R-COVERY By zehnder CALADAIR

I.10

Heat recovery units

Silvertop

- Non residential
- Counter flow
- R-COVERY by ZEHNDER CALADAIR
- Qv ≤ 5500 m³/h
- Vertical
- Heat recovery unit with efficiency ≥ 90%

epbd

EUROVENT CERTIFIED PERFORMANCE www.eurovent-certification.com

Heat recovery unit with post heating coil and connections on top type Silvertop

Heat recovery unit with high efficiency up to 90%. The range includes 6 sizes for flow rates from 100 to 5500 m³/h. Each Silvertop model comes with its own control as standard.
The Silvertop Premium is a self-regulating unit either equipped with a water heating coil or with an electric heating coil for temperatures down to -10°C and an extensive control module.
The unit is designed for **indoor installation** with **connections on top**.

Brand

- R-COVERY by ZEHNDER CALADAIR

Application

- Autoregulating ventilation with high efficiency heat recovery in non residential and industrial applications
- Air filtration, temperature control
- Compact monoblock ventilation unit, with plug & play and energy-saving control system (EN 15232)

Composition

- Double-walled panels 10/10th
- Insulation with mineral wool M0
  - with 25 mm high density glass wool insulation, fire class (A2-s1) for sizes 06 and 08
  - with 50 mm high density glass wool insulation, fire class A1 (M0) for all larger construction sizes
- Outer layer: prelacquered steel plate in titanium grey (RAL7035 - Aluminum grey).
- Inner layer: galvanized steel plate
- Panel for access to the internal elements equipped with safety lock
- Round connections with lip seal for all models, except for size 52 which has rectangular connections
- Equipped with connections on top (only for indoor installation)
- Hydraulic connections (version Premium BC) on top!
- Monoblock version
- Only available with the operating side on the right, considering the air flow (see configuration!)
- Mounting feet integrated in the frame for easy transport and fixing in the ground

- Easy access to all components via 2 hinged doors
- Condensation tray provided with drain at the bottom with ½ "connection
- Internal 100% Bypass, motorized and self-regulating
- Internal control with external display IP65
- Integrated FREE-COOLING and NIGHT COOLING function
- Built-in temperature sensors (4)
- Built-in timer for dual flow rate function
- Built-in weekly timer and holiday timer
- Safety switch
- Differential pressure switch on inlet filter F7
- Differential pressure switch on each fan
- Modbus or Bacnet as standard

Fan

- Fan with free-running wheel
- Direct drive DC motor with high efficiency electronic modulation (EC), thermal protection and integrated speed control
- The EC technology guarantees a limited energy consumption by controlling and checking the operating point (regulation between 10 and 100%)
- Low noise level for better acoustic comfort

Exchanger

- Static counter-flow heat exchanger made of seawater-resistant aluminum, brand Klingenburg (EUROVENT approved)
- Efficiency 90% (EN308)
- Automatic defrosting by means of bypass

Filter

- The filters are mounted directly in front of the components for optimal protection
- The filters are mounted on slides with lip sealing for efficient airtightness
- The basic configuration of the Silvertop is equipped with an F7 filter- ISO 16890 ePM1 - 55% (supply) and an M5 filter- ISO ePM1 50% (extraction)
- F7 high-efficiency filter: 10x larger filter surface than a gravimetric filter and 2.5x longer lif
- Additional fresh air filter available as an option
- A double filtration can be provided on the fresh air. However, the pressure drop (see spare filters) must also be taken into account in the technical selection of your device!

Versions

- **SILVERTOP Premium xxxx BC**: ventilation unit equipped with a built-in water heating coil for post heating Hydraulic connections on the top of the unit
- **SILVERTOP Premium xxxx BE**: ventilation unit equipped with a built-in electrical heating coil for post heating

See downloads for technical info batteries

Options

- **DIVA®EC***: Proportional modulating flow (between a set min. and max. flow) of each fan based on a built-in CO_2 measurement. The amount of CO_2 (number of ppm) is adjustable in the control
- **LOBBY®EC***: Constant pressure ventilation for each fan
- **MAC2®EC***: Two adjustable constant air flows for each fan (except for sizes 05 and 08)
- **QUATTRO®EC***: Proportional ventilation between two constant air flows (high and low speed) for each fan (except for sizes 05 and 08). With built-in CO_2 sensor in the exhaust side of the unit

* this regulation will be built-in in the unit. It is not possible to add this regulation afterwards

Certification

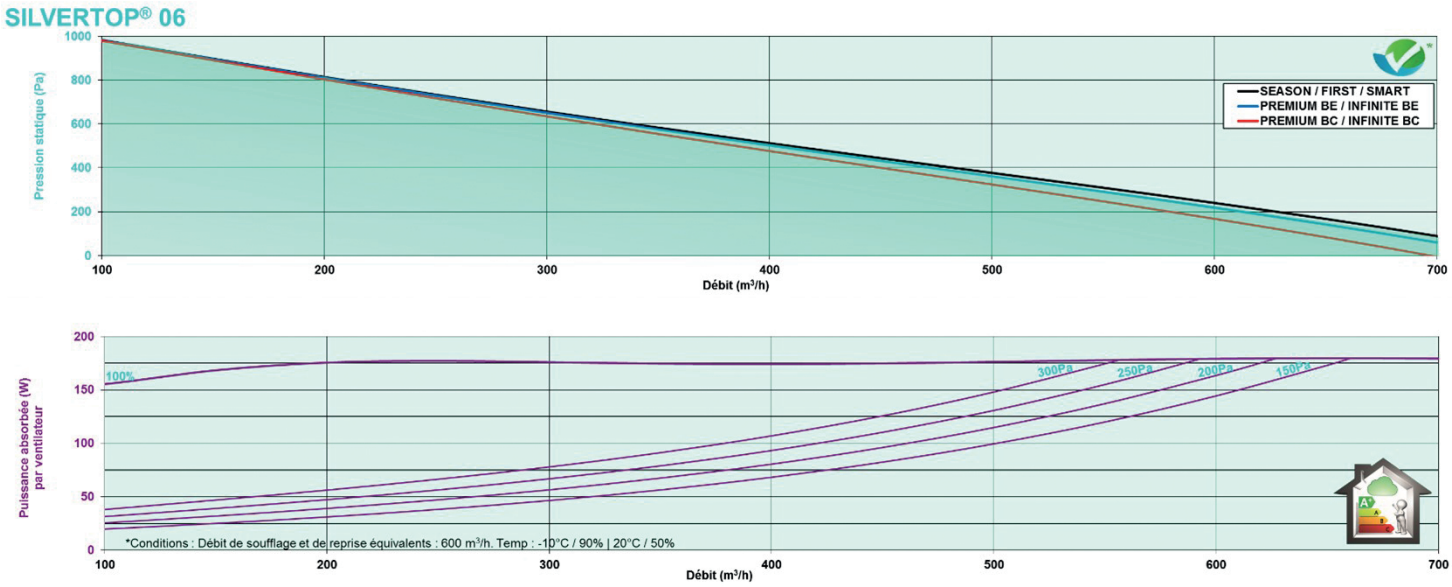
- The unit is scheduled to be tested this year in accordance with the NBN EN 308 standard.
- Efficiency of the heat exchanger of more than 90% (EN308), in accordance with RT2012 and the directive ErP 2009/125/EC
- Standard construction with double skinned panels and insulation of 25 mm (types 06 and 08) and 50 mm for all bigger types
- In conformity with EUROVENT classifications according to EN1886 and EN13053
- Resistance of the casing: D2
- Air tightness: L1
- Conductivity: T3
- Thermal bridge factor: TB3
- Filter leakage class: F9

- Outer panel made of prelacquered steel 10/10
- Finish RAL9007 - Titanium grey
- Inner panel made of galvanized steel 10/10

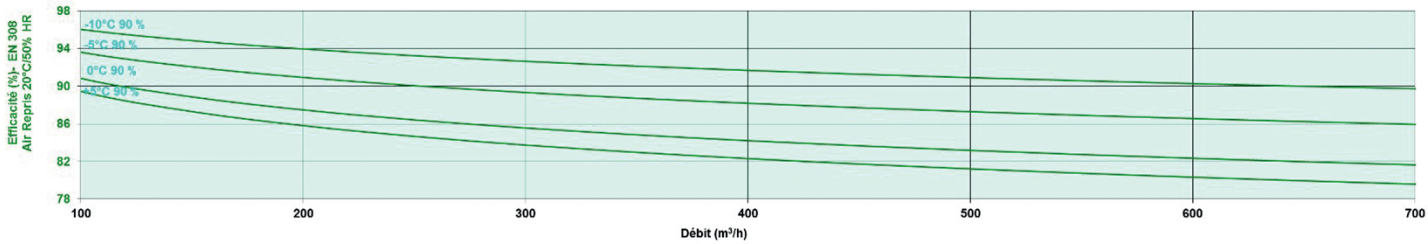
Accessories

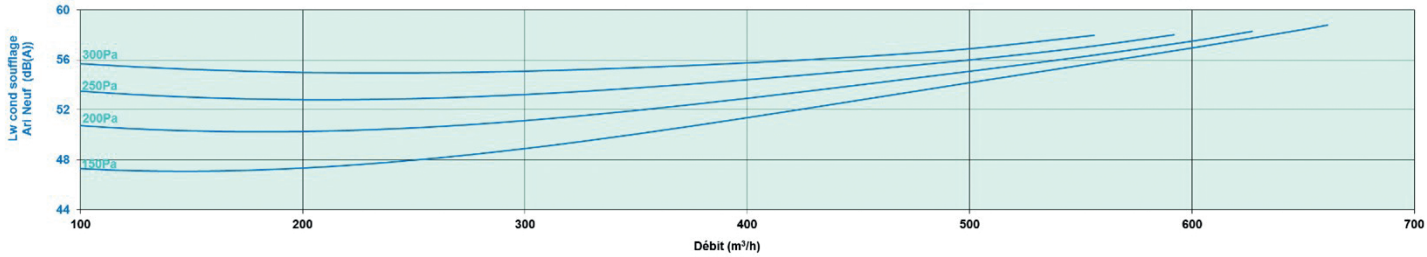
- replacement filter **FS-SILVERTOP**
- Airtight control valve **AKH**
- Motorizable opposite blade damper, type **MVX-RM 52** for type 52
- Flexible connection for type **MTS M52**
- Round flexible connections **MTV**
- **Controllers for Silvertop up to serial number 225190:**
  - **E3-DSP** controller mounted on the unit as standard
  - Remote controller available as an option
    - **E3-DSP** remote display (up to 100 metres, to be provided by the installer) with 3-metre **EDSP-K3** or 10-metre **EDSP-K10** Belden cable
    - **ED Touch** digital controller for units type GTDHR/V, Hexamotion(-S), Freetime(-S), Silvertop, Neotime (First and Premium)
      - Cable 4-wire 24 Vdc (Corrigo C+/GO) of 10 rmt included
- **Controllers for Silvertop from serial number 225191:**
  - **Easy 5.0** controller mounted on the unit as standard
    - Master touch screen controller
  - **EDT2** remote controller available as an option
    - Touch screen controller for end user

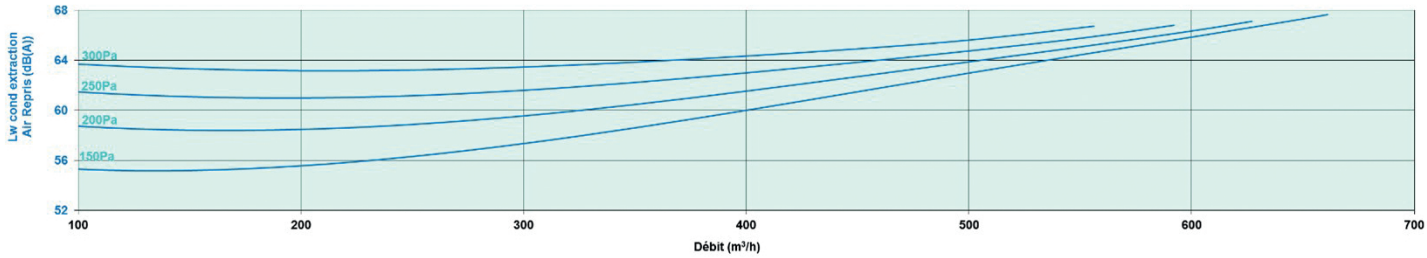
Selection curves

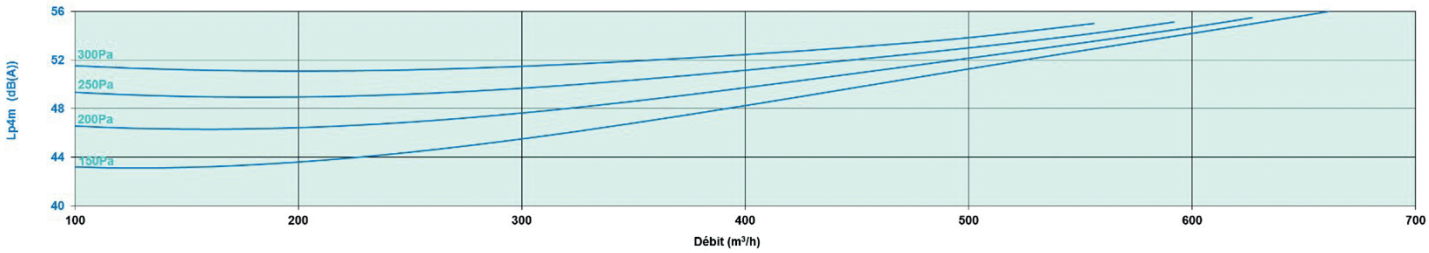


SILVERTOP® 06



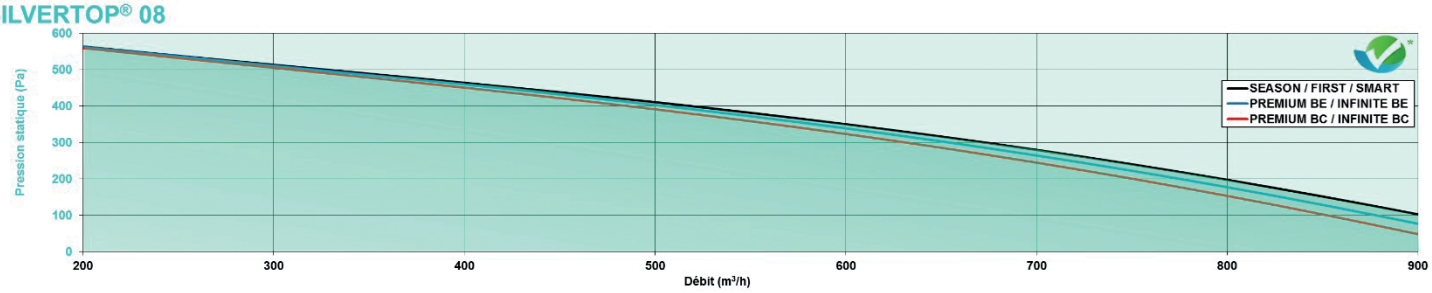


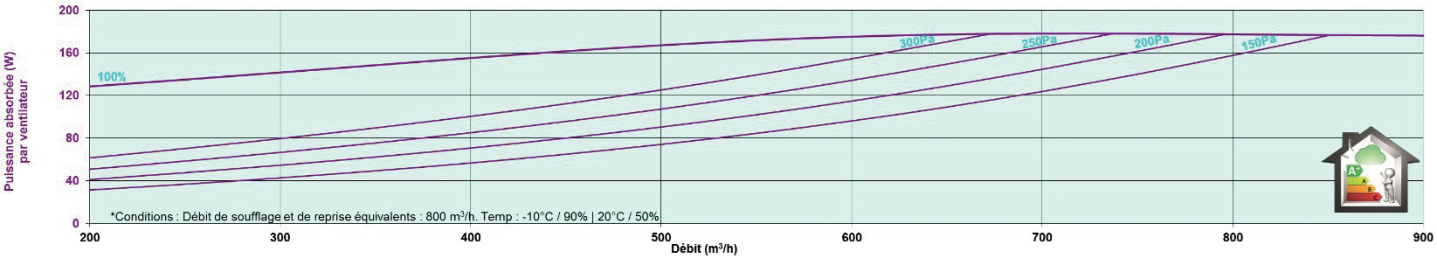




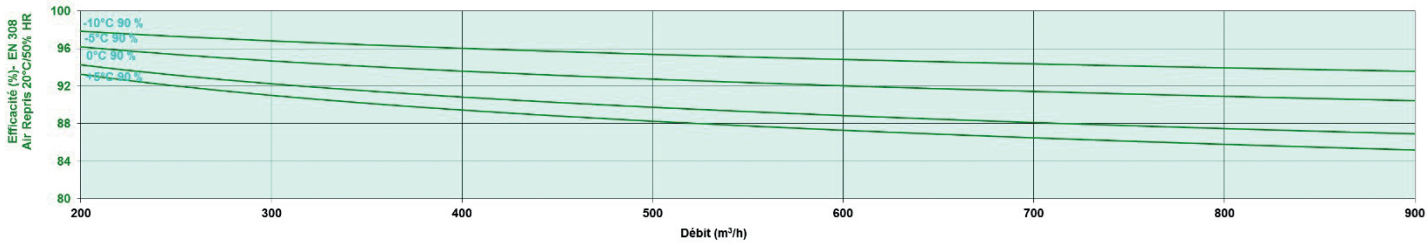
Selection curves

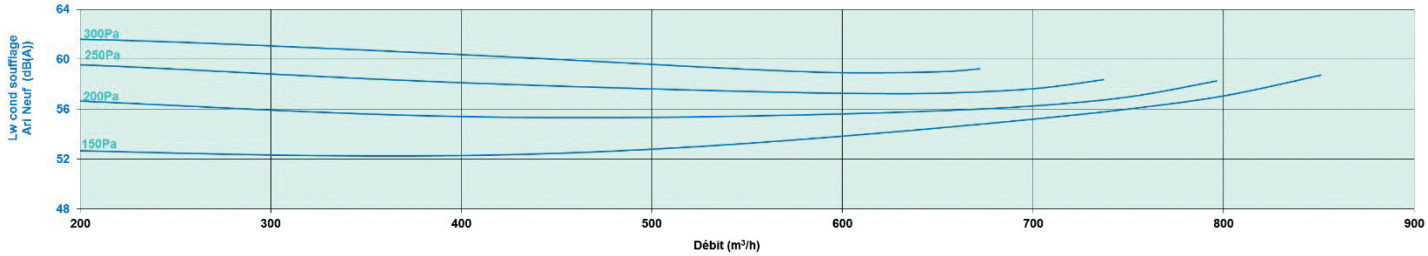
SILVERTOP® 08

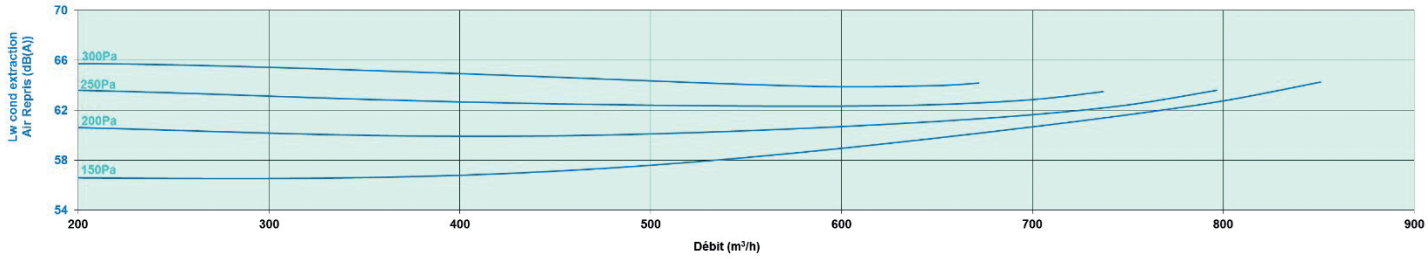


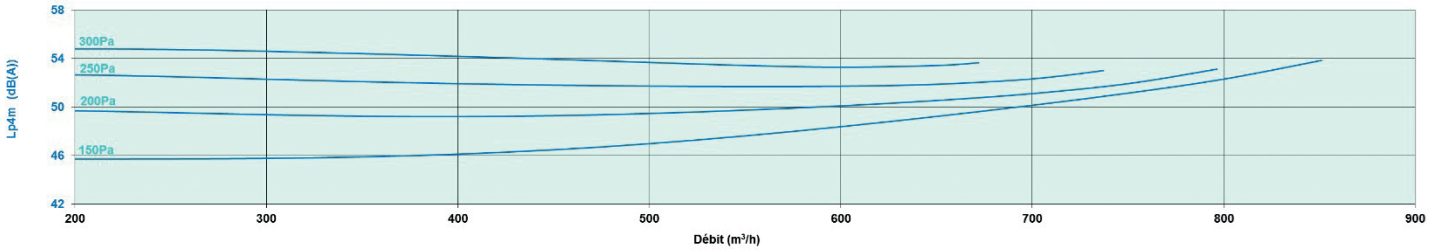


SILVERTOP® 08



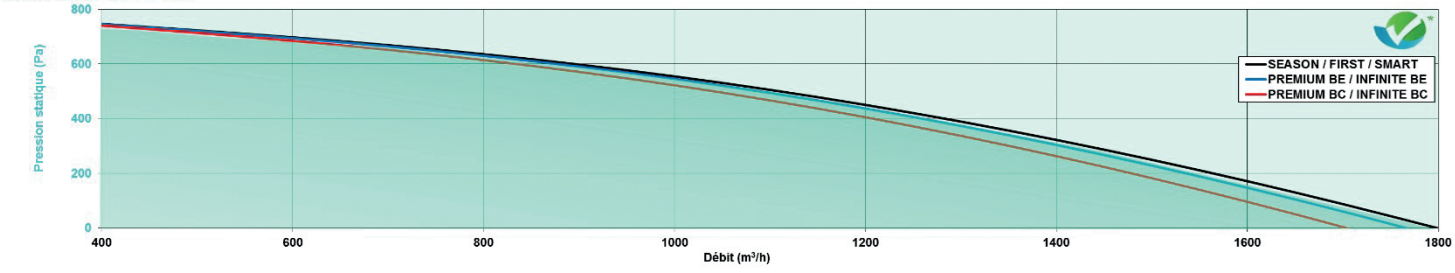


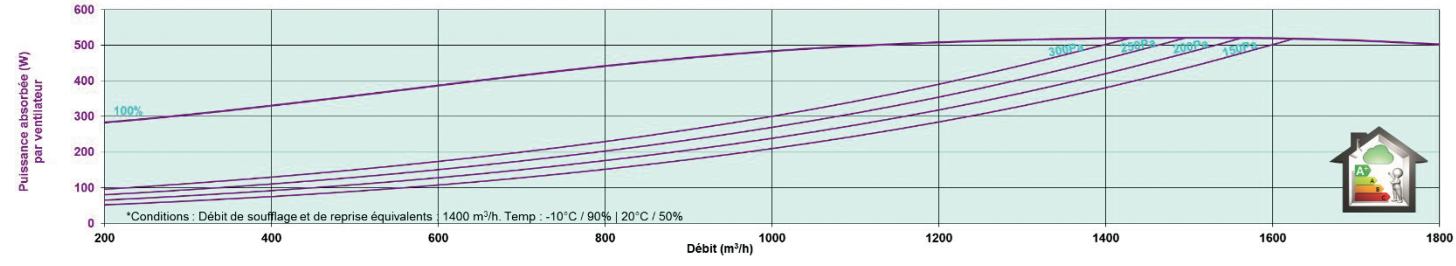




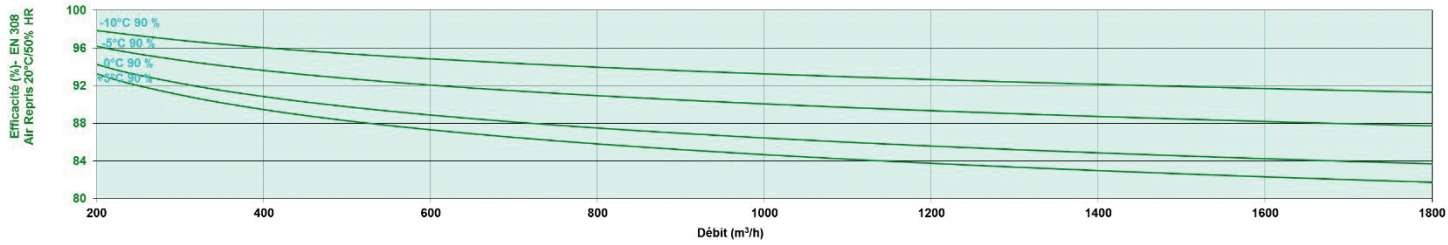
Selection curves

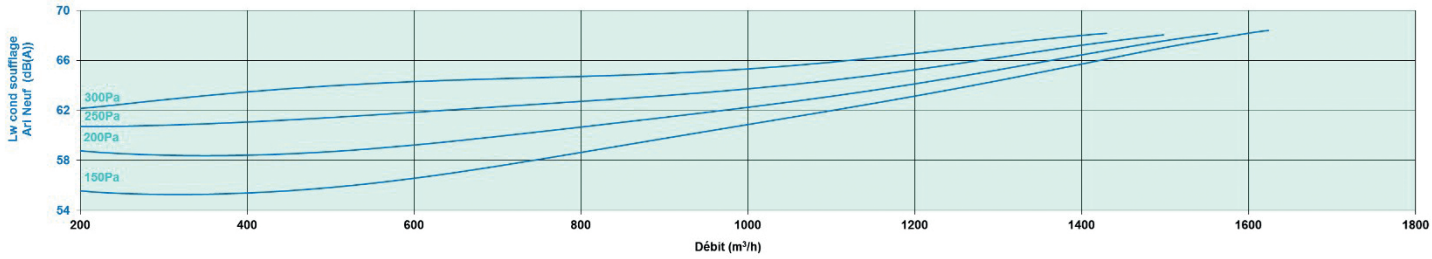
SILVERTOP® 15

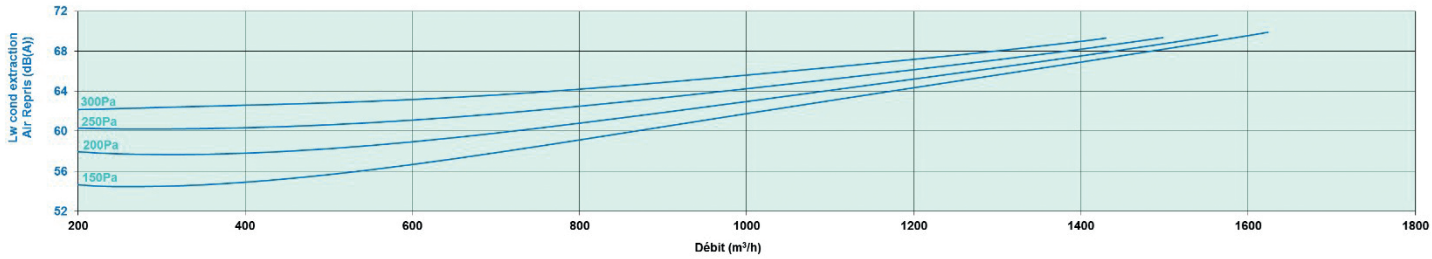


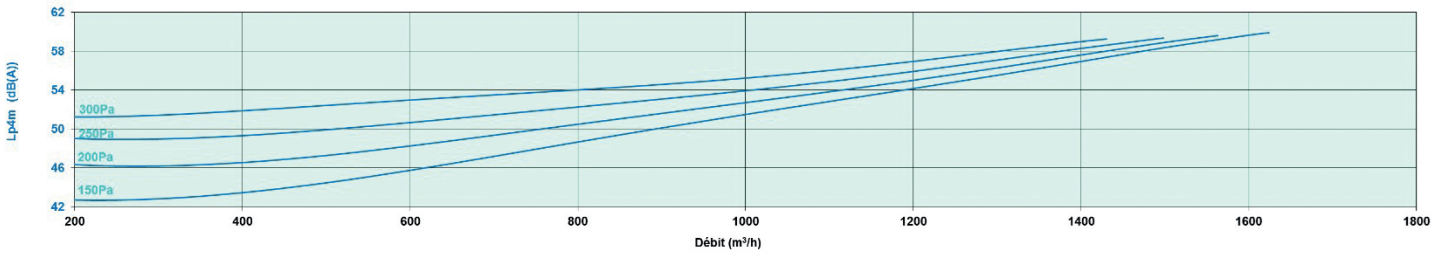


SILVERTOP® 15



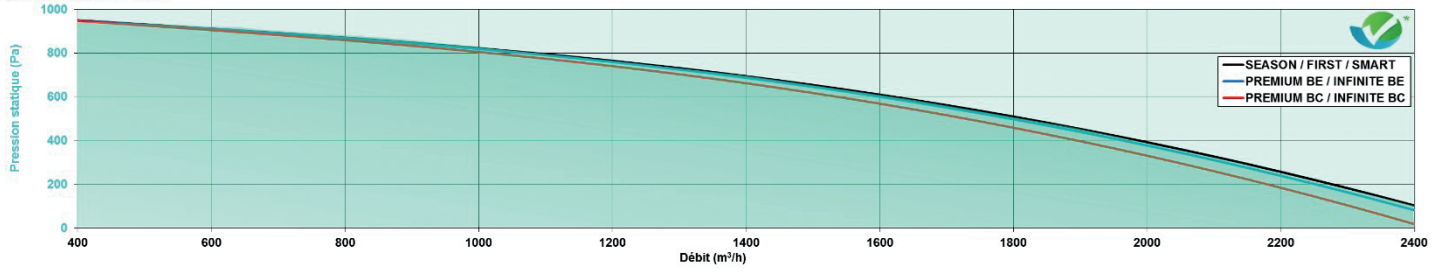


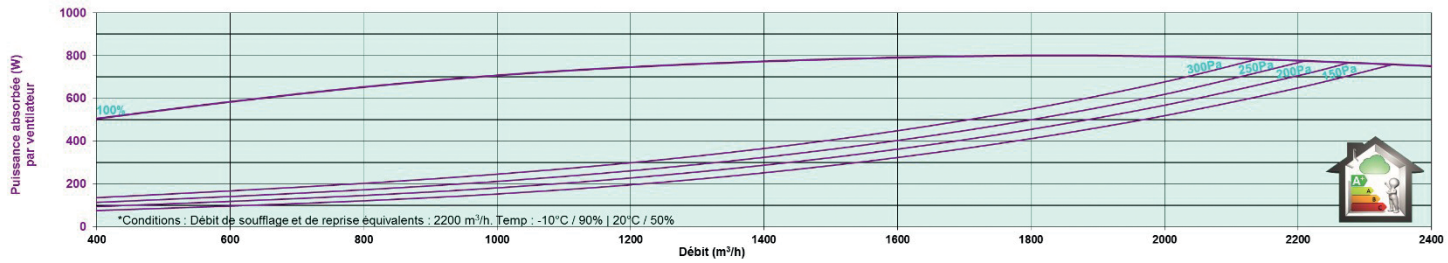




Selection curves

SILVERTOP® 23





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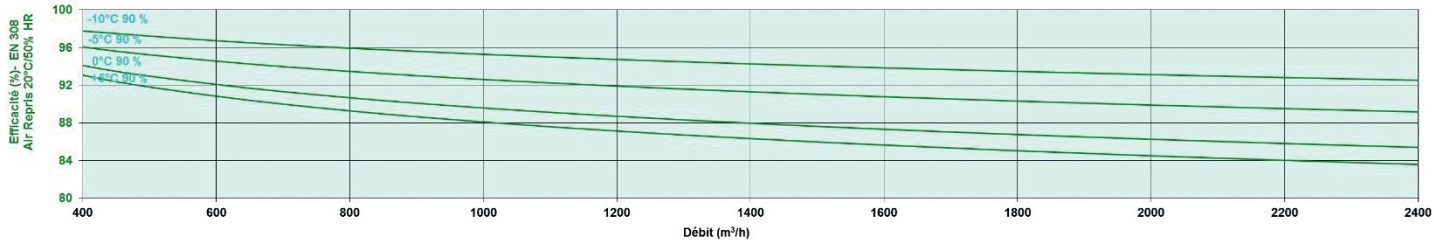
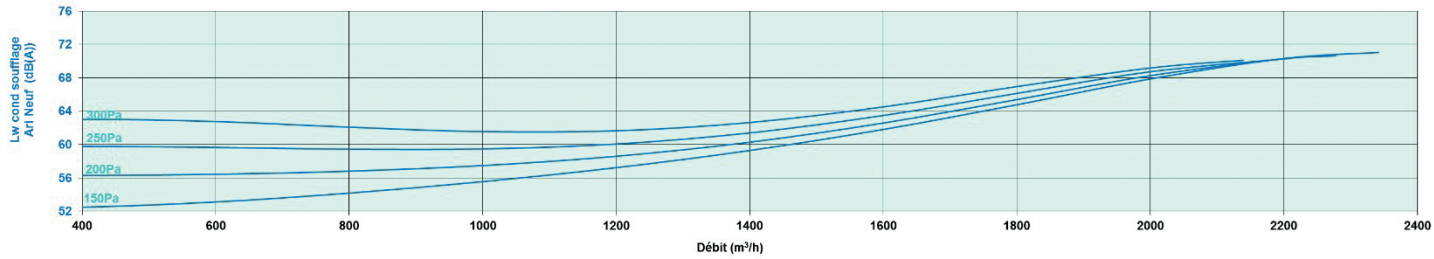
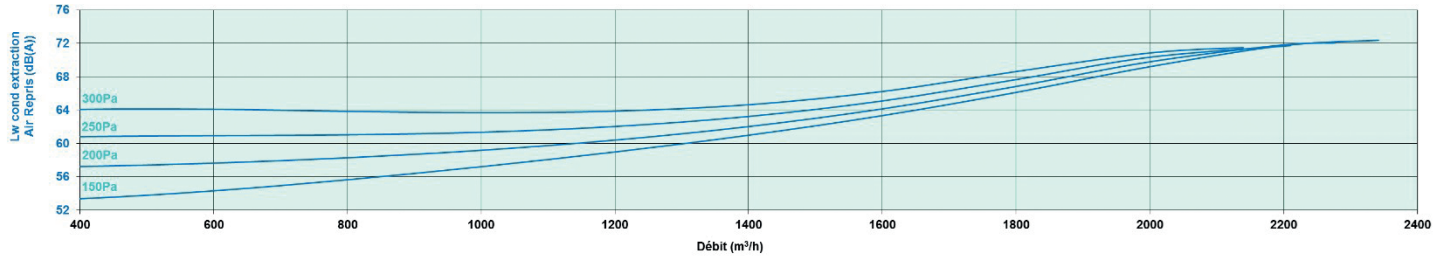
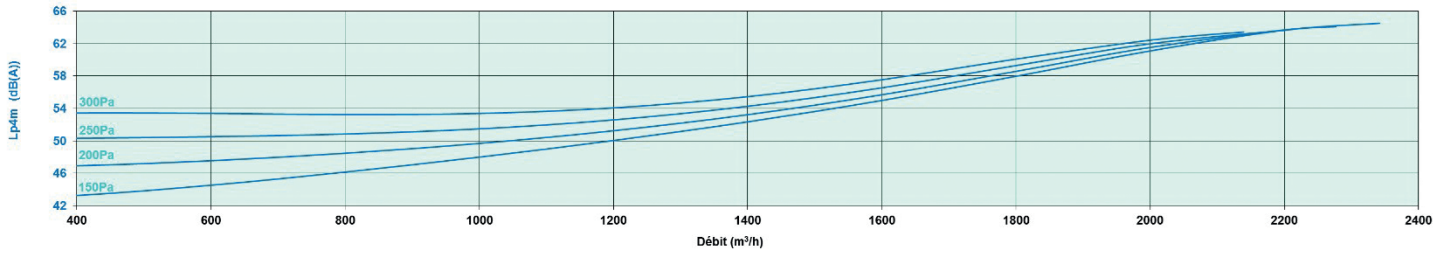


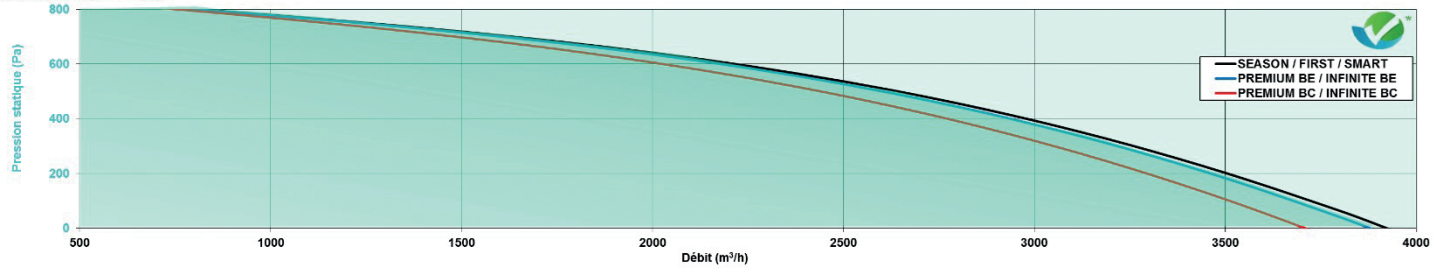


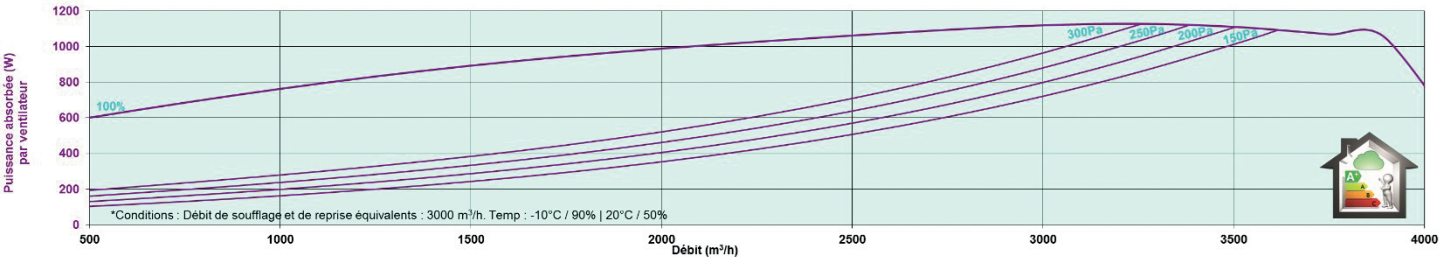




Selection curves

SILVERTOP® 35





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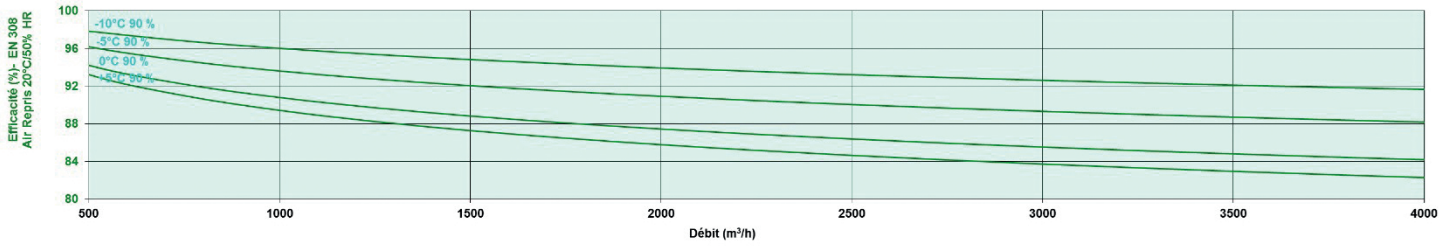
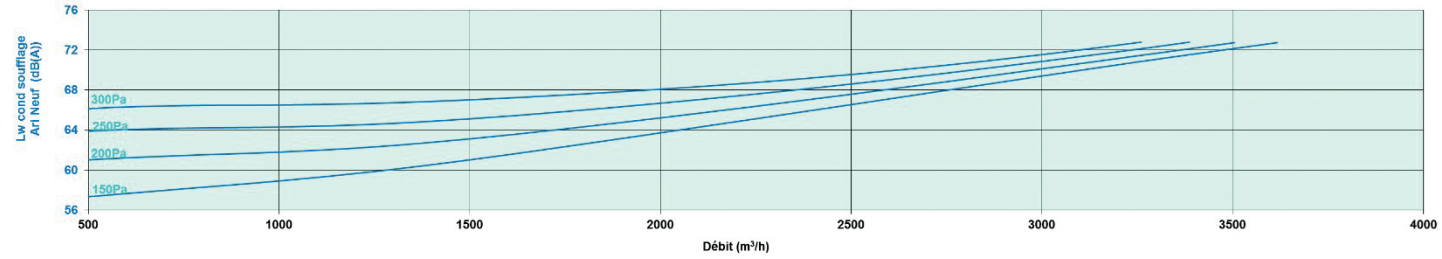
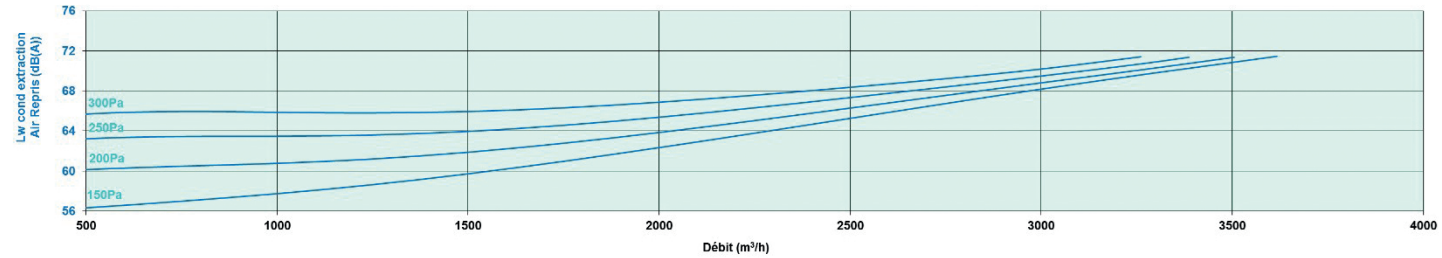
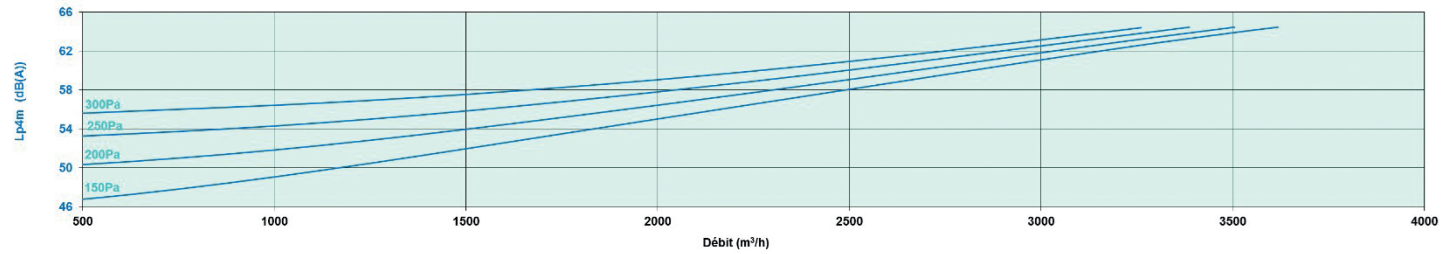


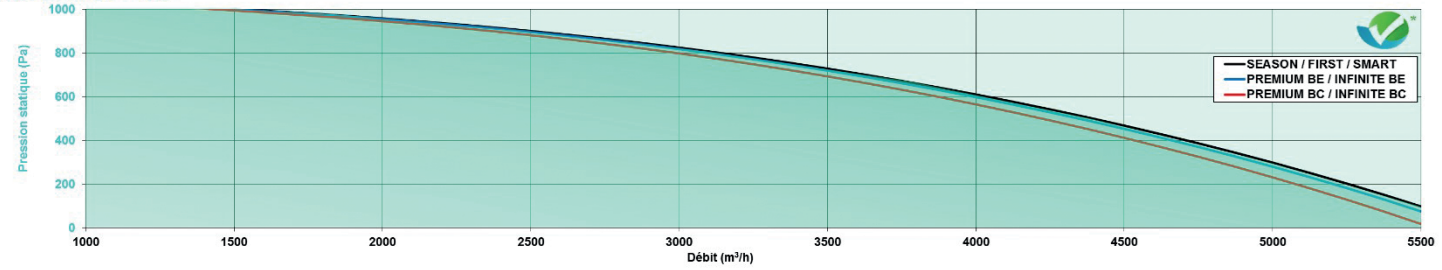


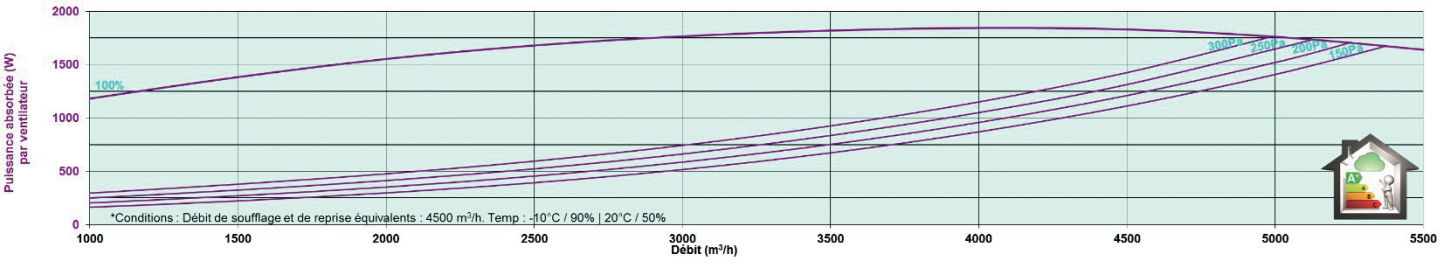




Selection curves

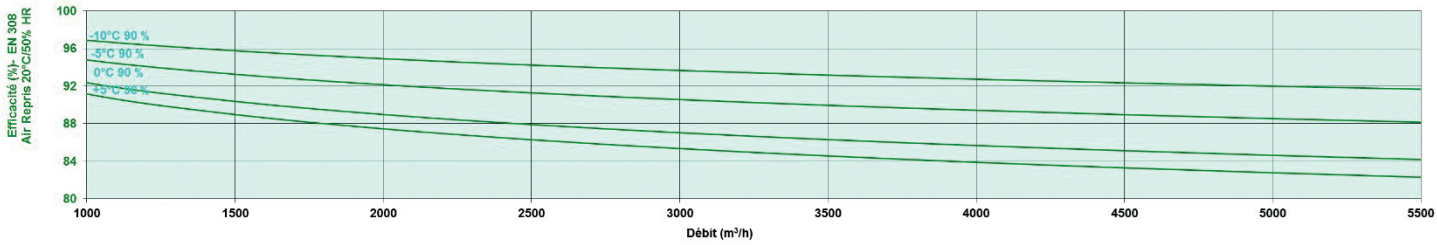
SILVERTOP® 52

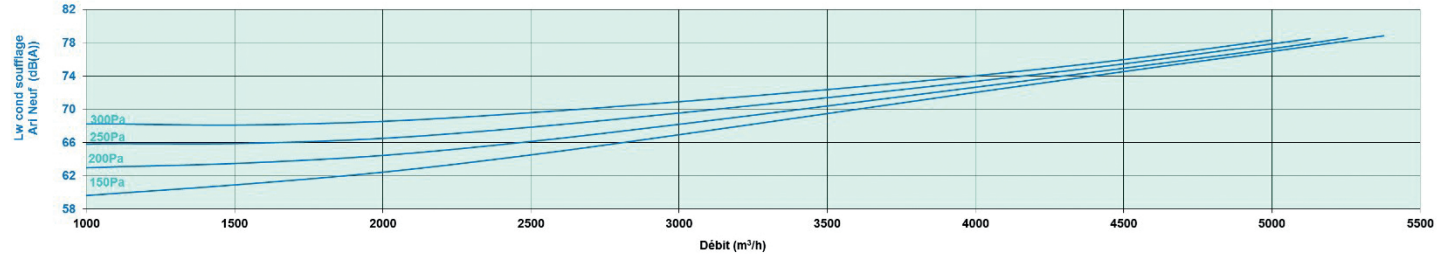


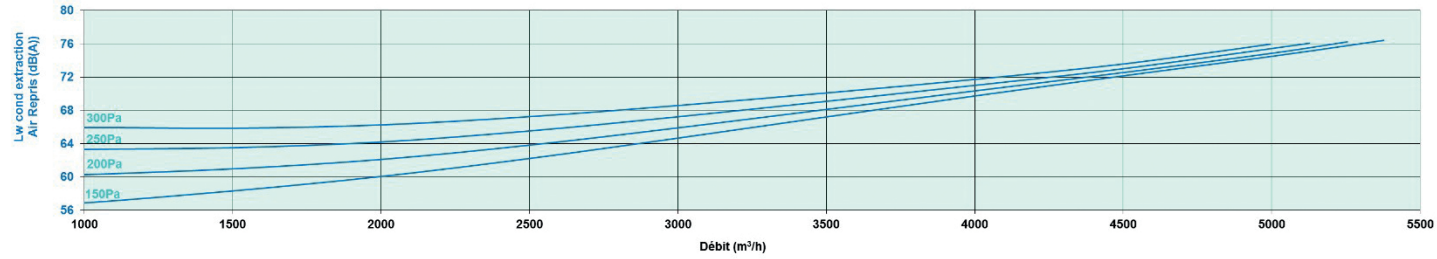


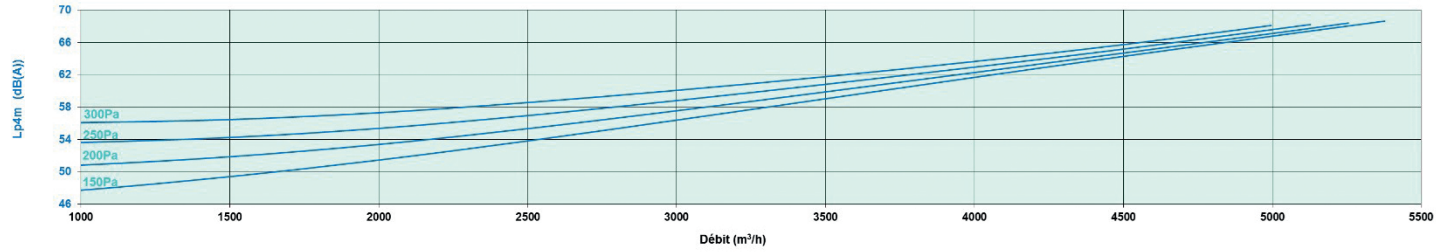
*Conditions : Débit de soufflage et de reprise équivalents : 4500 m³/h. Temp : -10°C / 90% | 20°C / 50%

SILVERTOP® 52



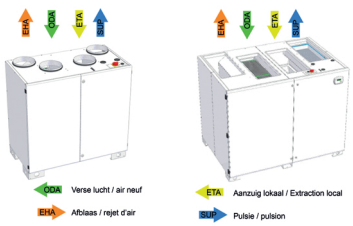




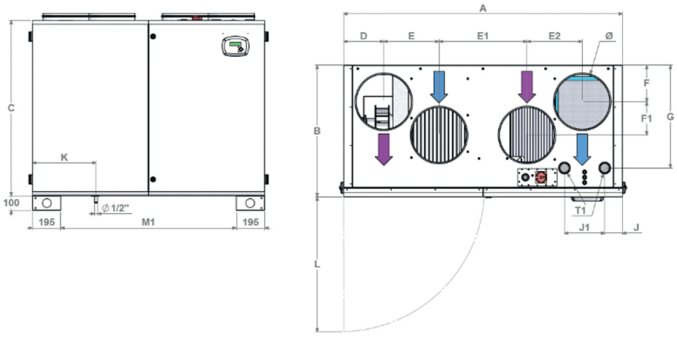


Electrical data						
	P	T			PREMIUM BE	
	[W]	[°C/°C]			[V/Ph/Hz]	[A]
06	2 x 169	-20 / 60	IP54/B	PTI	230/1/50	8.8
08	2 x 170	-20 / 60	IP54/B	PTI	230/1/50	14.8
15	2 x 480	-20 / 40	IP54/B	PTI	230/1/50	21.2
23	2 x 750	-20 / 40	IP54/B	PTI	400/3+N/50	13
35	2 x 1000	-20 / 50	IP54/B	PTI	400/3+N/50	19
52	2 x 1700	-20 / 50	IP54/B	PTI	400/3+N/50	23.1

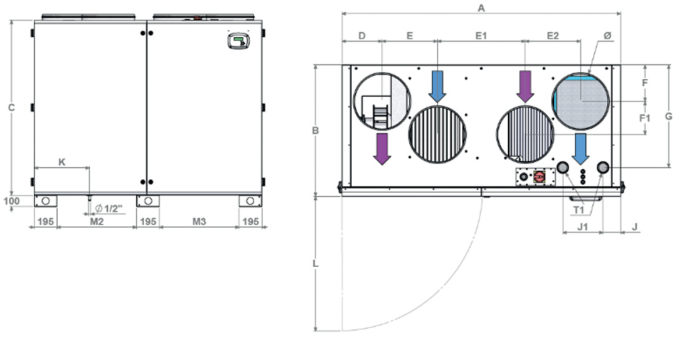
Configurations vertical



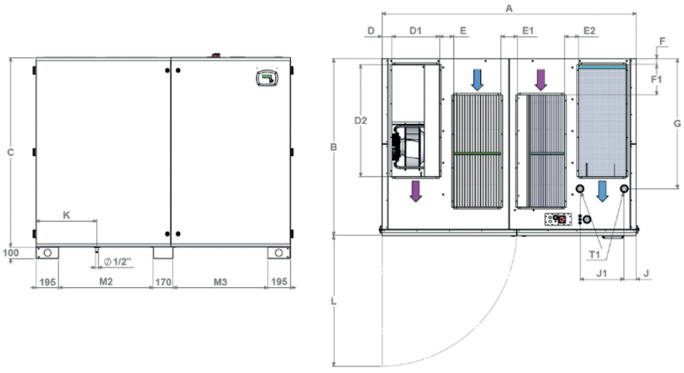
SILVERTOP™ 06 à 23



SILVERTOP™ 35



SILVERTOP™ 52



Dimensions																						
	Ø	A	B	C	D	D1	D2	E	E1	E2	F	F1	G	J	J1	K	L	M1	M2	M3	T1	PREMIUM BE/BC
	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	["]	[kg]
06	200	1105	570	1040	145	-	-	225	365	225	135	15	385	75	130	265	545	720	-	-	1/2"	180
08	250	1265	700	1150	170	-	-	235	415	270	160	225	485	75	180	275	625	880	-	-	1/2"	225
15	315	1590	750	1200	230	-	-	315	500	315	210	190	585	100	230	435	770	1200	-	-	1/2"	330
23	400	1735	1065	1340	270	-	-	330	535	330	250	42	755	100	230	440	855	1350	-	-	1/2"	500
35	450	1950	1210	1496	295	-	-	340	615	405	280	515	805	100	305	475	980	-	685	685	1/2"	650
52	-	2185	1520	1625	85	405	960	120	140	120	50	260	1115	100	380	525	1120	-	810	810	1"	890