						
Moment of Inertia	$PD^2/4$	Kg m^2		1.14	1.14			2.27	3.41
Fan Weight		Kg		75.5	84			195	315
Correction Coefficient	V	m^3/h		x 1	x 1			x 2	x 3

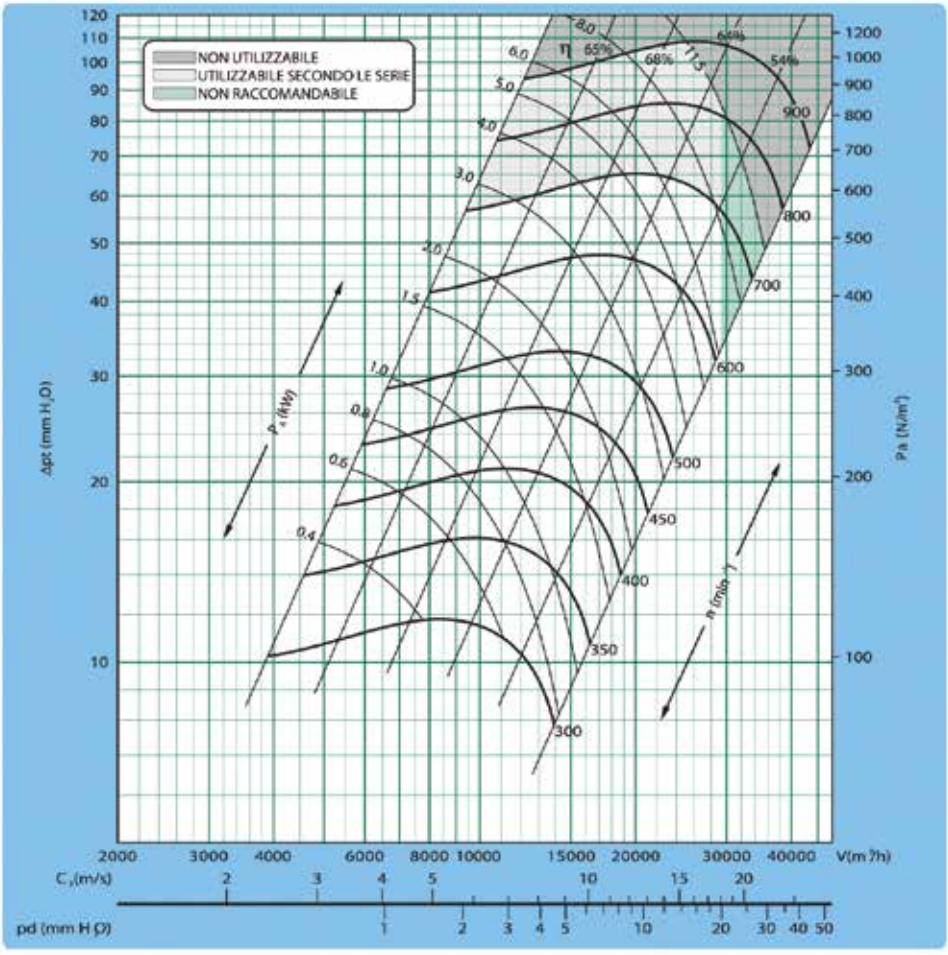


CASED FANS

THREE-PHASE FOR LOW AND MEDIUM PRESSURES

Curves and technical specifications of the **TDA 22/22 FAN**

SERIES				SR	R			T2R	T3R
Operating Limit	n max.	rpm kW		700 8	900 11.5			850 20	800 23
Tangential Speed	u	m/s	n (min^{-1}) x 0.0288						
Moment of Inertia	$PD^2/4$	Kg m^2		1.60	1.60			3.19	4.79
Fan Weight		Kg		83	94			215	345
Correction Coefficient	V	m^3/h		x 1	x 1			x 2	x 3

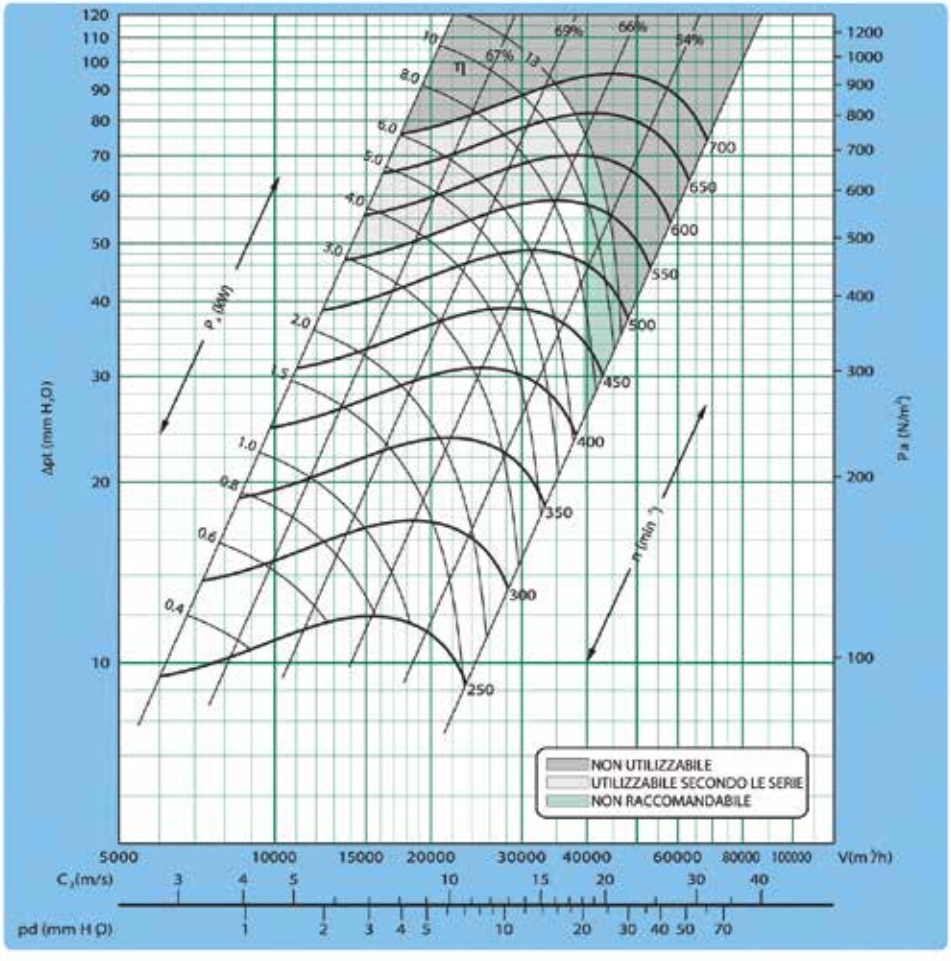


CASED FANS

THREE-PHASE FOR LOW AND MEDIUM PRESSURES

Curves and technical specifications of the **TDA 25/25 FAN**

SERIES				SR	R			T2R	T3R
Operating Limit	n max.	rpm kW		550 9	700 13			650 23	600 26
Tangential Speed	u	m/s	n (min^{-1}) x 0.0351						
Moment of Inertia	$PD^2/4$	Kg m^2		2.49	2.49			4.98	7.46
Fan Weight		Kg		100	113			260	425
Correction Coefficient	V	m^3/h		x 1	x 1			x 2	x 3

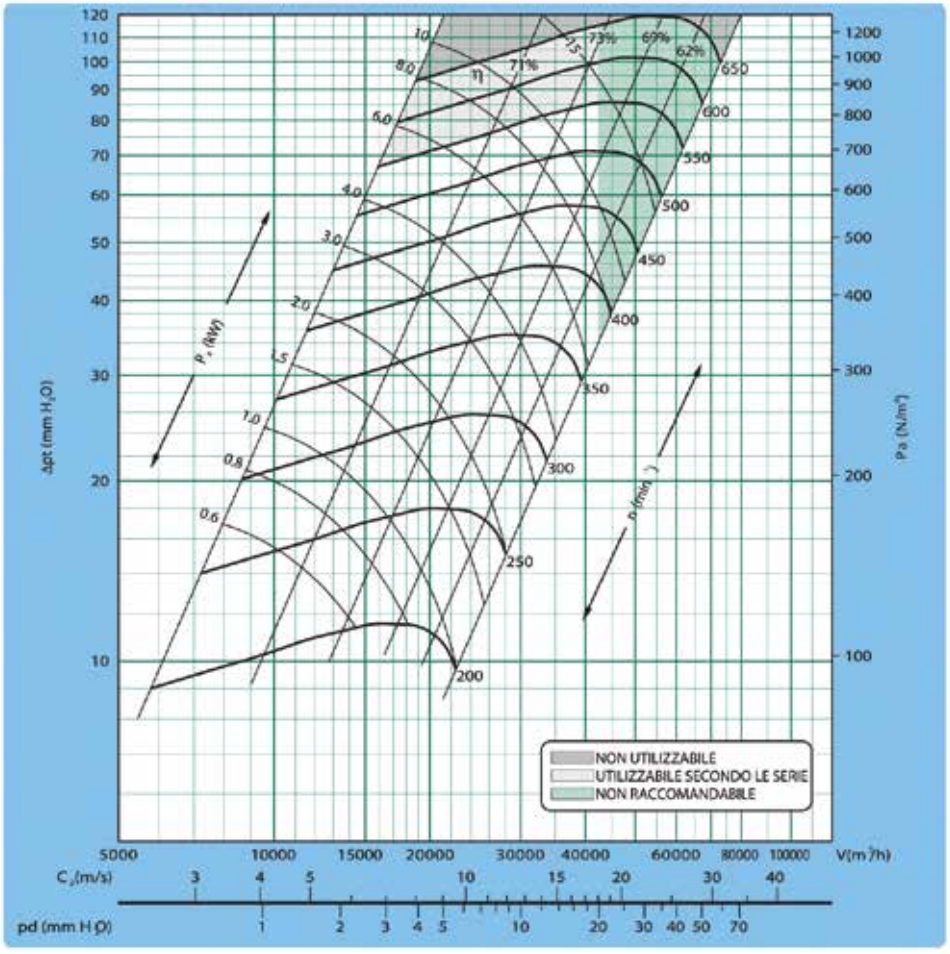


CASED FANS

THREE-PHASE FOR LOW AND MEDIUM PRESSURES

Curves and technical specifications of the **TDA 30/30 FAN**

SERIES				SR	R			T2R	T3R
Operating Limit	n max.	rpm kW		550 11	600 15			600 28	550 32
Tangential Speed	u	m/s	n (min^{-1}) x 0.0419						
Moment of Inertia	$PD^2/4$	Kg m^2		4.41	4.41			8.82	13.23
Fan Weight		Kg		95	113			275	450
Correction Coefficient	V	m^3/h		x 1	x 1			x 2	x 3



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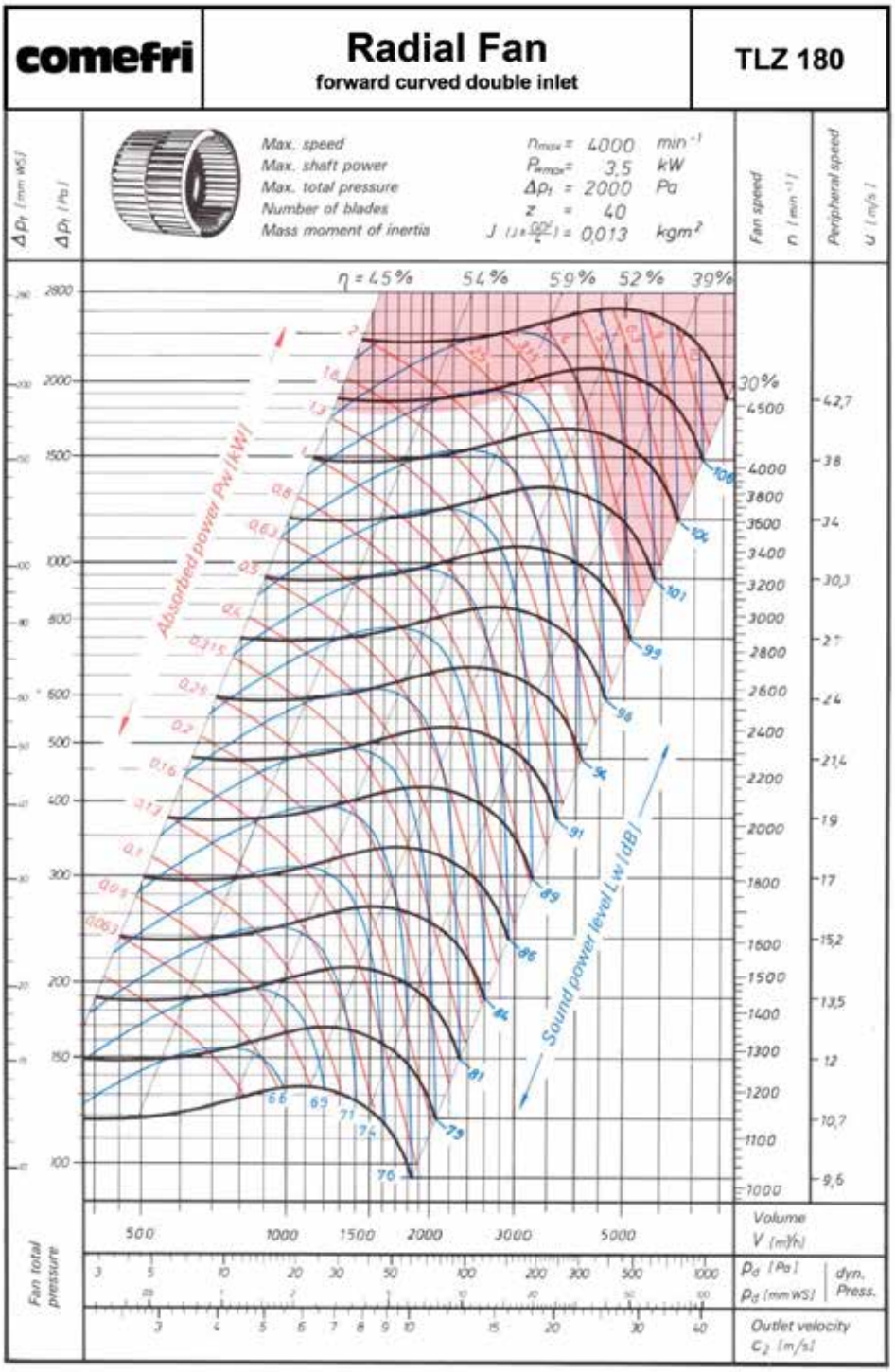
EXTRACTORS CASED FANS VCTF MAP

BELT-DRIVEN CASED FANS,
FOR MEDIUM TO HIGH PRESSURES,
FORWARD-CURVED BLADES RELATIVE
TO THE DIRECTION OF ROTATION,
WITH AN ALUMINUM STRUCTURE
AND SANDWICH PANEL INSULATION.

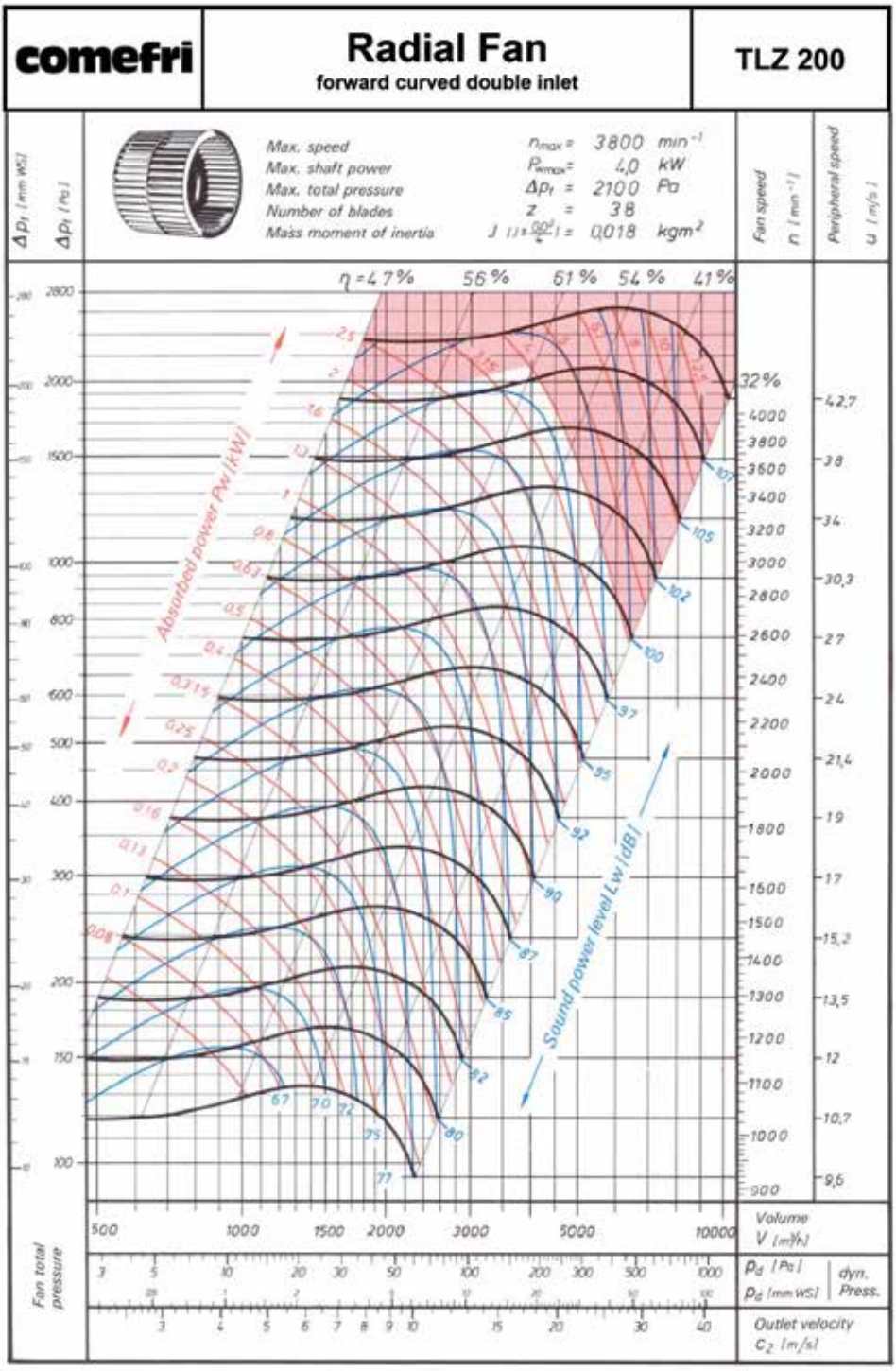
EXTRACTORS

VCTF MAP



EXTRACTORS

VCTF MAP



EXTRACTORS

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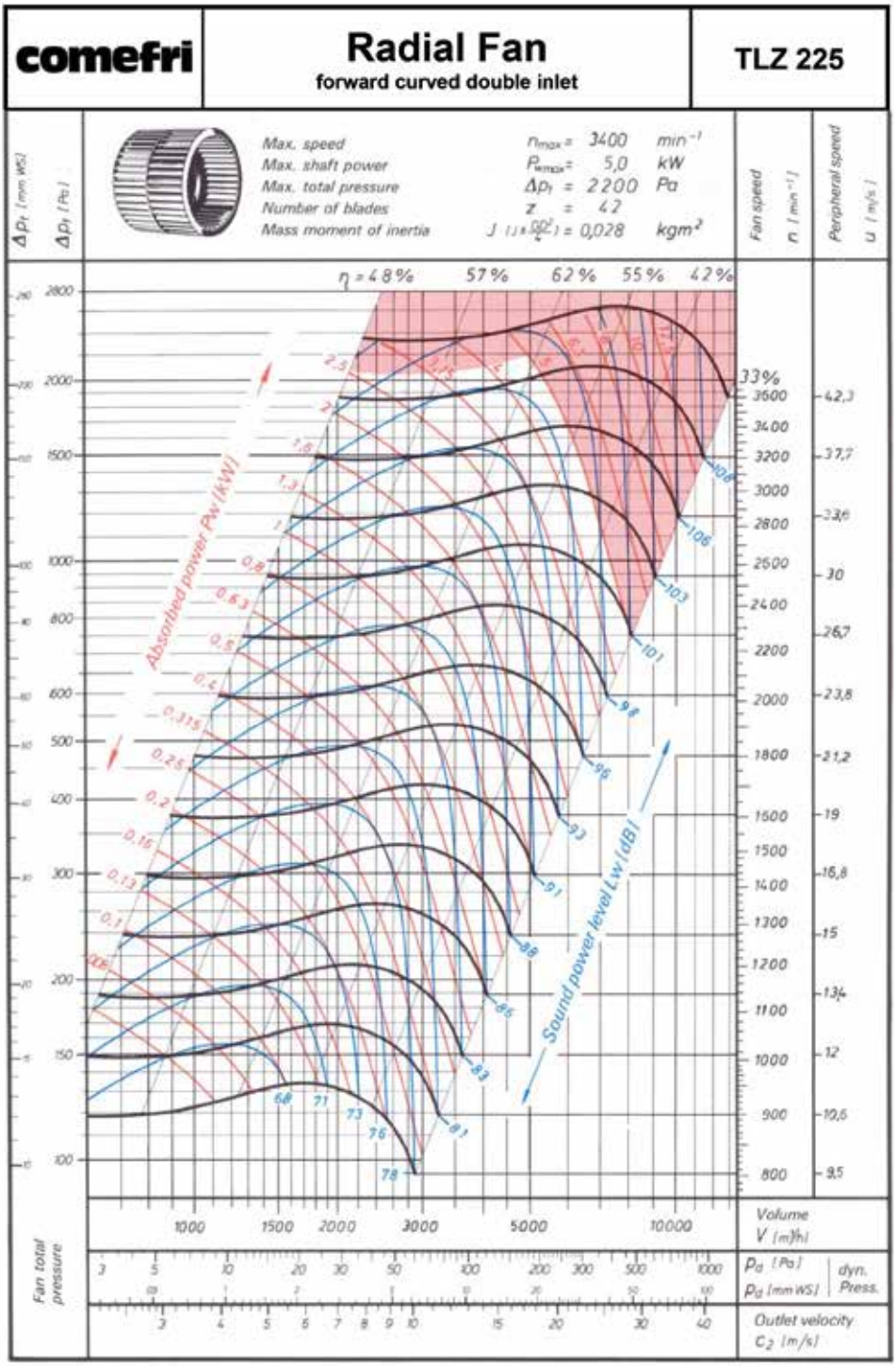
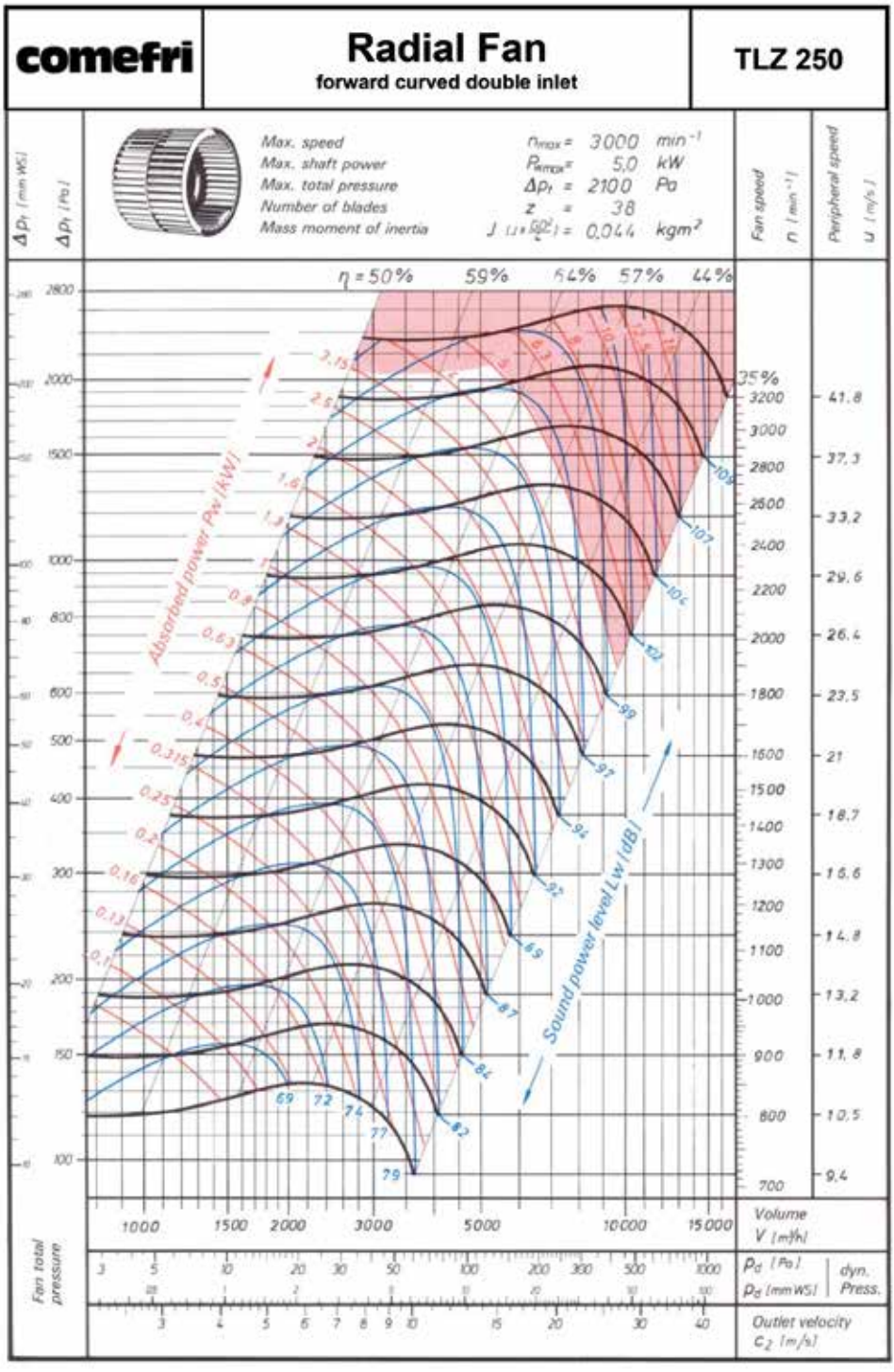


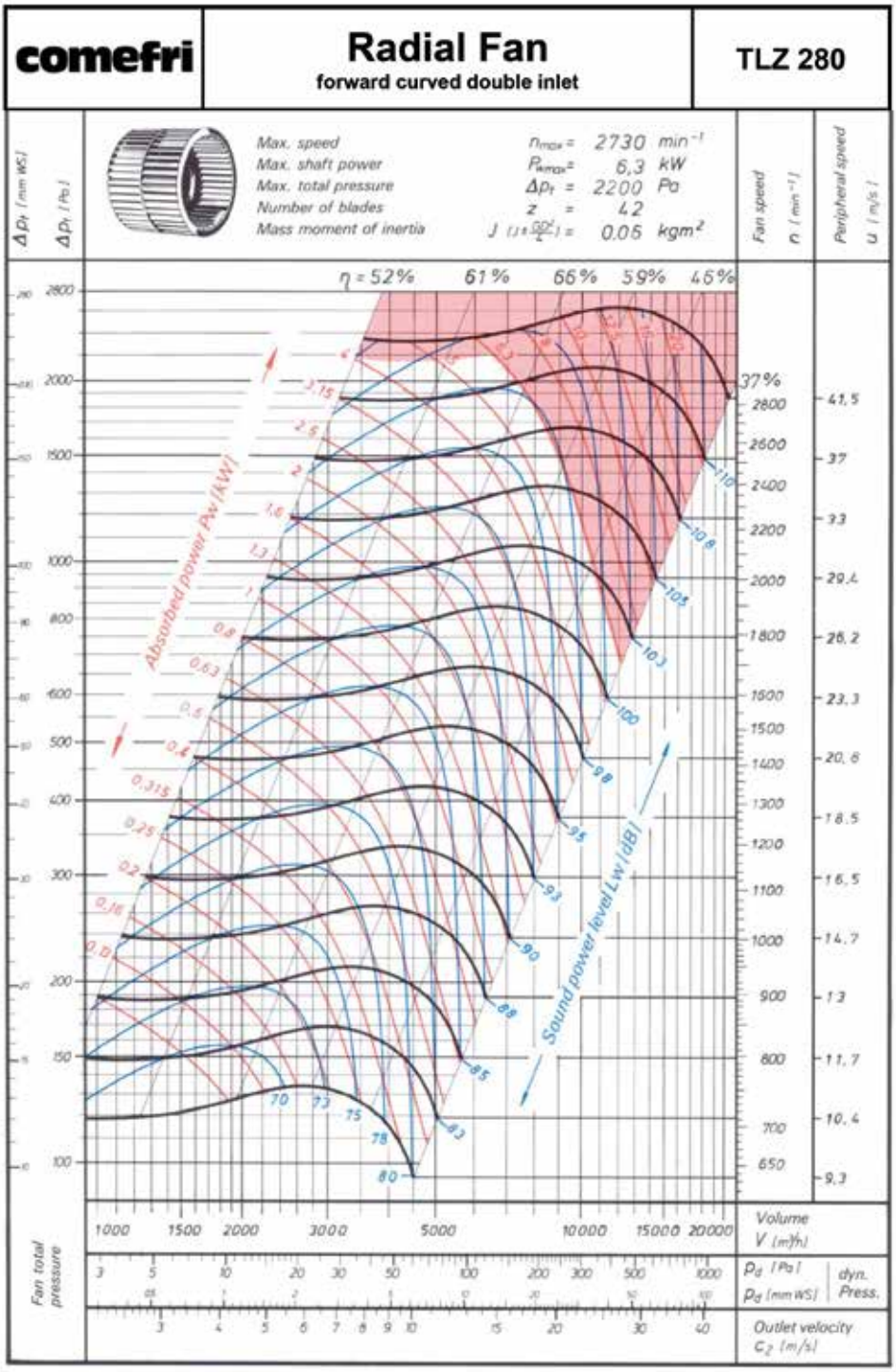
EXTRACTORS

VCTF MAP



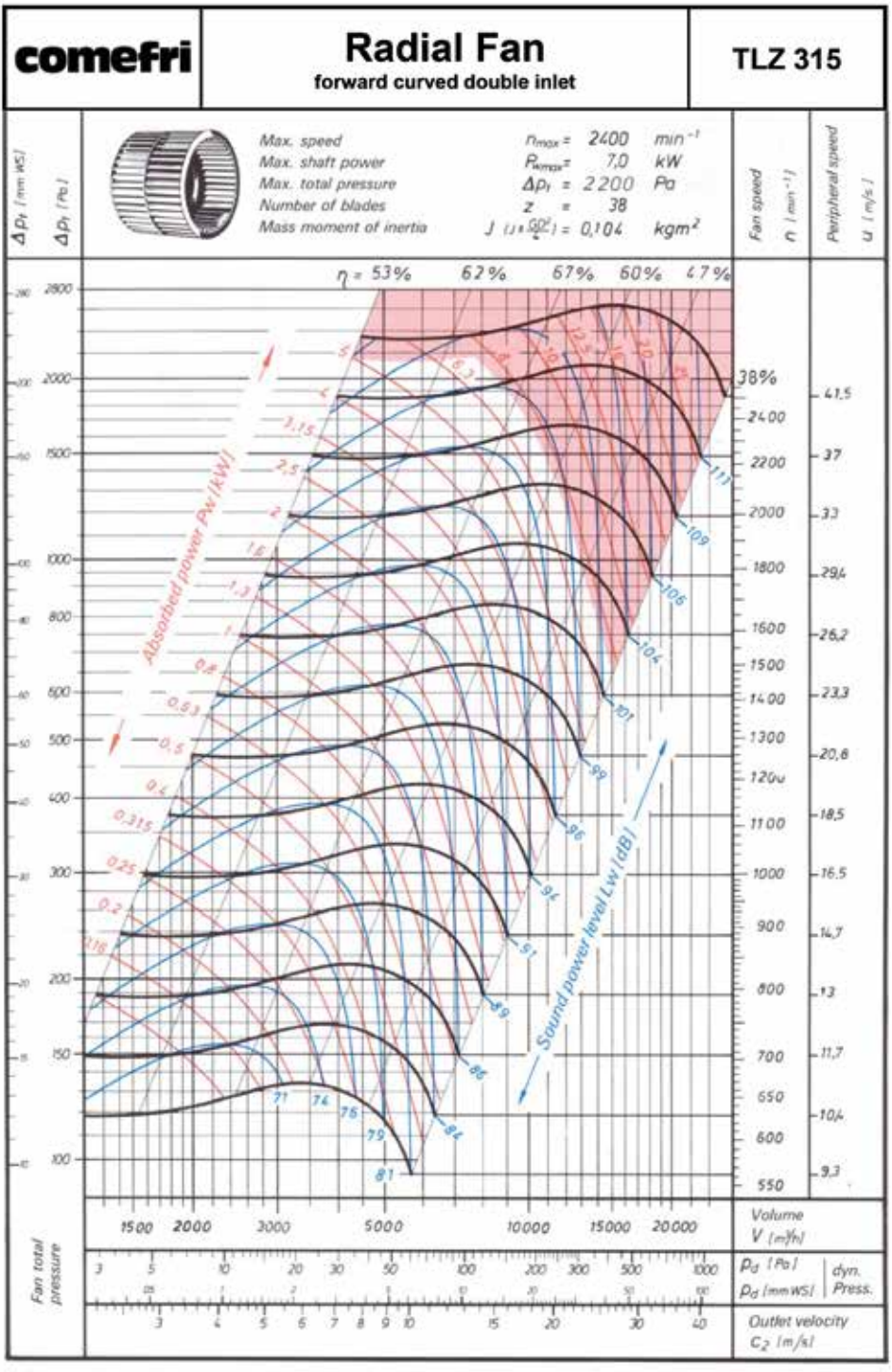
EXTRACTORS

VCTF MAP



EXTRACTORS

VCTF MAP



EXTRACTORS

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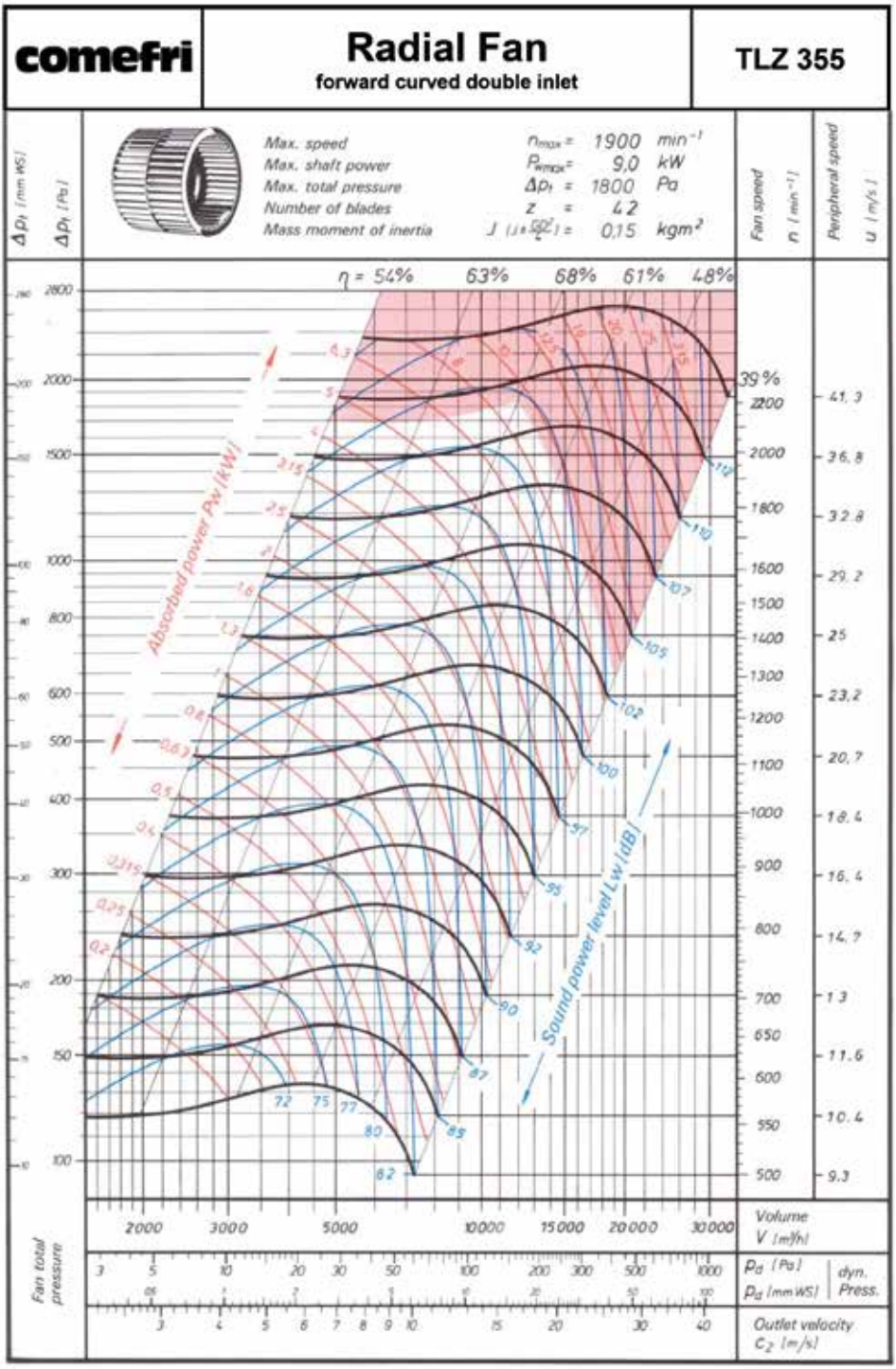

EXTRACTORS

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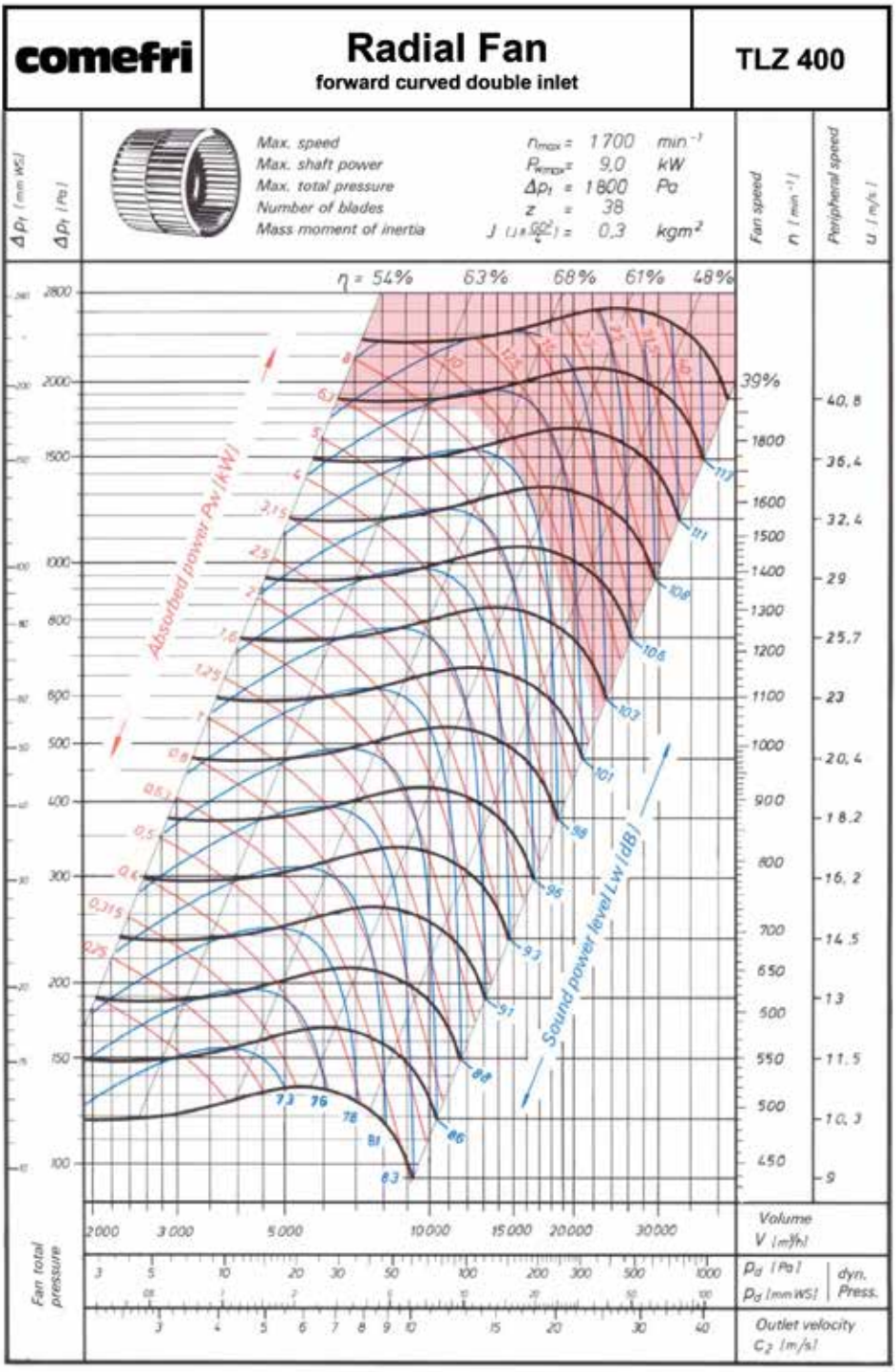

EXTRACTORS

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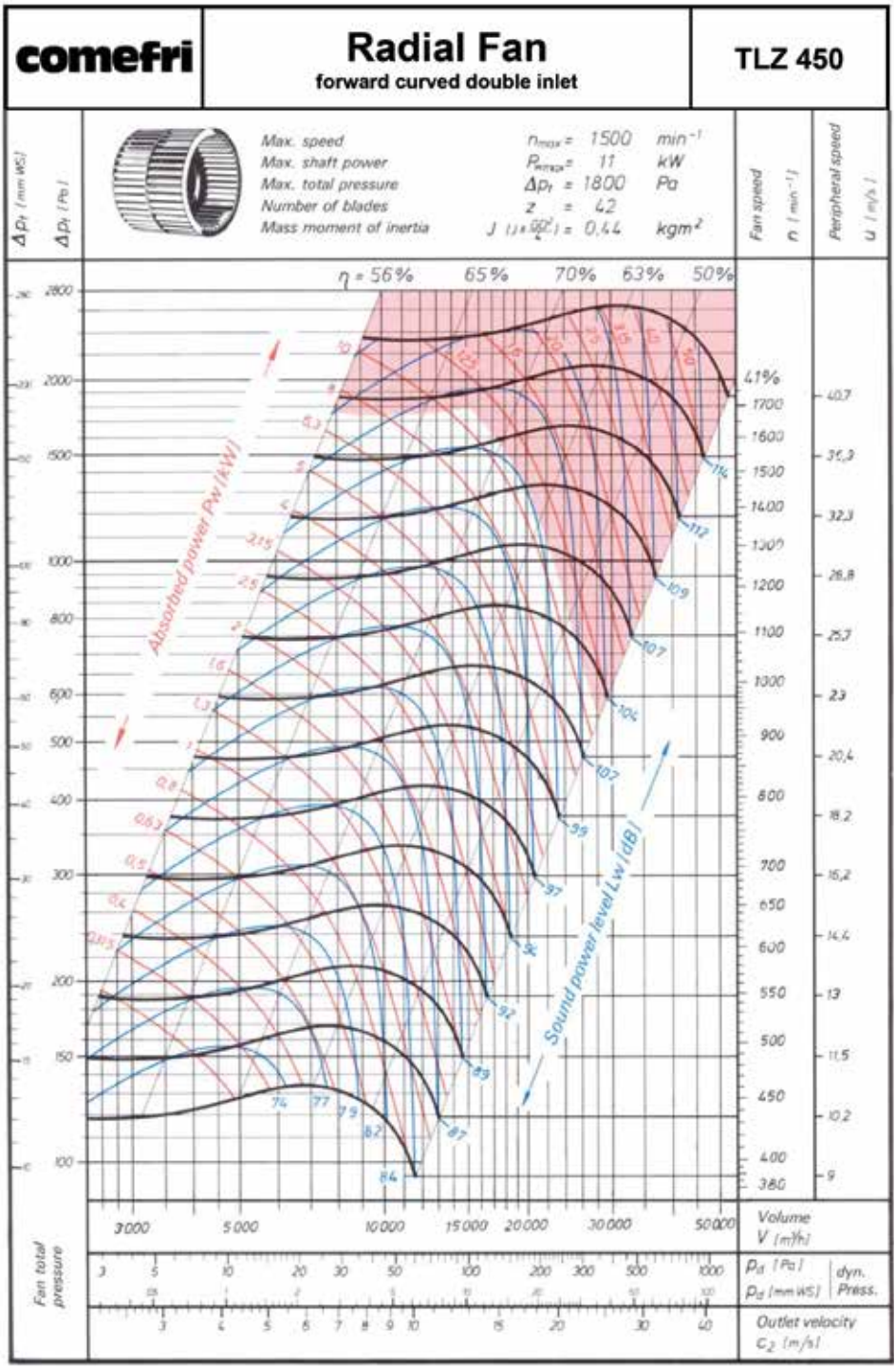

EXTRACTORS

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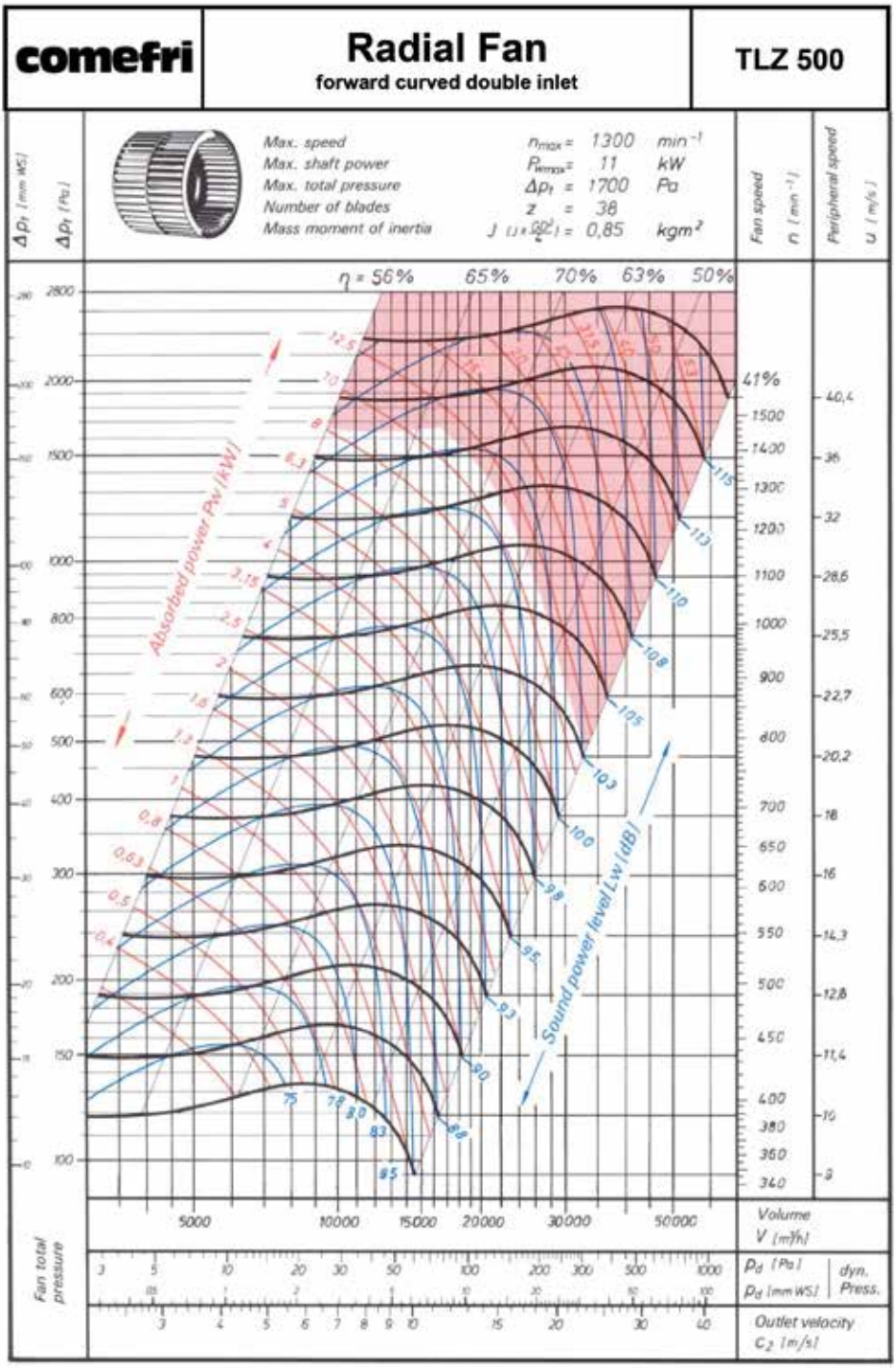

EXTRACTORS

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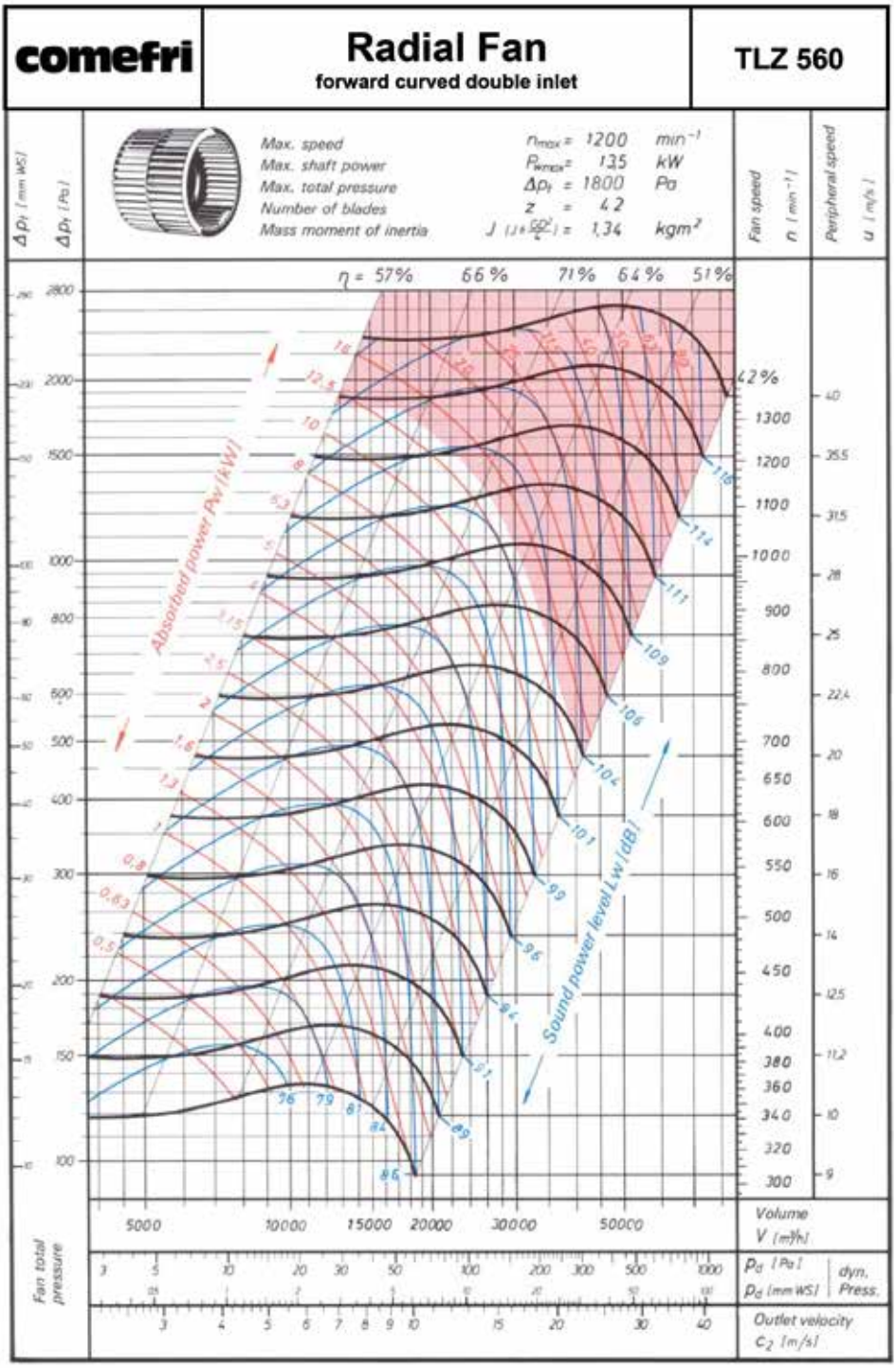

EXTRACTORS

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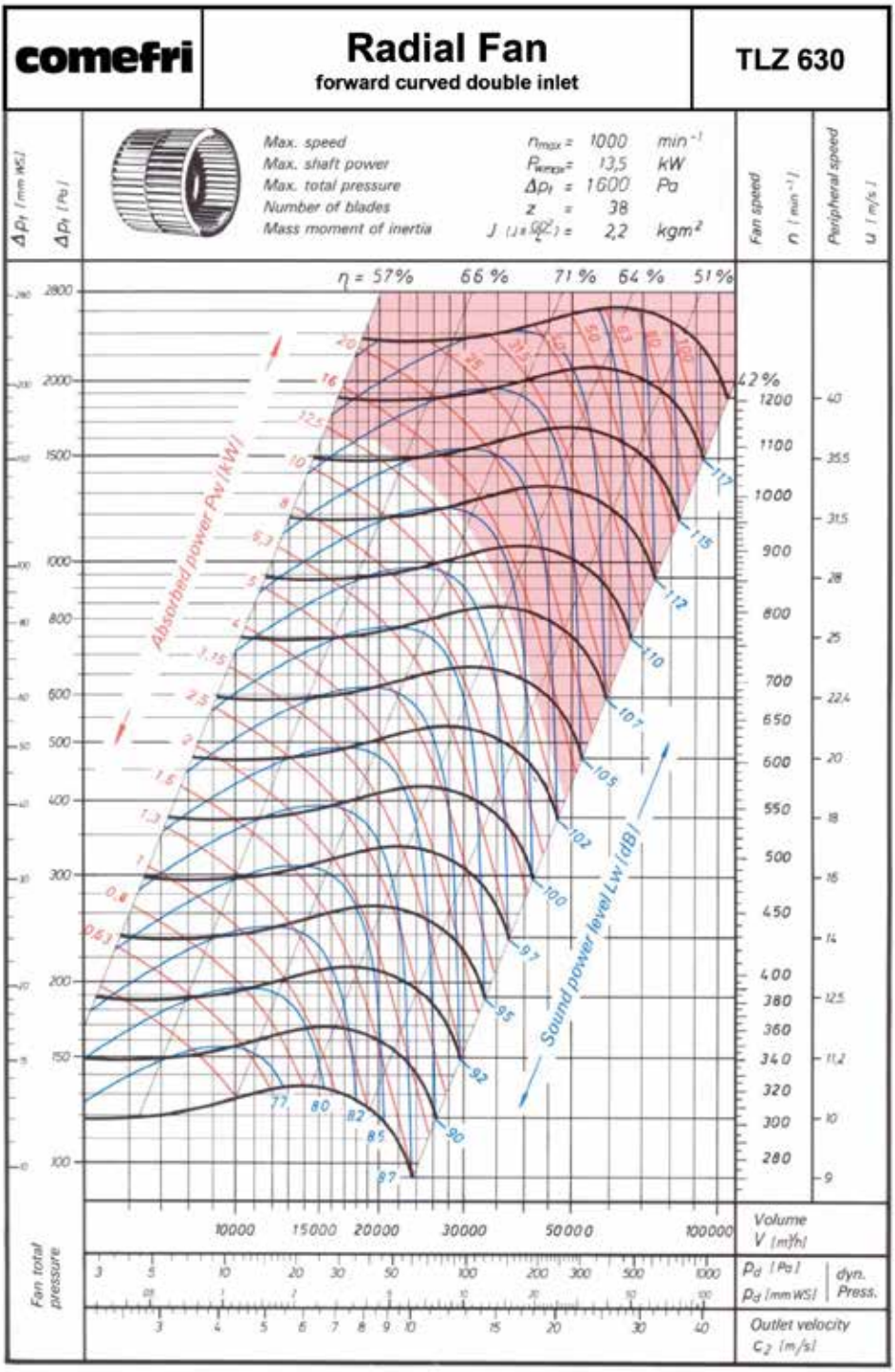

EXTRACTORS

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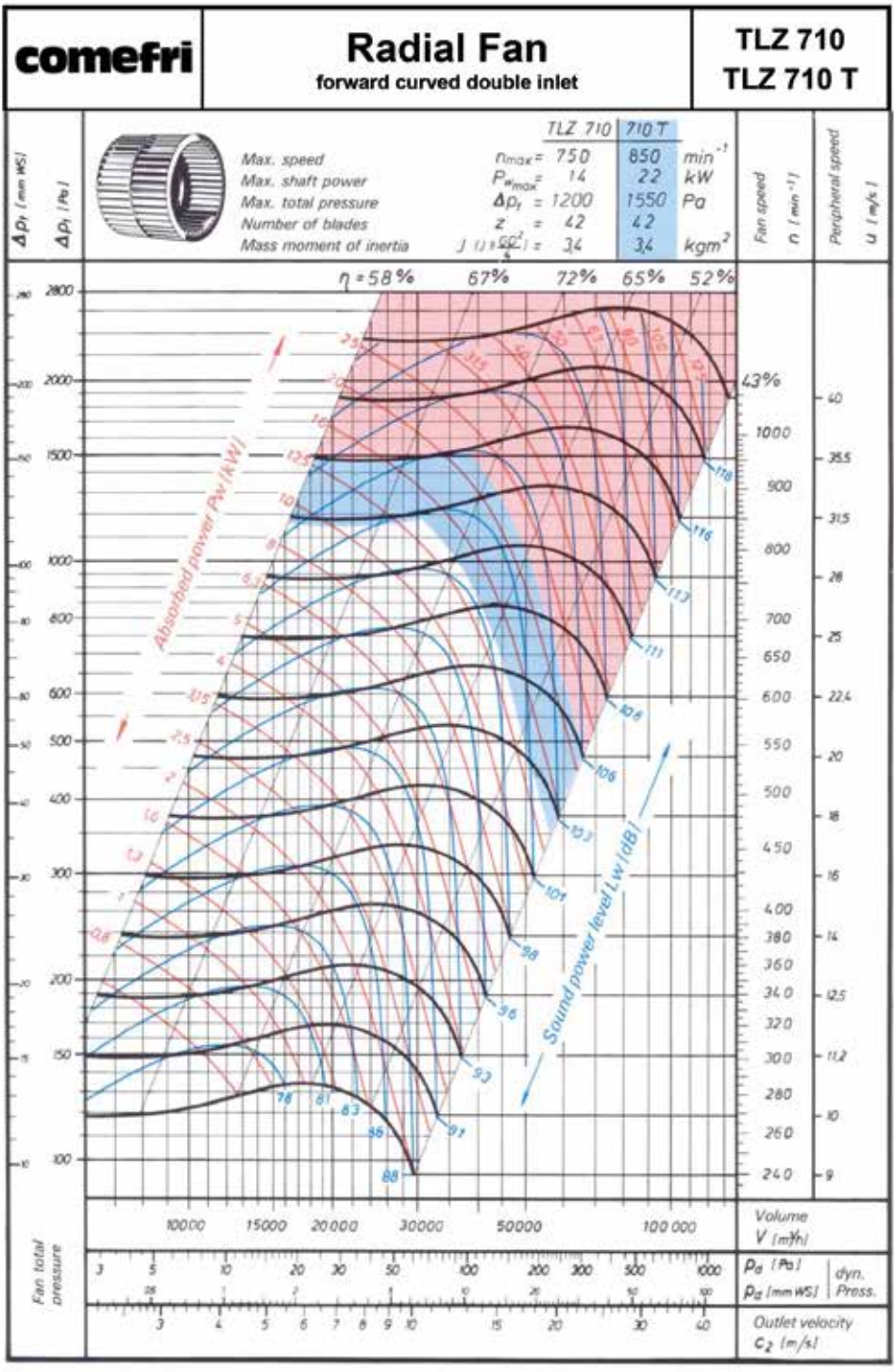
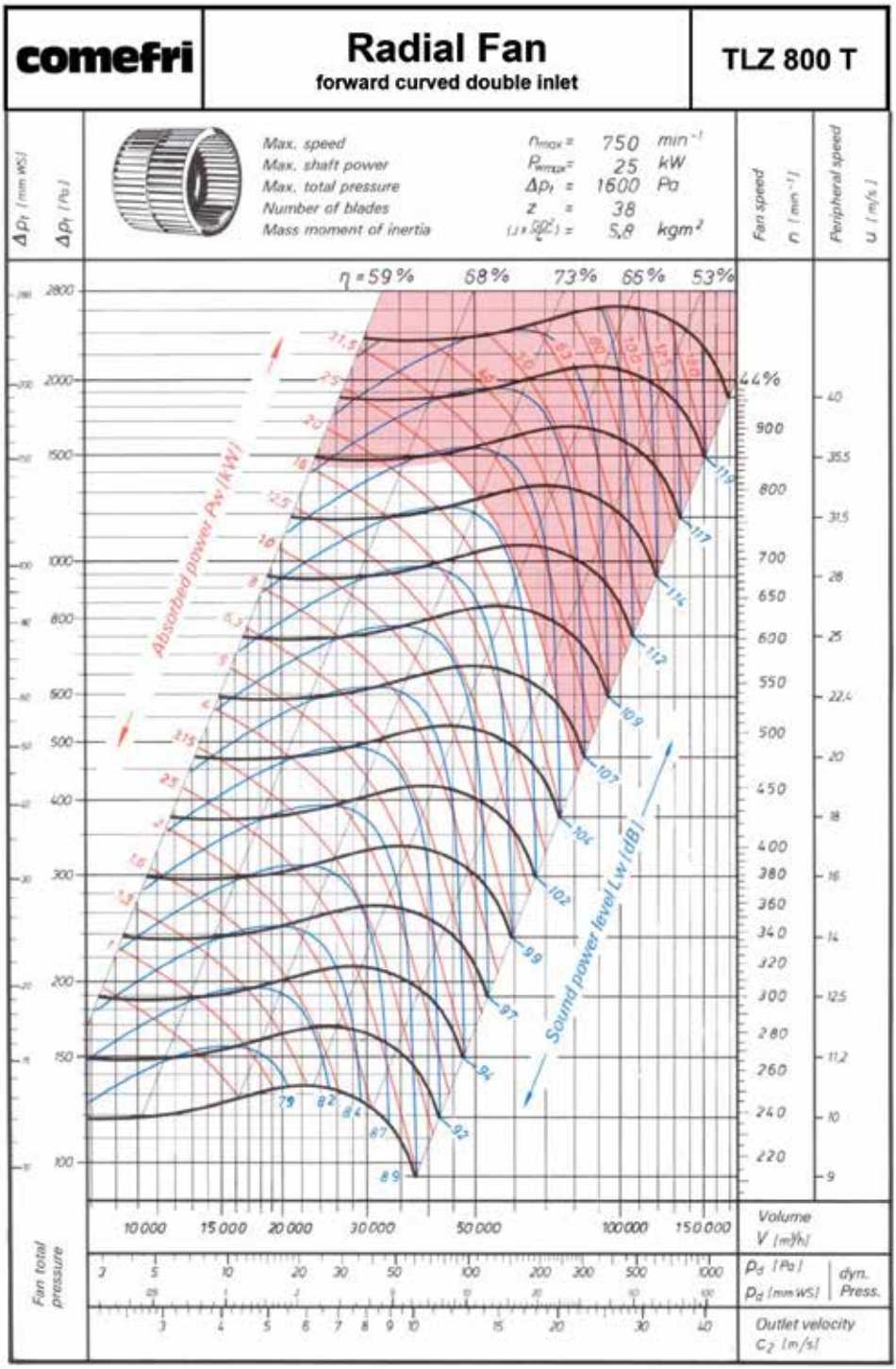


EXTRACTORS

VCTF MAP



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ACTIVATED **CARBON UNITS**

BELT-DRIVEN DUCT FANS
FOR LOW-MEDIUM PRESSURES
WITH ALUMINUM STRUCTURE AND
INSULATION WITH SANDWICH PANELS.

PURIFIERS

ACTIVATED
CARBON AIR

CALCULATION OF AIR FLOW RATES FOR KITCHEN HOODS

The calculation of air flow rates must meet two requirements:
• ensure the transfer of sensible and latent heat generated by cooking appliances to the outside;
• allow the evacuation of pollutants produced during cooking after they have been captured and filtered.

There are various methods to calculate the extraction air flow rates, but we have adopted the official method. With the official method, the "traditional" extraction hoods use the suction velocity method based on the hood surface area.

This method involves calculating the air flow rate based on the velocity of air passing over the surface of the hood.

The required operational velocity for evacuating pollutants, especially heavy particles, is a minimum of 0.3 m/s up to a maximum of 0.5 m/s.
This is the parameter to adopt when selecting our units. Additionally, a tolerance of 10%-20% more than the total suction capacity of the unit is recommended in comparison to the maximum suction calculated for the hood.

GENERAL DESCRIPTION
Technical recommendation

ETC GROUP S.R.L.
AIR FILTRATION TECHNOLOGIES

ACTIVATED CARBON PURIFIERS

Activated carbon purifiers are machines used for the treatment of odorous air extracted from kitchen hoods, but they can also be used for the treatment of chemical substances in industrial settings, if other absorbent materials with specific chemical reactivity are used instead of traditional activated carbon.

HOW DO ACTIVATED CARBON PURIFIERS WORK?

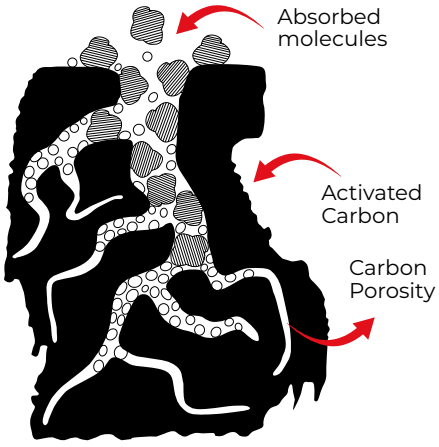
Activated carbon purifiers feature multiple stages of filtration, progressively finer, in order to capture particles of different sizes.

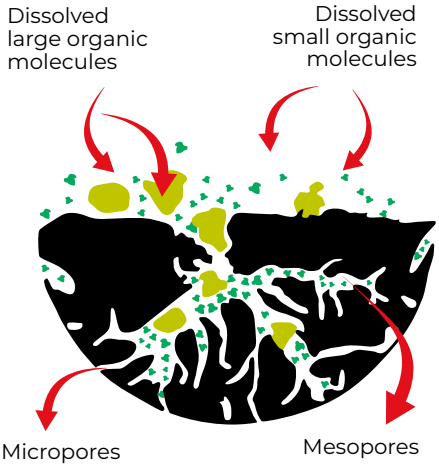
The process starts with the first filter, G4 class for coarse dust, followed by pocket filters F7 for fine dust, and finally the activated carbon, which captures the fine odor particles.

The filters offer some resistance to the airflow, so the air must be forced through them using a fan, located downstream of the filters, either within the same filter box or in a separate setup if space constraints require this solution. In principle, the slower the air flows through the filters, the better the filtration and the lower the power consumption.

To optimize the fan's operation, in addition to keeping the filters clean, it is recommended not to overuse the filtration unit, i.e., not to make it extract more air than designed. Doing so would wear out the fan motor and prevent the filters from operating optimally.

It is also advised to limit the air intake to the minimum necessary by placing the hood on a wall and, if possible, closing the sides.





DESCRIPTION OF FILTRATION STAGES

Pre-filtration is handled by G4 filters (EN 779:2012) with an efficiency of > 90%, followed by F8 filters (EN 779:2012) with an efficiency of > 95%, and the maximum number of activated carbon cartridges that can be contained in the units, with a cartridge thickness of 3.5 cm.

ACTIVATED CARBON PURIFIERS

WITHOUT MOTOR

BFSM E BFSM.AP

ACTIVATED CARBON PURIFIERS WITHOUT MOTOR

Activated carbon filters are preferred for the removal of harmful gases, vapors, and unpleasant odors. Typical applications include odor treatment in restaurants, chemical industries, paint shops, laboratories, and even in public spaces such as airport terminals. They are suitable for filtration and deodorization and are composed of cartridges containing activated carbon and a corrugated synthetic pre-filter.

Pre-filtration is done with G4 filters (EN 779:2012) with an efficiency of > 90% and the maximum number of activated carbon cartridges that can be inserted into the units. (Cartridge size: 140mm x 70mm x 400mm height, thickness 3.5 cm)
An activated carbon purifier consists of an aluminum profile frame (P40) and nylon corners. The faces of the resulting box are made of 25mm thick sandwich panels, consisting of 0.5mm thick aluminum sheet and polyurethane foam sandwiched between the two sheets.

MODELS

CODE BFSM 15

Activated Carbon Purifiers without Motor 1700 m³/h
External dimensions: 42 x 73 x 80 cm
Pre-filtration is provided by G4 filters, corrugated filter (1 filter), dimensions 287x592x48 mm (EN 779:2012) with an efficiency of > 90%.
This is followed by cylindrical activated carbon cartridge filters (8 filters), cartridge dimensions: 140 x 70 x h 40 cm;
plate dimensions (PCG-1/8): 307x610x48mm

PRICE: € 1.462

CODE BFSM 30

Activated Carbon Purifiers without Motor 3400 m³/h
External dimensions: 73 x 73 x 80 cm.
Pre-filtration is provided by G4 filters, corrugated filter (1 filter), dimensions 592x592x48 mm (EN 779:2012) with an efficiency of > 90%.
This is followed by cylindrical activated carbon cartridge filters (16 filters), cartridge dimensions: 140 x 70 x h 40 cm, plate dimensions (PCG-1/8): 610 x 610 x 48mm

PRICE: € 2.130

CODE BFSM 45

Activated Carbon Purifiers without Motor 5100 m³/h
External dimensions: 42 x 73 x 80 cm.
Pre-filtration is provided by G4 corrugated filters (1 filter), dimensions 592x592x48 mm + 1 filter of 287x592x48 mm (EN 779:2012) with an efficiency of > 90%.
This is followed by cylindrical activated carbon cartridge filters (24 filters), cartridge dimensions: 140 x 70 x h 40 cm, with plate dimensions (PCG-1/8): 610x610x48mm + 1 (PCG-1/8) plate of 307x610x48mm.

PRICE: € 2.820

CODE BFSM 60

Activated Carbon Purifiers without Motor 6800 m³/h
External dimensions: 42 x 73 x 80 cm.
Pre-filtration is provided by G4 corrugated filters (1 filter), dimensions 592x592x48 mm + 1 filter of 287x592x48 mm (EN 779:2012) with an efficiency of > 90%.
This is followed by cylindrical activated carbon cartridge filters (24 filters), cartridge dimensions: 140 x 70 x h 40 cm, with plate dimensions (PCG-1/8): 610x610x48mm + 1 (PCG-1/8) plate of 307x610x48mm.

PRICE: € 3.610

Activated carbon purifiers with static cartridges are filtering units designed for high performance. The **BFSM.AP** units are built similarly to the BFSM boxes but feature an additional rigid pocket filter F9 and an increase in size compared to the BFSM by 300mm.

MODELS

CODE BFSM.AP15
Rigid pocket filter F9 dimensions: 42 x 73 x 110 mm
PRICE € 2.280

CODE BFSM.AP30
Rigid pocket filter F9 dimensions: 73 x 73 x 110 mm
PRICE € 2.910

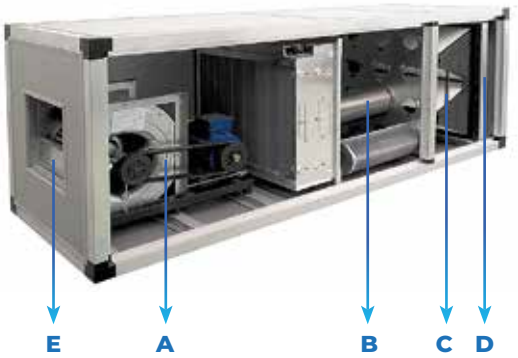
CODE BFSM.AP45
Rigid pocket filter F9 dimensions: 73 x 103 x 110 mm
PRICE € 3.580

CODE BFSM.AP60
Rigid pocket filter F9 dimensions: 73 x 130 x 110 mm
PRICE € 4.780

CODE BFSM.AP90
Rigid pocket filter F9 dimensions: 73 x 190 x 110 mm
PRICE € 6.940

FAN

The centrifugal fan with double intake is made from robust hot-dip galvanized sheets. The forward-curved fan blades are statically and dynamically balanced. The power is supplied by a three-phase electric motor, connected to the fan via belts. The assembly is fixed to the external structure using anti-vibration feet. The fan must be controlled via an inverter.
An activated carbon purifier consists of a structure made from extruded aluminum profiles (P40) and nylon corners. The faces of the resulting box are made of 25 mm thick sandwich panels, consisting of 0.5 mm thick aluminum sheet and polyurethane foam between the two sheets.



A The double intake centrifugal fan is constructed with robust hot-dip galvanized sheets. The forward-curved fan blades are statically and dynamically balanced

B Activated Carbon Cartridges, diameter 140 x 400 mm, with 40 mm thickness of activated carbon.

C Fine Dust Filter F8

D Coarse Dust Filter G4

E Air outlet

MODEL DATA	BFMT 30	BFMT 45	BFMT 60	BFMT 75	BFMT 90	BFMT 120	BFMT 150
L - Width cm	210	210	230	230	250	270	300
P - Depth cm	73	103	130	160	210	130	130
H - Height cm	73	73	73	73	73	130	130
G4 Filters 287 x 592 x 48		1		1	2	2	2
G4 Filters 592 x 592 x 48	1	1	2	2	3	4	4
F9 Filters 287 x 592 x 525		1		1	2	2	2
F9 Filters 592 x 592 x 525	1	1	2	2	3	4	4
Plates with **8** holes	0	1	0	1	0	0	2
Plates with **16** holes	1	1	2	2	3	4	4
Activated carbon cartridges 140 x 70	16	24	32	40	48	64	80
Fan	TDAR 9/9	TDAR 12/12	TDAR 12/12	TDAR 15/15	TDAR 15/15	TDAR 18/18	TLZ 500
Air flow rate max m^3/h	3.400	5.100	6.800	8.500	10.200	13.600	17.000
Motor power Kw/h	1,5	2,2	3,0	4,0	4,0	5,5	5,5
Power supply Volt/hz/f	440/50/3	440/50/3	440/50/3	440/50/3	440/50/3	440/50/3	440/50/3
RPM	1.848	1.353	1.353	1.120	1.120	980	1.200
Useful **static pressure** m^3/h	400	400	400	400	400	400	600
Price List Control Units	**€ 6.280**	**€ 8.800**	**€ 10.280**	**€ 11.100**	**€ 12.800**	**€ 16.200**	**€ 19.480**
Electrostatic **Filters** FE 600*	1	1	2	2	2	4	4
Electrostatic **Filters** FE 300*		1		1	2		2

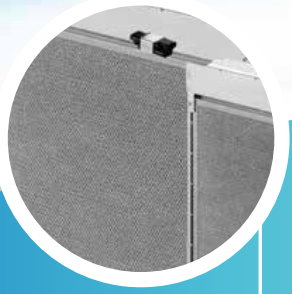
* Electrostatic filters are not included in the price.
See page 105.

CUSTOM SOLUTIONS

Sometimes, space requirements demand custom solutions.
Although it is preferred, for simplicity, to adhere to the standard configuration, it is possible to build activated carbon purifiers with different shapes or with a separate fan from the filter group

ADDITIONAL ALUMINA FILTRATION

There is the possibility, as a customized arrangement and without altering the standard dimensions, to insert one or more flat
Alumina filters (depending on the size of the purifier) between the F7 filter and the activated carbon housing. This measure helps enhance the odor removal treatment and eliminate moisture present in the fumes.
The cells containing Alumina are flat, with dimensions of 592 x 592 mm and a thickness of 20 mm; they are removable, just like the cartridges, to allow for the replacement of the active substance. Alumina is aluminum oxide, Al2O3, which, like activated carbon, is a porous substance. It is impregnated with weakly reactive substances, such as potassium permanganate (KMnO4, with oxidizing power) and iron hydroxide (FeOH3, a weakly caustic substance); these substances help dissolve odor particles.
The hygroscopicity of Alumina, along with the filters in pleated and fabric material, helps reduce the moisture contribution of the fumes; in extreme cases, a condensate drain can be provided in the purifier.
The high cost of Alumina generally discourages its use as a substitute for activated carbon in cartridges, but by using a flat filter as a pre-treatment to the activated carbon, a good compromise can be achieved without significantly increasing resistance and, therefore, without needing to adopt a larger fan.



ELECTROSTATIC FILTERS

ELECTROSTATIC FILTERS

ELECTROSTATIC FILTERS ARE A NEW RANGE OF FILTERS IN CLASS A, B, C, D (UNI 11254), EASILY USABLE IN NEW AND/OR EXISTING SYSTEMS WITHOUT ADAPTATION COSTS.

THE MAIN FEATURES ARE:

- standardized dimensions of 592 x 592 x 283 mm, 592 x 280 x 283 mm
- integrated electronic circuit with complete waterproof sealing;
- multipole connections for mains power supply (230V - 50/60Hz) and for series connection;
- self-centering system capable of compensating construction imperfections up to 3 mm of error;
- filter status indication visible on the filter via built-in LED and externally via dedicated accessories.

PERFORMANCE:

- high filtration efficiency on particles 0.3–0.4 microns, comparable to class H (UNI 1822);
- excellent solution for outdoor pollution from PM10, PM2.5, and PM1;
- high reduction of airborne bacterial load;
- excellent protection for heat exchange batteries and air distribution ducts.

Compared to traditional filtration, the FE system offers:
- significant energy savings due to low pressure drop;
- constant filtration efficiency up to a load of 600 g of fine dust.

The FE system represents an alternative to traditional pocket filters and is designed to facilitate the use of electrostatic filters.
Its adoption in general ventilation systems, particularly in the air conditioning sector, does not require changes to the constructional and dimensional characteristics of the system.
Thanks to its multipolar connection system, the installation and removal of FE model electrostatic filters is done by simply sliding them onto the filter frame of the air conditioning unit.

APPLICATION SECTORS:
HVAC, HOSPITAL, CATERING, FOOD INDUSTRY, INDUSTRIAL.

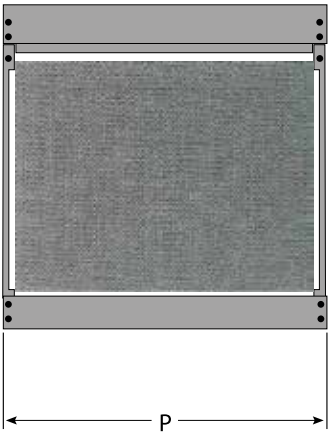
The main features are:
Installation inside HVAC units, commercial and industrial settings, kitchen smoke treatment for catering, control of airborne contamination for patient rooms, clean rooms, clinics, waiting rooms, etc.
Filtration of welding fumes from ferrous metals, precious metals, electronic circuit boards, etc.

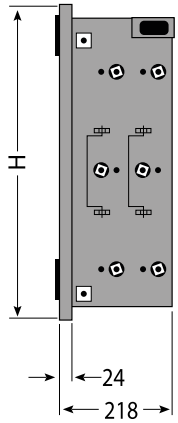
ETC GROUP S.R.L.
AIR FILTRATION TECHNOLOGIES

MODELS

MOD.	Dimensions P x H x 218mm	Weight kg	Electrical Powe W	Storage Capacity G	AIR FLOW RATE in m³/h					PRICE Filter without container
FE 300	287 x 592	10	9	282	600	600	1000	1200	1600	**€ 2.915**
FE 600	592 x 592	19	16	600	1300	1700	2100	2550	3360	**€ 3.245**

Filtration class UNI11254 - Efficiency % on DEHS at 0.4µm		A Em > 99	B 99>Em>95	C 99>Em>90	D 80>Em>90	.
Efficiency % on particles larger than 0.5µm	**%**	96,6	96,5	98,4	97,3	93,2
Pressure drop	**PA**	10	17	25	34	63
Percentage of maximum air flow rate	**%**	39	50	63	76	100





Frame: aluminum
Pre-filter: metal mesh, air inlet side.
Power supply: 230 volts, 50Hz

ELECTROSTATIC FILTERS

ETC GROUP S.R.L
AIR FILTRATION TECHNOLOGIES

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AIR PURIFICATION AND STERILIZATION SYSTEMS

FILTRATION BOX

PLASMA AND UV-C

ETC GROUP S.R.L. UV-C SANITIZER

UV-C radiation has the ability to destroy the DNA or RNA of microorganisms, preventing their reproduction. For this reason, the virucidal and bactericidal action of UV-C light can eliminate 99.9% of pathogens present in environments.

The ETC GROUP S.r.l. UV-C sanitizer uses powerful UV-C lamps that emit germicidal ultraviolet radiation, UV-C, with a peak at 254 nm. These lamps ensure the destruction of all microorganisms by inactivating the DNA of bacteria, viruses, molds, and other pathogenic organisms. These airborne pathogens are responsible for infections such as meningitis, tuberculosis, flu, measles, and many other diseases, including pandemics. The power of UV-C technology kills bacteria dispersed in the air where it is installed.

There are several standards that define what distinguishes HEPA filters. According to the two most common standards, an air filter must remove (from the air passing through it) 99.95% (European standard) or 99.97% (ASME standard) of particles that are greater than or equal to 0.3 µm in size.

The next-generation electrostatic filtration technology (cold plasma technology) can be used to supplement ventilation systems for airborne infection control in hospitals and enclosed spaces. The advantage of electrostatic filtration lies in its ability to collect and eliminate living microbes, unlike HEPA filters. This technology is capable of collecting contaminants of all sizes.

FEATURES

1) Cold Plasma System with standardized dimensions of 592x592x230 mm
Filtration of particles 0.3–0.4 microns, comparable to class H (UNI 1822);
Classes E10, E11 according to EN 1822:2009 standards and classes ePM1, ePM2.5, and PM10 according to EN ISO 16890;
- Excellent solution for outdoor pollution from PM10, PM2.5, and PM1;
- High filtration efficiency on fine particulate matter;
- Elimination and inactivation of airborne viruses and bacteria;
- Elimination of contagion risk;
- Air sanitization and disinfection.

2) Treatment with UV-C lamps, 254nm (Ministry of Health guidelines, Report of 23/06/2020, page 42)

External dimensions: 730 x 130 x 100 cm, in sandwich panel construction.

MODELS

BOX UV-C 30
3.400 m³/h - Electrical power 150 watts
PRICE: € 5.548 + VAT

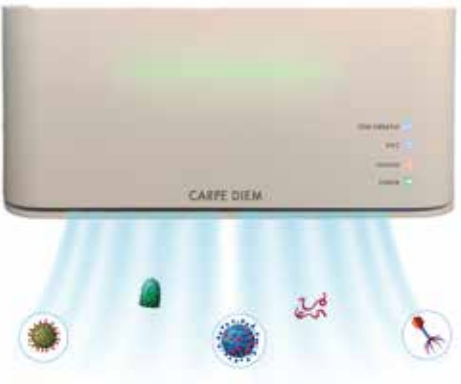
BOX UV-C 60
6.800 m³/h - Electrical power 590 watts
PRICE: € 9.436 + VAT

BOX UV-C 90
10.200 m³/h - Electrical power 650 watts
PRICE: € 14.284 + VAT

BOX UV-C 120
13.600 m³/h - Electrical power 700 watts
PRICE: € 18.873 + VAT

BOX UV-C 150
17.000 m³/h - Electrical power 750 watts
PRICE: € 28.569 + VAT

BOX UV-C 200
20.400 m³/h - Electrical power 850 watts
PRICE: € 32.060 + VAT



CATALYST

TIO² - NEGATIVE IONS - UV-C

AN INNOVATIVE PRODUCT, THE RESULT OF ETC GROUP'S RESEARCH.

The **Carpe Diem** air catalyst is used in all enclosed spaces where it is necessary to purify and sterilize the air we breathe, such as schools, offices, homes, hospitals, nursing homes, and more.
Thanks to the combined technologies, the Carpe Diem stands out in its range of catalysts. The device is based on negative ion technology (100 million/ppm), releasing a very high amount of negative ions into the surrounding environment, which capture the fine particulate matter suspended in the air.
Additionally, the UV-C spectrum, through the dedicated lamp installed with a frequency of 254nm (recommended by the Ministry of Health), performs a germicidal action on the RNA and DNA of bacteria and any viruses in the environment, breaking their membrane and deactivating them.
The Carpe Diem casing itself is a concentration of agglomerated technology (patented) that, in contact with the UV-C lamp's light and even with sunlight, produces a substance called TiO2, which is recognized as an important substance in reducing smog and volatile organic compounds (VOCs).
The device also becomes an ozone generator, requiring a capacity of 10g/h for a time period set by the manufacturer at 30 minutes. This function can be activated via the included remote control and the dedicated (Ozone) button.

CARPE DIEM AIR CATALYST

Action: up to 48 m³

PRICE: € 1.800 + VAT

Power supply: 220 volts
Negative ions: 100 million per cubic cm
UV-C Lamp: 254 µm
Ozone: 10 g/h (remotely controlled with automatic timer 30 min)
TiO²: Photocatalysis via UV-C rays and the surface of the device, certified photocatalysis agglomerate.
Weight: 7.5 kg
Dimensions: 510 x 170 x h240 mm

NOTE: THE PRODUCT IS DELIVERED NEUTRAL, WITHOUT ANY MARKINGS.

“

THE WORLD **DOESN’T CHANGE**
WITH YOUR OPINION
BUT WITH YOUR
EXAMPLE.

”

ETC GROUP S.R.L
AIR FILTRATION TECHNOLOGIES

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OZONE GENERATORS

5 - 10 - 20 GR/H

eOZONER

OZONE GENERATOR AND IONIZER MANUFACTURED BY ETC GROUP S.R.L.

Negative ions

The **eOzoner range** consists of ozone generators with an integrated ionization system for the production of negative ions in the presence of people within the room.

The unit allows for simultaneous use of ozone and negative ions, or the ozone and ionization system can be used separately.

The negative ion system can be used in the presence of people without any adverse effects.

The ozone generation system **should not be used in the presence of people.**

Ideal for bars, offices, shops, restaurants, boats, RVs, workshops, homes, etc.

Built entirely in Stainless Steel 31

REQUEST A QUOTE

CONFIGURATIONS:

eOZONER - 5 gr/h
eOZONER - 5 gr/h
eOZONER - 5 gr/h
eOZONER - 5 gr/h

INVERTER
AND ACCESSORIES

VECTOR INVERTERS

SINGLE-PHASE 230V - THREE-PHASE 380V

VF-NC3 SERIES VECTOR INVERTER

VF-NC3 Inverter: The solution for limited power applications.
- 110V and 230V class up to 2.2KW
- Power range 0.2 - 2.2KW
- Integrated filter category C1
- Available in 230V and 110V versions

Typical applications
- Conveyors
- Car washes
- Treadmills and general fitness applications
- Pumps and fans

Overload factor: Normal load: 120% for 60 seconds
- Heavy load: 150% for up to 2 minutes

Check the manual for maximum operating temperatures and the maximum PWM frequency values to achieve the indicated current values.
To properly size the inverter, always refer to the motor's rated current.

MODEL	KW / POWER CONSUMPTION	NET PRICE €
VF-NC3S 2002 PL-W	0,25 / 1,4 A.	€ 410
VF-NC3S 2004 PL-W	0,40 / 2,4 A.	€ 440
VF-NC3S 2007 PL-W	0,75 / 4,2 A.	€ 466
VF-NC3S 2015 PL-W	1,5 / 7,5 A.	€ 725
VF-NC3S 2022 PL-W	2,2 / 10 A.	€ 910

VECTOR INVERTER

THREE-PHASE 380V - VF-S15 SERIES

VECTOR INVERTER VF-S15

VF-S15 Inverter: High-performance inverter for synchronous and asynchronous motors up to 18.5KW,
- 230V and 400V class.
- Power range 0.4-18.5KW
- Available in 230V and 400V versions.

- Sensorless vector control
- Integrated filter category C2/C3
- 50°C operating temperature without derating
- Safety input STO SIL2 Cat.3 PLd
- Dual rating: heavy load/normal load
- Standard braking chopper
- Starting torque over 200%

MODEL	KW / POWER CONSUMPTION	NET PRICE €
VF-S15 4004 PL-W	0,4 / 1,5 A.	€ 760
VF-S15 4007 PL-W	0,75 / 2,3 A.	€ 810
VF-S15 4015 PL-W	1,55 / 4,1 A.	€ 1.000
VF-S15 4022 PL-W	2,2 / 5,5 A.	€ 1.160
VF-S15 4037 PL-W	4 / 9,5 A.	€ 1.400
VF-S15 4055 PL-W	5,5 / 14,3 A.	€ 1.984
VF-S15 4075 PL-W	7,5 / 17 A.	€ 2.160
VF-S15 4110 PL-W	11 / 27,7 A.	€ 2.810
VF-S15 4150 PL-W	15 / 33 A.	€ 3.735

ACCESSORIES
FOR TOSHIBA INVERTERS

CODE DPCR24V

24V remote control display, Waterproof

PRICE: € 114

CODE CCD5M

5m data connection cable

PRICE: € 36

CODE CINTIP45

PVC enclosure complete with filters and cable entry, Dimensions 35x22x19cm

PRICE: € 425

CODE CIFEO3IP45

PVC enclosure complete with filters and cable entry, plus contacts for ozone connection and electrostatic filters. Dimensions 45x35x19cm

PRICE: € 1.474

CODE CIFEDI45

PVC enclosure complete with filters, 220V fan, control display, and cable entry. Dimensions 35x22x19cm

PRICE: € 600

CONTROL PANEL
INVERTER

CONTROL CORE-EASY QETSFP0T0L0S VFS154037PLW1

Control Core EASY Electrical Panel
kW 4 (without inverter)
- Three-phase with canopy light selector

Construction:
- Sheet metal housing painted with oven-baked polymer coating, IP55 protection
- Door lock disconnect switch with fuse protection
- Ventilation grilles for proper airflow
- Inverter with IP20 servo
- External digital operator panel with Start/Stop switch and ABB potentiometer
- Emergency stop button with certified safety stop
- ABB LED indicator for inverter anomaly
- Dimensions: B300 x H400 x D200

- **TOSHIBA INVERTER** not included (with certified stop)
- Power supply: 323-550 V AC 50/60 Hz
- Integrated filter compatible with EN61800-3
- Overload: 120% for 60 sec, heavy load 150% up to 2 minutes

PRICE: € 1.640

CONTROL CORE-EASY QETSFP0T0L0S VFS154055PLW1

Control Core EASY Electrical Panel – kW 5.5 (without inverter)
- Three-phase with canopy light selector

Construction:
- Sheet metal housing painted with oven-baked polymer coating, IP55 protection
- Door lock disconnect switch with fuse protection
- Ventilation grilles for proper airflow
- Inverter with IP20 servo
- External digital operator panel with Start/Stop switch and ABB potentiometer
- Emergency stop button with certified safety stop
- ABB LED indicator for inverter anomaly
- Dimensions: B300 x H400 x D200

- **TOSHIBA INVERTER** not included (with certified stop)
- Power supply: 323-550 V AC 50/60 Hz
- Integrated filter compatible with EN61800-3
- Overload: 120% for 60 sec, heavy load: 150% up to 2 minutes
- Integrated braking chopper
- Digital thermal protection set to the allowable absorption of the installed motor

PRICE: € 1.740

SPEED CONTROLLERS

SINGLE-PHASE 230V

ANALOG SPEED CONTROLLER FOR MOTORS

Electronic wall-mounted speed controllers for single-phase extractor fan motors of hoods.

FEATURES:
- Adjustable speed levels
- Power scales
- Hood light control and fan speed adjustment control
- On/Off control

EASY TO USE:
- Maximum motor power from 8000W-4000W
- Plastic box installation, IP 65
- Dimensions: 175 x 128 x 93 mm
- Weight: approximately 0.20 kg

MODELS

CODE RVMF08
Single-phase speed controllers 0.80 kW
PRICE € 115

CODE RVMF10
Single-phase speed controllers 1.00 kw
PRICE € 130

CODE RVMF20
Single-phase speed controllers 2.00 kw
PRICE € 190

CODE RVMF40
Single-phase speed controllers 4.00 kw
PRICE € 230

LABYRINTH FILTERS FOR HOODS AND ACTIVE CARBON UNITS

LABYRINTH AND MESH FILTERS FOR STAINLESS STEEL HOODS.
REGENERABLE, LONG-LASTING. FLAMMABLE.

FILTERS FOR HOODS

AND ACTIVE CARBON UNITS

FLAT CELL SERIES **FIL - LAB** | MODEL **FL** | **ISO** CLASS

DESCRIPTION

Flat filter cell made of metal mesh, compliant with UL900 standards FILE: (R20682) in accordance with VDI 2052. The labyrinth filter prevents fat droplets from detaching by gravity and falling onto food and equipment below.

Filtering Media

The filtering media consists of a frame made of AISI 304 stainless steel with AISI 304 stainless steel slats.

Construction

Frame made of AISI 304 stainless steel sheet, with AISI 304 stainless steel slats.

Disposal

It can be regenerated multiple times by immersion in a solution of warm water and detergent. (CER 15 02 03 / 15 02 02* depending on usage).

Operating Limits

Maximum temperature: 300 °C (continuous operation)
Maximum relative humidity: 100%
Recommended final pressure drop: 150 Pa

Applications

Primary removal of oily mists. Filters for use in industrial kitchens.
Filtration of fatty vapors.

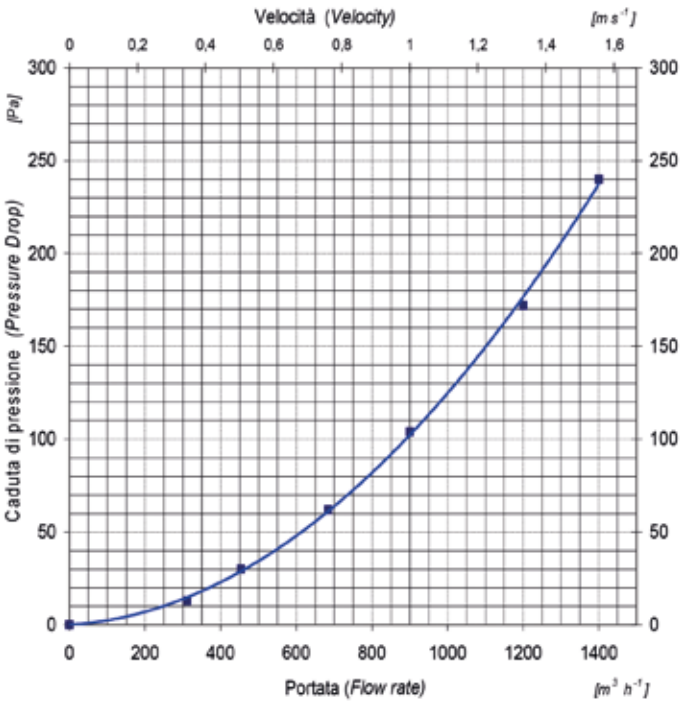
B x H x P (mm)	q_v (m^3/h)	q_v (m^3/s)	ΔP_i (Pa)	S_f (m^2)	M (Kg)
400 x 400 x 20	900	1,4	240	0,12	3
400 x 500 x 20	1200	1,4	240	0,19	3,5
500 x 400 x 20	120	1,4	240	0,12	3,5
500 x 500 x 20	1400	1,4	240	0,19	4

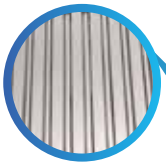
PRESSURE DROP
(compliant with UNI EN ISO 5167)

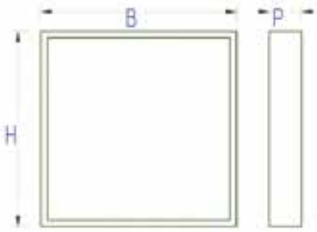
q_v Nominal volumetric airflow rate
S_f Filtration area
M Mass
ΔP_i Initial pressure drop (± 10 Pa) at airflow rate **q_v**

MODEL	DIMENSIONS	PRICE
CODE FIL.LAB 40x40x2	Dimensions 40x40x2 cm	**€ 104**
CODE FIL.LAB 40x50x2	Dimensions 40x50x2 cm	**€ 124**
CODE FIL.LAB 50x40x2	Dimensions 50x40x2 cm	**€ 124**
CODE FIL.LAB 50x50x2	Dimensions 50x50x2 cm	**€ 144**

LABYRINTH FILTERS







MESH FILTERS

FLAT CELL SERIES **PRE-FIL** | MODEL **MMC** |
ISO COARSE 30% CLASS

DESCRIPTION

Flat filtering cell made of metal mesh, ISO Coarse class 30% according to ISO 16890. The filtering media is protected by micro-perforated metal mesh on both sides, ensuring both the consistency of the pack and the robustness of the assembly.

Filtering Media

Overlay of layers of metal mesh and micro-perforated stainless steel AISI 304 mesh.

Construction

Frame made of AISI 304 stainless steel sheet. Protection meshes made of AISI 304 stainless steel.

Disposal

Can be regenerated multiple times by immersion in a solution of warm water and detergent. (CER 15 02 03 / 15 02 02* depending on usage).

Operating Limits

Maximum temperature: 300 °C (continuous operation).
Maximum relative humidity: 100%. Recommended final pressure drop: 150 Pa

Applications

Primary removal of oily mists in industrial applications.
Filtration of fatty vapors and aggressive atmospheres.

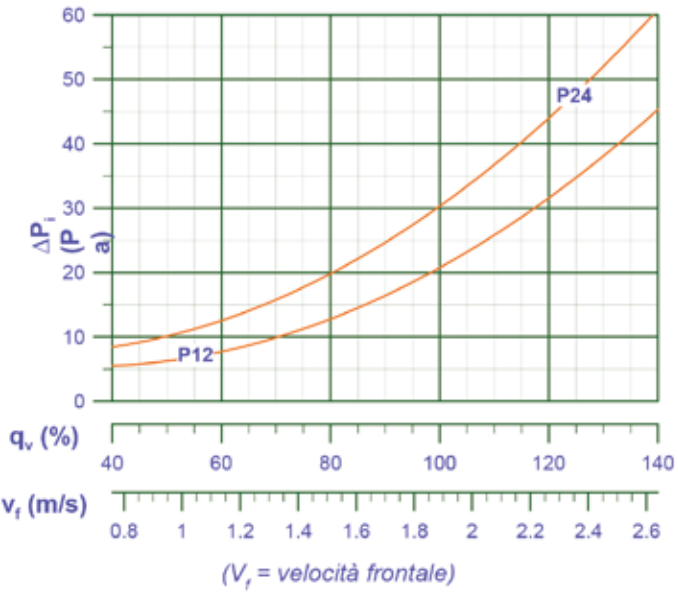
B x H x P (mm)	q_v (m^3/h)	q_v (m^3/s)	ΔP_i (Pa)	S_f (m^2)	M (Kg)
400 x 400 x 12	850	0,24	20	0,12	0,6
500 x 400 x 12	1400	0,39	20	0,19	1,1
500 x 500 x 12	1750	0,49	20	0,24	1,2
400 x 400 x 20	850	0,24	30	0,12	1,0
500 x 400 x 20	1400	0,39	30	0,24	2,0
500 x 500 x 20	1750	0,49	30	0,24	2,0

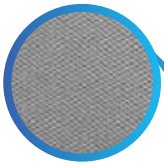
PRESSURE DROP
(compliant with UNI EN ISO 5167)

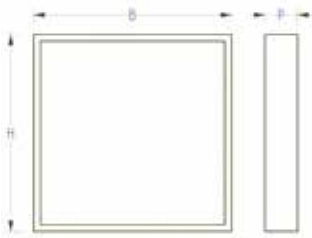
q_v Nominal volumetric airflow rate
S_f Filtration area
M Mass
ΔP_i Initial pressure drop (± 10 Pa) at airflow rate **q_v**

MODEL	DIMENSIONS	PRICE
MESH FILTER CODE 40x40x1,2	Dimensions 40x40x1,2 cm	**€ 97**
MESH FILTER CODE 50x40x1,2	Dimensions 50x40x1,2 cm	**€ 110**
MESH FILTER CODE 50x50x1,2	Dimensions 50x50x1,2 cm	**€ 113**
MESH FILTER CODE 40x40x2	Dimensions 40x40x2 cm	**€ 143**
MESH FILTER CODE 50x40x2	Dimensions 50x40x2 cm	**€ 180**
MESH FILTER CODE 50x50x2	Dimensions 50x50x2 cm	**€ 190**

MESH FILTERS







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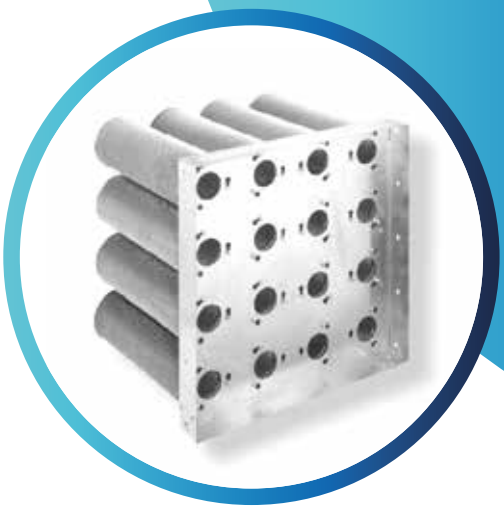


CARTRIDGE AND CONTAINER

CHANNEL CARTRIDGE SERIES BOX

STAINLESS STEEL 304 FILTER PLATE FOR RANGE HOODS. COMPLETE WITH HOLES FOR CARTRIDGE MOUNTING. FOR CARTRIDGES WITH DIMENSIONS 140 X 70 X H400MM.

MODELS

CODE PCCA1 X 16

Support plate made of galvanized steel sheet, complete with holes for quick mounting.
Dimensions: 610 x 610 x 70 mm

PRICE UPON REQUEST

CODE PCCA1/2 X 8

Support plate made of galvanized steel sheet, complete with holes for quick mounting.
Dimensions: 610 x 305 x 70 mm

PRICE UPON REQUEST

CODE CCA 140 X 70 X H400

Activated carbon cartridge for odor control active carbon units.
Dimensions: H. 400 mm – DN. 140 mm X 70 mm

PRICE € 138

CODE CCA 160 X 90 X H400

Activated carbon cartridge for odor control active carbon units.
Dimensions: H. 400 mm – DN. 160 mm X 90 mm

PRICE € 165

ACTIVE CARBON CARTRIDGE FILTER
P-CARB SERIES | MODEL **PCA / PCE / PCG**

DESCRIPTION

Cylindrical active carbon cartridge filter. It is typically used for deodorization and the chemical-physical absorption of gaseous pollutants.
The design of an active carbon purification system requires knowledge of the chemical composition of the contaminants, their concentration, and the thermo-hygrometric conditions of the air to be treated. The models **PCA-i, PCE-i, and PCG-i** differ based on the cartridge diameter, bed thickness, and the impregnating agent type CA-i (i=1-5: see CA data sheet) used.

Filter Media

Microgranules of mineral-based active carbon type CA-i (i = 1-5: see CA data sheet) for organic odors. Specific solutions are available depending on the application.

Construction

Support plate in galvanized steel, complete with holes for quick mounting (bayonet) of the cartridges. Refillable cylindrical cartridges (PC-iR), with support grids made of expanded metal sheet and neoprene gasket on the sealing rim.

Disposal

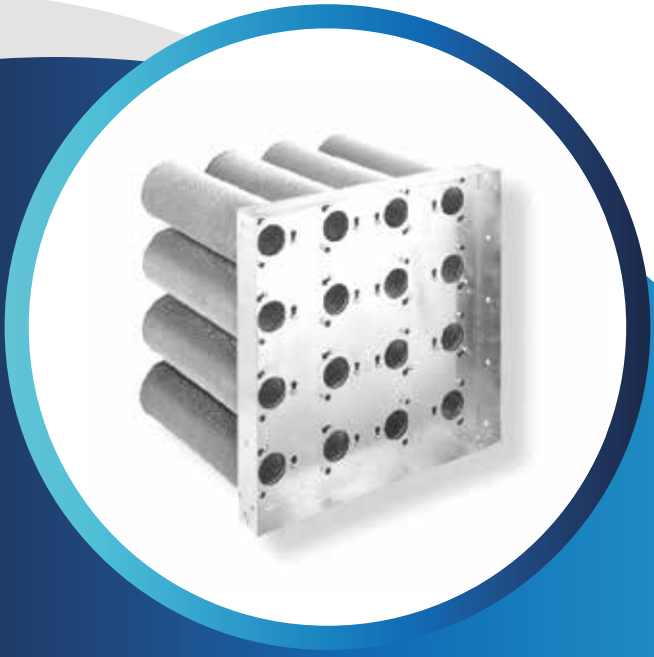
Regenerable filter by specialized companies (CER 15 02 03 / 15 02 02* depending on usage).

Operating Limits

Maximum temperature: 50°C (continuous operation)
Maximum relative humidity: 70%

Applications

Air filtration and deodorization in HVAC systems for residential and industrial use where control of gaseous pollutants is required (e.g., airports, refineries, museums, laboratories, hospitals).

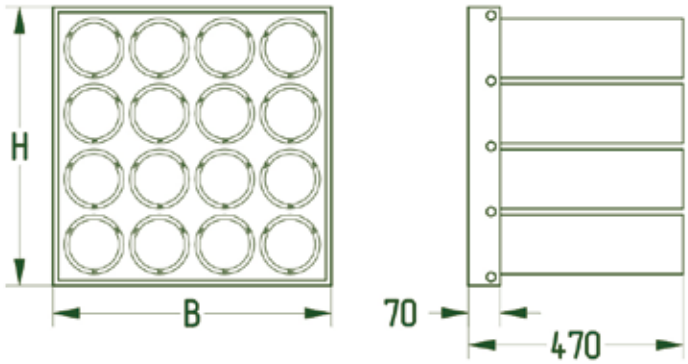


RELATED PRODUCTS
BNP: Channel container
UNI-BOX series

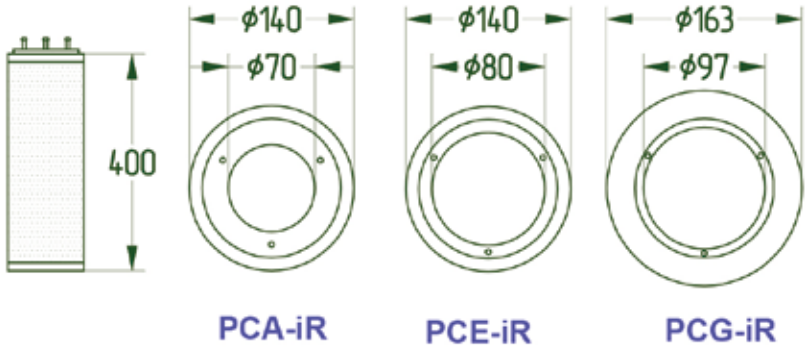
MODEL	B x H x P (mm)	N	q_v (m^3/h)	ΔP_i (Pa)	Sp_c (mm)	V_c (dm^3)	M (Kg)
PCA-i/6	305x610x470	6	1250-1500	200-280	35	27	23
PCA-i/8	305x610x470	8	1500-1850	200-280	35	36	29
PCA-i/12	610x610x470	12	2500-3000	200-280	35	54	45
PCA-i/16	610x610x470	16	3000-3700	200-280	35	72	58
PCA-i/6	305x610x470	6	1200-1250	200-280	30	21	21
PCA-i/8	305x610x470	8	1200-1250	200-280	30	28	27
PCA-i/12	610x610x470	12	2000-2500	200-280	30	42	42
PCA-i/5	610x610x470	16	2500-3000	200-280	30	56	53
PCG-i/5	305x610x470	5	1250-1500	200-280	33	27	25
PCG-i/9	610x610x470	9	2500-3000	200-280	33	49	45

N Number of cartridges **q_v** Nominal flow rate **ΔP_i** Initial pressure drop (indicative)

Sp_c Active carbon bed thickness (single cartridge) **V_c** Total volume of active carbon microgranules **M** Mass



PC□-i



PCA-iR PCE-iR PCG-iR

CORRUGATED FILTERS
FOR COARSE DUST

WAVE CELL **PRE-FILTER SERIES** | MODEL **G4** |
ISO COARSE 55% CLASS

DESCRIPTION:
Wave pre-filter cell made of synthetic fiber, ISO Coarse 55% class according to ISO 16890. The filter media is protected by a metal mesh on both sides to ensure the integrity of the pack and the consistency of the pleats.
The larger filter surface area (compared to flat cells) allows for higher dust holding capacity (DHC), thus extending operational lifespan.

Filter Media
Progressive density synthetic fiber. Frame construction in galvanized steel sheet. Protective mesh made of electro-welded galvanized steel wire.

Disposal
The removable frame allows for the separation of synthetic media from metal components. Partially regenerable. (CER 15 02 03 / 15 02 02* depending on use).

Usage Limits
Maximum temperature: 80°C (continuous operation). Maximum relative humidity: 90%. Recommended final pressure drop: 250 Pa.

Applications
Filtration of airborne solid particles in HVAC systems for both residential and industrial applications. It is commonly used as a pre-filtration stage for fine dust filters.

WAVE FILTER CELL WITH SYNTHETIC FIBER MEDIA.

Type: Wave cell
Thickness: 48/98 mm
Media: Synthetic fiber
Frame: Galvanized steel
Protective mesh: Double galvanized steel wire
Additional micro-mesh: Plastic with electrostatic effect (MEZ) according to EN 779:2002
Filtration class: G4

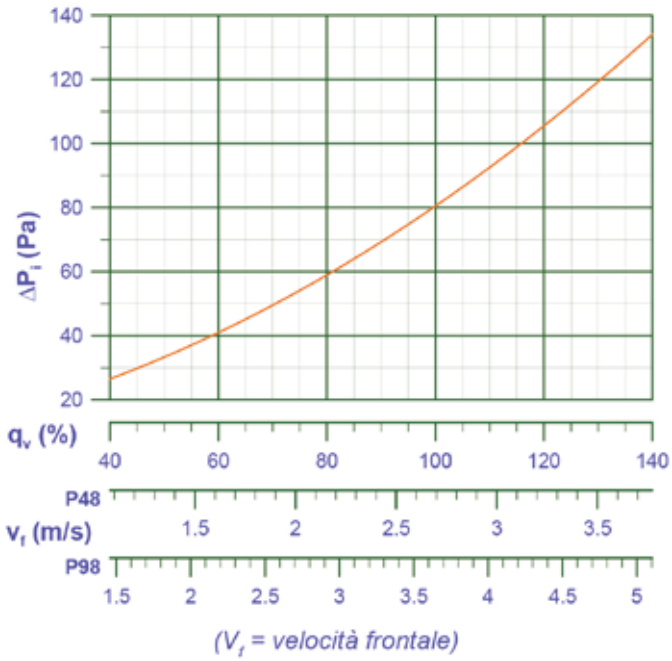
B x H x P (mm)	q_v (m^3/h)	q_v (m^3/s)	ΔP_i (Pa)	S_f (m^2)	M (Kg)
287 x 592 x 48	1650	0,46	80	0,30	1,1
597 x 597 x 48	3400	0,94	80	0,60	1,8
287 x 597 x 98	2300	0,46	80	0,40	1,8
597 x 597 x 98	4600	1,28	80	0,85	2,8

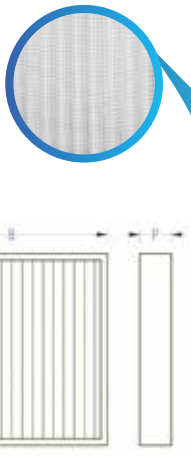
q_v Nominal volumetric airflow **ΔP_i** Initial pressure drop (± 10 Pa) at the flow rate **q_v**

S_f Filter surface area **M** Mass

MODEL	DIMENSIONS	PRICE
FILTERS G4-1/2-48	Dimensions 287x592x48 mm	**€ 29**
FILTERS G4-1- 48	Dimensions 597x597x48 mm	**€ 37,95**
FILTERS G4-1/2-98	Dimensions 287x597x98 mm	**€ 39,60**
FILTERS G4-1-98	Dimensions 597x597x98 mm	**€ 56**

*** FILTERS AVAILABLE ONLY ON ORDER**





WAVE FILTERS

RIGID POCKET FILTERS
FOR FINE DUST

MULTI-PAK SERIES RIGID POCKET FILTER | MODEL **4RT9**
CLASS **ePM$_1$ 85%**

DESCRIPTION
The 4V rigid pocket filter, class ePM1 85% according to ISO 16890. The 4-pleat frame, with low energy impact, combines low resistance to airflow with a high filter surface area, ensuring a long operational lifespan.

Filter Media
Hydrophobic pleated glass fiber paper with calibrated pleat spacing. Continuous thermoplastic wire separation.

Construction
Frame made of plastic material (polystyrene), injection molded. Polyurethane sealant (two-component).

Disposal
Filter is non-regenerable and fully incinerable. (CER 15 02 03 / 15 02 02* depending on use).

Usage Limits
Maximum temperature: 70°C (continuous operation). Maximum relative humidity: 100%. Recommended final pressure drop: 250 Pa.

Applications
Filtration of airborne solid particles in HVAC systems for both residential and industrial applications. It is also commonly used as a pre-filtration stage for HEPA filters.

4V RIGID POCKET FILTER

Class ePM1 85% according to ISO 16890. The 4-pleat frame, with low energy impact, combined with a new filter media, minimizes the pressure drop.

CODE FTRF9.1/2
F9 Rigid Pocket Filter
Dimensions: 592x287x292
PRICE: € 188

CODE FTRF9.1
F9 Rigid Pocket Filter
Dimensions: 592x592x292
PRICE: € 225

4V RIGID POCKET FILTER

Classe ePM1 85% according to ISO 16890. The 4-pleat frame, with low energy impact, impregnated with activated carbon at 500g/m². Combined with a new filter media, it minimizes the pressure drop.

CODE FTRF9CA.1/2

Rigid Pocket Filter with Activated Carbon
Dimensions: 592x287x292 mm
Weight: 3 kg

PRICE € 290

CODE FTRF9CA.1

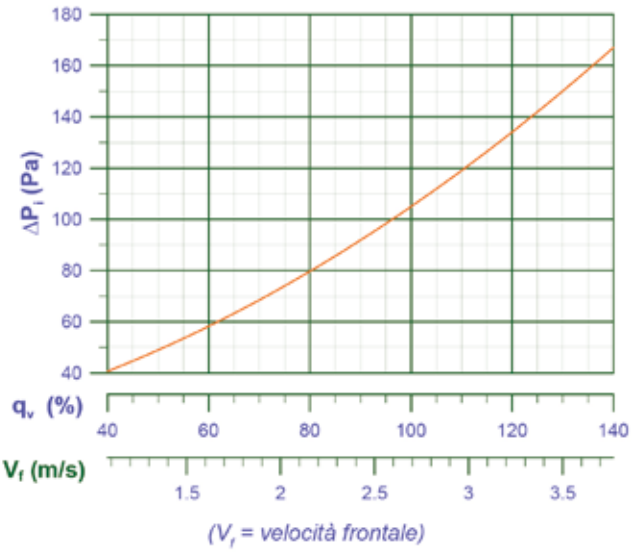
Rigid Pocket Filter with Activated Carbon
Dimensions: 592x592x282
Weight: 6 kg

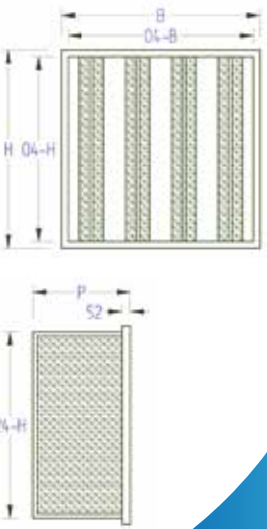
PRICE € 452

MODEL	B x H x P (mm)	q_v (m^3/h)	q_v (m^3/s)	ΔP_i (Pa)	S_f (m^2)	M (Kg)	Efficiency class*
4RT9	592 x 287 x 292	2100	0,472	105	9	2,5	ePM_1 85%
	592 x 490 x 292	3400	0,750	105	14	3,6	ePM_1 85%
	592 x 592 x 292	4200	0,944	105	18	4,5	ePM_1 85%

q_v Nominal volumetric airflow ΔP_i Initial pressure drop ± (10% + 5 Pa) at the nominal airflow rate q_v * According to ISO16890

S_f Filter surface area M Mass





WAVE FILTERS

SOFT POCKET FILTERS
FOR UNITS

FTFF8 SERIES POCKET FILTER | MODEL **95P** |
CLASSE **ePM$_{2,5}$ 70%**

DESCRIPTION
Thermally welded pocket filter, class ePM2.5 70% according to ISO 16890.
Pockets with an optimized shape for high dust holding capacity (DHC).

Filter Media
Progressively dense synthetic fiber, complete with a high-resistance external veil.

Construction
Frame made of galvanized steel sheet with no sharp edges.

Disposal
Non-regenerable filter. It is easy to separate the synthetic pockets from the metal frame for differentiated disposal (CER 15 02 03 / 15 02 02* depending on use).

Usage Limits
Maximum temperature: 80°C (continuous operation).
Maximum relative humidity: 100%. Recommended final pressure drop: 250 Pa.

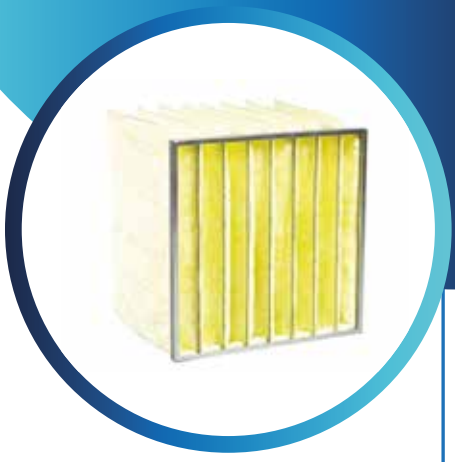
Applications
Filtration of solid particles in HVAC systems, pre-filtration stage for HEPA filters.

SPECIAL VERSIONS

9TP: Frame in plastic material
9SP1S: With gasket on the dirty side
9SP1 P: With gasket on the clean side

RELATED PRODUCTS

METM: Modular frame series **FRAM-FLO**
BNT: Channel container series **UNI-BOX**



CODE TF F9-1/2-300

Sewn Pocket Filter Class F9
Dimensions: 287x592x300 mm
Weight: 1.6 kg

PRICE € 70

CODE TF F9-1-300

Sewn Pocket Filter Class F9
Dimensions: 592x592x300 mm
Weight: 2.7 kg

PRICE € 105

CODE TF F9-3/4-300

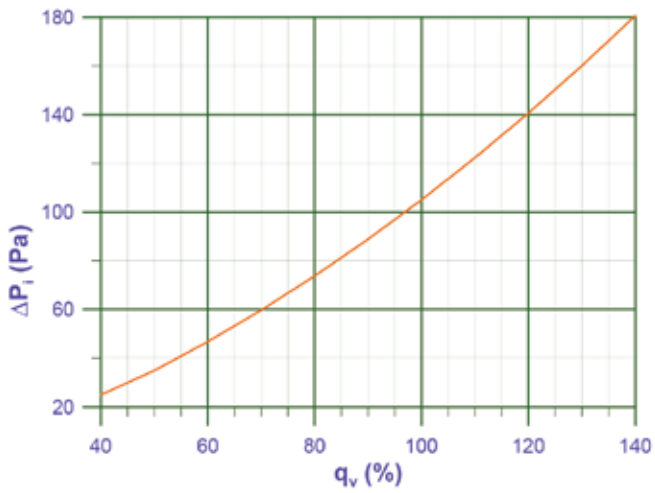
Sewn Pocket Filter Class F9
Dimensions: 490x592x300 mm
Weight: 2,kg

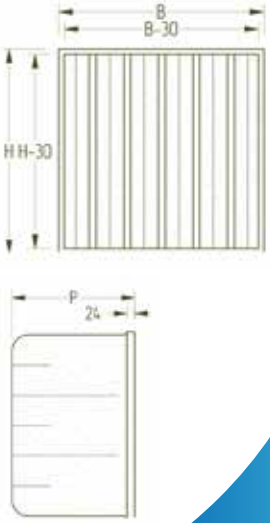
PRICE € 99

SOFT POCKET FILTERS

TYPE	B x H x P (mm)	n° (-)	q_v (m^3/h)	q_v (m^3/s)	ΔP_i (Pa)	S_f (m^2)	M (Kg)	Efficiency class*
F9-1/2-300	287 x 592 x 300	4	1400	0,40	105	2,9	1,6	$ePM_{2,5}$ 70%
F9-1-300	592 x 592 x 595	8	2900	0,81	105	5,9	2,7	$ePM_{2,5}$ 70%
F9-3/4-300	490 x 592 x 595	6	2400	0,67	105	4,5	2,0	$ePM_{2,5}$ 70%

ΔP_i Initial pressure drop ± (10% + 5 Pa) at the nominal airflow rate qv
n° Number of pockets
S_f Filter surface area
q_v Nominal volumetric airflow
M Mass
* According to ISO16890





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FLAT ACTIVATED CARBON FILTER

Flat filter constructed with micro-perforated galvanized mesh, filled with **activated carbon.** Flat filter for activated carbon hoods or other uses.

MODEL	DIMENSIONS	PRICE
FPCA 40X40X23	Dimensions 40x40x2,3 cm	€ 92
FPCA 40X50X23	Dimensions 40x50x2,3 cm	€ 121
FPCA 50X50X23	Dimensions 50x50x2,3 cm	€ 140
FPCA 287X592X48	Dimensions 28,7x59,2x4,8 cm	€ 168
FPCA 592X592X48	Dimensions 59,2x59,2x4,8 cm	€ 284

FLAT FILTER WITH ACTIVE ALUMINA

Flat filter constructed with micro-perforated galvanized mesh, filled with **active Alumina.** Filter for post-treatment systems, condensation systems.

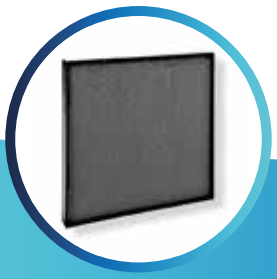
MODEL	DIMENSIONS	PRICE
FPCAL 40X40X23	Dimensions 40x40x23 cm	€ 180
FPCAL 50X40X23	Dimensions 40x50x23 cm	€ 210
FPCAL 50X50X23	Dimensions 50x50x23 cm	€ 246

FLAT FILTER WITH GEOLITE

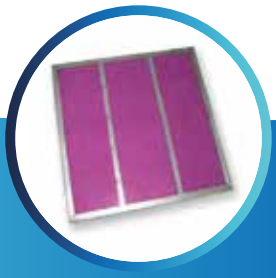
Flat filter constructed with micro-perforated galvanized mesh, filled with **Geolite.** Filter for post-treatment systems, condensation systems.

MODEL	DIMENSIONS	PRICE
FPCGE 40X40	Dimensions 40x40x23 cm	€ 160
FPCGE 50X40	Dimensions 50x40x23 cm	€ 198
FPCGE 50X50	Dimensions 50x50x23 cm	€ 220

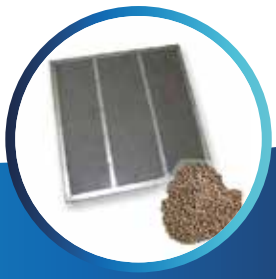
Flat Filter with Activated Carbon



Flat Filter with Active Alumina



Flat Filter with Geolite



FLAT CARBON FILTERS

ACTIVATED CARBON CELL SERIES **CARB-FIL** | MODEL **MCA / MDA**

DESCRIPTION

Activated carbon filter cell; typically used for deodorization and the chemical-physical absorption of gaseous pollutants. Designing an activated carbon purification system requires knowledge of the chemical composition of the contaminants, their concentration, and the thermohygrometric conditions of the air to be treated. Two versions are available:
MCA-i: Rechargeable cell version; MCA-i models differ based on the type of impregnating agent used (CA-i, where i=1-5, see CA data sheet).
MDA: Version with media made from granular agglomerated active alumina.

Filter Media

MCA-1: Microgranules of mineral-based activated carbon type CA-i (i = 1-5, see CA data sheet) for organic odors. **MDA:** Granular agglomerate of activated carbon. Specific solutions are available depending on the application.

Construction

Frame and containment mesh in steel (MCA-i), frame in polyurethane plastic material (MDA).

Disposal

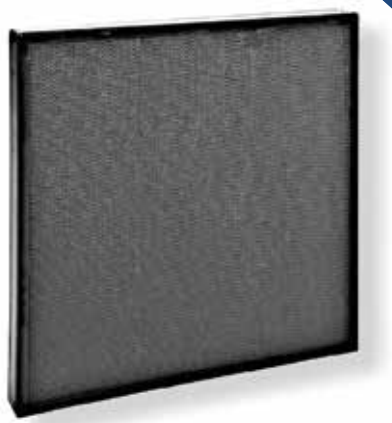
Regenerable filter through specialized companies (CER 15 02 03 / 15 02 02* depending on use).

Usage Limits

Maximum temperature: 50°C (continuous operation).
Maximum relative humidity: 70%.

Applications

Air filtration and deodorization in HVAC systems for residential and industrial use where control of gaseous pollutants is required (e.g., airports, refineries, museums, laboratories, hospitals).



ACTIVATED CARBON FOR SMOKE AND ODOR PURIFIERS.

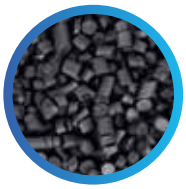
Activated carbon for activated carbon hoods, activated carbon units, and other applications.

Origin of Carbon:
Virgin mineral

Appearance: Cylinders
Granule Diameter: 4±0.3 mm

Density (ASTM 2854):
600 ± 20 kg/m³

MODEL	COMPOSITION	PRICE
CODE SCA 25KG	Activated Carbon in 25 kg Bags	€ 230
CODE CA 1KG	Activated Carbon 1 kg	€ 12

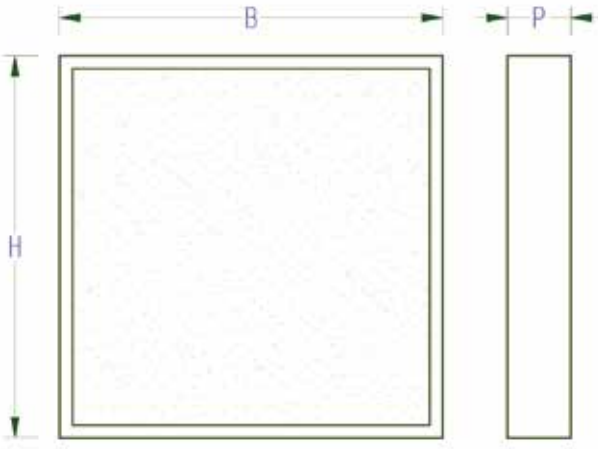


FLAT CARBON FILTERS

MOD.	B x H x P (mm)	v (m/s)	V (dm³)	ΔP_i (Pa)	M (Kg)
MCA-i	500 x 500 x 23	0,25-0,35	5,0	50-75	6
	500 x 400 x 23	0,25-0,35	4,0	50-75	4,8
	400 x 400 x 23	0,25-0,35	3,0	50-75	3,6
	500 x 500 x 48	0,25-0,35	12,0	100-150	14,4
	500 x 500 x 48	0,25-0,35	9,0	100-150	10,8
	400 x 400 x 48	0,25-0,35	7,0	100-150	8,4

v Face velocity **V** Volume of microgranules of activated carbon

ΔP_i Initial pressure drop (indicative) **M** Mass



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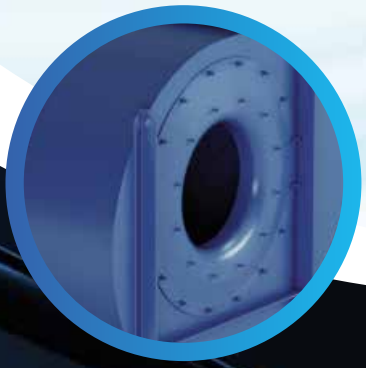


ASPIRATORS FANS IN STEEL RM SERIES

ASPIRATORS FANS IN STEEL. RM SERIES

AVERAGE FLOW RATES AND AVERAGE PRESSURES

DESCRIPTION

The high-efficiency centrifugal fans, model CA, are equipped with a squirrel-cage blade impeller. They are suitable for moving large airflows with low pressures. These fans are ideal for extracting clean air and vapors in industrial plants and HVAC systems where large volumes of air need to be moved at low pressures.

FEATURES:

- Sturdy construction in painted sheet metal
- Squirrel-cage impeller made of steel sheet, statically and dynamically balanced
- Operating range: airflows from 400 to 125,000 m^3/h, pressures from 25 to 280 mm H2O
- Operating temperature: fluid with Tmax = 60°C in standard version
- Closed asynchronous three-phase motor, 2, 4, or 6 poles, B3 or B5 configurations
- Orientation: 16 defined positions when viewing the fan from the drive side (8 clockwise RD and 8 counterclockwise LG)

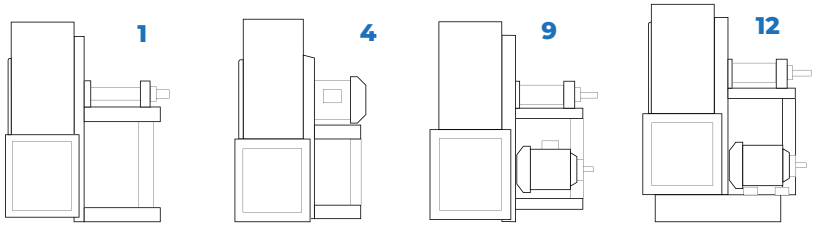
SPECIAL VERSIONS:

Spark-proof version: With non-ferrous material shields on non-rotating parts potentially in contact with the fan.
Corrosion-resistant version: With special coatings or materials (stainless steel).
High-temperature version: With a cooling fan for up to 300°C, special executions available on request for temperatures up to 450°C.
Accessories: Suction and discharge counter flanges - Protection grilles for suction and discharge - Anti-vibration mounts - Front foot - Inspection door - Condensate drain plug - Welded back - Viton seals

STANDARDIZED EXECUTIONS:

- Execution 1: Impeller mounted cantilevered, supported by the drive shaft inside the monoblock housing mounted on the external bracket of the fan scroll, coupled to the motor with belts and pulleys; Tmax = 60°C operating temperature in standard execution, with cooling fan at 300°C.
- Execution 4: Direct coupling; cantilevered impeller fitted directly onto the electric motor shaft, supported by the bracket; Tmax = 60°C operating temperature in standard execution, Tmax = 150°C in special execution.
- Execution 9: Similar to Execution 1, with the motor supported on the side of the bracket.
- Execution 12: Similar to Execution 1, with both the motor and fan mounted on the same base.

View diagrams

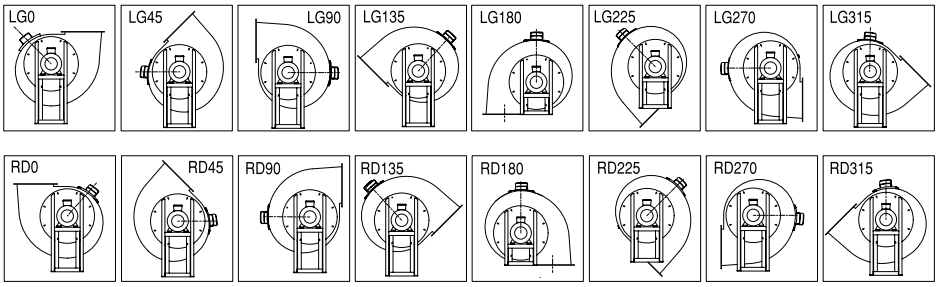


MODEL	Power Supply V-HZ	Motor Power Kw	RMP	Max Power m³/h	Final Pressure
ETCRM 220/2	230/400 - 50	0.18	2.800	830	75
ETCRM 220/2*	230/400 - 50	0.25	2.800	1.330	41
ETCRM 250/2	230/400 - 50	0.37	2.800	1.330	55
ETCRM 280/2*	230/400 - 50	0.55	2.800	1.900	53
ETCRM 280/2	230/400 - 50	0.75	2.800	1.900	69
ETCRM 310/2*	230/400 - 50	1.1	2.800	2.700	68
ETCRM 310/2	230/400 - 50	1.5	2.800	2.700	68
ETCRM 350/2*	230/400 - 50	1.5	2.840	3.850	85
ETCRM 350/2	230/400 - 50	2.2	2.850	3.850	113
ETCRM 400/2*	400/690 - 50	3.0	2.900	6.150	74
ETCRM 400/2	400/690 - 50	4.0	2.900	6.150	101
ETCRM 450/2*	400/690 - 50	5.5	2.900	8.500	97
ETCRM 450/2	400/690 - 50	7.5	2.900	8.500	127
ETCRM 500/2*	400/690 - 50	11.0	2.930	12.000	120
ETCRM 500/2	400/690 - 50	15.0	2.930	12.000	120
ETCRM 560/2*	400/690 - 50	18.5	2.930	17.000	151
ETCRM 560/2	400/690 - 50	22.0	2.940	17.000	221
ETCRM 560/4	400/690 - 50	2.2	1.420	7.650	53
ETCRM 630/4	400/690 - 50	5.5	1.440	12.000	75

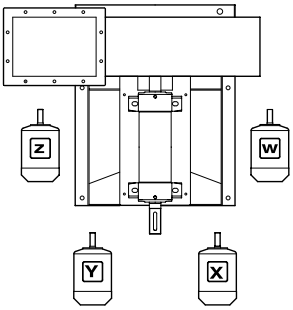
* Products available within 60 days from the order.

CENTRIFUGAL FANS
MEDIUM PRESSURE

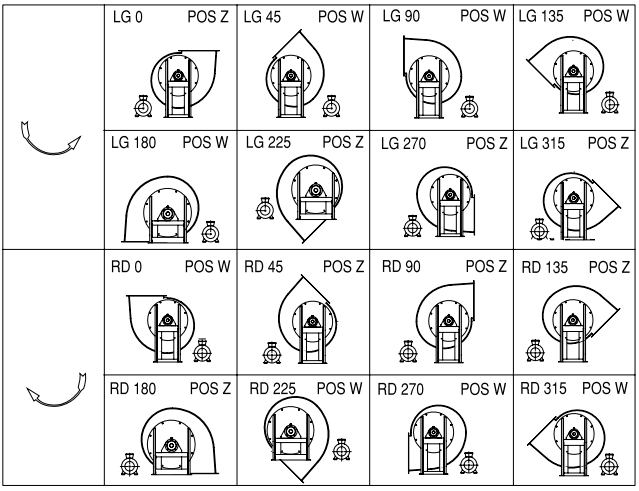
Orientation and Inspection Ports of **CENTRIFUGAL FANS**



Motor Position in **CENTRIFUGAL FANS**



Motor Transmission
Side View



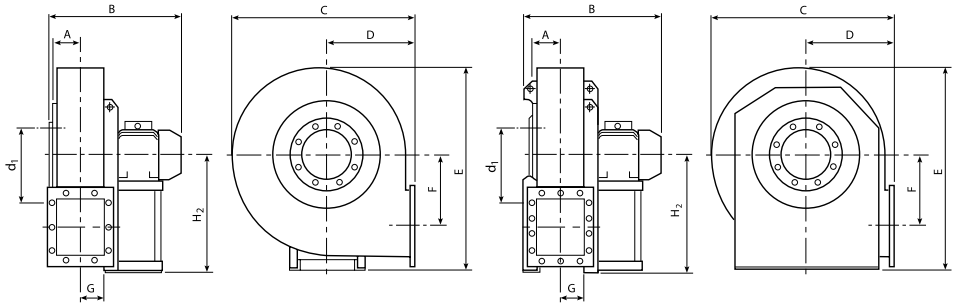
Standard Motor Positioning for Belt-driven
Fans Based on Orientation

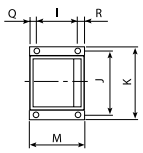
CENTRIFUGAL FANS
MEDIUM PRESSURE

Overall Dimensions and Weights of the **“RM” SERIES**

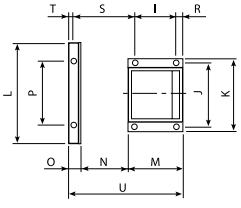
Type		Weight	PD² PGD²	Fan										Inlet flange					
Fan	Motor	kgf	kgf m ²	A	B	C	D	E	F	G	H	H_1	H_2	d	d_1	d_2	n°	Ø	
RM 220/2	63 A2	18	0,08	62	325	360	165	425	150	55	255	165	255	130	150	170	4	8	1
RM 250/2	63 B2	24	0,09	86	380	441	195	526	175	76	315	195	315	185	219	255	8	8	2
RM 250/2	71 A2	26	0,10		400														
RM 280/2	71 B2	30	0,15	95	420	477	200	610	202	86	375	200	375	205	241	275	8	8	3
RM 280/2	80 A2	32	0,16		440														
RM 310/2	80 B2	41	0,19	105	460	527	225	658	229	96	400	225	400	228	265	298	8	8	4
RM 310/2	90 S2	44	0,21		480														
RM 350/2	90 S2	66	0,43	115	500	600	255	740	253	107	450	255	450	255	292	325	8	10	5
RM 350/2	90 L2	69	0,50		530														
RM 400/2	100 LA2	107	0,70	127	590	655	285	815	286	118	500	285	500	285	332	365	8	12	6
RM 400/2	112 M2	110	0,80		630														
RM 450/2	132 SA2	150	1,2	141	670	735	320	915	321	131	560	320	560	320	366	400	8	12	7
RM 450/2	132 SB2	158	1,4		670														
RM 500/2	160 M2	235	2,3	157	830	832	360	1000	355	148	600	360	600	360	405	440	8	12	8
RM 500/2	160 M2	247	2,6		830														
RM 500/4	90 S4	132	2,1		580														
RM 500/4	90 L4	135	2,2		615														
RM 560/2	160 L2	286	3,4	177	880	940	400	1126	390	165	670	400	670	405	448	485	12	12	9
RM 560/2	180 M2	316	3,8		935														
RM 560/4	100 L4	140	3,2		705														
RM 560/4	100 L4	144	3,3		705														
RM 630/4	112 M4	178	5,6	195	775	1052	450	1260	439	185	750	450	750	455	497	535	12	12	10
RM 630/4	132 S4	191	6,3		815														
RM 710/4	132 M4	285	10,6	216	880	1189	500	1416	500	202	670	500	850	505	551	585	12	14	11
RM 710/4	160 M4	308	11,8		960														
RM 800/4	160 L4	400	17	241	1010	1340	560	1591	560	226	755	560	950	565	629	665	12	14	12
RM 800/4	180 M4	430	19		1050														
RM 800/6	132 M6	330	16		940														
RM 800/6	132 M6	340	18		940														
RM 900/4	200 L4	580	30	275	1230	1500	630	1780	630	253	850	630	1060	635	698	735	12	14	13
RM 900/4	225 S4	620	34		1260														
RM 900/6	160 M6	465	29		1070														
RM 900/6	160 L6	495	33		1070														
RM 1000/4	225 M4	760	48	308	1320	1685	710	1993	710	284	950	710	1180	715	775	815	16	14	14
RM 1000/4	250 M4	830	53		1380														
RM 1000/6	180 L6	652	47		1230														
RM 1000/6	200 L6	679	52		1300														
RM 1120/4	280 S4	1220	106	350	1620	1884	800	2222	800	319	1060	800	1320	805	861	905	16	14	15
RM 1120/4	280 M4	1257	118		1620														
RM 1120/6	200 L6	995	114		1390														
RM 1120/6	225 M6	1043	116		1410														
RM 1250/6	250 M6	1330	180	388	1550	2116	900	2517	900	357	1190	900	1500	905	958	1005	16	14	16
RM 1250/6	280 S6	1405	190		1700														
RM 1400/6	280 M6	1850	300	442	1790	2325	1000	2816	1000	400	1320	1000	1700	1007	1067	1107	24	14	17
RM 1400/6	315 S6	1970	315		1800														

Fan Weight in kgf (including motor)





250 ÷ 500
The fan is adjustable



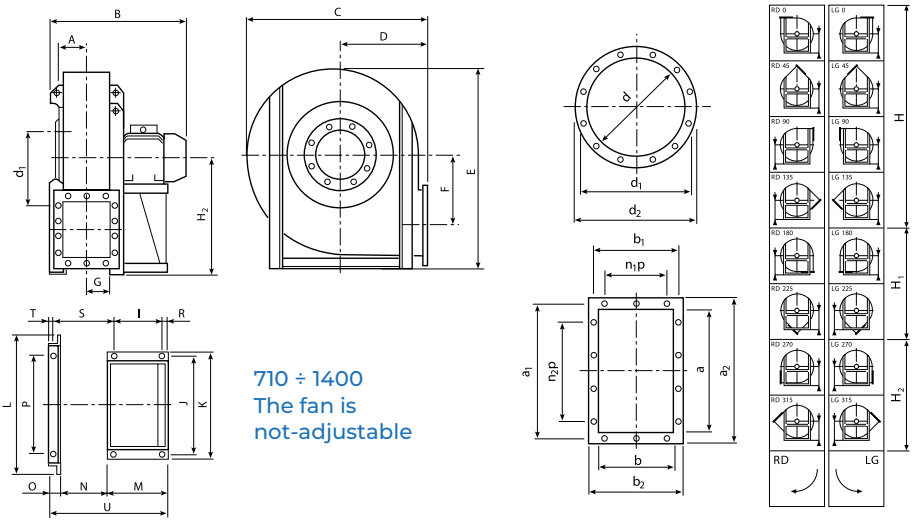
560 ÷ 630
The fan is adjustable

CENTRIFUGAL FANS
MEDIUM PRESSURE

Overall Dimensions and Weights of the **“RM” SERIES**

	Pressing Flange										Base														
	a	b	a_1	b_1	a_2	b_2	$n_1$xp	$n_2$xp	n°	Ø	I	J	K	L	M	N	O	P	Q	R	S	T	U	Ø	
1	124	103	145	125	164	143	-	-	4	8	86	184	206	-	145	-	-	-	45	14	-	-	-	10
2	207	148	241	182	277	218	1x112	1x112	8	12	86 121	184 203	206 225	-	145 189	-	-	-	45 45	14 23	-	-	-	10 10
3	231	166	265	200	301	236	1x112	1x112	8	12	121 121	203 203	225 225	-	189 211	-	-	-	45 45	23 45	-	-	-	10 10
4	258	185	292	219	328	255	1x112	2x112	10	12	121 133	203 234	225 260	-	211 246	-	-	-	45 55	45 58	-	-	-	10 10
5	288	205	332	249	368	285	1x125	2x125	10	12	133 133	234 234	260 260	-	246 246	-	-	-	55 55	58 58	-	-	-	10 10
6	322	229	366	273	402	309	1x125	2x125	10	12	197 197	289 289	324 324	-	276 276	-	-	-	30 30	49 49	-	-	-	12 12
7	361	256	405	300	441	336	1x125	2x125	10	12	237 237	337 337	372 372	-	336 336	-	-	-	40 40	59 59	-	-	-	12 12
8	404	288	448	332	484	368	2x125	3x125	14	12	337 337 133 133	395 395 234 234	440 440 260 260	-	436 436 246 246	-	-	-	50 50 55 55	49 49 58 58	-	-	-	14 14 10 10
9	453	322	497	366	533	402	2x125	3x125	14	12	337 357 197 197	395 434 289 289	440 488 324 324	692	436 460 276 276	326	53	632	-	49 33 49 49	406 426 386 386	23	815 839 655 655	14 17 12 12
10	507	361	551	405	587	441	2x125	3x125	14	12	197 237	289 337	324 372	762	276 336	365	53	702	-	49 59	425 435	23	694 754	12 12
11	569	404	629	464	669	504	2x160	3x160	14	14	201 316	772	826	915	336 436	404	60	772	-	75 60	497	27	800 900	20
12	638	453	698	513	738	553	2x160	3x160	14	14	315 361 201 201	862	926	1045	436 460 336 336	453	80	862	-	60 39 75 75	546	47	970 993 870 870	20
13	715	507	775	567	815	607	2x160	4x160	16	14	401 441 316 316	962	1026	1145	500 540 436 436	507	80	962	-	39 39 60 60	600	47	1087 1127 1023 1023	20
14	801	569	871	639	921	689	2x200	3x200	14	14	440 500 360 400	1056	1128	1255	540 600 460 500	569	100	1056	-	45	657	67	1209 1269 1129 1169	20
15	898	638	968	708	1018	758	3x200	4x200	18	14	565 565 375 415	1178	1268	1400	690 690 500 540	638	100	1178	-	45	763	55	1428 1428 1238 1278	24
16	1007	715	1077	785	1127	835	3x200	4x200	18	14	475 565	1310	1400	1530	600 690	715	100	1310	-	45	840	55	1415 1505	24
17	1130	801	1210	881	1270	941	3x200	5x200	20	18	535 645	1450	1560	1690	690 800	801	130	1450	-	55	946	85	1621 1731	24

Fan Weight in kgf (including motor)



710 ÷ 1400
The fan is
not-adjustable

ASPIRATORS RM SERIES

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CENTRIFUGAL FANS
MEDIUM PRESSURE

Blower Outlet Characteristics of the **“RM” SERIES** Fans

Type						Flow Tolerance ± 5%																			
Fan	Motor	Kw inst.	Kw ass.	n	dB(A)	360	400	435	470	540	615	680	750	830	930	1080	1190	1330	1500	1700	1900	2150	2400	2700	
RM 220/2	63 A2	0,18	0,17	2750	64	75	78	76	75	71	64	59	51	42											1
RM 250/2	63 B2	0,25	0,24	2780	65				88	88	88	84	80	76	68	63	53	41							2
RM 250/2	71 A2	0,37	0,33	2780	67				102	101	100	98	95	88	82	75	66	55							3
RM 280/2	71 B2	0,55	0,45	2780	69							113	113	111	109	103	96	87	80	69	53				4
RM 280/2	80 A2	0,75	0,60	2830	70							130	129	128	126	121	113	106	95	83	69				5
RM 310/2	80 B2	1,1	0,85	2830	72										144	143	141	139	129	121	111	100	85	68	6
RM 310/2	90 S2	1,5	1,10	2840	73										165	164	163	160	154	142	133	121	106	88	7
RM 350/2	90 S2	1,5	1,48	2840	76													184	183	180	176	163	155	142	8
RM 350/2	90 L2	2,2	2,0	2850	78													210	210	208	204	198	182	171	9
RM 400/2	100 LA2	3	2,8	2900	80																242	240	238	232	10
RM 400/2	112 M2	4	3,7	2900	81																277	275	273	269	11
RM 450/2	132 SA2	5,5	5,0	2900	84																			305	12
RM 450/2	132 SB2	7,5	6,0	2900	85																			350	13
RM 500/2	160 M2	11	9,0	2930	89																				14
RM 500/2	160 M2	15	12	2930	89																				15
RM 560/2	160 L2	18,5	16	2930	91																				16
RM 560/2	180 M2	22	19,5	2940	92																				17
RM 500/4	90 S4	1,1	1,0	1400	68																89	88	86	83	18
RM 500/4	90 L4	1,5	1,3	1400	69																102	101	100	97	19
RM 560/4	100 L4	2,2	1,8	1420	71																			114	20
RM 560/4	100 L4	3	2,4	1430	72																			130	21
RM 630/4	112 M4	4	3,4	1425	75																				22
RM 630/4	132 S4	5,5	4,2	1440	78																				23
RM 710/4	132 M4	7,5	6,5	1450	79																				24
RM 710/4	160 M4	11	8,0	1460	81																				25
RM 800/4	160 L4	15	12	1460	83																				26
RM 800/4	180 M4	18,5	16	1470	84																				27
RM 900/4	200 L4	30	25	1470	86																				28
RM 900/4	225 S4	37	30	1475	87																				29
RM 1000/4	225 M4	45	43	1475	90																				30
RM 1000/4	250 M4	55	51	1475	91																				31
RM 1120/4	280 S4	75	74	1475	93																				32
RM 1120/4	280 M4	90	89	1480	94																				33
RM 800/6	132 M6	4	3,4	960	73																				34
RM 800/6	132 M6	5,5	4,2	960	74																				35
RM 900/6	160 M6	7,5	7,1	965	76																				36
RM 900/6	160 L6	11	8,9	965	77																				37
RM 1000/6	180 L6	15	12	965	79																				38
RM 1000/6	200 L6	18,5	16	970	80																				39
RM 1120/6	200 L6	22	21	970	82																				40
RM 1120/6	225 M6	30	28	975	83																				41
RM 1250/6	250 M6	37	36	980	86																				42
RM 1250/6	280 S6	45	44	980	87																				43
RM 1400/6	280 M6	55	54	980	88																				44
RM 1400/6	315 S6	75	74	985	91																				45

CENTRIFUGAL FANS
MEDIUM PRESSURE

Blower Outlet Characteristics of the **“RM” SERIES** Fans

Noise Tolerance +3 dB(A)

Q v m ^{3}/h

	3050	3450	3850	4250	4750	5400	6150	6850	7650	8500	9500	10800	12000	13500	15300	17000	19000	21600	24200	27000	30600	34200	38200	42500	47500	54000	61000	68500	76500	85000
	pt mm H $_2$O = da Pa																													
1																														
2																														
3																														
4																														
5																														
6																														
7																														
8	128	107	85																											
9	155	134	113																											
10	219	205	186	168	141	112	74																							
11	256	240	229	205	178	148	101																							
12	302	299	293	274	255	234	212	180	142	97																				
13	348	344	338	326	301	282	257	223	186	127																				
14			392	388	384	377	352	328	300	271	227	180	120																	
15			448	442	440	432	416	382	360	328	283	236	180																	
16						489	485	479	470	440	410	376	341	286	225	151														
17						561	556	549	540	521	482	453	412	357	297	221														
18	80	75	68	63	53	42																								
19	94	86	82	75	66	54																								
20	113	112	107	101	94	88	80	69	53																					
21	129	127	125	120	112	104	94	83	70																					
22			148	146	141	138	135	129	123	112	98	78	57																	
23			170	166	163	160	156	151	142	131	115	99	75																	
24						192	189	186	182	178	171	163	148	129	101	75														
25						219	218	213	209	205	198	186	170	149	128	96														
26									250	247	241	236	230	220	211	191	165	130	95											
27									285	281	275	270	264	254	240	220	195	165	125											
28												334	330	326	321	315	310	295	275	255	226	181								
29												381	376	372	366	361	351	335	315	295	260	228								
30															408	405	400	395	390	380	360	340	315	285	235					
31															470	465	460	455	445	435	416	390	365	337	292					
32																		515	511	506	500	495	481	456	431	396	336	291		
33																		590	585	580	570	560	545	520	490	455	415	355		
34					110	106	105	103	100	97	92	84	72	58	43															
35					125	123	120	118	115	112	105	95	85	72	55															
36								145	142	140	138	135	134	130	120	115	95	85												
37								165	165	162	160	158	154	145	138	130	120	109												
38											180	178	177	173	170	165	158	149	138	123	101									
39											205	204	202	200	195	190	183	170	160	143	123									
40														225	223	220	219	215	210	200	189	175	155	128						
41														257	255	254	250	245	239	229	215	200	185	165						
42																	280	278	275	272	270	263	248	235	215	190	158			
43																	320	317	315	310	305	295	285	265	250	225	190			
44																				348	345	342	340	335	325	308	290	268	238	205
45																				400	395	394	385	380	370	355	330	310	280	237

CENTRIFUGAL FANS
MEDIUM PRESSURE

Suction Characteristics of the **"RM" SERIES** Fans

Type						Flow Tolerance ± 5%																				
Fan	Motor	Kw inst.	Kw ass.	n	dB(A)	360	400	435	470	540	615	680	750	830	930	1080	1190	1330	1500	1700	1900	2150	2400	2700	
RM 220/2	63 A2	0,18	0,16	2750	66	75	73	72	71	68	61	55	51	42											1
RM 250/2	63 B2	0,25	0,23	2780	67				81	81	80	78	76	71	67	60	50	40							2
RM 250/2	71 A2	0,37	0,30	2780	69				96	94	92	90	88	82	78	71	62	51							3
RM 280/2	71 B2	0,55	0,44	2780	71							104	103	101	98	97	92	86	76	64	51				4
RM 280/2	80 A2	0,75	0,59	2830	72							122	120	119	116	112	106	98	90	80	68				5
RM 310/2	80 B2	1,1	0,84	2830	75										134	133	131	128	122	116	109	96	82	65	6
RM 310/2	90 S2	1,5	1,05	2840	75										157	154	151	147	143	133	127	116	102	88	7
RM 350/2	90 S2	1,5	1,45	2840	80													171	170	168	164	158	148	140	8
RM 350/2	90 L2	2,2	1,95	2850	80													200	195	192	187	184	172	162	9
RM 400/2	100 LA2	3	2,75	2900	82																224	223	211	210	10
RM 400/2	112 M2	4	3,65	2900	83																262	258	253	248	11
RM 450/2	132 SA2	5,5	4,95	2900	86																			282	12
RM 450/2	132 SB2	7,5	5,9	2900	87																			332	13
RM 500/2	160 M2	11	8,9	2930	90																				14
RM 500/2	160 M2	15	11,8	2930	90																				15
RM 560/2	160 L2	18,5	15,8	2930	93																				16
RM 560/2	180 M2	22	19,2	2940	94																				17
RM 500/4	90 S4	1,1	0,99	1400	71																83	82	80	78	18
RM 500/4	90 L4	1,5	1,24	1400	72																96	93	92	90	19
RM 560/4	100 L4	2,2	1,7	1420	74																			105	20
RM 560/4	100 L4	3	2,3	1430	75																			123	21
RM 630/4	112 M4	4	3,4	1425	78																				22
RM 630/4	132 S4	5,5	4,1	1440	79																				23
RM 710/4	132 M4	7,5	6,4	1450	82																				24
RM 710/4	160 M4	11	7,9	1460	84																				25
RM 800/4	160 L4	15	11,8	1460	86																				26
RM 800/4	180 M4	18,5	15,4	1470	87																				27
RM 900/4	200 L4	30	24	1470	89																				28
RM 900/4	225 S4	37	29	1475	90																				29
RM 1000/4	225 M4	45	42	1475	93																				30
RM 1000/4	250 M4	55	50	1475	94																				31
RM 1120/4	280 S4	75	73	1475	96																				32
RM 1120/4	280 M4	90	88	1480	97																				33
RM 800/6	132 M6	4	3,3	960	76																				34
RM 800/6	132 M6	5,5	4,1	960	77																				35
RM 900/6	160 M6	7,5	7,0	965	79																				36
RM 900/6	160 L6	11	8,8	965	80																				37
RM 1000/6	180 L6	15	11,8	965	82																				38
RM 1000/6	200 L6	18,5	15,5	970	83																				39
RM 1120/6	200 L6	22	20,5	970	85																				40
RM 1120/6	225 M6	30	27	975	86																				41
RM 1250/6	250 M6	37	35	980	89																				42
RM 1250/6	280 S6	45	43	980	90																				43
RM 1400/6	280 M6	55	53	980	91																				44
RM 1400/6	315 S6	75	73	985	94																				45

CENTRIFUGAL FANS
MEDIUM PRESSURE

Suction Characteristics of the **“RM” SERIES** Fans

Noise Tolerance +3 dB(A)

Q v m ³/h

	3050	3450	3850	4250	4750	5400	6150	6850	7650	8500	9500	10800	12000	13500	15300	17000	19000	21600	24200	27000	30600	34200	38200	42500	47500	54000	61000	68500	76500	85000
	pt mm H ₂O = da Pa																													
1																														
2																														
3																														
4																														
5																														
6																														
7																														
8	124	106	85																											
9	148	130	113																											
10	208	196	183	163	139	110	73																							
11	242	228	212	196	172	145	101																							
12	280	277	270	262	246	230	205	175	138	97																				
13	326	319	313	307	287	268	246	215	182	125																				
14			365	360	355	348	335	316	296	263	224	177	120																	
15			424	416	407	399	390	367	342	315	276	233	180																	
16						454	450	444	434	420	395	369	329	280	220	151														
17						531	521	511	501	491	461	430	395	345	285	221														
18	76	73	67	60	52	41																								
19	88	83	78	72	63	52																								
20	103	101	99	96	92	86	76	65	52																					
21	120	118	115	112	106	98	91	81	68																					
22			140	138	135	131	126	122	118	110	98	78	57																	
23			160	158	154	150	146	143	138	128	117	98	75																	
24						181	178	174	170	166	162	158	144	129	104	74														
25						208	205	201	198	193	190	185	166	150	128	97														
26									235	232	226	221	215	211	206	186	166	136	95											
27									271	266	261	255	250	246	236	215	196	166	125											
28												314	311	305	300	296	291	286	271	245	221	180								
29												361	356	351	346	340	330	311	301	291	261	229								
30															389	384	380	375	371	361	345	321	310	276	231					
31															445	440	435	430	425	410	395	380	360	330	290					
32																		485	481	476	471	466	461	445	421	391	345	290		
33																		555	550	545	540	535	531	510	481	451	406	351		
34					103	101	99	97	93	91	89	81	73	57	42															
35					119	116	112	110	107	105	102	94	85	73	55															
36								139	136	135	131	129	127	124	119	108	95	85												
37								158	155	152	150	148	141	136	132	128	120	109												
38											172	170	166	163	161	157	152	145	137	123	101									
39											195	192	190	187	184	180	174	166	158	143	123									
40														212	209	207	203	200	198	194	184	172	153	128						
41														242	240	237	234	231	228	225	211	197	181	165						
42																	264	260	256	253	250	245	240	230	213	190	158			
43																	302	299	295	290	286	282	277	263	245	225	191			
44																				329	324	320	315	310	305	300	286	266	238	205
45																				379	373	367	363	358	354	346	326	305	280	237

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AIR FILTRATION TECHNOLOGIES

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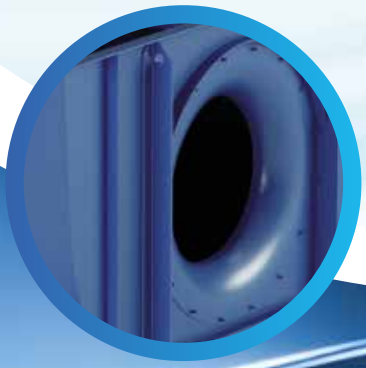


ASPIRATORS FANS IN STEEL RL SERIES

ASPIRATORS FANS IN STEEL. RL SERIES

AVERAGE FLOW RATES AND AVERAGE PRESSURES

DESCRIPTION

The high-efficiency centrifugal fans, model RL, equipped with a backward-curved impeller, are suitable for handling high flow rates with low pressures. They are designed to extract clean and slightly dusty air in industrial and HVAC systems, where large air volumes are moved with medium to low pressures.

FEATURES:

- Sturdy construction with painted sheet metal.
- Backward-curved impeller with a steel sheet cover, statically and dynamically balanced.
- Operating range: flow rates from 700 to 240,000 m^3/h, pressures from 10 to 388 mm H2O.
- Operating temperature: fluid with Tmax = 60°C in standard configuration.
- Closed asynchronous three-phase motor, 2, 4, or 6 poles, B3 or B5 mounting.
- Orientations: 16 predefined positions when viewing the fan from the drive side (8 clockwise and 8 counterclockwise).

SPECIAL CONSTRUCTIONS:

Spark-resistant version: with clearances on non-rotating parts potentially in contact with the fan, made of non-ferrous material.
Corrosion-resistant version: with special coatings or materials (stainless steel).
High-temperature version: with cooling fan for up to 300°C, special configurations available on request for temperatures up to 450°C.
Accessories: Suction and discharge flanges - Protection grilles for suction and discharge - Anti-vibration mounts - Front foot - Inspection hatch - Condensate drain plug - Welded back - Viton sealing

STANDARDIZED CONFIGURATIONS:

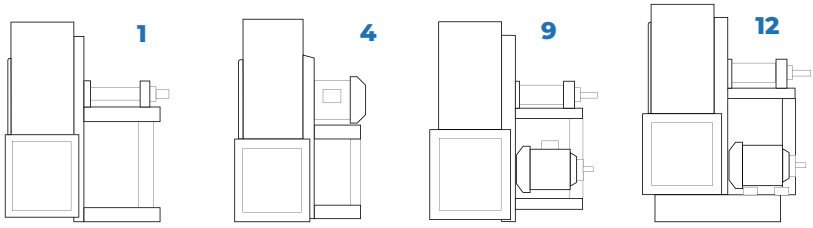
- Configuration 1: Impeller mounted on cantilever, supported by the drive shaft inside the monoblock support mounted on the external seat of the fan scroll, coupled to the motor with belts and pulleys; Tmax = 60°C operating in standard configuration, with cooling fan for 300°C.

- Configuration 4: Direct coupling; cantilever impeller directly mounted on the motor shaft, supported by the seat; Tmax = 60°C operating in standard configuration, special configuration Tmax = 150°C.

- Configuration 9: Same as Configuration 1, with the motor supported on the side of the seat.

- Configuration 12: Same as Configuration 1, with the motor and fan mounted on the same base.

See diagrams

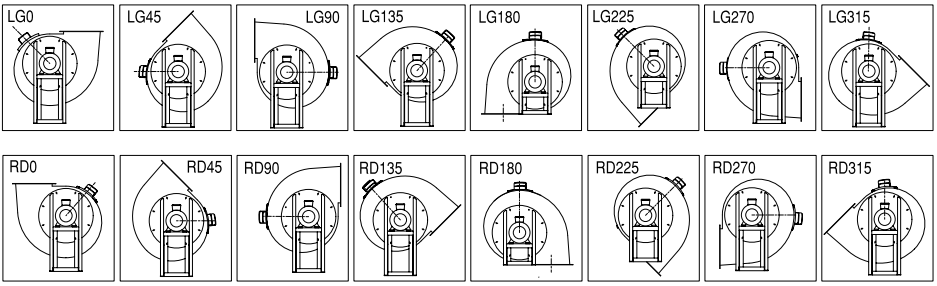


MODEL	Power Supply V-Hz	Motor Power kW	RMP	Max Power m³/h	Final Pressure
ETCRL 250/2	230/400 - 50	0.55	2.820	2.700	38
ETCRL 280/2	230/400 - 50	1.1	2.840	3.850	52
ETCRL 310/2	230/400 - 50	2.2	2.850	5.400	68
ETCRL 350/2	400/690 - 50	3.0	2.900	7.650	98
ETCRL 400/2*	400/690 - 50	4.0	2.900	9.500	95
ETCRL 400/2	400/690 - 50	5.5	2.900	12.000	76
ETCRL 450/2*	400/690 - 50	7.5	2.800	13.500	127
ETCRL 450/2	400/690 - 50	11.0	2.840	17.000	107
ETCRL 500/2*	400/690 - 50	15.0	2.850	19.000	146
ETCRL 500/2	400/690 - 50	18.5	2.940	24.200	122
ETCRL 310/4	230/400 - 50	0.18	1.310	2.700	8
ETCRL 350/4	230/400 - 50	0.37	1.360	3.850	17
ETCRL 400/4	230/400 - 50	0.55	1.370	5.400	23
ETCRL 450/4	230/400 - 50	1.1	1.390	7.650	32
ETCRL 500/4	230/400 - 50	2.2	1.420	10.800	40
ETCRL 560/4	400/690 - 50	4.0	1.440	17.000	29
ETCRL 630/4*	400/690 - 50	5.5	1.440	19.000	47
ETCRL 630/4	400/690 - 50	7.5	1.450	24.000	52
ETCRL 710/4*	400/690 - 50	11.0	1.450	27.000	85
ETCRL 710/4	400/690 - 50	15.0	1.450	34.200	63

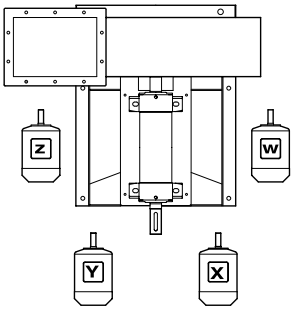
* Products available 60 days from order.

CENTRIFUGAL FANS
LOW PRESSURE

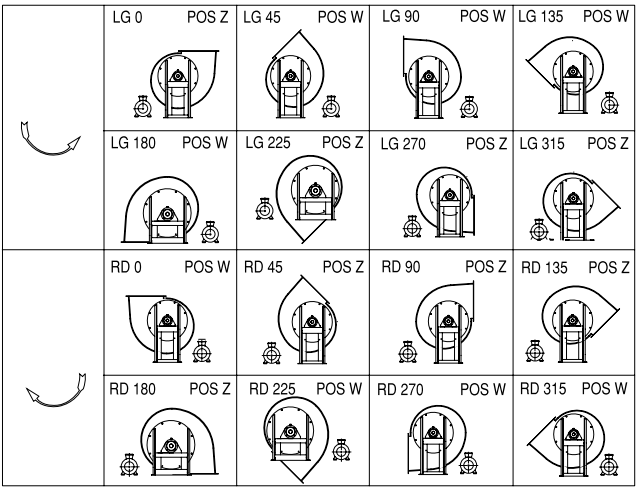
Orientations and inspection hatches of **CENTRIFUGAL FANS**



Motor positions in **CENTRIFUGAL FANS**



View from the
motor drive side



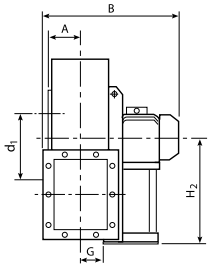
Standard motor positioning for belt-driven fans
based on orientation

CENTRIFUGAL FANS
LOW PRESSURE

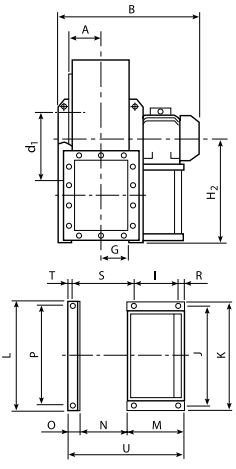
Dimensions and Weights of the **"RL" SERIES**

Type		Weight	PD² PGD²	Fan										Inlet flange					
Fan	Motor	kgf	kgf m ²	A	B	C	D	E	F	G	H	H_1	H_2	d	d_1	d_2	n°	Ø	
RL 250/2	71 B2	33	0,145	94	435	441	195	526	149	96	315	195	315	255	292	325	8	10	1
RL 280/2	80 B2	43	0,195	105	450	477	200	610	172	105	375	200	375	285	332	365	8	12	2
RL 310/2	90 L2	52	0,32	117	539	527	225	658	196	117	400	225	400	320	366	400	8	12	3
RL 310/4	63 B4	42			454														
RL 350/2	100 L2	80	0,52	130	636	600	255	740	216	131	450	255	450	360	405	440	8	12	4
RL 350/4	71 B4	65			506														
RL 400/2	112 M2	95	1,1	147	668	655	285	815	245	147	500	285	500	405	448	485	8	12	5
RL 400/2	132 S2	108			730														
RL 400/4	80 A4	75			558														
RL 450/2	132 S2	124	1,9	163	764	735	320	915	275	165	560	320	560	455	497	535	8	12	6
RL 450/2	160 M2	160			900														
RL 450/4	80 B4	89			592														
RL 450/4	90 S4	94			632														
RL 500/2	160 M2	187	3,1	183	939	832	360	1000	303	185	600	360	600	505	551	585	8	14	7
RL 500/2	160 L2	196			939														
RL 500/4	90 L4	123			671														
RL 500/4	100 L4	129			741														
RL 500/6	80 A6	115			631														
RL 500/6	80 B6	116			631														
RL 560/4	100 L4	141	5,5	205	797	940	400	1126	332	206	670	400	670	565	629	665	16	14	8
RL 560/4	112 M4	146			797														
RL 560/6	90 S6	131			727														
RL 560/6	90 L6	133			727														
RL 630/4	132 S4	190	8,7	230	908	1052	450	1260	373	231	750	450	750	635	698	735	16	14	9
RL 630/4	132 M4	204			908														
RL 630/6	100 L6	173			846														
RL 630/6	112 M6	179			846														
RL 710/4	160 M4	315	15,5	257	1105	1160	500	1416	427	256	850	500	850	715	775	815	16	14	10
RL 710/4	160 L4	326			1105														
RL 710/6	132 S6	276			969														
RL 710/6	132 M6	286			969														
RL 800/4	180 M4	402	27	287	1187	1312	560	1591	478	287	950	560	950	805	861	905	16	14	11
RL 800/4	180 L4	418			1262														
RL 800/6	132 M6	330			1051														
RL 800/6	160 M6	368			1187														
RL 900/4	225 S4	630	43	322	1408	1470	630	1780	538	319	850	630	1060	905	958	1005	16	14	12
RL 900/4	225 M4	650			1408														
RL 900/6	160 L6	500			1256														
RL 900/6	180 L6	499			1331														
RL 1000/4	250 M4	832	78	360	1505	1656	710	1993	607	358	950	710	1180	1007	1067	1107	16	14	13
RL 1000/4	280 S4	941			1635														
RL 1000/6	200 L6	697			1428														
RL 1000/6	200 L6	716			1428														
RL 1120/6	225 M6	1071	134	404	1590	1854	800	2222	684	401	1060	800	1320	1130	1200	1250	24	14	14
RL 1120/6	250 M6	1212			1590														
RL 1250/6	280 M6	1475	238	452	1818	2084	900	2517	770	449	1190	900	1500	1260	1337	1380	24	17	15
RL 1250/6	315 S6	1596			1818														
RL 1400/6	315 M6	2038	379	507	2099	2295	1000	2816	854	504	1320	1000	1700	1420	1491	1540	32	17	16
RL 1400/6	315 M6	2094			2099														

Fan weight in kgf (including motor)



250 ÷ 500
The fan is adjustable



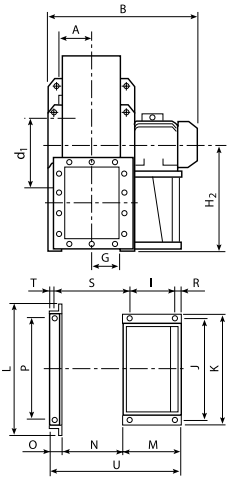
560 ÷ 800
The fan is adjustable

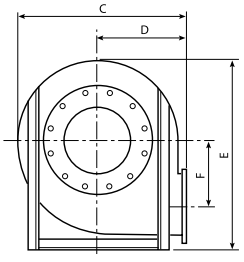
CENTRIFUGAL FANS
LOW PRESSURE

Overall dimensions and weights of the **"RL" SERIES**

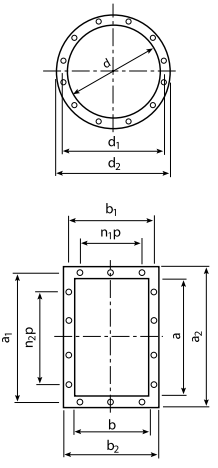
	Discharge flange										Base											
	a	b	a_1	b_1	a_2	b_2	$n_1$xp	$n_2$xp	n°	Ø	I	J	K	L	M	N	O	P	Q	R	S	T	U	Ø
1	258	185	292	219	328	255	1x112	2x112	10	12	121	203	225	-	189	-	-	-	45	23	-	-	-	10
2	288	205	332	249	368	285	1x125	2x125	10	12	121	203	225	-	211	-	-	-	45	45	-	-	-	10
3	322	229	366	273	402	309	1x125	2x125	10	12	133 86	234 184	260 206	-	246 145	-	-	-	55 45	58 14	-	-	-	10 10
4	361	256	405	300	441	336	1x125	2x125	10	12	197 121	289 203	324 225	-	276 189	-	-	-	30 45	49 23	-	-	-	12 10
5	404	288	448	332	484	368	2x125	3x125	14	12	197 237 121	289 337 203	324 372 225	-	276 336 211	-	-	-	30 40 45	49 59 45	-	-	-	12 12 10
6	453	322	497	366	533	402	2x125	3x125	14	12	237 337 121 133	337 395 203 234	372 440 225 260	-	336 436 211 246	-	-	-	40 50 45 55	59 49 45 58	-	-	-	12 14 10 10
7	507	361	551	405	587	441	2x125	3x125	14	12	337 337 133 197 121 121	395 395 234 289 203 203	440 440 260 324 225 225	-	436 436 246 276 211 211	-	-	-	50 50 55 30 45 45	49 49 58 49 45 45	-	-	-	14 14 10 12 10 10
8	569	404	629	464	669	504	2x160	3x160	14	14	197 197 133 133	289 289 234 234	324 324 260 260	692	276 276 246 246	408	53	632	-	49 49 58 58	468 468 493 493	23	737 737 707 707	12 12 10 10
9	638	453	698	513	738	553	2x160	3x160	14	14	237 237 197 197	337 337 289 289	372 372 324 324	762	336 336 276 276	457	53	702	-	59 59 49 49	527 527 517 517	23	846 846 786 786	12
10	715	507	775	567	815	607	2x160	4x160	16	14	316 316 201 201	772	826	832	436 436 336 336	510	60	772	-	60 60 72 72	606	27	1010 1010 910 910	20
11	801	569	871	639	921	689	2x200	3x200	14	14	361 361 201 316	862	926	932	463 463 336 436	572	60	862	-	39 39 72 60	668	27	1095 1095 970 1070	20
12	898	638	968	708	1018	758	3x200	4x200	18	14	441 441 316 361	962	1026	1145	540 540 415 460	638	80	962	-	39	731	47	1258 1258 1133 1178	20
13	1007	715	1077	785	1127	835	3x200	4x200	18	14	500 590 400 400	1056	1128	1255	600 690 500 500	715	100	1056	-	45	803	67	1415 1505 1315 1315	20
14	1130	801	1210	881	1270	941	3x200	5x200	20	18	415 475	1178	1268	1400	540 600	801	100	1178	-	45	926	55	1441 1501	24
15	1267	898	1347	978	1407	1038	4x200	6x200	24	18	565 675	1310	1400	1530	690 800	898	100	1310	-	45	1023	55	1688 1798	24
16	1421	1007	1501	1087	1561	1147	4x200	6x200	24	18	645 645	1450	1560	1690	800 800	1007	130	1450	-	55	1152	85	1937	24

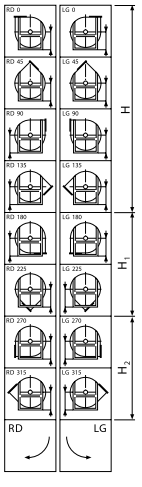
Fan weight in kgf (including motor)

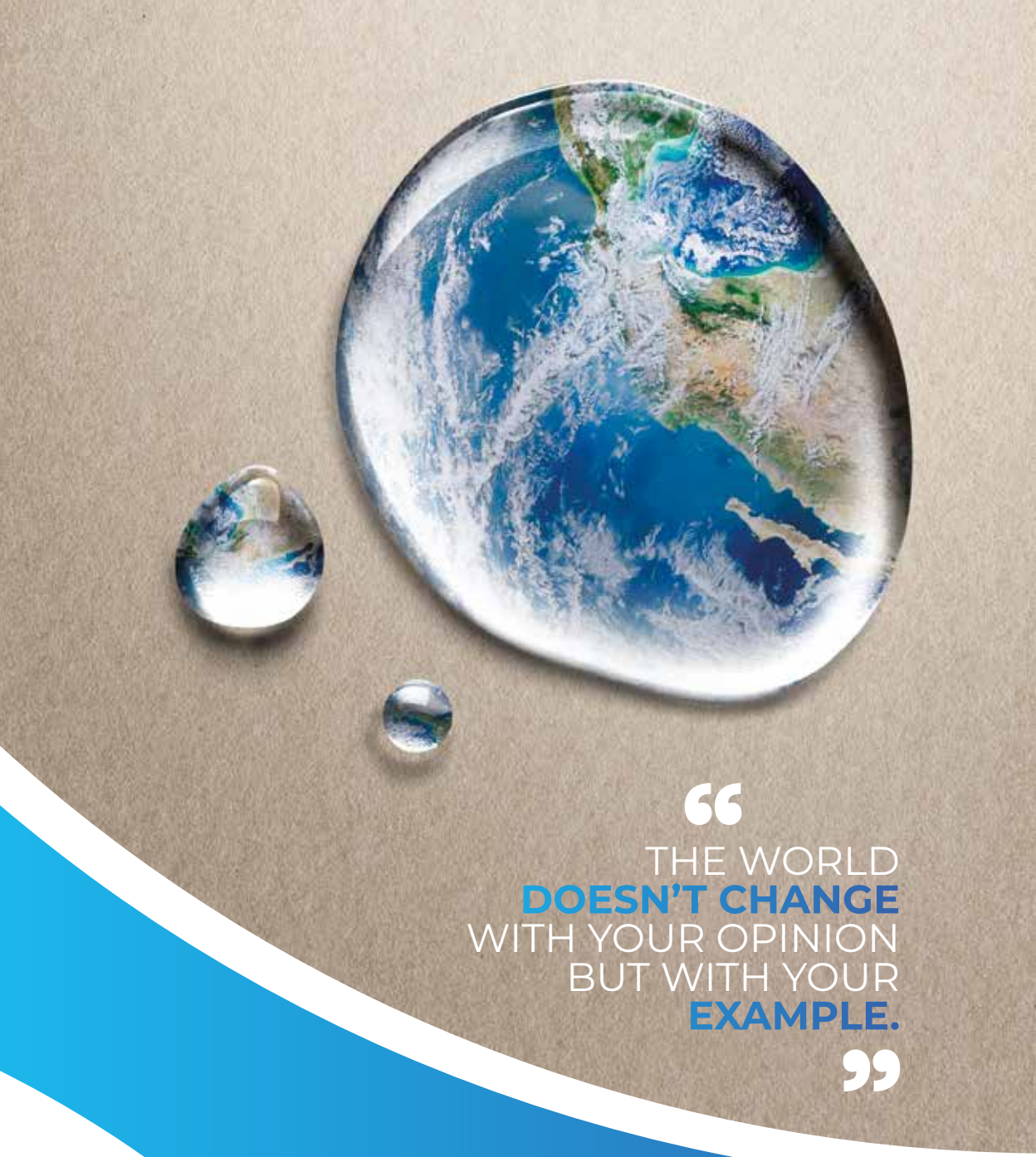




900 ÷ 1400
The fan is
non-adjustable.







“THE WORLD **DOESN’T CHANGE** WITH YOUR OPINION BUT WITH YOUR **EXAMPLE.**”

ETC GROUP S.R.L.
AIR FILTRATION TECHNOLOGIES

www.etcgroupsrl.it

CENTRIFUGAL FANS
LOW PRESSURE

Discharge characteristics of the **“RL” SERIES** fans

Type						Flow tolerance ± 5%																		
Fan	Motor	Kw inst.	Kw ass.	n	dB(A)	930	1080	1190	1330	1500	1700	1900	2150	2400	2700	3050	3450	3850	4250	4750	5400	6150	6850	7650
RL 250/2	71 B2	0,55	0,5	2820	70	87	85	83	80	76	72	68	60	52	38									
RL 280/2	80 B2	1,1	0,88	2840	72				110	106	103	100	96	91	85	77	67	52						
RL 310/2	90 L2	2,2	1,78	2850	76							139	136	132	128	123	116	109	99	87	68			
RL 350/2	100 L2	3	2,8	2900	79										185	182	178	174	168	160	150	137	122	98
RL 400/2	112 M2	4	3,8	2900	82													213	210	207	201	194	184	170
RL 400/2	132 S2	5,5	5,3	2900	84													231	226	220	214	207	197	185
RL 450/2	132 S2	7,5	7,2	2900	86																269	268	267	263
RL 450/2	160 M2	11	10	2930	88																292	289	284	278
RL 500/2	160 M2	15	14	2940	89																			335
RL 500/2	160 L2	18,5	17,1	2940	92																			370
RL 310/4	63 B4	0,18	0,16	1310	57	29	28	27	26	25	23	21	18	14	8									
RL 350/4	71 B4	0,37	0,33	1360	60				40	39	38	37	35	33	30	27	23	17						
RL 400/4	80 A4	0,55	0,52	1370	64							52	50	49	47	45	43	39	35	30	23			
RL 450/4	80 B4	0,75	0,72	1380	65										61	60	59	58	56	52	46	37	19	
RL 450/4	90 S4	1,1	1	1390	67										66	65	64	62	59	57	53	48	41	32
RL 500/4	90 L4	1,5	1,3	1400	69													76	75	74	73	71	66	57
RL 500/4	100 L4	2,2	2	1420	71													87	85	83	81	77	73	69
RL 560/4	100 L4	3	2,7	1430	72																98	97	96	94
RL 560/4	112 M4	4	3,7	1430	74																110	107	104	101
RL 630/4	132 S4	5,5	5,2	1440	75																			128
RL 630/4	132 M4	7,5	7	1450	78																			153
RL 710/4	160 M4	11	10,2	1450	79																			
RL 710/4	160 L4	15	13	1450	82																			
RL 800/4	180 M4	18,5	17,2	1460	83																			
RL 800/4	180 L4	22	20	1470	85																			
RL 900/4	225 S4	37	34	1480	86																			
RL 900/4	225 M4	45	41,5	1480	88																			
RL 1000/4	250 M4	55	52	1480	90																			
RL 1000/4	280 S4	75	70	1480	93																			
RL 500/6	80 A6	0,37	0,35	930	57									35	34	33	32	31	29	26	21	14		
RL 500/6	80 B6	0,55	0,53	930	59									37	36	35	34	33	32	30	27	23	19	
RL 560/6	90 S6	0,75	0,7	930	60												43	42	41	40	38	36	32	27
RL 560/6	90 L6	1,1	1	930	62												47	46	45	44	42	40	38	35
RL 630/6	100 L6	1,5	1,3	950	66															58	56	55	54	52
RL 630/6	112 M6	2,2	2	950	68															61	60	59	58	57
RL 710/6	132 S6	3	2,7	950	69																		71	70
RL 710/6	132 M6	4	3,55	960	72																		82	80
RL 800/6	132 M6	5,5	5,1	960	73																			
RL 800/6	160 M6	7,5	6,9	970	75																			
RL 900/6	160 L6	11	9	970	76																			
RL 900/6	180 L6	15	12,3	970	78																			
RL 1000/6	200 L6	18,5	16,2	970	80																			
RL 1000/6	200 L6	22	20	970	82																			
RL 1120/6	225 M6	30	27,5	980	83																			
RL 1120/6	250 M6	37	34	980	85																			
RL 1250/6	280 M6	55	49	980	86																			
RL 1250/6	315 S6	75	66	985	88																			
RL 1400/6	315 M6	90	85	985	89																			
RL 1400/6	315 M6	110	105	985	93																			

CENTRIFUGAL FANS
LOW PRESSURE

Discharge characteristics of the **“RL” SERIES** fans

Noise tolerance + 3 dB(A)

Q v m ^{3}/h

	8500	9500	10800	12000	13500	15300	17000	19000	21600	24200	27000	30600	34200	38200	42500	47500	54000	61000	68500	76500	85000	95400	108000	120600	135000	153000	171000
	pt mm H $_2$O = da Pa																										
1																											
2																											
3																											
4																											
5	148	95																									
6	171	148	117	76																							
7	258	244	220	187	127																						
8	266	253	234	213	185	156	107																				
9	331	327	320	309	291	268	227	146																			
10	366	357	346	334	320	302	281	249	200	122																	
11																											
12																											
13																											
14																											
15																											
16	43	17																									
17	63	54	40																								
18	91	84	74	60	29																						
19	97	93	86	78	66	53	29																				
20	126	124	121	117	109	98	81	47																			
21	150	146	142	137	132	123	113	101	82	52																	
22			172	171	169	166	162	155	142	122	85																
23			193	191	186	181	175	169	161	145	128	106	63														
24						214	211	207	203	197	187	174	150	105													
25						226	222	218	213	207	199	190	177	158	133	88											
26									283	282	280	275	268	258	239	214	156										
27									317	314	308	300	292	283	270	247	218	185	132								
28												339	336	332	329	315	299	274	231	161							
29												377	372	366	355	345	331	315	289	257	214	127					
30																											
31																											
32	17																										
33	31	23																									
34	50	45	38	27																							
35	55	51	47	42	35	23																					
36	69	68	66	63	58	51	36																				
37	78	76	73	70	66	62	57	47	35																		
38		93	92	91	90	87	83	77	68	52																	
39		102	101	100	98	95	91	86	81	72	61	47															
40					119	117	115	113	111	105	98	89	72														
41					131	130	127	124	120	115	109	102	94	82	63												
42								146	144	142	140	136	131	121	103	76											
43								164	160	156	152	148	142	134	123	109	93	68									
44											185	184	183	179	174	166	153	135	100								
45											211	207	203	198	191	182	173	161	144	123	92						
46														236	232	228	223	217	207	192	170	115					
47														263	259	253	247	240	229	218	203	180	150	117			
48																	298	295	292	288	279	265	244	211	151		
49																	345	341	333	322	308	291	269	249	218	189	154

CENTRIFUGAL FANS
MEDIUM PRESSURE

Suction characteristics of the **“RL” SERIES** fans

Type						Flow tolerance ± 5%																		
Fan	Motor	Kw inst.	Kw ass.	n	dB(A)	930	1080	1190	1330	1500	1700	1900	2150	2400	2700	3050	3450	3850	4250	4750	5400	6150	6850	7650	
RL 250/2	71 B2	0,55	0,5	2820	73	83	82	80	77	74	70	66	60	51	37										1
RL 280/2	80 B2	1,1	0,88	2840	75				104	102	99	97	93	88	82	75	65	51							2
RL 310/2	90 L2	2,2	1,78	2850	79							132	129	125	121	116	111	104	96	83	65				3
RL 350/2	100 L2	3	2,8	2900	82										174	172	169	164	158	151	143	133	118	97	4
RL 400/2	112 M2	4	3,8	2900	85													203	201	198	193	187	177	164	5
RL 400/2	132 S2	5,5	5,3	2900	87													220	216	211	204	197	188	177	6
RL 450/2	132 S2	7,5	7,2	2900	89																254	253	253	251	7
RL 450/2	160 M2	11	10	2930	91																270	268	266	263	8
RL 500/2	160 M2	15	14	2940	92																			317	9
RL 500/2	160 L2	18,5	17,1	2940	95																			355	10
RL 310/4	63 B4	0,18	0,16	1310	60	28	27	26	25	24	22	20	17	13	7										11
RL 350/4	71 B4	0,37	0,33	1360	63				38	37	36	35	33	31	29	26	22	15							12
RL 400/4	80 A4	0,55	0,52	1370	67							48	47	46	44	40	38	35	29	21					13
RL 450/4	80 B4	0,75	0,72	1380	68										57	56	55	54	52	48	43	36	19		14
RL 450/4	90 S4	1,1	1	1390	70										63	62	60	58	56	53	50	45	39	32	15
RL 500/4	90 L4	1,5	1,3	1400	72													73	72	71	70	68	64	55	16
RL 500/4	100 L4	2,2	2	1420	74													81	80	78	76	73	70	66	17
RL 560/4	100 L4	3	2,7	1430	75																92	91	90	88	18
RL 560/4	112 M4	4	3,7	1430	77																103	101	99	96	19
RL 630/4	132 S4	5,5	5,2	1440	78																			118	20
RL 630/4	132 M4	7,5	7	1450	81																			144	21
RL 710/4	160 M4	11	10,2	1450	82																				22
RL 710/4	160 L4	15	13	1450	85																				23
RL 800/4	180 M4	18,5	17,2	1460	86																				24
RL 800/4	180 L4	22	20	1470	88																				25
RL 900/4	225 S4	37	34	1480	89																				26
RL 900/4	225 M4	45	41,5	1480	91																				27
RL 1000/4	250 M4	55	52	1480	93																				28
RL 1000/4	280 S4	75	70	1480	96																				29
RL 500/6	80 A6	0,37	0,35	930	60									34	33	32	31	30	28	25	20	12			30
RL 500/6	80 B6	0,55	0,53	930	62									37	36	35	34	33	31	29	26	23	18		31
RL 560/6	90 S6	0,75	0,7	930	63												41	40	39	39	38	36	33	28	32
RL 560/6	90 L6	1,1	1	930	65												45	44	43	42	41	39	38	35	33
RL 630/6	100 L6	1,5	1,3	950	69															55	54	53	52	50	34
RL 630/6	112 M6	2,2	2	950	71															60	59	58	57	55	35
RL 710/6	132 S6	3	2,7	950	72																		68	67	36
RL 710/6	132 M6	4	3,55	960	75																		78	77	37
RL 800/6	132 M6	5,5	5,1	960	76																				38
RL 800/6	160 M6	7,5	6,9	970	78																				39
RL 900/6	160 L6	11	9	970	79																				40
RL 900/6	180 L6	15	12,3	970	81																				41
RL 1000/6	200 L6	18,5	16,2	970	83																				42
RL 1000/6	200 L6	22	20	970	85																				43
RL 1120/6	225 M6	30	27,5	980	86																				44
RL 1120/6	250 M6	37	34	980	88																				45
RL 1250/6	280 M6	55	49	980	89																				46
RL 1250/6	315 S6	75	66	985	91																				47
RL 1400/6	315 M6	90	85	985	92																				48
RL 1400/6	315 M6	110	105	985	96																				49

CENTRIFUGAL FANS
MEDIUM PRESSURE

Suction characteristics of the **“RL” SERIES** fans

Noise tolerance + 3 dB(A)

Q v m³/h

	8500	9500	10800	12000	13500	15300	17000	19000	21600	24200	27000	30600	34200	38200	42500	47500	54000	61000	68500	76500	85000	95400	108000	120600	135000	153000	171000
	pt mm H $_2$O = da Pa																										
1																											
2																											
3																											
4																											
5	142	93																									
6	164	143	115	76																							
7	247	234	213	180	123																						
8	252	239	221	202	175	150	107																				
9	315	312	307	300	285	264	222	145																			
10	347	339	331	321	307	292	272	241	191	118																	
11																											
12																											
13																											
14																											
15																											
16	41	16																									
17	60	51	38																								
18	85	80	72	58	27																						
19	92	87	81	75	65	51	29																				
20	117	116	115	112	105	95	79	46																			
21	141	138	134	130	124	117	109	97	79	50																	
22			163	162	161	159	157	151	139	118	82																
23			183	181	178	173	167	161	153	141	124	105	68														
24						204	201	198	195	191	182	169	147	105													
25						217	214	210	205	199	193	184	171	154	128	85											
26									278	272	270	265	258	248	234	209	154										
27									299	296	291	283	274	264	253	237	210	181	131								
28												321	319	315	310	302	288	267	226	158							
29												357	353	348	340	330	316	302	280	250	207	126					
30																											
31																											
32	16																										
33	30	22																									
34	48	44	38	27																							
35	53	50	45	40	35	24																					
36	66	65	64	61	56	49	35																				
37	75	73	71	68	64	60	54	46	33																		
38		89	88	87	85	83	80	75	66	49																	
39		99	98	96	94	91	87	83	78	70	60	46															
40					113	112	111	109	106	102	96	86	71														
41					127	125	122	119	116	112	106	100	92	80	62												
42								139	138	136	134	131	126	117	101	75											
43								154	153	149	145	140	135	128	118	106	89	66									
44											177	175	173	171	167	159	148	130	98								
45											200	197	195	189	183	175	167	156	141	120	91						
46														223	221	218	214	208	200	188	165	114					
47														253	248	243	236	230	221	209	197	175	146	107			
48																	279	278	276	273	267	255	234	203	149		
49																	312	307	302	297	289	273	256	237	209	181	134

HIGH TEMPERATURE STEEL EXHAUST FANS. EVMA-AT SERIES

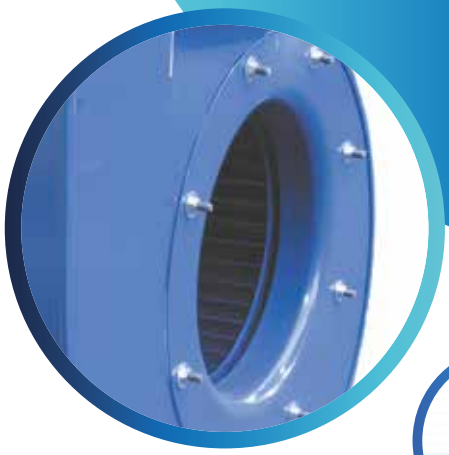
MEDIUM FLOW RATES AND MEDIUM PRESSURES

SINGLE INLET CENTRIFUGAL FAN WITH DIRECTLY COUPLED MOTOR

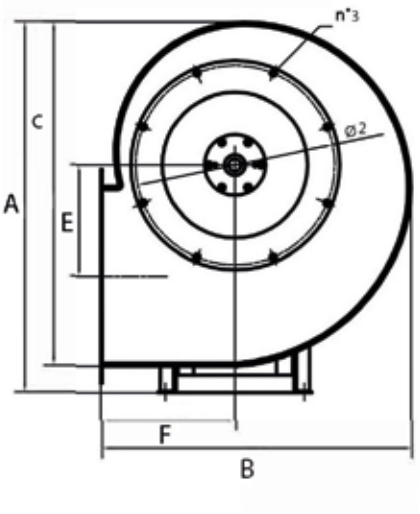
- Painted steel frame.
- Suitable for conveying clean air or fumes with a maximum temperature of 80°C.
- 4-pole three-phase motor with IE3 efficiency, complete with support base.
- Orientations LG or RD.

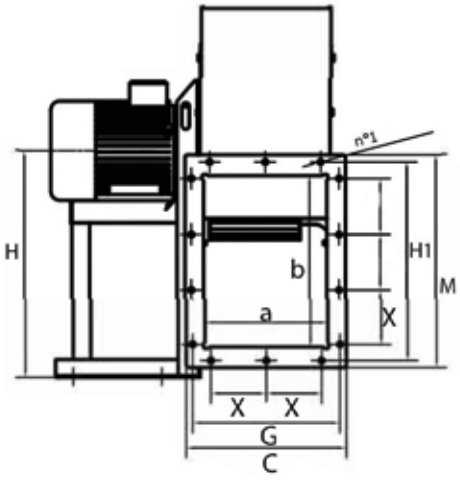
MODEL	Power Supply V-Hz	Motor Power Kw	RMP	Max Power m³/h	Max Pressure Pa	PRICE
EVMA 251 AT	230/400 - 50	0.55	1.400	2.650	250	**€ 1.490**
EVMA 281 AT	230/400 - 50	1.1	1.400	3.800	300	**€ 1.876**
EVMA 311 AT	230/400 - 50	2.2	1.400	5.950	450	**€ 2.230**
EVMA 351 AT	400/690 - 50	3.0	1.400	6.880	800	**€ 2.410**
EVMA 401 AT	400/690 - 50	4.0	1.400	8.070	1200	**€ 3.960**
EVMA 451 AT	400/690 - 50	5.5	1.400	11.190	1500	**€ 3.750**

HIGH TEMPERATURE MODEL (AT) WITH COOLING FAN. MAX CONTINUOUS TEMPERATURE 180°C.



A	B	C	E	F	G	H	H1	M	X	a	b	c
537	454	250	145	202	219	320	292	320	112	173	240	488
594	495	280	174	214	249	365	332	360	125	198	273	545,5
669	552	304	196	238	273	410	366	395	125	222	304	614,5
745	622	330	225	267	300	460	405	435	250	248	342	690
834	698	360	250	302	332	512	448	480	125	278	387	774
959	787	395	277,5	351,5	366	557	497	530	125	315	442	909





ACCESSORIES

FOR EXHAUST FANS

To facilitate the connection of steel exhaust fans (as described in the previous pages) with round flue pipe connections, suitable accessories are required.

MODEL	ACCESSORY	PRICE
CODE TRAMOGGIA Ø200	Hopper Ø200	€ 165
CODE TRAMOGGIA Ø250	Hopper Ø250	€ 186
CODE TRAMOGGIA Ø300	HopperØ300	€ 206
CODE TRAMOGGIA Ø350	Hopper Ø350	€ 212
CODE TRAMOGGIA Ø400	Hopper Ø400	€ 267

MODEL	ACCESSORY	PRICE
CODE COLLARE Ø200	Clamp Ø200	€ 110
CODE COLLARE Ø250	Clamp Ø250	€ 140
CODE COLLARE Ø300	Clamp Ø300	€ 164
CODE COLLARE Ø350	Clamp Ø350	€ 178
CODE COLLARE Ø400	Clamp Ø400	€ 204

SILICONIZING CODE

Siliconizing with high-temperature silicone

PRICE € 98

OZONE GENERATORS O3

FOR THE CATERING, FOOD, INDUSTRIAL, LIVESTOCK, AND GREENHOUSE SECTORS.

TECHNICAL DATA – SPECIFICATIONS OF OZONE GENERATOR MODELS

INTRODUCTION TO OZONE GENERATORS

The professional ozone generators covered in this manual are designed for industrial applications such as sanitation, deodorization, and the reduction of airborne pollutants. Utilizing a corona discharge principle, these generators produce ozone from the oxygen present in the air.

This process is achieved through a high-voltage electric field, which artificially replicates the natural phenomenon occurring during lightning strikes. These generators are manufactured to meet strict industrial standards and comply with CE regulations and EU directives concerning electromagnetic compatibility, electrical safety, and environmental protection.

They are suitable for environments requiring stringent air quality control, such as industrial kitchens, aging cellars, livestock facilities, cold storage rooms, and biomass treatment plants.

AVAILABLE MODELS AND PRODUCTION CAPACITIES

The ozone generator models are divided into two main categories: **Cubik and Compact.** Each category offers different variants based on production capacity, size, and power requirements.

MADE IN ITALY CE

CUBIK MODELS.

This line features a robust construction made of 304 stainless steel, ensuring high corrosion resistance and long operational life, even in particularly aggressive environments.

Cubik models are designed to be mounted above kitchen exhaust hoods in industrial kitchens or other fixed installations.

MODEL	Code	Ozone Production	Power Supply	Fan Power	Operating Temperature	Operating Humidity	PRICE
G.OZONO. O3-30	G.OZONO. O3-30	30 g/h	220V	55W	0 – 40 °C	Relative Humidity 35% – 70%	**3.179,00 €**
G.OZONO. O3-40	G.OZONO. O3-40	40 g/h	220V	55W	0 – 40 °C	Relative Humidity 35% – 70%	**3.180,00 €**
G.OZONO. O3-60	G.OZONO. O3-60	60 g/h	220V	55W	0 – 40 °C	Relative Humidity 35% – 70%	**3.289,00 €**
G.OZONO. O3-90	G.OZONO. O3-90	90 g/h	220V	55W	0 – 40 °C	Relative Humidity 35% – 70%	**3.580,00 €**
G.OZONO. O3-100	G.OZONO. O3-100	100 g/h	220V	55W	0 – 40 °C	Relative Humidity 35% – 70%	**3.760,00 €**
G.OZONO. O3-120	G.OZONO. O3-120	120 g/h	220V	55W	0 – 40 °C	Relative Humidity 35% – 70%	**3.800,00 €**
G.OZONO. O3-180	G.OZONO. O3-180	180 g/h	220V	55W	0 – 40 °C	Relative Humidity 35% – 70%	**3.950,00 €**

COMPACT MODELS.

The **Compact line** stands out for its reduced dimensions and portability. These models are ideal for mobile applications or installations in confined spaces. The stainless steel construction ensures a lightweight yet durable structure.

MODEL	Code	Ozone Production	Power Supply	Fan Power	Operating Temperature	Operating Humidity	PRICE
O3 Compact 5 Gr	Ozono Compact 10 gr	5 g/h	220V	20W	0 – 40 °C	Relative Humidity 35% – 70%	**1.480,00 €**
O3 Compact 10 Gr	Ozono Compact 10 gr	10 g/h	220V	20W	0 – 40 °C	Relative Humidity 35% – 70%	**1.550,00 €**
O3 Compact 15 Gr	Ozono Compact 15 gr	15 g/h	220V	20W	0 – 40 °C	Relative Humidity 35% – 70%	**1.600,00 €**
O3 Compact 20 Gr	Ozono Compact 20 gr	20 g/h	220V	20W	0 – 40 °C	Relative Humidity 35% – 70%	**1.740,00 €**
O3 Compact 30 Gr	Ozono Compact 30 gr	30 g/h	220V	20W	0 – 40 °C	Relative Humidity 35% – 70%	**1.800,00 €**
O3 Compact 40 Gr	Ozono Compact 40 gr	40 g/h	220V	20W	0 – 40 °C	Relative Humidity 35% – 70%	**1.900,00 €**
O3 Compact 60 Gr	Ozono Compact 60 gr	60 g/h	220V	20W	0 – 40 °C	Relative Humidity 35% – 70%	**2.010,00 €**
O3 Compact 80 Gr	Ozono Compact 80 gr	80 g/h	220V	20W	0 – 40 °C	Relative Humidity 35% – 70%	**2.140,00 €**
O3 Compact 120 Gr	Ozono Compact 120 gr	120 g/h	220V	20W	0 – 40 °C	Relative Humidity 35% – 70%	**2.268,00 €**

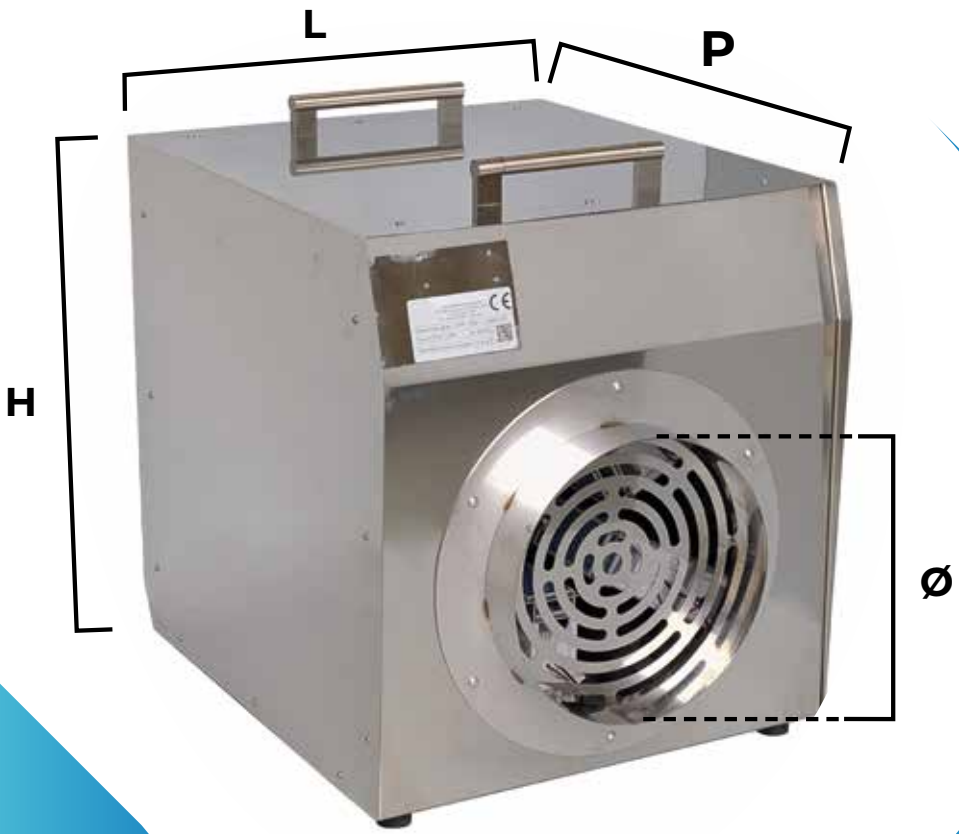
DIMENSIONAL SPECIFICATIONS.

DIMENSIONAL SPECIFICATIONS ARE A KEY ASPECT FOR THE PROPER DESIGN AND INSTALLATION OF THE GENERATORS.

Below are the external dimensions of the **two main lines:**

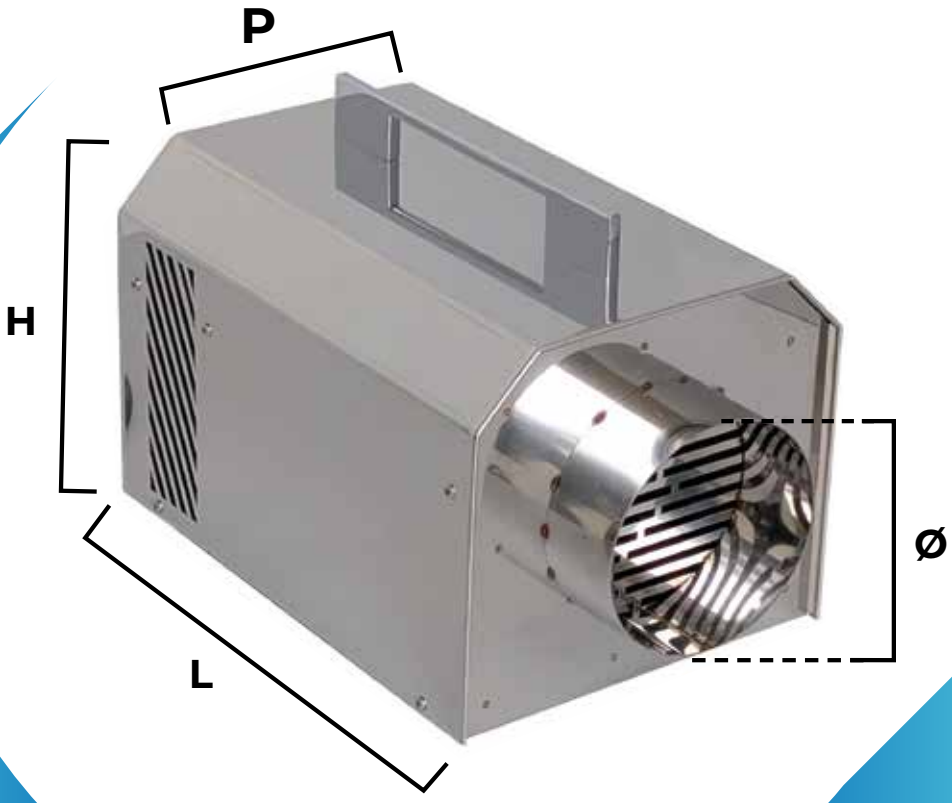
DIMENSIONS OF CUBIK MODELS

MODEL	Lenght (L)	Depth (P)	Heigh (H)	Inlet diameter	Outlet diameter
G.OZONO 30/40 GR	570 mm	415 mm	460 mm	300 mm	250 mm
G.OZONO 60/90 GR	570 mm	415 mm	460 mm	300 mm	250 mm
G.OZONO 100/120 GR	570 mm	415 mm	460 mm	300 mm	250 mm



DIMENSIONS OF COMPACT MODELS

MODEL	Lenght (L)	Dept (P)	Height (H)	Inlet diameter	Outlet diameter
O3 COMPACT 5/10 GR	378 mm	160 mm	191 mm	120 mm	120 mm
O3 COMPACT 15/20 GR	375 mm	223 mm	191 mm	120 mm	120 mm
O3 COMPACT 30/40 GR	375 mm	223 mm	191 mm	120 mm	120 mm



FUNCTIONAL FEATURES

THE OZONE GENERATORS COVERED IN THIS MANUAL ARE DESIGNED TO MAXIMISE THE EFFECTIVENESS OF POLLUTED AIR TREATMENT AND TO ENSURE LONG OPERATING LIFE, EVEN IN DIFFICULT ENVIRONMENTAL CONDITIONS. THE MAIN FUNCTIONAL FEATURES INCLUDE:

OZONE PRODUCTION SYSTEM

The operating principle of the generators is based on the **corona discharge** phenomenon, which allows the conversion of molecular oxygen (O_2) into ozone (O_3). Ozone production occurs when air, filtered through a special dust-proof system, passes through one or more ozone emitters that generate a high-voltage electrical discharge.

The emitters use porcelain plates or plasma induction tubes, which ensure:

- **High efficiency in ozone production: thanks to precise control of the corona discharge.**
- **Long lifespan of the plates: made from materials resistant to oxidation.**
- **Reduced maintenance: thanks to the filtration system and optimized design to minimize impurity buildup.**

Ozone production is adjustable via a remote control electrical panel, allowing the flow rate to be set according to specific air treatment needs.

CONTROL ELECTRICAL PANEL

All models are equipped with an external control panel that performs several essential functions:

1. **Turning the system on and off.**
2. **Adjusting the fan speed (Cubik models).**
3. **Monitoring the operational status: via indicator lights for power and operation.**
4. **Electrical protection: the panel features a magnetic thermal circuit breaker to protect the circuit from overloads and short circuits.**

VENTILATION SYSTEM

The ventilation system is designed to ensure optimal airflow through the ozone reactors. The fans used have the following features:

- **Variable power ranging from 20 W to 55 W, depending on the model.**
- **High efficiency in cooling the plates and transporting the ozone produced to the pipelines.**
- **Anti-vibration system: reduces noise and mechanical stress, extending the device's lifespan.**

Ventilation plays a critical role in the system's safety and efficiency by ensuring proper cooling of internal components and preventing overheating during continuous use.

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AIR FILTRATION TECHNOLOGIES

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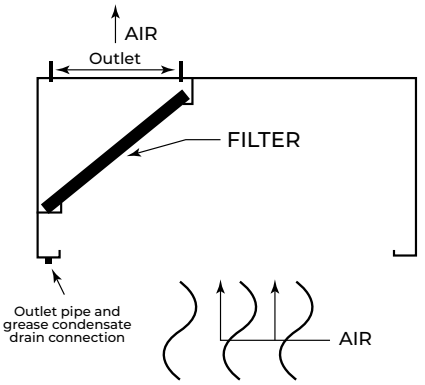
KITCHEN HOODS

WALL-MOUNTED AND CENTRAL CUBIC HOODS

CUBIC HOODS WITH STAINLESS STEEL LABYRINTH FILTERS.

Constructed entirely from satin-finished stainless steel 304, welded, with a perimeter condensation channel and a brass nickel-plated grease drain valve.

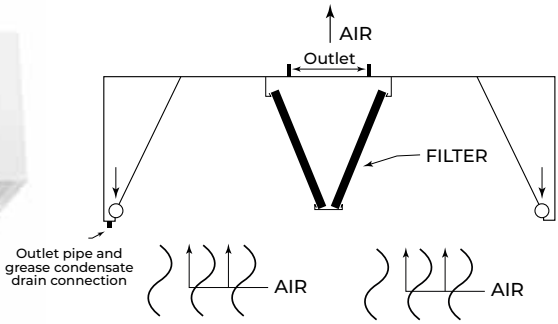
NOTE: The hoods are supplied without exhaust fans and without outlet holes.



WALL-MOUNTED CUBIC HOODS

MODEL	Dimensions (mm)	Weight without filters (kg)	Air extraction capacity (m^3/h)	PRICE
KCKP 10-09	1000 x 900 x 500	22	1.000	
KCKP 15-09	1500 x 900 x 500	30	1.500	
KCKP 20-09	2000 x 900 x 500	37	2.000	
KCKP 25-09	2500 x 900 x 500	45	2.500	
KCKP 30-09	3000 x 900 x 500	52	3.000	
KCKP 35-09	3500 x 900 x 500	60	3.500	
KCKP 40-09	3960 x 900 x 500	67	4.000	
KCKP 10-11	1000 x 1100 x 500	25	1.200	
KCKP 15-11	1500 x 1100 x 500	33	1.650	
KCKP 20-11	2000 x 1100 x 500	41	2.500	
KCKP 25-11	2500 x 1100 x 500	49	3.000	
KCKP 30-11	3000 x 1100 x 500	59	3.600	
KCKP 35-11	3500 x 1100 x 500	67	4.200	
KCKP 40-11	3960 x 1100 x 500	73	9.000	

Calculations for air flow under the hood with 0.3 m/s



CENTRAL CUBIC HOODS

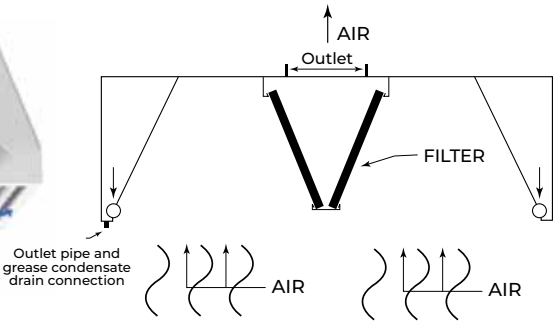
MODEL	Dimensions (mm)	Weight without filters (kg)	Air extraction capacity (m³/h)	PRICE
KCKP 12-18	1000 x 1800 x 500	22	1.000	
KCKP 15-18	1500 x 1800 x 500	30	1.500	
KCKP 20-18	2000 x 1800 x 500	37	2.000	
KCKP 25-18	2500 x 1800 x 500	45	2.500	
KCKP 30-18	3000 x 1800 x 500	52	3.000	
KCKP 35-18	3500 x 1800 x 500	60	3.500	
KCKP 40-18	3960 x 1800 x 500	67	4.000	
KCKP 12-22	1000 x 2200 x 500	25	1.200	
KCKP 15-22	1500 x 2200 x 500	33	1.650	
KCKP 20-22	2000 x 2200 x 500	41	2.500	
KCKP 25-22	2500 x 2200 x 500	49	3.000	
KCKP 30-22	3000 x 2200 x 500	59	3.600	
KCKP 35-22	3500 x 2200 x 500	67	4.200	
KCKP 40-22	3960 x 2200 x 500	73	9.000	

Calculations for air flow under the hood with 0.3 m/s

HOODS WITH AIR INLET

WALL-MOUNTED CUBIC HOODS WITH 50% AIR INLET

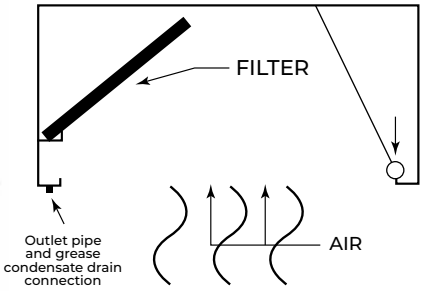
New and innovative air inlet system with regulation.
Air inlet hoods including light and stainless steel filters.
Constructed entirely from satin-finished stainless steel 304, welded, with a perimeter condensation channel.
Nickel-plated brass grease drain valve.

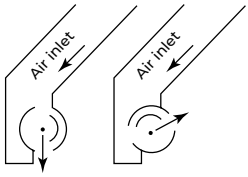


CENTRAL CUBIC HOODS WITH 50% AIR INLET

MODEL	Dimensions (mm)	Weight without filters (kg)	Airflow rate in extraction (m³/h)	Airflow rate in emission (m³/h)	LED Light	PRICE
KCKCI 18-15	1000 x 900 x 500	61	1.500	1.500	4	
KCKCI 18-20	1500 x 900 x 500	77	2.000	2.000	6	
KCKCI 18-25	2000 x 900 x 500	93	2.500	2.500	6	
KCKCI 18-30	2500 x 900 x 500	109	3.000	3.000	8	
KCKCI 18-35	3000 x 900 x 500	125	3.500	3.500	10	
KCKCI 18-40	3500 x 900 x 500	141	4.000	4.000	12	
KCKCI 22-15	3960 x 900 x 500	65	1.750	1.750	4	
KCKCI 22-20	1000 x 1100 x 500	81	2.250	2.250	6	
KCKCI 22-25	1500 x 1100 x 500	101	3.000	3.000	6	
KCKCI 22-30	2000 x 1100 x 500	129	3.400	3.400	8	
KCKCI 22-35	2500 x 1100 x 500	145	4.000	4.000	10	
KCKCI 22-40	3000 x 1100 x 500	160	4.500	4.500	12	

Calculations for air flow under the hood with 0.3 m/s





WALL-MOUNTED CUBIC HOODS WITH 50% AIR INLET

MODEL	Dimensions (mm)	Weight without filters (kg)	Airflow rate in extraction (m^3/h)	Airflow rate in emission (m^3/h)	LED Light	PRICE
KCKCI 90-10	1000 x 900 x 500	27	1.200	600	2	
KCKCI 90-15	1500 x 900 x 500	37	1.800	900	2	
KCKCI 90-20	2000 x 900 x 500	47	2.300	1.150	3	
KCKCI 90-25	2500 x 900 x 500	57	2.900	1.450	3	
KCKCI 90-30	3000 x 900 x 500	67	3.500	1.750	4	
KCKCI 90-35	3500 x 900 x 500	77	4.600	2.000	5	
KCKCI 90-40	3960 x 900 x 500	87	1.750	2.300	6	
KCKCI 120-10	1000 x 1200 x 500	38	1.800	900	2	
KCKCI 120-15	1500 x 1200 x 500	47	2.500	1.250	2	
KCKCI 120-20	2000 x 1200 x 500	56	3.000	1.150	3	
KCKCI 120-25	2500 x 1200 x 500	69	3.800	1.500	3	
KCKCI 120-30	3000 x 1200 x 500	75	4.600	2.300	4	
KCKCI 120-35	3500 x 1200 x 500	85	5.200	2.600	5	
KCKCI 120-40	3960 x 1200 x 500	100	6.000	3.000	6	

Calculations for air flow under the hood with 0.3 m/s

SUPPLIER

Registered office, laboratories, and warehouse
Address: Strada Delle Campagne, 10,
61010 Tavullia (PU)
Tel. +39 0721 1839937, +39 0541 955062,
+39 0541 1646150
VAT number 04083110405
Website: www.etcgroupsrl.it

CUSTOMER

.....

.....

.....

Quote No.: **Date:**

GENERAL TERMS AND CONDITIONS OF SALE B2B (Business-to-Business Trade)

PREAMBLE

The publication of products on the **ETC Group Srl** website constitutes a mere invitation to economic operators to submit a purchase proposal. The submission of the order by the Customer constitutes a contractual proposal, which will be deemed irrevocable for 15 (fifteen) working days. The proposal will be considered accepted, and the contract concluded, upon ETC Group Srl's sending of the corresponding order confirmation.

ETC Group Srl reserves the right not to accept the Customer's contractual proposal, without any obligation to provide reasons or compensation.
The images, technical descriptions, dimensions, and finishes of the products contained in the multimedia catalog and/or on the website are to be considered indicative and non-binding. Any differences due to technical improvements made by the manufacturer or dimensional tolerances cannot be the subject of contractual dispute.

1. COMPANY INFORMATION

The products are sold by:
ETC Group Srl Strada delle Campagne n.10, 61010 Tavullia (PU), Italy - VAT No. IT04083110405
REA: PS 196574 - Website: www.etcgroupsrl.it - Email: informazioni@etcgroupsrl.biz

2. ACCEPTANCE OF THE GENERAL TERMS AND CONDITIONS OF SALE

By submitting the order, the Customer declares that they have read, understood, and fully accepted these general terms and conditions of sale. These terms constitute an integral and essential part of the sales contract.

3. PURCHASE PROCEDURE

Orders can be submitted via the website, email, or other agreed methods.
Each order will be considered valid only after written confirmation from ETC Group Srl and the subsequent receipt of advance payment, where required.

The contract is finalized with the written order confirmation from ETC Group Srl, which includes details regarding products, quantities, prices, taxes, shipping costs, and payment methods.

4. DELIVERY AND SHIPPING

Unless otherwise agreed in writing, delivery of goods is to be understood as EXW - Ex Works (Incoterms® 2020) at the ETC Group Srl premises.

Shipping, even if arranged by ETC Group Srl on behalf of the Customer, is at the Customer's risk and expense. Transport insurance is optional and at the Customer's expense, unless expressly agreed otherwise in writing.

Any storage fees or additional costs resulting from failure to deliver due to the recipient's unavailability or other causes attributable to the Customer will be entirely at the Customer's expense.

Any damage found to the packaging must be immediately reported by placing a control reserve on the carrier's document, with a specific description of the damage.

The report to ETC Group Srl must be received no later than 5 days from receipt, accompanied by photographic documentation.

5. DELIVERY TIMES
The delivery times indicated in the quotes and order confirmations are indicative and non-binding. No compensation may be requested for any delays in delivery due to causes not directly attributable to ETC Group Srl.

6. PAYMENT TERMS
Payment must be made according to the methods agreed upon during the order process. Unless otherwise specified, payment is in advance and is a necessary condition for the commencement of production or shipment.
The acceptance of the quote by the Customer constitutes acknowledgment of the debt pursuant to Article 1193 of the Civil Code. Receipt of the goods constitutes implicit acceptance of the supply.

7. RIGHT OF WITHDRAWAL
The right of withdrawal is excluded in contracts between professionals and for custom-made or personalized goods. Any exceptions may be granted at the discretion of ETC Group Srl with written confirmation.

8. WARRANTIES
Unless otherwise agreed in writing, for professional customers the warranty is 12 months from delivery and is limited to the free replacement of components recognized as defective. Shipping and labor costs are excluded and remain the Customer's responsibility.

The warranty is void in case of improper use of the goods, tampering, unauthorized modifications, lack of regular maintenance, or use not in accordance with the product's intended purpose.

The Customer is required to keep the original packaging until the end of the warranty period. In case of disputes, the goods must be returned sealed, complete, and in their original condition.

9. JURISDICTION
For any dispute regarding the interpretation, execution, or validity of the sales contract, the exclusive jurisdiction will be that of the Court of Pesaro, to the exclusion of any other competing jurisdiction.

10. FINAL CLAUSES
These general conditions may be modified by ETC Group Srl at any time, without prior notice. The version in effect at the time of the contract conclusion will apply.

The Customer declares to have read carefully and specifically approved, in accordance with AND FOR THE PURPOSES OF ARTICLES 1341 AND 1342 OF THE CIVIL CODE, THE FOLLOWING CLAUSES: PREAMBLE, 4 (DELIVERY AND SHIPPING), 5 (DELIVERY TIMES), 6 (PAYMENT TERMS), 7 (RIGHT OF WITHDRAWAL), 8 (WARRANTIES), 9 (JURISDICTION).

Customer's Stamp and Signature

ETC GROUP S.R.L
AIR FILTRATION TECHNOLOGIES

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Address: Strada Delle Campagne, 10, 61010 Tavullia (PU)
Tel. +39 0721 1839937, +39 0541 955062, +39 0541 1646150 - **VAT number** 04083110405
Website: www.etcgroupsrl.it

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Reg. imp. di Pesaro
N. REA - PS – 196574

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