In line system for air cleaning and renovation in healthcare environments

CURAT SYSTEM

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CURAT SYSTEM

In line system for air cleaning and renovation in healthcare environments

MAIN FUNCTION

- The efficiency of air renewal indicates the distribution efficiency of fresh air in the room, while the ventilation efficiency indicates the removal efficiency of airborne contaminants in the room. The efficiency of air renewal can be calculated from the hourly air changes and the mean air age of the room.
- Lack of ventilation or low ventilation rates are associated with higher rates of infection or outbreaks of airborne diseases. A higher ventilation rate can provide a better dilution of airborne contaminated Wells cores and consequently reduce the risk of airborne infection (by reducing the viral load in the environment). For this reason, better ventilated areas with CURAT SYSTEM have a lower risk of transmission of COVID19 and other airborne infections. According to the Wells–Riley equation, the probability of infection by infectious Wells cores is inversely proportional to the ventilation rate. 12 renovations/hour just running 10 minutes manage to dilute Wells cores more than 70%.
- The CURAT SYSTEM is an integrated solution designed to ensure the level of indoor air quality (IAQ) by renewing and filtering the air in the room. Specially thought to guarantee the leakages of the air renewal in rooms or rooms with patients with contagious diseases that are easily spread by air.

APPLICATIONS

- Exhaust of contaminated air and clean air supply free of polluting agents (particles, micro-organisms, molecules, bacteria, virus).
- The **CURAT BASIC & CURAT RECOVERY** systems are designed for inline installation, indoor or outdoor assembly, they are suitable for:
  - Air renewal in buildings and industries (Tertiary sector).
  - Maximum working temperature 55ºC.

- The **CURAT BASIC HEALTH** and **CURAT RECOVERY HEALTH** systems are designed according to the strictest leakage regulations **EN 1886 2006** and are suitable for the following healthcare environments:
  - Field hospitals
  - Hospital & clinic waiting rooms
  - Hospital hallways
  - Hospital or clinic rooms
  - Dental clinics
  - Common areas (reception, pharmacies, warehouses)







AVAILABLE OPTIONS

① KIT CURAT BASIC

- **Filter-holder box (CPCR)** for supply and extraction air* **+ Filters + Ventilation boxes**.
- Under request **KIT SMART CURAT BASIC**.

  * The extracting CPCR filter box will be positioned before the ventilation box. On the other hand, in impulsion they will go before the ventilation box. Ensuring clean renewed air free of contaminants.

② KIT CURAT RECOVERY

- **Filter-holder box (CPCR) + Filters** in supply and extraction before the exchanger, avoiding non-transmissibility due to possible leaks in the structure, both from its location and from the exchanger itself due to pressure differential (+ -), always operating in depression, with **H13** filter with gasket sealing **+ Energy recovery unit**.

  * A CPCR filter-holder box is positioned before the extracting air of the energy recovery unit and another CPCR in supply, protecting the energy recovery always from contaminated air.

③ KIT CURAT HEALTH & KIT CURAT RECOVERY HEALTH

- For healthcare environments where we need a higher leakage rating on the filter-holder box, we will use two types of filter-holder box. **Filter-holder boxes (CPCR & HCPCR)** in supply and extraction* **+ Filters + Ventilation boxes.**
- Under request **KIT SMART CURAT HEALTH**.

  * The filter-holder boxes will be positioned in series CPCR + HCPCR in their last filtration stage in extraction, they will be positioned before the ventilation box. On the other hand, in impulsion they will go before the ventilation box. Ensuring clean renewed air free of contaminants. The HCPCR box has a **bag in – bag out** system to change the filters avoiding the entrance of contaminants in the system during maintenance.

MAIN SYSTEM COMPONENTS

In all kits, the system consists of a ventilation box or a recovery unit and a filtration kit.

① KIT CURAT BASIC

- **1 ventilation box** with permanent magnet motor EEC or asynchronous motor AC in supply and/or extraction:

  BOX BD PLUS EEC or BOX BV PLUS
- **1 CPCR filter-holder box**: in supply and/or extraction with filters. The CPCR has a L1 sealing certificate up to +/- 1000 Pa according to the EN 1886 2006 standard certified by CETIAT (report No. 2514311-1).
- **3 filtering stages in supply**:

  Iso Coarse 50% (G4) + ePM1 55% (F7) + HEPA H13
- **2 filtering stages in extraction:**

  ePM1 55% (F7) + HEPA H13

② KIT CURAT RECOVERY

- **1 energy recovery unit** unit with permanent magnet motors EEC:

  ABRENSA EEC, ARUMAK LP EEC, ARUMAK EEC, or DOMEX EEC
- **2 CPCR filter-holder boxes**: one for delivery and one for extraction with filters. The CPCR has a L1 sealing certificate up to +/- 1000 Pa according to the EN 1886 2006 standard certified by CETIAT (report No. 2514311-1).
- **3 filtering stages in supply**:

  Iso Coarse 50% (G4) + ePM1 55% (F7) + HEPA H13
- **2 filtering stages in extraction:**

  ePM1 55% (F7) + HEPA H13

③ KIT CURAT HEALTH & KIT CURAT RECOVERY HEALTH

- **1 ventilation box** in supply and/or extraction **or 1 energy recovery unit** but changing the filtering system to avoid unwanted leaks of contaminated air out of the filter-holder boxes into the environment.
- **2 filter-holder boxes in supply and 2 in extraction HCPCR.** The HCPCR has a L1 sealing certificate up to +/- 5000 Pa according to the EN 1886 2006 standard certified by CETIAT.
- **3 filtering stages in supply**:

Iso Coarse 50% (G4) + ePM1 55% (F7)	+ HEPA H13
2 first stages inside the CPCR	3rd stage inside the HCPCR

- **2 filtering stages in extraction**:

ePM1 55% (F7)	+ HEPA H13
1st stage inside the CPCR	2nd stage inside the HCPCR

<table>
<tr><td rowspan="3">KIT CURAT BASIC</td><td>VENTILATION BOXES</td><td>FILTER HOLDER BOXES</td><td>FILTERS FOR BOXES</td></tr>
<tr><td rowspan="2"> 
BOX BD PLUS EEC | BOX BV PLUS</td><td> 
CPCR in supply</td><td>Supply filters
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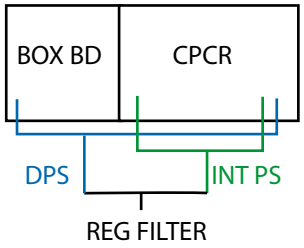
ACCESSORIES

					
CFR	**BE**	**BEIRM**	**DPT**	**INT PS**	**REG FILTER**
Circular constant flow regulator	Extraction or supply inlet	Extraction or supply inlet regulated manually	Differential pressure transmitter	Differential pressure switch 500 Pa	Filters control
					
SFC	**ePM1 80% (F9)**	**HEPA H14**			
Frequency speed controller	ePM1 80% filter	HEPA filter for clean rooms and LAF benches			

COMBINATION OF ACCESSORIES FOR A SMART SYSTEM

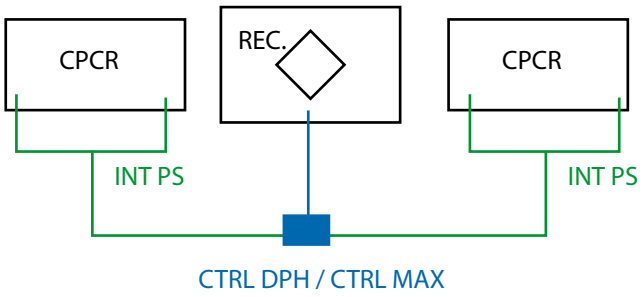
① KIT SMART CURAT BASIC



- By using the **REG FILTER** combined with a **DPT** pressure probe and an **INT PS** differential pressure switch, we can optimize the use of the ventilation system, making it more efficient and guaranteeing a constant air flow in the room despite filter clogging that may have been due to continued use of the **SMART CURAT BASIC**.
- The smart system composed of these 3 elements plus the ventilation box and the CPCR filter-holder box with their respective filtration stages; It's installed by placing the two pipes of the INT PS at each end of the CPCR and the two pipes of the DPT differential pressure probe at the end of the ventilation box and at opposite end of the CPCR. All this connected to the REG FILTER, always allows the control to regulate the constant air flow depending on the pressure losses that are being caused in the system and informing of the filter status (clogging). The DPT probe and the REG FILTER regulate the fan, constantly maintaining the same air flow. The INT PS and REG FILTER will give us information about the state of the filters and indicate when they must be changed by an alarm signal.
- The REG FILTER is the smart control that allows us to:
  - Remote ON/OFF
  - Filtering status and alarm.
  - Indications of constant air flow.
  - Time programming.
  - Modbus RTU RS485 to facilitate an integration to the BMS.
- The main feature of the REG FILTER is to guarantee the constant air flow in the SMART CURAT BASIC, but also to optimize the energy consumption of the system thanks to the regulation of the speed of the fans based on the pressure drop readings and the time schedule. This last feature would allow us multiple use options that favor energy saving based on schedules.
- For **large air flows** in the system higher than 8000 m3/h where we would use a **BOX BV PLUS** as ventilation unit, we must incorporate an SFC frequency inverter into the SMART CURAT BASIC. The SFC will allow us to vary the fan speed to keep the constant airflow in the system based on the established parameters. The REG FILTER control acts as a general control panel on the drive and fan. The REG FILTER incorporating MODBUS RTU RS485 allows its integration to a BMS (Building Management System).

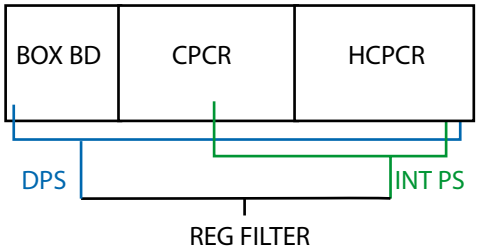
② KIT SMART CURAT RECOVERY

- The **energy recovery units equipped with EC technology** (permanent magnet motors have a sophisticated integrated control that allow constant air flow (CAV) to be operated. The A**BRENSA EEC, ARUMAK LP EEC, ARUMAK EEC, and DOMEX EEC** energy recovery units must be selected with their respective **CAV kits**.
- The **KIT SMART CURAT RECOVERY** system would be composed of 2 CPCR filter-holder box on each side of the energy recovery unit (impulsion and extraction), 2 INT PS, one in each CPCR that would inform us at all times of the state of the filters, and of the EC energy recovery units with KIT CAV equipped with **CTRL-MAX** (ABRENSA EEC / DOMEX EEC) or **CTRL DPH** (ARUMAK LP EEC/ARUMAK EEC) control.



③ KIT SMART CURAT HEALTH & KIT SMART CURAT RECOVERY HEALTH

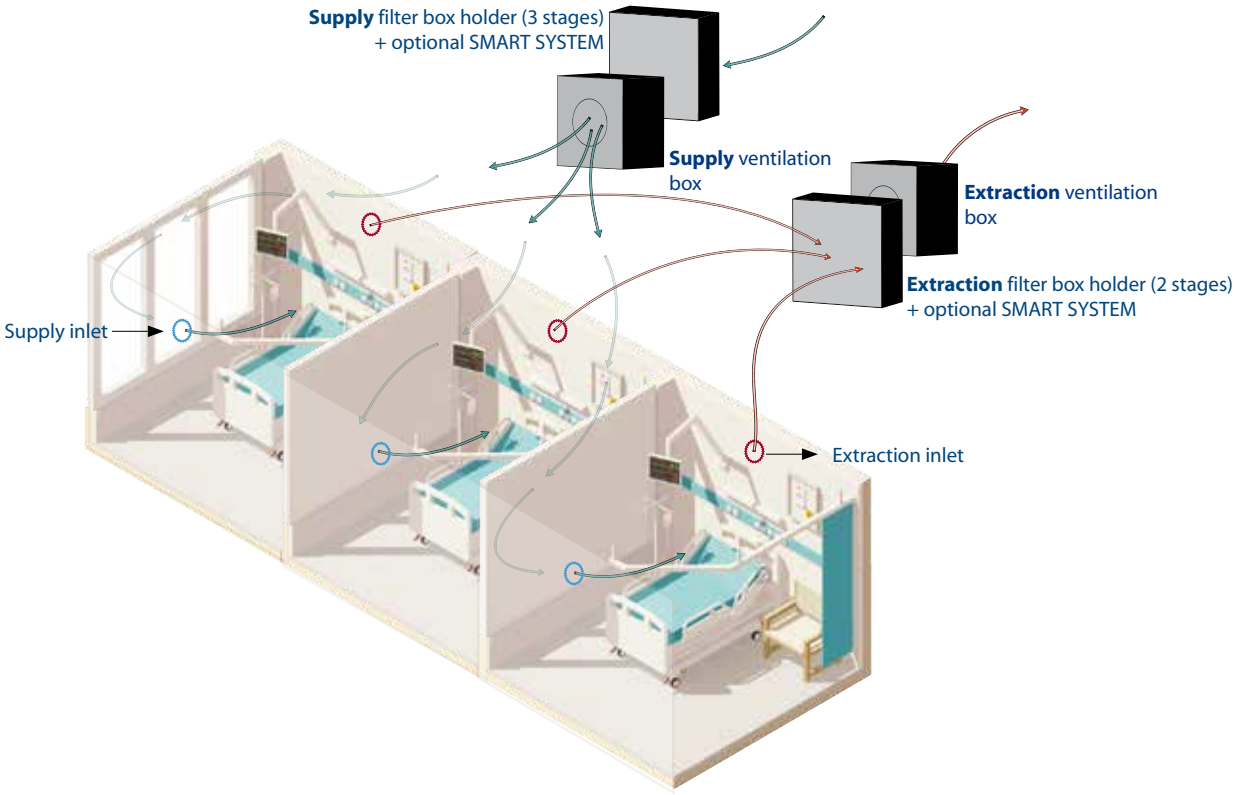
- Following the same criteria as in the previous SMART KITs (a ventilation box for impulsion &/or extraction or an energy recovery units together with the connected accessories), changing the filtering system to avoid unwanted leaks of contaminated air outside the filter-holder boxes towards the environment.
- The filtration system would always be made up of:
  - **2 filter-holder boxes** in supply and another two in extraction (CPCR + HCPCR).
  - **1 INT PS** for the two filter-holder boxes installed in series in supply or extraction: one pipe of the INT PS at each end of the filter-holder boxes for an optimal reading of filter clogging status (with an energy recovery unit, we would need 2 INT PS, one per each filtration compound).



INSTALLATION SCHEME

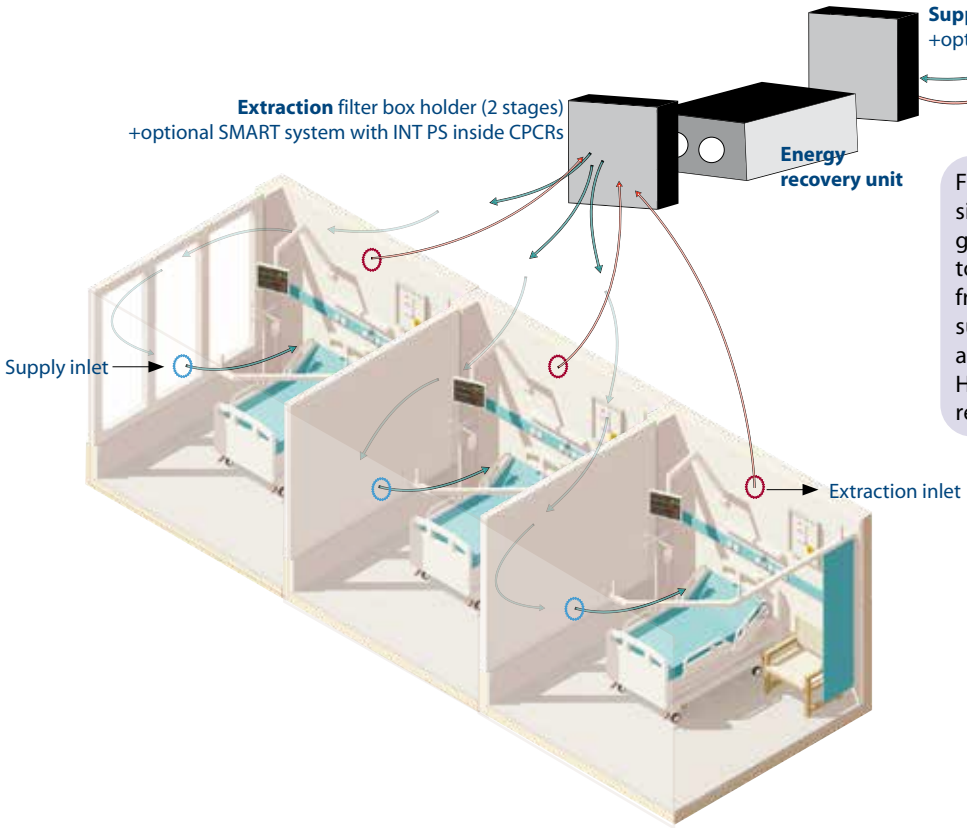
① KIT CURAT BASIC & KIT CURAT HEALTH

Example: two ventilation boxes with filter-holder box in supply and extraction. Duct installed.



② KIT CURAT RECOVERY & KIT CURAT RECOVERY HEALTH

Example: an energy recovery unit with 2 filter-holder box, one in supply and another one in extraction. Duct installed.



Filter-holder boxes + filters in impulsion and extraction before the exchanger, avoiding non-transmissibility due to possible leaks in the structure, both from its location and that of the pressure differential exchanger itself (+ -), always operating in depression , with H13 filter with sealing gasket + Energy recovery.

TECHNICAL CHARACTERISTICS OF THE FILTERS

FILTER NAMES

				
PL	**MD**	**BS**	**CM**	**CA**
Pleated panel	Shape Header frame 25 mm	Bags	Compact (Box type)	Actived Carbon

Code	Model	Dimensions	Airflow (m^3/h)	Initial Pressure Loss (Pa)
FG4CPCR287	FILT. ISO COARSE 50% (G4) PL	287x592x48	1600	100
FX0015821	FILT. ISO COARSE 50% (G4) PL	592x592x48	3250	100
FF7CPCR287	FILT. ePM1 55% (F7) PL	287x592x48	1500	140
FX0015412	FILT. ePM1 55% (F7) PL	592x592x48	3400	140
FF7CPCR287MD	FILT. ePM1 55% (F7) MD	287x592x292	2125	70
FF7CPCR592MD	FILT. ePM1 55% (F7) MD	592x592x292	4250	70
FF7CPCR287BS	FILT. ePM1 50% (F7) BS	287x592x500	1600	75
FF7CPCR592BS	FILT. ePM1 50% (F7) BS	592x592x500	3200	75
FH13CPCR287MD	FILT. HEPA H13 MD	287x592x292	1800	280
FH13CPCR592MD	FILT. HEPA H13 MD	592x592x292	4000	280
FH13CPCR287CM	FILT. HEPA H13 CM	305x610x292	2000	280
FH13CPCR592CM	FILT. HEPA H13 CM	610x610x292	4000	280

UNDER REQUEST

Code	Model	Dimensions	Airflow (m^3/h)	Initial Pressure Loss (Pa)
FF9CPCR287	FILT. ePM1 80% (F9) PL	287x592x48	1500	140
FX0047941	FILT. ePM1 80% (F9) PL	592x592x48	3000	140
FF9CPCR287MD	FILT. ePM1 85% (F9) MD	287x592x292	2125	145
FF9CPCR592MD	FILT. ePM1 85% (F9) MD	592x592x292	4250	145
FF9CPCR287BS	FILT. ePM1 85% (F9) BS	287x592x500	1580	215
FF9CPCR592BS	FILT. ePM1 85% (F9) BS	592x592x500	3200	215
FH14CPCR287MD	FILT. HEPA H14 MD	287x592x292	1400	320
FH14CPCR592MD	FILT. HEPA H14 MD	592x592x292	2800	320
FH14CPCR287CM	FILT. HEPA H14 CM	305x610x292	1500	320
FH14CPCR592CM	FILT. HEPA H14 CM	610x610x292	3000	320
FCACPCR287MD	FILT. CA MD	287x592x292	1700	120
FCACPCR592MD	FILT. CA MD	592x592x292	3400	120
FCACPCR287CM	FILT. CA CM	305x610x292	1700	130
FCACPCR592CM	FILT. CA CM	610x610x292	2600	130

"Please use CPCR DATA SHEET to verify mounting Configuration" ALWAYS Recalculate Pressure Loss of the System if you change the filter configurations.

TECHNICAL CHARACTERISTICS OF THE FILTER HOLDER BOX

CPCR S
1 single stage configuration

level	STAGE 1												
Filter type	Medium Efficiency	High Efficiency						HEPA				Active carbon	
Name	G4 PL	F7 PL	F7 BS	F7 MD	F9 PL	F9 BS	F9 MD	H13 MD	H13 CM	H14 MD	H14 CM	CA MD	CA CM
Frame (mm)	48	48	25	25	48	25	25	25	292	25	292	25	292
Thickness (mm)	48	48	500	292	48	500	292	292	292	292	292	292	292

Filter-holder box	Nominal airflow (m^3/h)												
CPCR S 0,5	1.600	1.500	1.600	2.125	1.500	1.580	2.125	1.800	2.000	1.400	1.500	1.700	1.700
CPCR S 1	3.250	3.400	3.200	4.250	3.000	3.200	4.250	4.000	4.000	2.800	3.000	3.400	2.600
CPCR S 1,5	4.850	4.900	4.800	6.375	4.500	4.780	6.375	5.800	6.000	4.200	4.500	5.100	4.300
CPCR S 2	6.500	6.800	6.400	8.500	6.000	6.400	8.500	8.000	8.000	5.600	6.000	6.800	5.200
CPCR S 3	9.750	10.200	9.600	2.750	9.000	9.600	12.750	12.000	12.000	8.400	9.000	10.200	7.800

CPCR S
2 stage configuration

Level	STAGE 1			STAGE 2						
Filter type	Medium Efficiency	High Efficiency		High Efficiency				HEPA		Active carbon
Name	G4 PL	F7 PL	F9 PL	F7 BS	F7 MD	F9 BS	F9 MD	H13 MD	H14 MD	CA MD
Frame (mm)	48	48	48	25	25	25	25	25	25	25
Thickness (mm)	48	48	48	500	292	500	292	292	292	292

Filter-holder box	Nominal airflow (m^3/h)										
	STAGE 1			STAGE 2							
CPCR S 0,5	1.600	1.500	1.500	1.600	2.125	1.580	2.125	1.800	1.400	1.700	1.700
CPCR S 1	3.250	3.400	3.000	3.200	4.250	3.200	4.250	4.000	2.800	3.400	3.400
CPCR S 1,5	4.850	4.900	4.500	4.800	6.375	4.780	6.375	5.800	4.200	5.100	5.100
CPCR S 2	6.500	6.800	6.000	6.400	8.500	6.400	8.500	8.000	5.600	6.800	6.800
CPCR S 3	9.750	10.200	9.000	9.600	12.750	9.600	12.750	12.000	8.400	10.200	10.200

CPCR M
2 stage configuration

Level	STAGE 1			STAGE 2									
Filter type	Medium Efficiency	High Efficiency		High Efficiency				HEPA				Active carbon	
Name	G4 PL	F7 PL	F9 PL	F7 BS	F7 MD	F9 BS	F9 MD	H13 MD	H13 CM	H14 MD	H14 CM	CA MD	CA CM
Frame (mm)	48	48	48	25	25	25	25	25	292	25	292	25	292
Thickness (mm)	48	48	48	500	292	500	292	292	292	292	292	292	292

Filter-holder box	Nominal airflow (m^3/h)												
	STAGE 1			2A ETAPA									
CPCR M 0,5	1.600	1.500	1.500	1.600	2.125	1.580	2.125	1.800	2.000	1.400	1.500	1.700	1.700
CPCR M 1	3.250	3.400	3.000	3.200	4.250	3.200	4.250	4.000	4.000	2.800	3.000	3.400	2.600
CPCR M 1,5	4.850	4.900	4.500	4.800	6.375	4.780	6.375	5.800	6.000	4.200	4.500	5.100	4.300
CPCR M 2	6.500	6.800	6.000	6.400	8.500	6.400	8.500	8.000	8.000	5.600	6.000	6.800	5.200
CPCR M 3	9.750	10.200	9.000	9.600	12.750	9.600	12.750	12.000	12.000	8.400	9.000	10.200	7.800

3 stage configuration

Level	STAGE 1			STAGE 2			STAGE 3	
Filter type	Medium Efficiency	High Efficiency		Active carbon			HEPA	
Name	G4 PL	F7 PL	F9 PL	F7 MD	F9 MD	CA MD	H13 CM	H14 CM
Frame (mm)	48	48	48	25	25	25	292	292
Thickness (mm)	48	48	48	292	292	292	292	292

Filter-holder box	Nominal airflow (m^3/h)							
	STAGE 1			STAGE 2			STAGE 3	
CPCR M 0,5	1.600	1.500	1.500	2.125	2.125	1.700	2.000	1.500
CPCR M 1	3.250	3.400	3.000	4.250	4.250	3.400	4.000	3.000
CPCR M 1,5	4.850	4.900	4.500	6.375	6.375	5.100	6.000	4.500
CPCR M 2	6.500	6.800	6.000	8.500	8.500	6.800	8.000	6.000
CPCR M 3	9.750	10.200	9.000	12.750	12.750	10.200	12.000	9.000

CPCR L (S+S)
3 stage configuration

Level	STAGE 1			STAGE 2		STAGE 3					
Filter type	Medium Efficiency	High Efficiency		High Efficiency		HEPA				Active carbon	
Name	G4 PL	F7 PL	F9 PL	F7 BS	F9 BS	H13 CM	H13 MD	H14 CM	H14 MD	CA MD	CA CM
Frame (mm)	48	48	48	25	25	292	25	25	25	25	292
Thickness (mm)	48	48	48	500	500	292	292	292	292	292	292

Filter-holder box	Airflow nominal (m^3/h)										
	STAGE 1			STAGE 2		STAGE 3					
CPCR L 0,5	1.600	1.500	1.500	1.600	1.580	2.000	1.800	1.500	1.400	1.700	1.700
CPCR L 1	3.250	3.400	3.000	3.200	3.200	4.000	4.000	3.000	2.800	3.400	2.600
CPCR L 1,5	4.850	4.900	4.500	4.800	4.780	6.000	5.800	4.500	4.200	5.100	4.300
CPCR L 2	6.500	6.800	6.000	6.400	6.400	8.000	8.000	6.000	5.600	6.800	5.200
CPCR L 3	9.750	10.200	9.000	9.600	9.600	12.000	12.000	9.000	8.400	10.200	7.800

HCPCR 1
1 single stage configuration

Level	STAGE 1	
Filter type	HEPA	
Name	H13 CM	H14 CM
Frame (mm)	292	292
Thickness (mm)	292	292

Filter-holder box	Nominal airflow (m^3/h)	
	STAGE 1	
HCPCR 1	4.000	3.000
HCPCR 1 x 2 uts.	8.000	6.000
HCPCR 1 x 3 uts.	12.000	9.000

VENTILATION BOXES SELECTION

1. KIT CURAT BASIC FOR THE TERTIARY SECTOR

1.1 SUPPLY VENTILATION BOXES

Supply fan	CPCR supply	Nª stages	Nª filter/ stage	Dim. filters CPCR	12 ren./h rooms x m^2 Height 2,5m	Airflow (m^3/h)	Initial pressure drop (Pa)
BOX BD PLUS 9/7 EEC	CPCR M 0,5	3 (G4 PL + F7 MD+ H13 CM)	1	287 x 592	66	1500 - 2000	400 - 450
BOX BD PLUS 10/8 EEC	CPCR M 1	3 (G4 PL + F7 MD+ H13 CM)	1	592 x 592	133	3500 - 4000	400 - 450
BOX BV PLUS 15/15 2,2 KW 1100 RPM	CPCR M 1,5	3 (G4 PL + F7 MD+ H13 CM)	2	287 x 592 + 592 x 592	200	5000 - 6000	400 - 450
BOX BV PLUS 18/18 3 KW 950 RPM	CPCR M 2	3 (G4 PL + F7 MD+ H13 CM)	2	592 x 592 + 592 x 592	266	7000 - 8000	400 - 450
BOX BV PLUS 18/18 4 KW 950 RPM	CPCR M 3	3 (G4 PL + F7 MD+ H13 CM)	3	592 x 592 + 592 x 592 + 592 x 592	400	9000 - 12000	400 - 450

1.2 EXTRACTION VENTILATION BOXES

Extraction fan	CPCR extraction	Nª stages	Nª filter/ stages	Dim. filter CPCR	12 ren./h rooms x m^2 Height 2,5m	Airflow (m^3/h)	Initial pressure drop (Pa)
BOX BD PLUS 9/7 EEC	CPCR S 0,5	2 (F7 PL + H13 MD)	1	287 x 592	66	1500 - 2000	370 - 420
BOX BD PLUS 10/8 EEC	CPCR S 1	2 (F7 PL + H13 MD)	1	592 x 592	133	3500 - 4000	370 - 420
BOX BV PLUS 15/15 2,2 KW 1100 RPM	CPCR S 1,5	2 (F7 PL + H13 MD)	2	287 x 592 + 592 x 592	200	5000 - 6000	370 - 420
BOX BV PLUS 18/18 3 KW 950 RPM	CPCR S 2	2 (F7 PL + H13 MD)	2	592 x 592 + 592 x 592	266	7000 - 8000	370 - 420
BOX BV PLUS 18/18 4 KW 950 RPM	CPCR S 3	2 (F7 PL + H13 MD)	3	592 x 592 + 592 x 592 + 592 x 592	400	9000 - 12000	370 - 420

2. KIT CURAT RECOVERY FOR THE TERTIARY SECTOR

EC energy recovery unit for supply & extraction	CPCR supply	Nº stages	Nº filter/ stages	CPCR extraction	Nº stages	Nº filter/ stages	Dim. filters CPCR	12 ren./h rooms x m² Height 2,5m	Airflow (m³/h)	Initial pressure drop in supply (Pa)	Initial pressure drop in extraction (Pa)
RECUPERADOR HASTA 2000 m3/H = ABRENSA EEC 3000 H CTRL MAX KIT CAV	CPCR M 0,5	3 (G4 PL + F7 MD + H13 CM)	1	CPCR S 0,5	2 (F7 PL + H13 MD)	1	287 x 592	66	1500 - 2000	400 - 450	370 - 420
RECUPERADOR HASTA 4000 m3/H = ABRENSA EEC 6700 H CTRL MAX KIT CAV	CPCR M 1	3 (G4 PL + F7 MD + H13 CM)	1	CPCR S 1	2 (F7 PL + H13 MD)	1	592 x 592	133	3500 - 4000	400 - 450	370 - 420

3. KIT CURAT HEALTH FOR THE HEALTH SECTOR

3.1 SUPPLY VENTILATION BOXES

Supply fan	CPCR supply	Nº stages	Nº filter/ stages	Dim. filter CPCR	HCPCR supply	Nº stages	Nº HCPCR	Nº filter (1 stage)	Dim. filters HCPCR	12 ren./h rooms x m² Height 2,5m	Airflow (m³/h)	Initial pressure drop (Pa)
BOX BD PLUS 9/7 EEC	CPCR S 1	2 (G4 PL + F7 BS)	1	592 x 592	HCPCR 1	1 (H13 CM)	1	1	610x610	66	1500 - 2000	200 - 250
BOX BD PLUS 10/8 EEC	CPCR S 1	2 (G4 PL + F7 BS)	1	592 x 592	HCPCR 1	1 (H13 CM)	1	1	610x610	133	3500 - 4000	400 - 450
BOX BV PLUS 15/15 2,2kW 1100	CPCR S 2	2 (G4 PL + F7 BS)	2	592 x 592 + 592 x 592	HCPCR 1	1 (H13 CM)	2	2	610 x 610 + 610 x 610	200	5000 - 6000	310- 360
BOX BV PLUS 18/18 3 KW 950 RPM	CPCR S 2	2 (G4 PL + F7 BS)	2	592 x 592 + 592 x 592	HCPCR 1	1 (H13 CM)	2	2	610 x 610 + 610 x 610	266	7000 - 8000	400 - 450
BOX BV PLUS 18/18 4 KW 950 RPM	CPCR S 3	2 (G4 PL + F7 BS)	3	592 x 592 + 592 x 592 + 592 x 592	HCPCR 1	1 (H13 CM)	3	3	610 x 610 + 610 x 610 + 610 x 610	400	9000 - 12000	400 - 450

3.2 EXTRACTION VENTILATION BOXES

Extraction fan	CPCR extraction	Nº stages	Nº filter/ stage	Dim. filter CPCR	HCPCR supply	Nº stages	Nº HCPCR	Nº filter (1 stage)	Dim. filter HCPCR	12 ren./h rooms x m² Height 2,5m	Airflow (m³/h)	Initial pressure drop (Pa)
BOX BD PLUS 9/7 EEC	CPCR S 1	1 (F7 BS)	1	592 x 592	HCPCR 1	1 (H13 CM)	1	1	610x610	66	1500 - 2000	150 -200
BOX BD PLUS 10/8 EEC	CPCR S 1	1 (F7 BS)	1	592 x 592	HCPCR 1	1 (H13 CM)	1	1	610x610	133	3500 - 4000	370 - 420
BOX BV PLUS 15/15 2,2kW 1100	CPCR S 2	1 (F7 BS)	2	592 x 592 + 592 x 592	HCPCR 1	1 (H13 CM)	2	2	609 x 610 + 610 x 610	200	5000 - 6000	260 - 310
BOX BV PLUS 18/18 3 KW 950 RPM	CPCR S 2	1 (F7 BS)	2	592 x 592 + 592 x 592	HCPCR 1	1 (H13 CM)	2	2	610 x 610 + 610 x 610	266	7000 - 8000	370 - 420
BOX BV PLUS 18/18 4 KW 950 RPM	CPCR S 3	1 (F7 BS)	3	592 x 592 + 592 x 592 + 592 x 592	HCPCR 1	1 (H13 CM)	3	3	610 x 610 + 610 x 610 + 610 x 610	400	9000 - 12000	370 - 420

4. KIT CURAT RECOVERY HEALTH FOR THE HEALTH SECTOR

4.1 SUPPLY AND EXTRACTION FOR VENTILATION BOXES

EC energy recovery unit for supply & extraction	CPCR supply	Nº stages	Nº filter/ stages	HCPCR supply	Nº stages	Nº HCPCR	Nº filter/ stages	CPCR extract.	Nº stages	Nº filter/ stages	HCPCR supply	Nº stages	Nº HCPCR	Nº filter/ stages	Dim. filters CPCR	Dim. filters HCPCR	12 ren./h rooms x m^2 height 2,5m	Airflow (m^3/h)	Initial pressure drop in supply (Pa)	Initial pressure drop in extraction (Pa)
RECUPERADOR HASTA 2000 m3/H = ABRENSA EEC 3000 H CTRL MAX KIT CAV	CPCR S 1	2 (G4 PL + F7 BS)	1	HCPCR 1	1 (H13 CM)	1	1	CPCR S 1	1 (F7 BS)	1	HCPCR 1	1 (H13 CM)	1	1	592 x 592	610x610	66	1500 - 2000	200 - 250	150 -200
RECUPERADOR HASTA 4000 m3/H = ABRENSA EEC 6700 H CTRL MAX KIT CAV	CPCR S 1	2 (G4 PL + F7 BS)	1	HCPCR 1	1 (H13 CM)	1	1	CPCR S 1	1 (F7 BS)	1	HCPCR 1	1 (H13 CM)	1	1	592 x 592	610x610	133	3500 - 4000	400 - 450	370 - 420