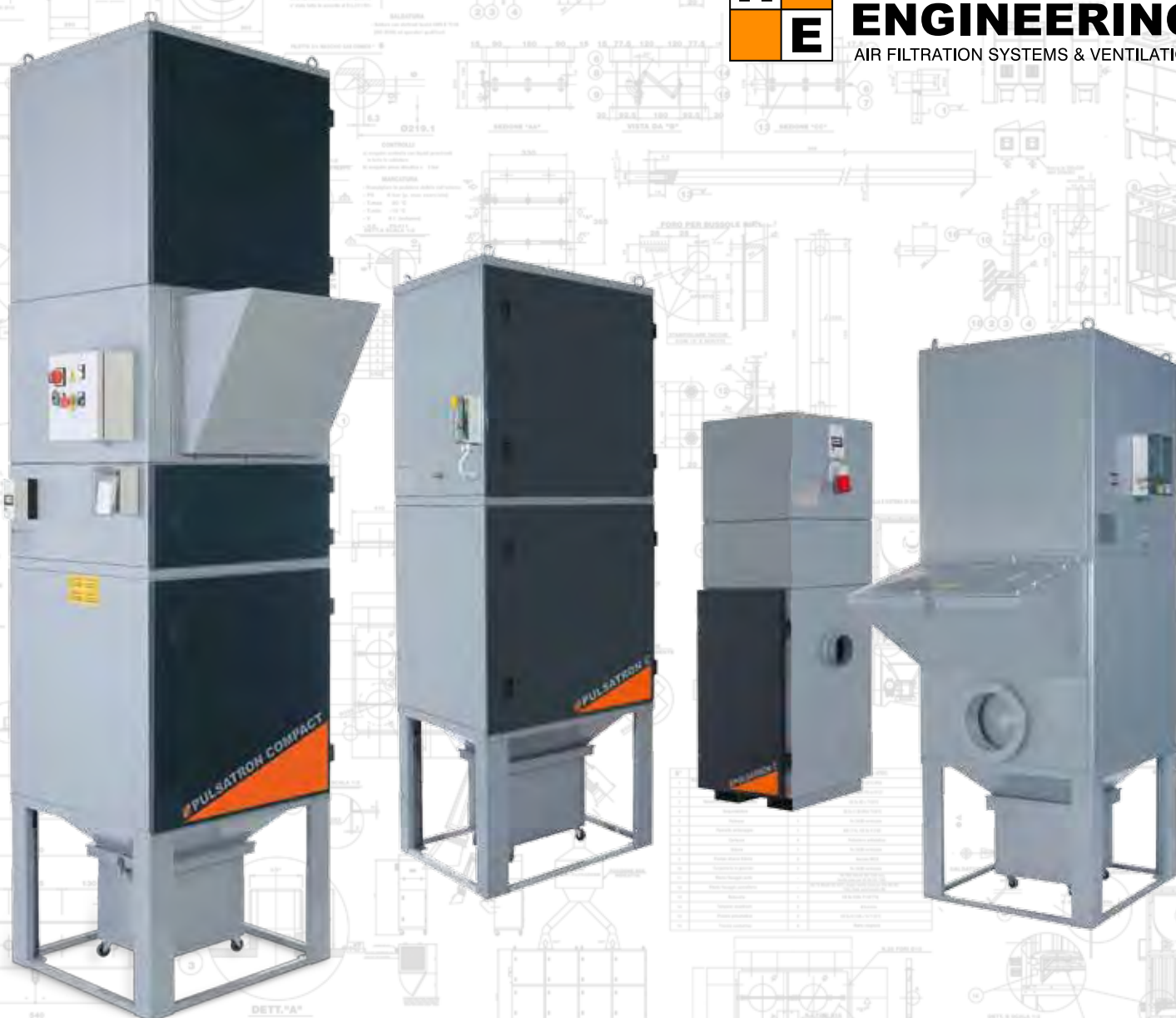




**HASCON
ENGINEERING®**
AIR FILTRATION SYSTEMS & VENTILATION



Pulsatron Compact® Range

High efficiency cartridge dedusting filters
with compressed air self-cleaning system

A cleaner world.



Hascon Engineering spa has been operating for 30 years in the field of air dedusting and filtering in multiple industries, safeguarding the environment and its sustainability applying the Quality and Environmental Certification ISO 9001 and ISO 14001 standards.

The experience gained over the years, and technical staff competence, allow Hascon to offer highly qualified advice and assistance able to identify the best possible solution in filtration and dust extraction fields. The FILTRATION DEPARTMENT develops and markets air filtering systems for small-medium applications. The company focuses on air quality in work environments.

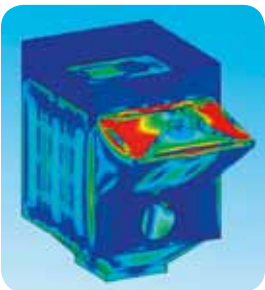
The PULSATRON COMPACT Range includes high efficiency cartridge dedusting filters, with compressed air self-cleaning systems, able to solve any problem on dry filtration.



Benefits

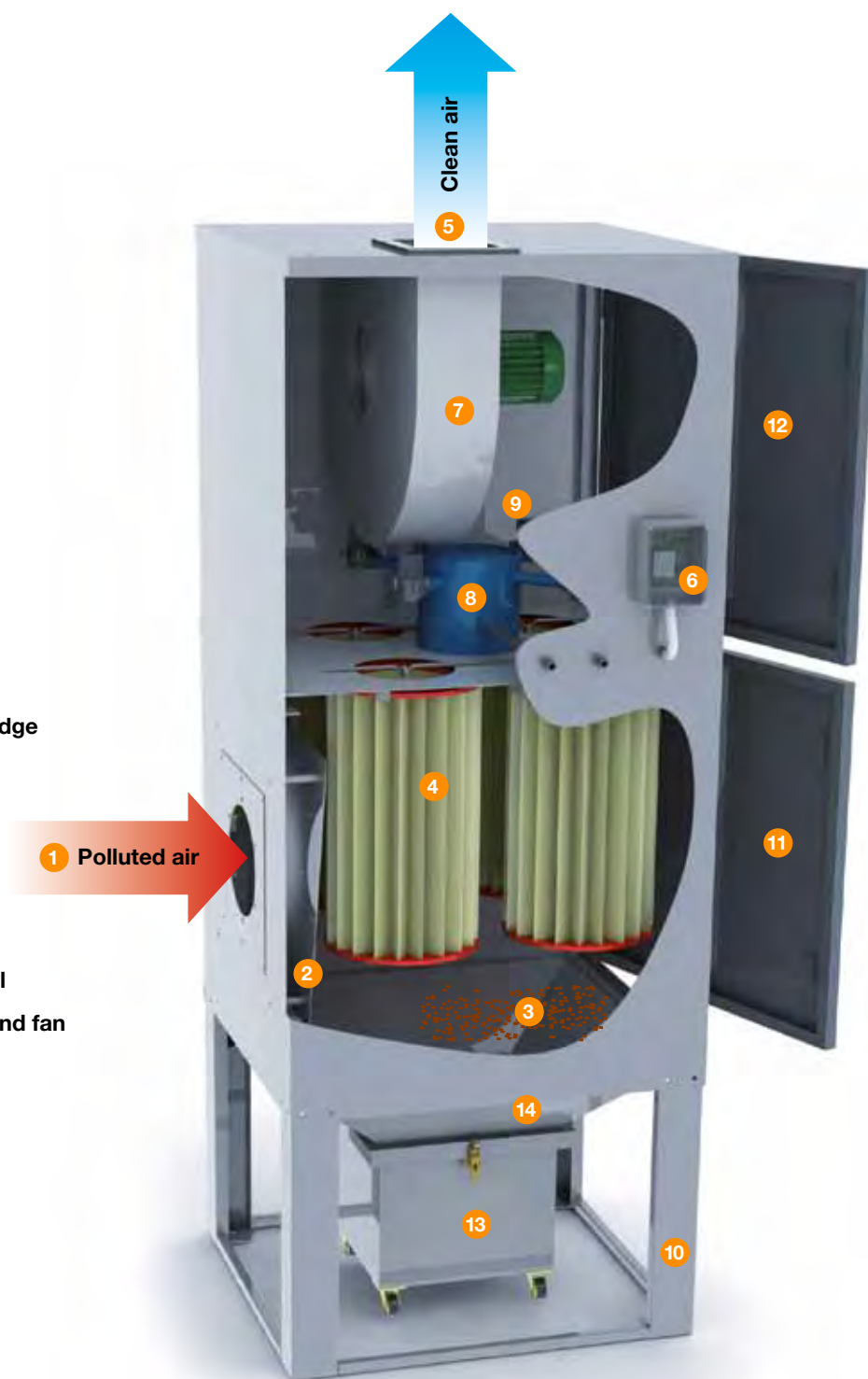
The wide range of Pulsatron Compact® filters can meet all air filtration problems, thanks to the following benefits it offers:

- **Wide Field Of Application**
.....
- **Efficiency**
Emissions $\leq 5 \text{ mg/Nm}^3\text{s}$
.....
- **Low noise**
68÷75 dBA depending on the model – channelled
.....
- **Maintenance**
Reduced thanks to an efficient compressed air counter cleaning system
.....
- **Simple installation**
.....
- **Modularity**
1 to 48 cartridges
500 m³/h to 48,000 m³/h
.....
- **Delivery time 10-20 days**
Stock availability of all semi-finished products
.....
- **Tailored solutions and customizations**
Special colours
60 Hz versions
Star valves discharge system
Changes upon request
.....
- **Technical Support**
Identification of the most appropriate solution, in terms of both technology and cost-effectiveness
.....
- **Service**
Turnkey installation, if required
Scheduled maintenance provided by our skilled technicians
.....
- **Research and Development**
3D Solid Works
Cosmos finite element analysis (FEA)
Room to run flow capacity, absorption, vibration, noise and filter pressure drop tests
.....
- **Wide range**
Ventilated or unventilated
Single and dual cartridge
With or without hopper, or with visible cartridges
20 lt drawer, 55 lt bin or 110 lt drum for dust collection
Continuous star valves discharge
Cyclic or economizer system for cartridges cleaning
Atex  II 3D version



The Pulsatron Compact®

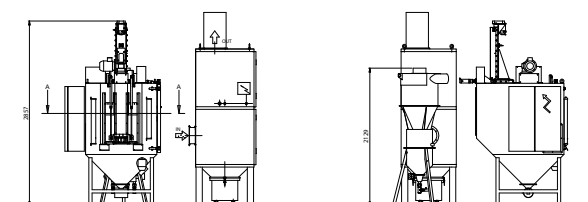
- 1 Polluted air inlet
- 2 Pre-chamber
- 3 Coarse particles
- 4 Cartridges
- 5 Clean air outlet
- 6 Cyclic sequential panel for cartridge cleaning by compressed air
- 7 Electric fan
- 8 Pressure tank
- 9 Solenoid valves
- 10 Legs
- 11 Lower door for cartridge removal
- 12 Upper door for solenoid valves and fan maintenance
- 13 Dust collection bin
- 14 Hopper



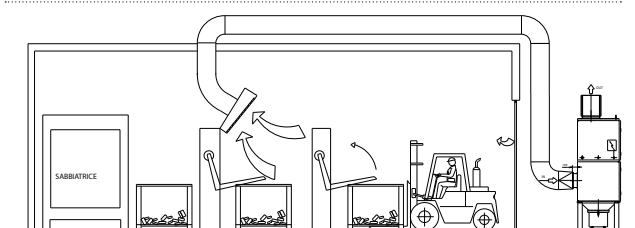
Operation

Polluted air enters the filter through a pre-chamber which enables separation of coarser particles; the flow then passes through the cartridges depositing the contaminants outside, while clean air is discharged through filter head. An electronic cycle provides for cartridge sequential cleaning with compressed air. The wide filtering surface of each cartridge allows a reduced volume of the equipment, and this means that Pulsatron Compact® filters, unlike traditional bag filters, can be installed indoor, near pollution sources.

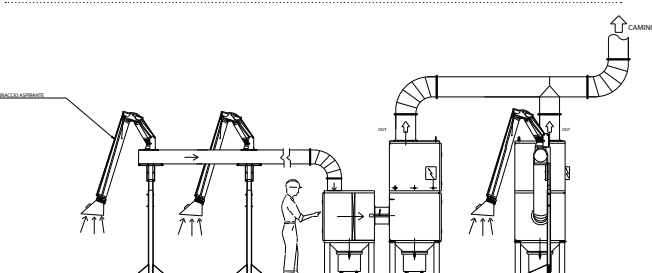
Applications



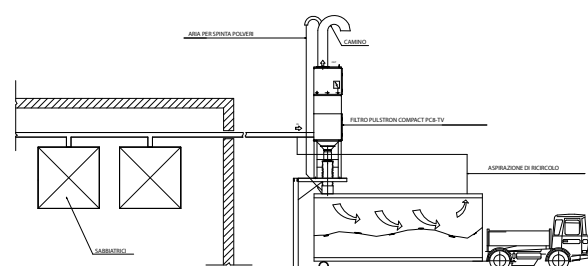
● Sandblasting



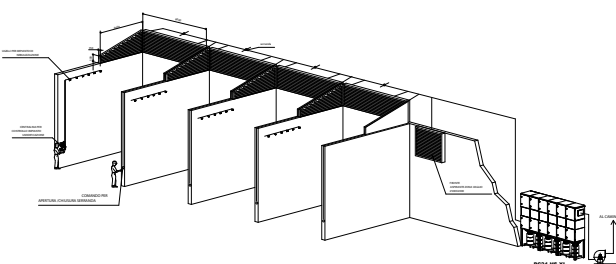
● Deburring



● Welding fumes



● Cement



● Handling of dusty materials

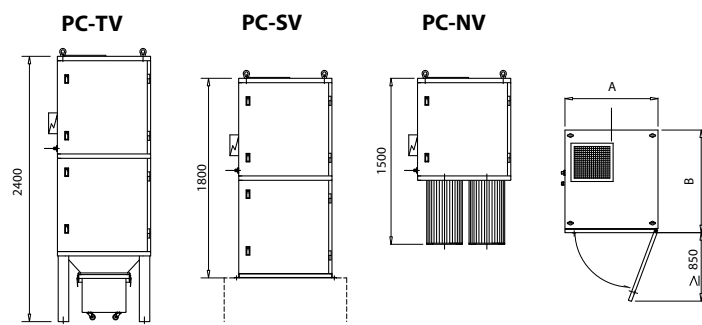


Other applications:

- Grinding
- Dry processing on machine tools
- Chemical processing
- Atex  II/3D epoxy painting
- Atex  II/3D pharmaceutical manufacturing
- Atex  II/3D plastic material processing
- Coal
- Silo venting

A cleaner world.

The Pulsatron Compact® range



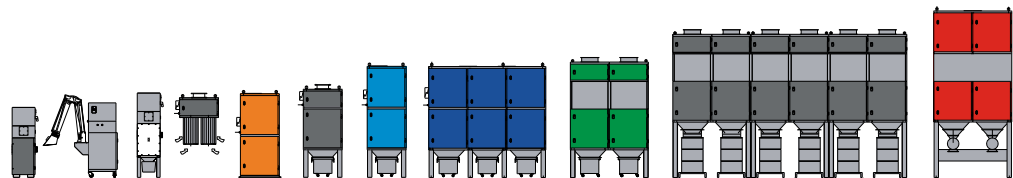
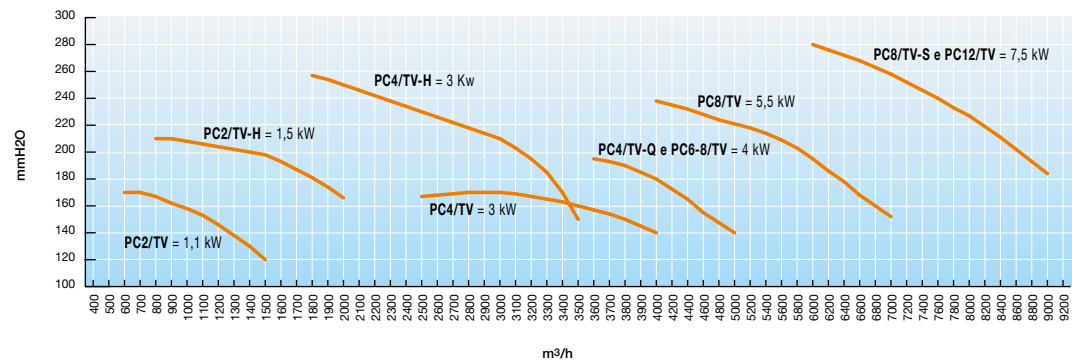
Pulsatron PC with Electric Fan

The TV, SV and NV versions of the PC include centrifugal electric fan designed and developed to be installed inside the machine, with the advantage of reducing noise levels while avoiding connecting pipes.

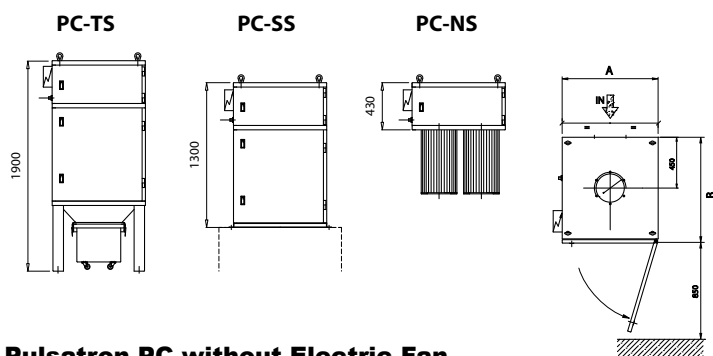
	CODE	Filtering surface m2		Airflow	H tot.	Power	A	B	H	Inlet Flange
		C014	C018	m³/h	mm H ₂ O	kW	mm	mm	mm	Ø mm
PC-TV	PC2/TV	20	40	1.200	150	1,1	850	650	2400	200
	PC2/TV-H	20	40	1.500	200	1,5	850	650	2400	200
	PC4/TV	40	80	3.000	170	3	850	900	2400	250
	PC4/TV-H	40	80	2.500	230	3	850	900	2400	250
	PC4/TV-Q	40	80	4.000	180	4	850	900	2400	300
	PC6-8/TV	60	120	4.000	180	4	1700	900	2400	300
	PC8/TV	80	160	6.000	200	5,5	1700	900	2400	2 x 250
	PC8/TV-S	80	160	7.000	250	7,5	1700	900	2400	2 x 250
	PC12/TV	120	240	8.000	230	7,5	2550	900	2400	3 x 250
	PC16/TV	160	320	11.000	210	5,5 + 5,5	3400	900	2400	4 x 250
	PC16/TV-S	160	320	14.000	250	7,5 + 7,5	3400	900	2400	4 x 250

SV mod. height = 1800 mm
NV = 930 mm

TV – version with hopper and 55 lt bin for dust collection
SV – version without hopper
NV – version with visible cartridge



Customized Colours



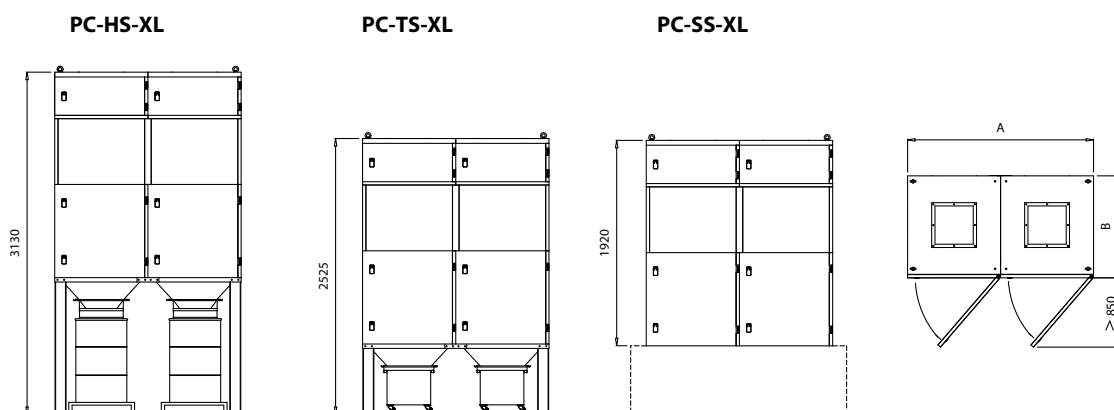
Pulsatron PC without Electric Fan

The TS, SS, and NS versions of the PC come without electric fan, to allow installations with customized flow capacity and pressure head.

	CODE	Filtering surface m ²		Airflow	H tot.	Power	A	B	H	Inlet Flange
		C014	C018	m ³ /h	mm H ₂ O	kW	mm	mm	mm	Ø mm
PC-TS	PC2/TS	20	40	1000/2000	---	-	850	650	1900	200
	PC4/TS	40	80	2000/4000	---	-	850	900	1900	250
	PC6-8/TS	60	120	3000/6000	---	-	1700	900	1900	300
	PC8/TS	80	160	4000/8000	---	-	1700	900	1900	2 x 250
	PC12/TS	120	240	6000/12000	---	-	2550	900	1900	3 x 250
	PC16/TS	160	320	8000/16000	---	-	3400	900	1900	4 x 250

mod. SS height = 1300 mm
NS = 430 mm

TS – version with hopper and 55 lt bin for dust collection
SS – version without hopper
NS – version with visible cartridge



Pulsatron PC XL without Electric Fan

The PC XL models are designed for applications featuring large airflow requirements and medium dust concentration, complete with differential manometer and cartridges with Ø 325 mm and h 1200.

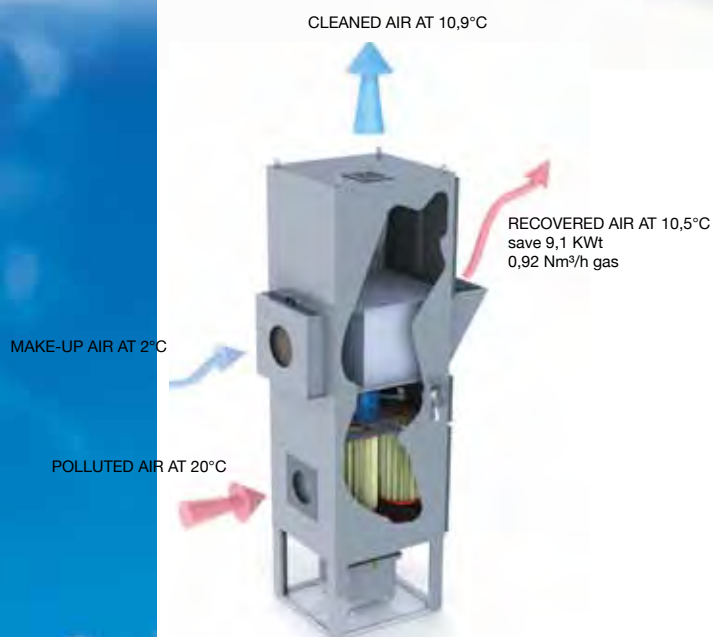
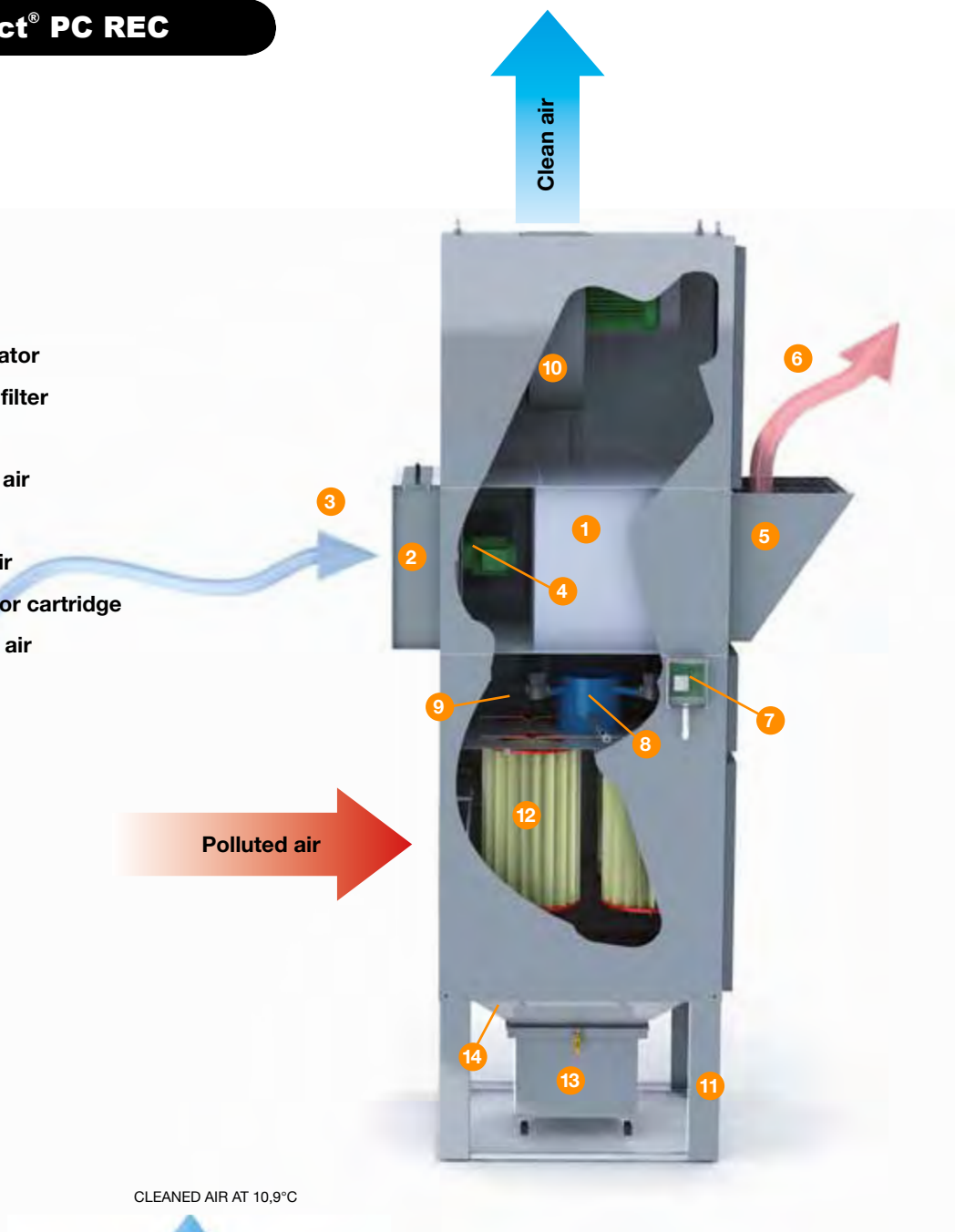
	CODE	Filtering surface m ²		Airflow	H tot.	Power	A	B	H	Inlet Flange
		C014	C018	m ³ /h	mm H ₂ O	kW	mm	mm	mm	Ø mm
PC-HS	PC4/HS-XL	80	160	4.000/8.000	---	-	850	900	3130	350x350
	PC6-8/HS-XL	120	240	6.000/12.000	---	-	1700	900	3130	350x350
	PC8/HS-XL	160	320	8.000/16.000	---	-	1700	900	3130	2 - 350x350
	PC12/HS-XL	240	480	12.000/24.000	---	-	2550	900	3130	3 - 350x350
	PC16/HS-XL	320	640	16.000/32.000	---	-	3400	900	3130	4 - 350x350
	PC20/HS-XL	400	800	20.000/40.000	---	-	4250	900	3130	5 - 350x350
	PC24/HS-XL	480	960	24.000/48.000	---	-	5100	900	3130	6 - 350x350

TS-XL mod. height = 2525 mm
SS-XL = 1920 mm

XL HS – version with hopper and 115 lt drum on pallet for easy removal
XL-TS – version with hopper and 55 lt bin for dust collection
XL-SS – version without hopper

Pulsatron Compact® PC REC

- 1 Cross-flow heat recuperator
- 2 Outside air recirculation filter
- 3 Outside air
- 4 Electric fan for make-up air
- 5 Heat recovery silencer
- 6 Recovered and heated air
- 7 Cyclic sequential panel for cartridge cleaning by compressed air
- 8 Pressure tank
- 9 Solenoid valves
- 10 Electric fan
- 11 Legs
- 12 Cartridges
- 13 Dust collection bin
- 14 Hopper



Example of operation with polluted air at 20° and outside air at 2°

Operation

Polluted air enters the filter through a pre-chamber which enables separation of coarser particles; the flow then passes through the cartridges depositing the contaminants outside, while clean air, before being discharged, transfers heat to the make-up air through a cross-flow heat recuperator. This allows, with a 4-cartridge filter, (suction flow rate equal to 3.000 m³/h at 20 °C and renewal air, during winter, equal to 3.000 m³/h at 2°C), a heat recovery of 9,1 kWt, bringing the recovered air temperature to 10,5 °C, saving 0,92 Nm³/h of gas.

The wide filtering surface of each cartridge and of the recuperator allows reduced volume of the equipment. This means that Pulsatron Compact® PC REC can be installed indoor of the departments, near pollution and heat sources, maximizing energy recovery.

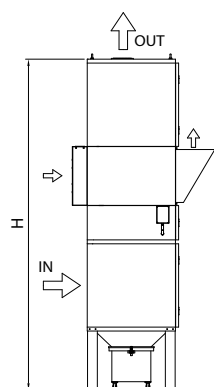
Applications

- Sandblasting
- Deburring
- Welding fumes
- Cement
- Handling of dusty materials
- Grinding
- Dry processing on machine tools
- Chemical processing
- Epoxy painting
- Pharmaceutical manufacturing
- Plastic material processing

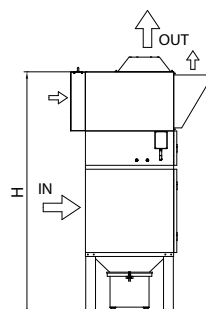


Detail of outside air filter extraction

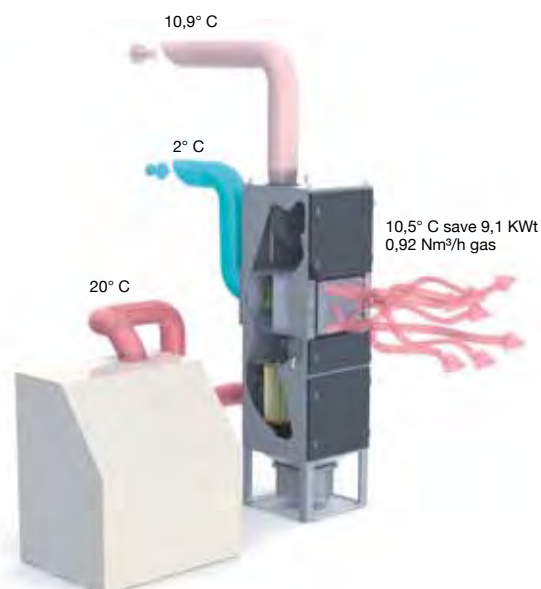
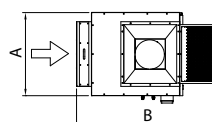
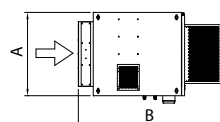
The Pulsatron Compact® PC REC range



PCREC--/TV



PCREC--/TS



	CODE	Filtering surface m²	Airflow	H tot.	REC Capacity	Power	A	B	H	Inlet Flange	REC Inlet Flange
		C014	m³/h	mm H ₂ O	m³/h	kW	mm	mm	mm	Ø mm	Ø mm
PCREC-TV	PCREC4/TV--	40	3.000	170	3.000	3+ 0,55	850	1450	3380	250	300
	PCREC4/TV-H	40	2.500	230	2.500	3+ 0,55	850	1450	3380	250	300
	PCREC8/TV--	80	6.000	200	6.000	5,5+ 2x0,55	1700	1450	3380	2x250	2x300
	PCREC8/TV-S	80	7.000	250	6.000	7,5+ 2x0,55	1700	1450	3380	2x250	2x300
	PCREC12/TV--	120	8.000	230	8.000	7,5+ 3x0,55	2550	1450	3380	3x250	3x300
	PCREC16/TV--	160	11.000	210	11.000	5,5+5,5+ 4x0,55	3400	1450	3380	4x250	4x300
	PCREC16/TV-S	160	14.000	250	12.000	7,5+7,5+ 4x0,55	3400	1450	3380	4x250	4x300
PCREC-TS	PCREC4/TS--	40	2.000/4.000	-	3.000	1x0,55	850	1450	2640	250	300
	PCREC8/TS--	80	4.000/8.000	-	6.000	2x0,55	1700	1450	2640	2x250	2x300
	PCREC12/TS--	120	6.000/12.000	-	9.000	3x0,55	2550	1450	2640	3x250	3x300
	PCREC16/TS--	160	8.000/16.000	-	12.000	4x0,55	3400	1450	2640	4x250	4x300

Pulsatron Compact® PC FFA

1 Absolute Final Filter FFA

2 IN Polluted air inlet

3 OUT Air outlet

4 Cyclic sequential panel for cartridge cleaning by compressed air

5 Pressure tank

6 Solenoid valves

7 Cartridges

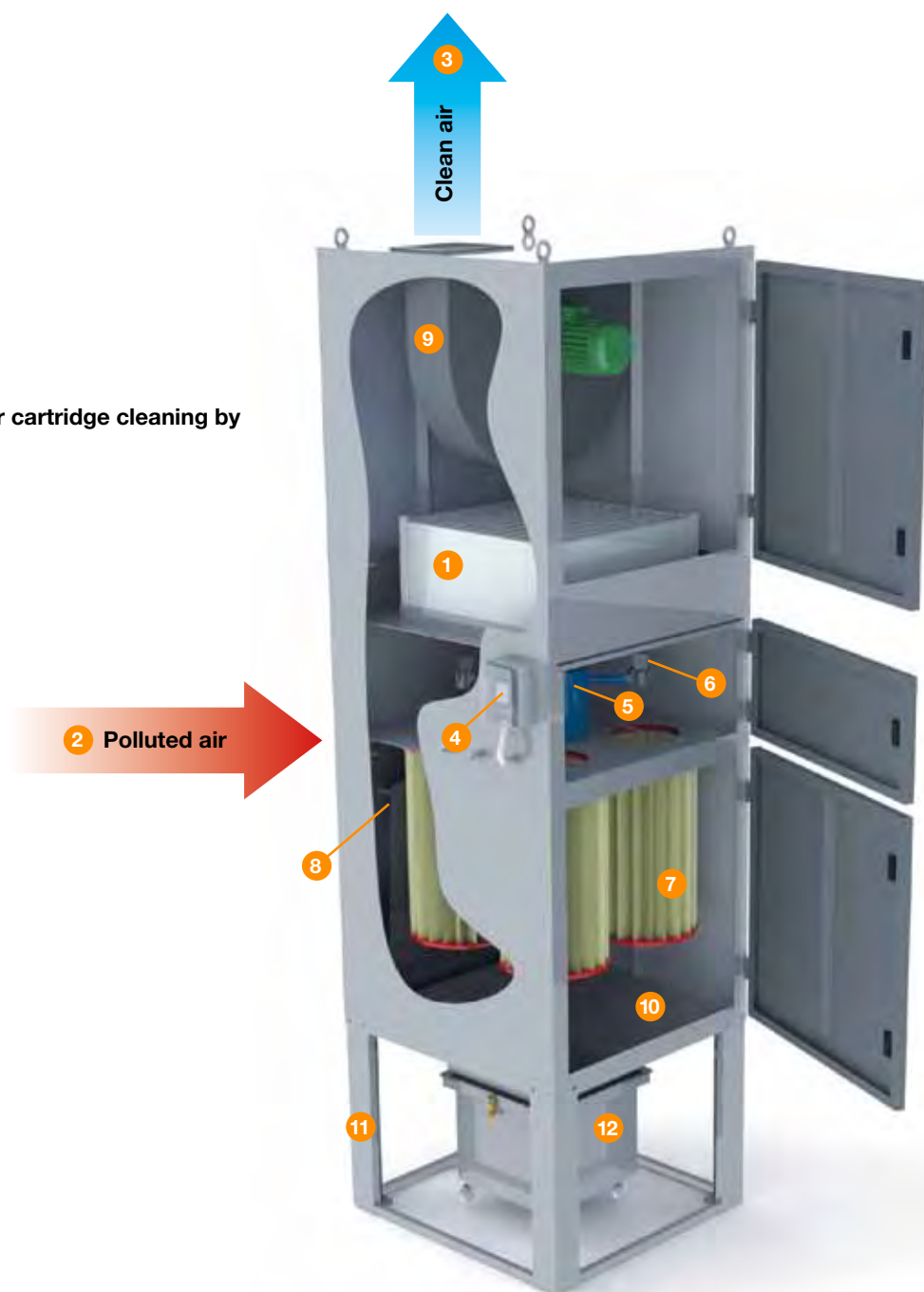
8 Pre-chamber

9 Electric fan

10 Hopper

11 Legs

12 Dust collection bin

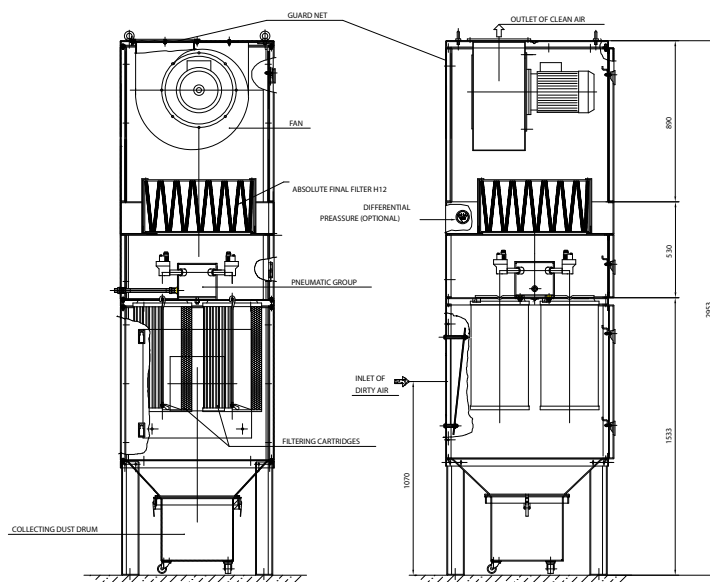


Operation

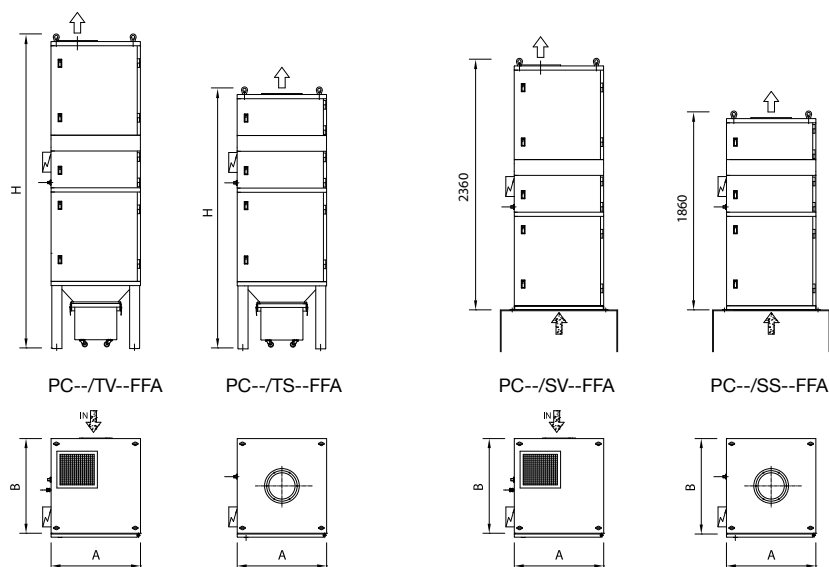
The PC-FFA series, thanks to the Absolute Final Filters, class H12, EN 1822, MPPS 99,5% efficiency or H13, EN 1822, MPPS 99,95%, ensures emissions lower than 1 mg/Nm³s. Polluted air enters the filter through a pre-chamber which enables separation of coarser particles; the flow then passes through the cartridges depositing the contaminants outside, then it undergoes further “absolute” filtration, allowing the achievement of emissions lower than 1 mg/Nm³s.

Applications

- Sandblasting
- Deburring
- Welding fumes
- Cement
- Handling of dusty materials
- Grinding
- Dry processing on machine tools
- Chemical processing
- Epoxy painting
- Pharmaceutical manufacturing
- Plastic material processing



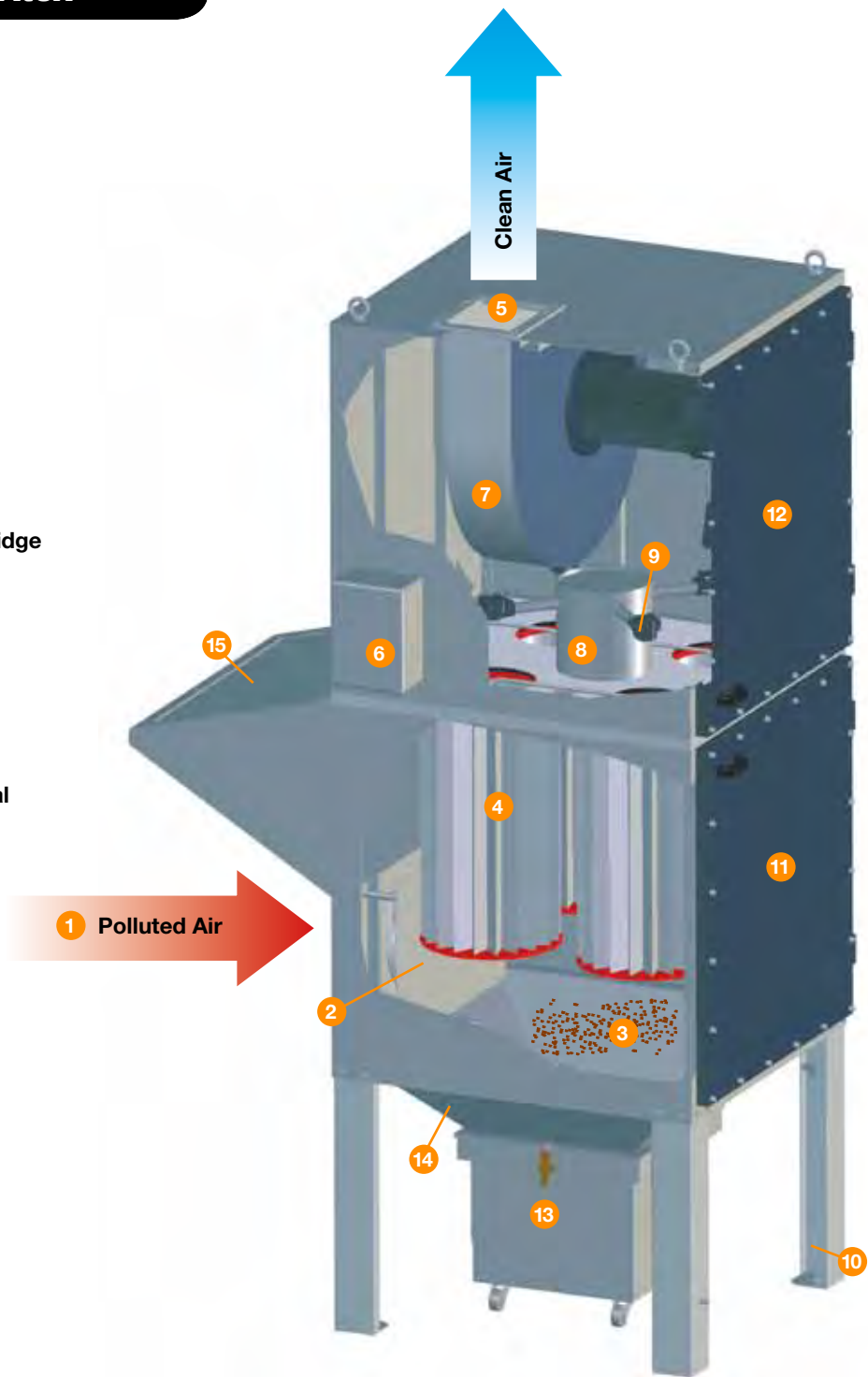
The Pulsatron Compact® PC FFA range



CODE	Filtering surface	Airflow	H tot.	Power	Filtering surface FFA	A	B	H	Inlet Flange	
	m²	m³/h	mm H₂O	kW	m²	mm	mm	mm	Ø mm	
PC-TV-FFA	PC4/TV--FFA	40	3.000	170	3	36	850	900	2960	250
	PC4/TV-H FFA	40	2.500	230	3	36	850	900	2960	250
	PC4/TV-Q FFA	40	4.000	180	4	36	850	900	2960	300
	PC8/TV--FFA	80	6.000	200	5,5	72	1700	900	2960	2x250
	PC8/TV-S FFA	80	7.000	250	7,5	72	1700	900	2960	2x250
	PC12/TV--FFA	120	8.000	230	7,5	108	2550	900	2960	3x250
	PC16/TV--FFA	160	11.000	210	5,5+5,5	144	3400	900	2960	4x250
	PC16/TV-S FFA	160	14.000	250	7,5+7,5	144	3400	900	2960	4x250
PC-TS-FFA	PC4/TS-- FFA	40	2.000/4.000	-	--	36	850	900	2460	250
	PC8/TS-- FFA	80	4.000/8.000	-	--	72	1700	900	2460	2x250
	PC12/TS-- FFA	120	6.000/12.000	-	--	108	2550	900	2460	3x250
	PC16/TS-- FFA	160	8.000/16.000	-	--	144	3400	900	2460	4x250

Pulsatron Compact® Atex

- 1 Polluted air inlet
- 2 Pre-chamber
- 3 Coarse particles
- 4 Cartridges
- 5 Clean air outlet
- 6 Cyclic sequential panel for cartridge cleaning by compressed air
- 7 Electric fan 
- 8 Pressure tank
- 9 Pneumatic valves
- 10 Legs
- 11 Lower door for cartridge removal
- 12 Upper door for valves and fan maintenance
- 13 Dust collection bin
- 14 Hopper
- 15 Anti-explosion panel 



Pulsatron PC Atex Version

The Pulsatron Compact Atex range was designed and developed to ensure suitable applications in qualified **Atex**  **II 3D** environments.

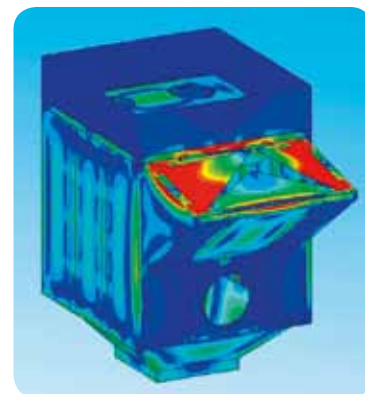
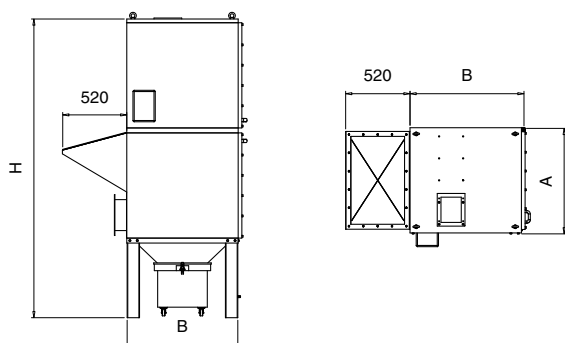
Design was conducted relying on the partnership with experts in the Atex directive and using cutting-edge design software such as Cosmos finite elements analysis and Solid Works 3D. Through the Cosmos software, our technicians performed several explosion simulation tests, as a result of which we were able to intervene on structural parts, so as to ensure high resistance to the Atex PC.

Applications

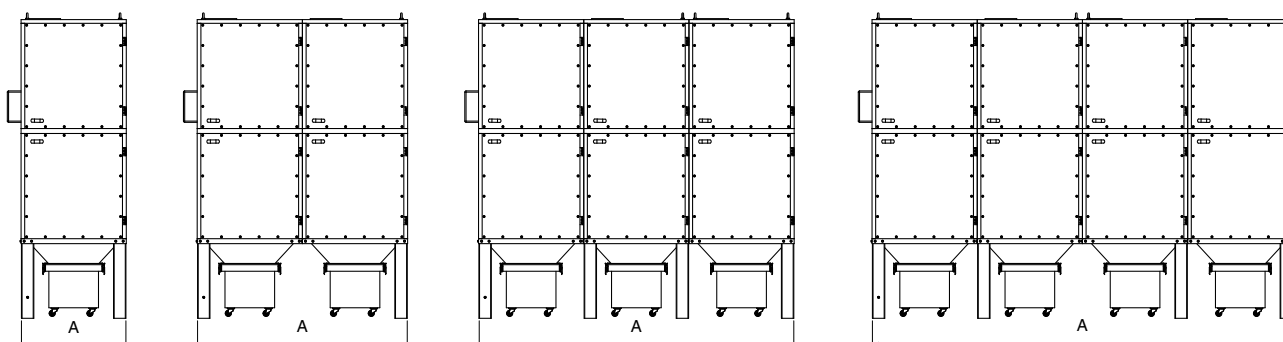
- Atex  II 3D Powder painting
- Food processing: flour/sugar
- Atex  II 3D Aluminium/zinc processing
- Atex  II 3D Pharmaceutical manufacturing
- Chemical processing
- Coal



The Pulsatron Compact® Atex range



F.E.M. analysis



PC  -TV

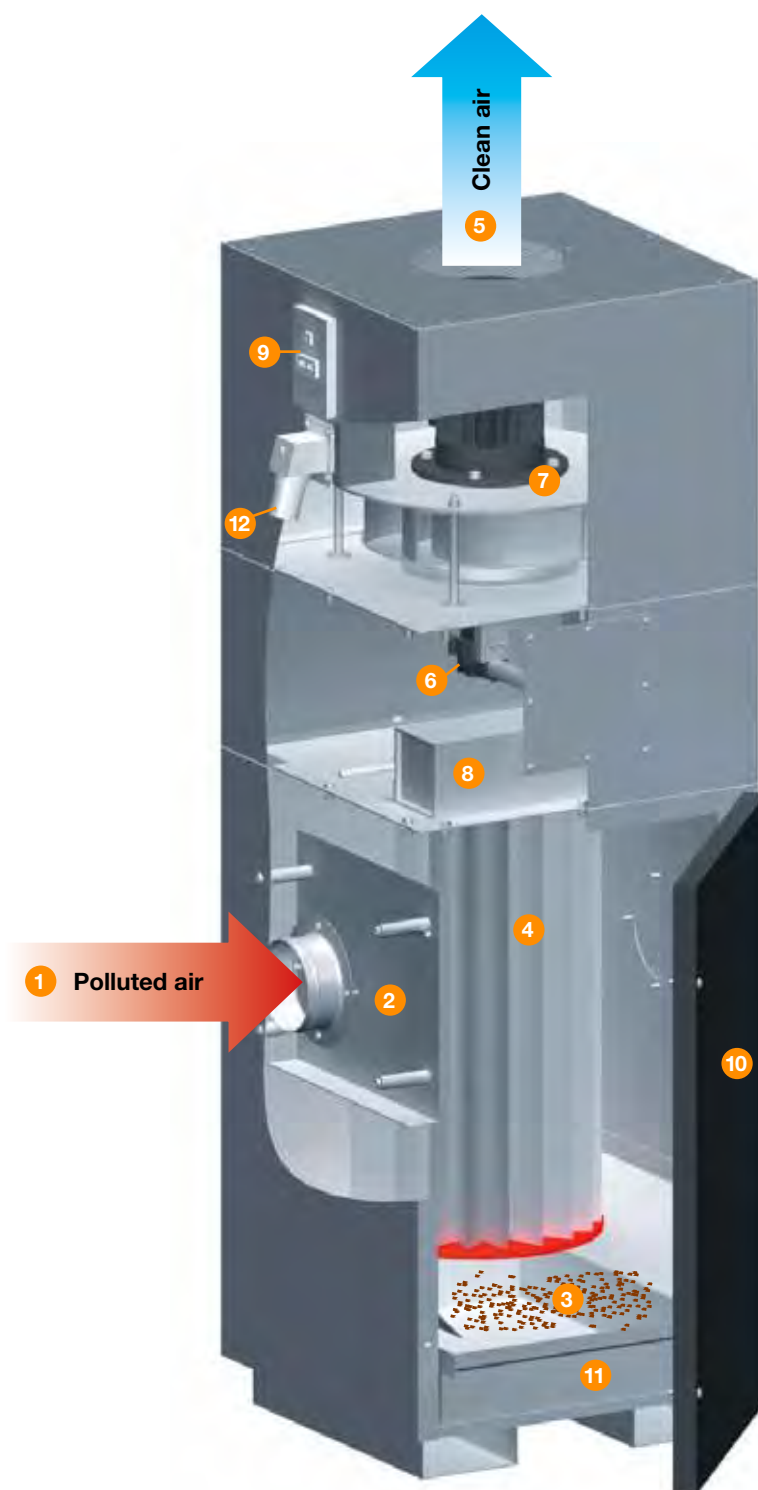
CODE	Filtering surface m ² C053	Airflow m ³ /h	H tot. mm H ₂ O	Power kW	A mm	B mm	H mm	Inlet Flange Ø mm
PC  2/TV-H	20	1.500	200	1,5	850	650	2400	200
PC  4/TV-H	40	2.500	230	3	850	900	2400	250
PC  8/TV	80	6.000	200	5,5	1700	900	2400	2x250
PC  12/TV	120	8.000	230	7,5	2550	900	2400	3x250
PC  16/TV	160	11.000	210	5,5 + 5,5	3400	900	2400	4x250

Other models on request.

A cleaner world.

Pulsatron Compact® Mini

- 1 Polluted air inlet
- 2 Pre-chamber
- 3 Coarse particles
- 4 Filtering cartridge
- 5 Clean air outlet
- 6 Solenoid valve with cyclic timer
- 7 Centrifugal fan
- 8 Pressure tank
- 9 Magnetothermal switch for fan start
- 10 Door for quick cartridge extraction
- 11 Dust collection drawer
- 12 Energy supply



Operation

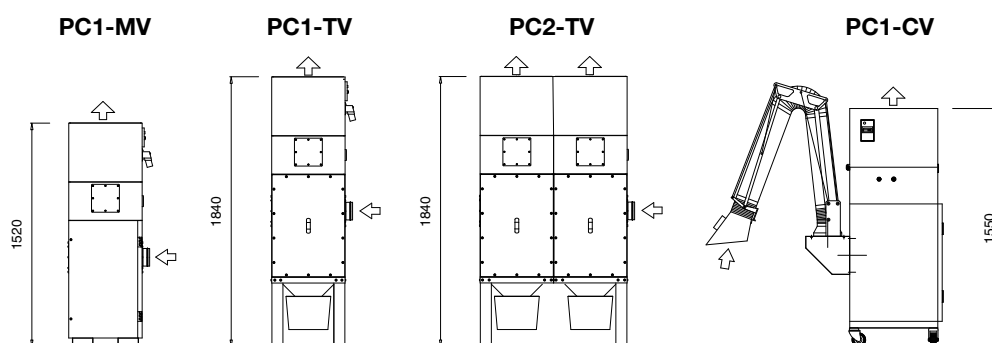
Polluted air enters the filter through a pre-chamber which enables separation of coarser particles; the flow then passes through the cartridges depositing the contaminants outside, while clean air is discharged through filter head. An automatic cartridge cleaning system (manual for PC1/CV) enables to maintain suction capacity, cleaning the cartridge with a compressed air jet which discharges the dust to a collection drawer or bin. Reduced dimensions and filter low noise emission (68 dBA) enable the installation also indoor, near pollution sources.

Applications

- Sandblasting
- Grinding
- Shot-peening machines
- Honing machines
- Sharpening machines
- Cleaners
- Welding machines
- Small machine tools with dry processing



The Pulsatron Compact® Mini range



Pulsatron Compact Mini

The PC Mini range includes the MV version with dust collection drawer, the TV version with dust collection bin/s and the CV version with wheels and suction arms. All models include a centrifugal electric fan, designed for installation inside the machine, with the advantage of reducing noise while avoiding connecting pipes.

CODE	Filtering surface m ²	Airflow	Power	A	B	H	Inlet Flange
	C014	m ³ /h	kW	mm	mm	mm	Ø mm
PC1/MV*	10	800	0,75	500	500	1520	120
PC1/TV*	10	800	0,75	500	500	1840	120
PC2/TV mini**	20	1.600	0,75 + 0,75	1.000	500	1840	150
PC1/CV-S	10	700	0,75	600	600	1550	125
PC1/CV-M	10	1.000	1,1	600	600	1550	160
PC1/CV-D	10	1.000	1,1	600	600	1550	2X100

*Also available with 2 Ø 80 or Ø100 inlets

**Also available with 2 Ø 100 or Ø120 inlets

MV – version with dust collection drawer

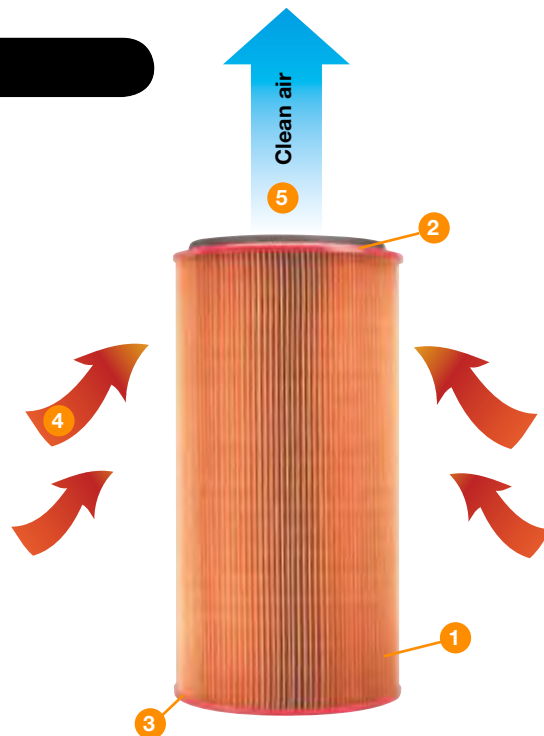
TV – version with hopper and 20 lt bin for dust collection

CV – wheeled version with suction arm

A cleaner world.

Puls

- 1 Filtering material
- 2 Upper ring
- 3 Lower ring
- 4 Polluted air
- 5 Clean air



PULS cartridges, usually mounted on filters fitted with a compressed air self-cleaning system, are used to filter both smoke and dust.

Benefits:

- Large filtering surface
- High efficiency
- Max operating temperature 120°
- Wide range of filtering media depending on the type of dust to be filtered

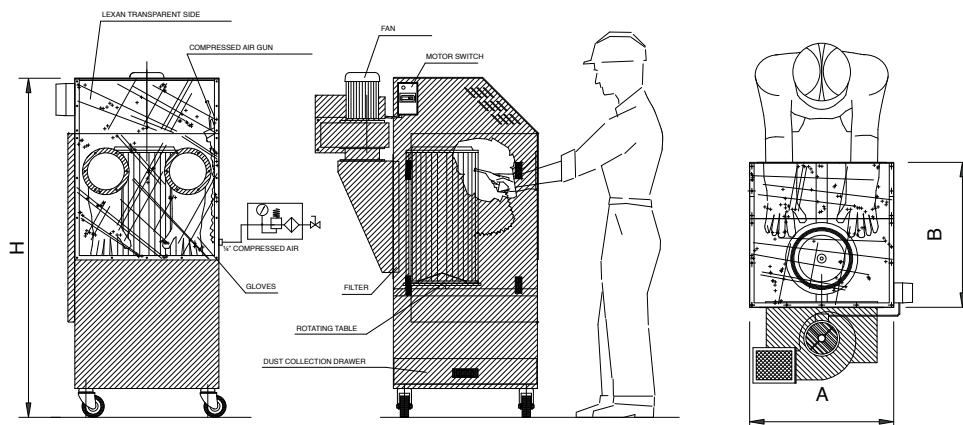
The Puls range

CODE	Filtering Surface	Ø	H	Filtering material*
	m ²	mm	mm	
C010	7	325	600	Cellulose microfibre
C014	10	325	600	Cellulose microfibre
C014-XL	20	325	1200	Cellulose microfibre
C018	20	325	600	Cellulose microfibre
C018-XL	40	325	1200	Cellulose microfibre
C025	20	325	1200	Cellulose microfibre
C026	40	325	1200	Cellulose microfibre
C037	7	325	600	Polyester microfibre
C041	10	325	600	Polyester microfibre
C041-TEFLON	10	325	600	Teflon Polyester microfibre
C041-TEFLON-XL	20	325	1200	Teflon Polyester microfibre
C041-XL	20	325	1200	Polyester microfibre
C045	20	325	600	Polyester microfibre
C045-XL	40	325	1200	Polyester microfibre
C050	7	325	600	Antistatic Polyester microfibre
C053	10	325	600	Antistatic Polyester microfibre
C053-XL	20	325	1200	Antistatic Polyester microfibre
C059	20-external net	325	660	Cellulose microfibre
C065	10	325	600	Polyester microfibre
C067	5	225	1000	Polyester microfibre
C069	10	325	1000	Polyester microfibre
C071	10	325	600	Antistatic Polyester microfibre
C073	5	225	1000	Antistatic Polyester microfibre
C074	10	325	1000	Antistatic Polyester microfibre

* Nomex, Hydro-oil repellent polyester microfibre and other materials on request



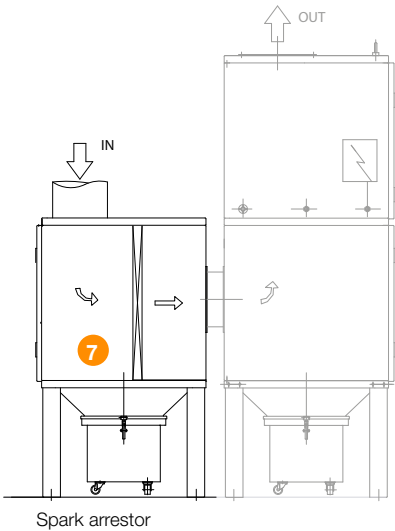
The FCS cartridge cleaning system, thanks to the wheels on which it is mounted, can be positioned near the filter containing the cartridges to be cleaned. Filtering cartridges or panels are placed inside the FCS and, through a compressed air gun, the operator removes the impurities the cartridge caught and retained, regenerating it for a new filtration cycle.



CODE	Compressed air bars	kW inst. kW	Volt	Air recirculation flow rate m ³ /h	A x B mm	H mm
FCS1	4÷6	0,37	380	400	650 x 650	1550

Pulsatron Compact® and Atex Accessories

- 1 Electric power board for fan control
- 2 Silencer
- 3 Analogue manometer for cartridge clogging check
- 4 Cyclic timer with built-in standard DP control (economizer) on Pulsatron XL range
- 5 Cartridge shakers
- 6 Rotary valves
- 7 Spark arrestor



Pulsatron Mini Accessories

- 1 Absolute filter
- 2 Manometer for cartridge clogging check
- 3 Double inlet



Assistance

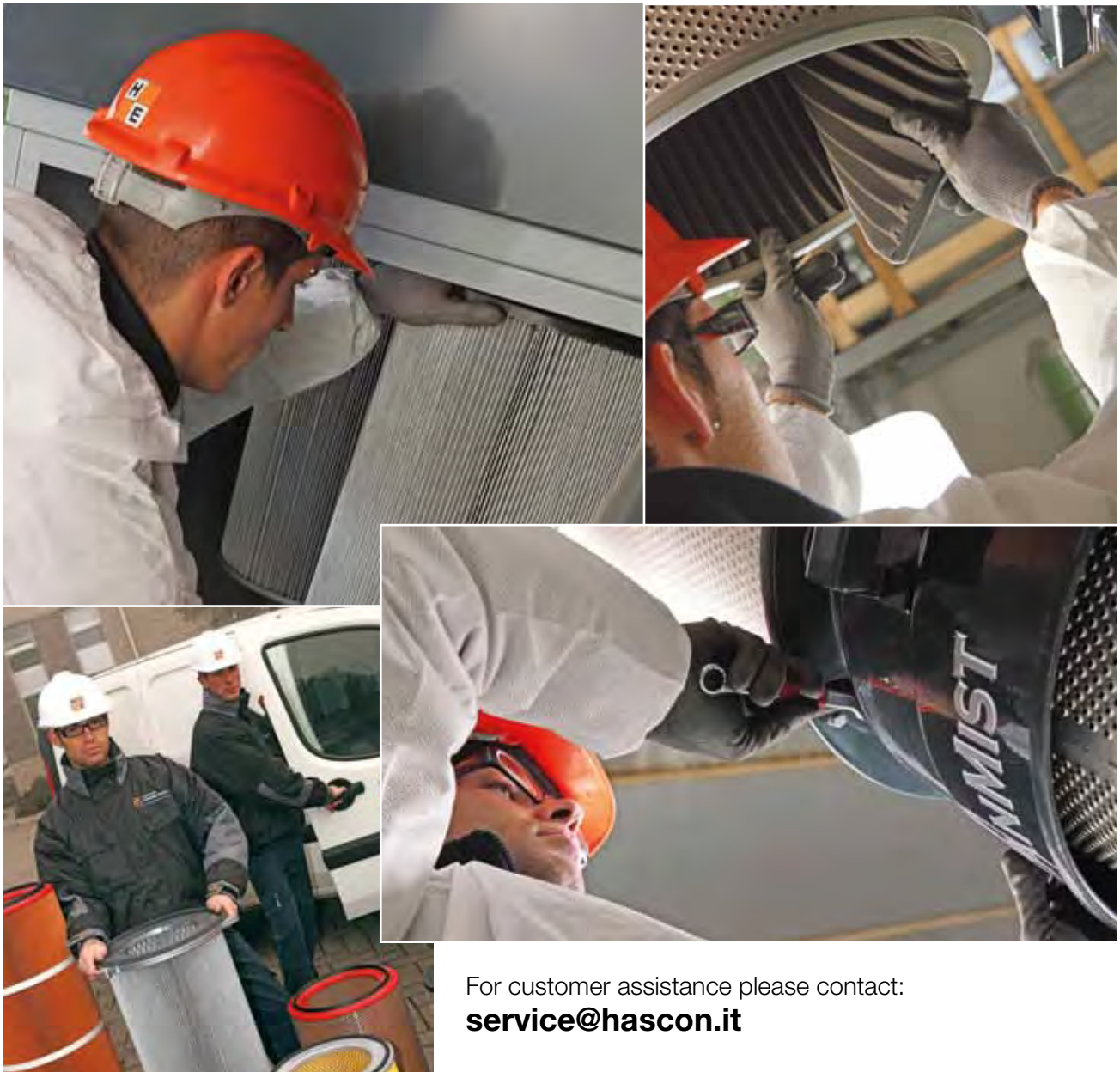
Assistance on Request

Proper maintenance ensures our filters smooth operation and high efficiency.

For this reason we do not just sell our products, but we support our Customers, both providing preventive training courses and ensuring immediate intervention of our technicians if malfunctioning occurs.

Scheduled Assistance

In addition to regular maintenance - machine functional testing after installation and technical assistance on request - we offer scheduled maintenance programs on an annual or triennial basis. We have observed that preventive assistance reduces by 60% the number of interventions required for repair operations, thus reducing costs accordingly.



For customer assistance please contact:
service@hascon.it



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ISO 9001 - ISO 14001 certified company