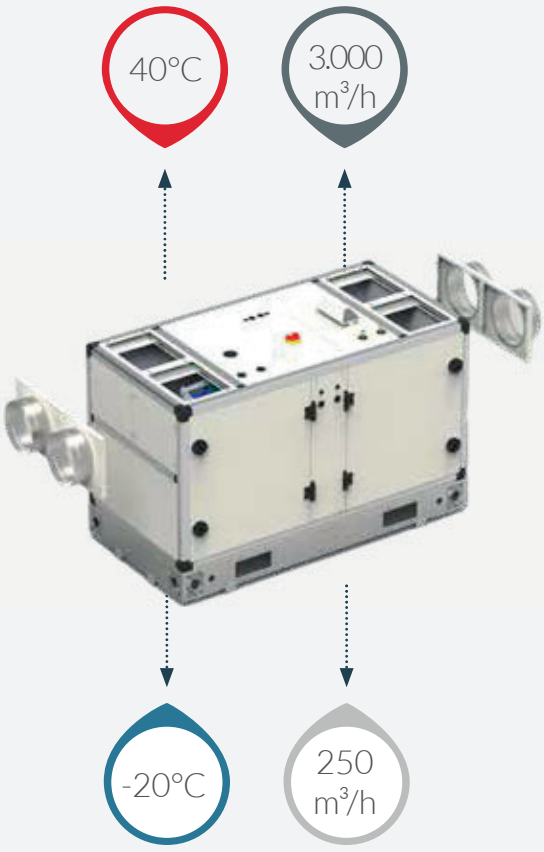
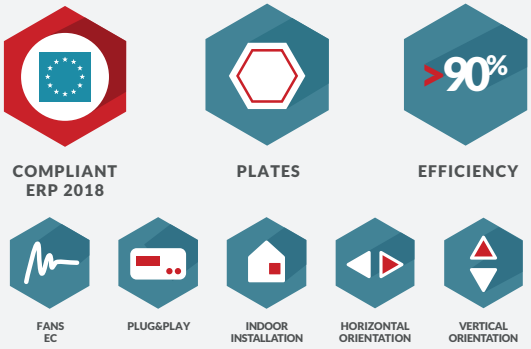
# FXS-FLEX

NEW 2022

## Heat recovery unit WITH VERY HIGH EFFICIENCY HEAT RECOVERY, FLEXIBILITY AND VERSATILITY DURING INSTALLATION from 250 to 3,000 m³/h


The FXS-FLEX series includes high efficiency heat recovery units for floor installation and high configuration flexibility. They are available in a vertical construction, and combine total freedom in the arrangement of air inlets/outlets in various positions (front/top/side), both a priori and on site. All this makes them an ideal product for internal installation in confined spaces or close to walls, with minimum obstruction.
The FXS-FLEX series comes in 5 models, with flow rates from 250 to 3,000 m3/h.
The FXS-FLEX range is equipped with an aluminium plate heat recovery unit, fans with EC motors and an integrated motorised by-pass system for free-cooling operation, in addition to the innovative KVir accessory for air sanitation with UV lamp and polyvinyl-amino matrix virus filter.
In the FXS-FLEX range, the KVir accessory can be installed fully integrated inside the unit.




## ADVANTAGES

Flexibility even on site. FXS-FLEX is designed to provide maximum flexibility and adaptability during installation. The air intakes can be adjusted by 90°, electric and water coils can also be inserted, also while on-site.
Moreover FXS-FLEX can integrate the Kvir sanitation system, fully inside the unit casing.

# TECHNICAL SPECIFICATIONS AND ACCESSORIES

- Supporting frame in extruded thermal break **aluminium profiles.**
- Sandwich panels th. 42 mm in internally galvanised sheet and pre-painted externally in RAL 9002 finish.
- Non-flammable thermal **and acoustic insulation in high insulation mineral wool.**
- Enthalpy rotor type high efficiency heat recuperator unit with aluminium exchanger and galvanised steel frame. Transmission to the electric motor by means of an adjustable tension belt. Dual central and circumferential seal for the reduction of air leaks.
- Rigid pocket filters with polystyrene frame with polyurethane seal and medium water-repellent fiberglass. Efficiency class ePM10 70% on room return and ePM1 50% on outdoor air intake
- Centrifugal fans with free-running impeller with backward blades directly coupled to EC technology electric motors
- Recessed type electrical panel with electronic adjustment and remote user interface for complete control of all the key functions and specifically:

- manual control of the EC fans
- automatic control of the EC fans (for pressure or air quality)
- water valve control
- electric heater management
- recovery unit defrosting management
- free-cooling management (by stopping the rotor)
- mixing/exhaust chamber management
- post-ventilation
- weekly programming
- alarm management
- remote on/off
- Remote summer/Winter
- timed activation via presence sensor
- fan management via fire alarm digital input
- BMS via Modbus protocol and RS485 connection

| | |
|---|---|
| Sanitation modules with plasma technology and anti-virus filter | KVir |
| Internal electric pre-heater | SKEp |
| Internal electric post-heater | SKEr |
| Internal electric post-heater | SKW |
| External water cooling module | SAF |
| Direct expansion external cooling module | SED |
| External flexible connection | GAT |
| Round fitting (for base unit) | BCC |
| Pressure sensor | DPS |
| CO2 sensor | AQS |
| Pre - filter | PF |
| High efficiency filter | FC9 |
| Touch screen remote control panel | TMC |

Fully integrated Kvir sanitation systema, totally including inside the unit casing

Multifunctional electronic regulation integrated in the unit

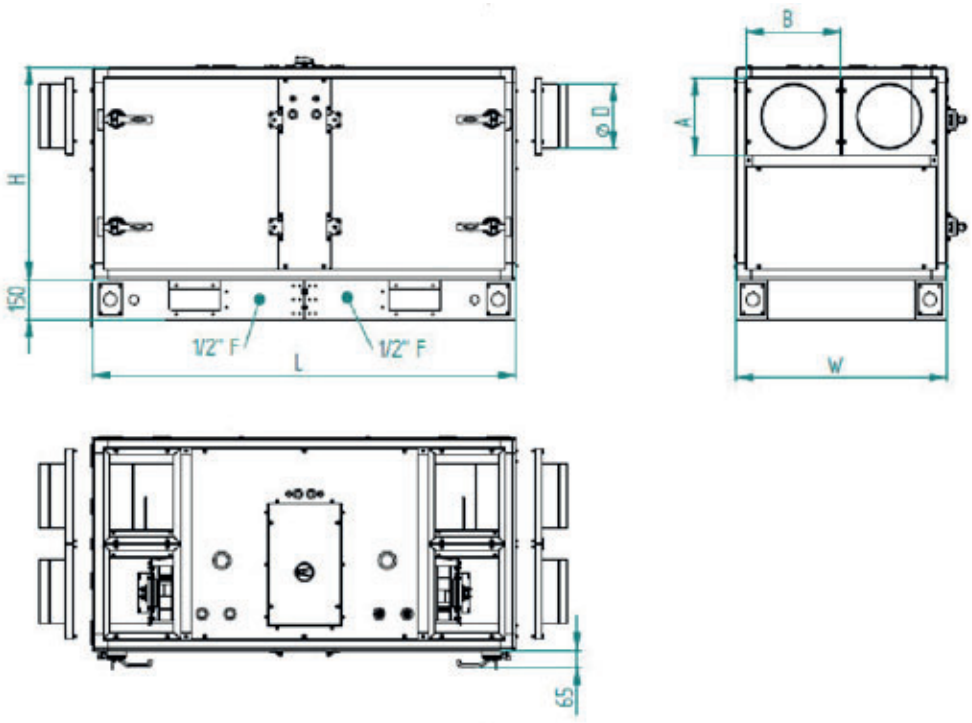
Very high efficiency heat recovery, with integrated motorised by-pass

# MODELS AND TECHNICAL DATA

| FXS-FLEX | | 500 | 750 | 1100 | 1700 | 2500 |
|---|---|---|---|---|---|---|
| Nominal airflow | $m^3/h$ | **500** | **750** | **1100** | **1700** | **2500** |
| Useful static pressure (1) | Pa | 350 | 250 | 270 | 210 | 320 |
| Sound pressure level | dB(A) | 63 | 60 | 65 | 66 | 69 |
| Max. absorbed power | W | 330 | 340 | 680 | 920 | 2000 |
| Maximum absorbed current | A | 2.8 | 2.9 | 5.6 | 6.0 | 3.3 |
| Power supply | V-ph-Hz | 230-1-50/60 | | | | |
| Recovery efficiency Erp 2018 | % | 79.7 | 79.4 | 79.7 | 79.8 | 79.7 |
| Power recovered | W | 4840 | 7220 | 10750 | 16810 | 24700 |
| Conformity range ErP 2018 | $m^3/h$ | ≤ 700 | ≤ 980 | ≤ 1300 | ≤ 1790 | ≤ 2700 |
| Operating temperature limit | °C | - 20 ÷ 40 | | | | |
| **INTERNAL PRE/POST HEATING ELECTRIC HEATING ELEMENT ACCESSORY - SKE** | | | | | | |
| Power | kW | 1.5 | 2.5 | 3.0 | 5.0 | 7.5 |
| Current | A | 6.5 | 10.9 | 13.0 | 21.7 | 10.8 |
| ΔT | °C | 8.8 | 9.8 | 8.0 | 8.7 | 8.8 |
| Power supply | V-ph-Hz | 230-1-50 | | | | 400-3-50 |
| **HEATING WATER INTERNAL COIL ACCESSORY - SKW** | | | | | | |
| Heating capacity delivered (2) | kW | 2.66 | 4.19 | 5.50 | 7.94 | 12.28 |
| **OUTDOOR SECTION ACCESSORY WITH COOLING/HEATING WATER COIL** | | | | | | |
| Cooling power delivered (3) | kW | 2.56 | 4.06 | 5.57 | 8.14 | 13.78 |

**(1) outdoor air/inlet circuit**
(2) at nominal airflow, inlet air temperature 15°, in/out water temperature 70/60°C
(3) at nominal airflow, inlet air 28°C 60% RH, in/out water temperature 7/12°C
(4) air inlet 29°C 65% RH, in/out cold water temperature 7/12°C, in/out

# DIMENSIONS AND WEIGHTS

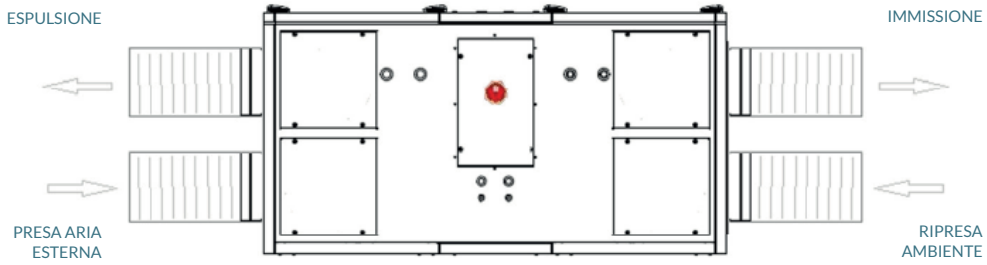



| MODEL | | 500 | 750 | 1100 | 1700 | 2500 |
|---|---|---|---|---|---|---|
| L | mm | 1400 | 1540 | 1620 | 1840 | 2000 |
| W | mm | 635 | 810 | 810 | 885 | 1125 |
| H | mm | 700 | 815 | 815 | 1025 | 1245 |
| Weight | Kg | 125 | 160 | 165 | 210 | 250 |

| Circular duct A x B | mm | 245 x 275 | 295 x 363 | 295 x 363 | 360 x 400 | 440 x 520 |
|---|---|---|---|---|---|---|
| Circular duct D | mm | 200 | 250 | 250 | 315 | 355 |

(1) unità base
(2) dimensioni esterno flangia (valide anche per accessorio)
(3) con accessorio BCC

# CONFIGURATIONS AND NOISE LEVELS

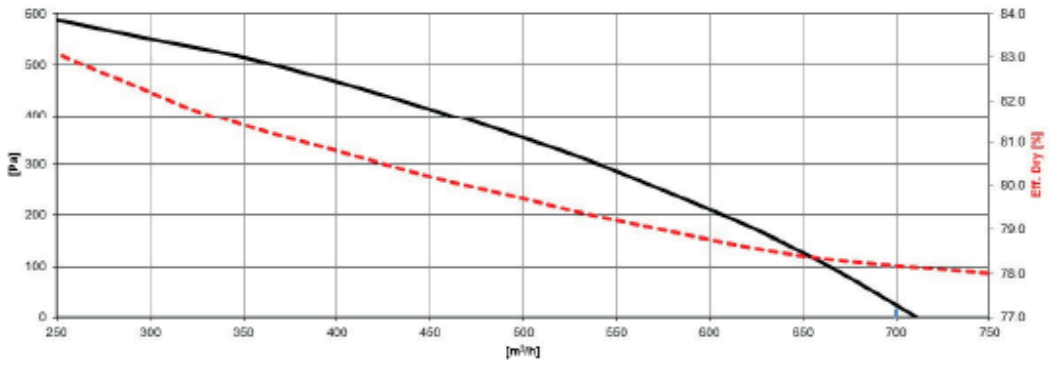



With reference to the nominal operating conditions, the following table shows the sound power values (SWL) in octave and total bands. The sound pressure levels (SPL) at 1m, 5m and 10m in supply, return and outside the unit are indicated.

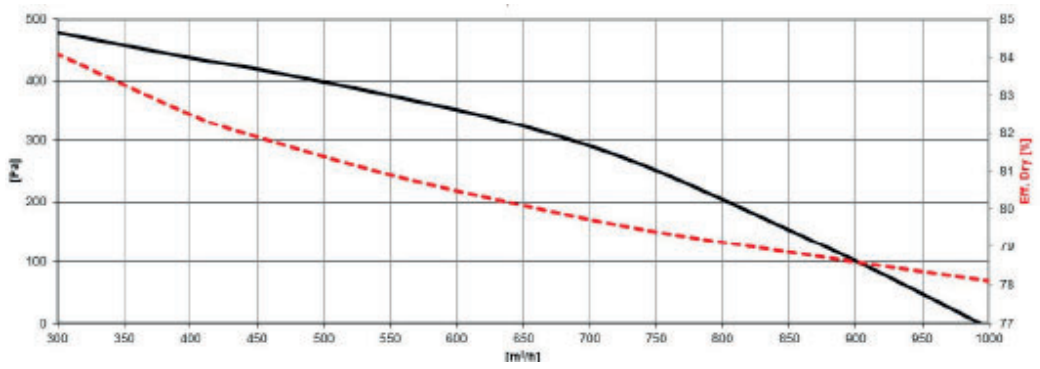
| FXS-FLEX | SWL [dB] IN OCTAVE BAND [HZ] | | | | | | | | SWL | SPL SUPPLY / EXHAUST | | | SPL RETURN | | | SPL EXTERNAL | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | 1 m | 5 m | 10 m | 1 m | 5 m | 10 m | 1 m | 5 m | 10 m |
| | 63 | 125 | 250 | 500 | 1000 | 2000 | 4000 | 8000 | dB(A) | dB(A) | dB(A) | dB(A) | dB(A) | dB(A) | dB(A) | dB(A) | dB(A) | dB(A) |
| 500 | 56 | 59 | 63 | 65 | 66 | 65 | 61 | 59 | **71** | 63 | 49 | 43 | 57 | 43 | 37 | 43 | 29 | 23 |
| 750 | 59 | 63 | 66 | 64 | 63 | 60 | 57 | 52 | **68** | 60 | 46 | 40 | 54 | 40 | 34 | 40 | 26 | 20 |
| 1100 | 57 | 61 | 64 | 67 | 68 | 68 | 65 | 63 | **73** | 65 | 51 | 45 | 59 | 45 | 39 | 45 | 31 | 25 |
| 1700 | 64 | 62 | 69 | 69 | 67 | 67 | 67 | 62 | **74** | 66 | 52 | 46 | 60 | 46 | 40 | 46 | 32 | 26 |
| **2500** | **72** | **67** | **77** | **75** | **70** | **70** | **68** | **64** | **77** | **69** | **55** | **49** | **63** | **49** | **43** | **49** | **35** | **29** |

# AERAULIC PERFORMANCE

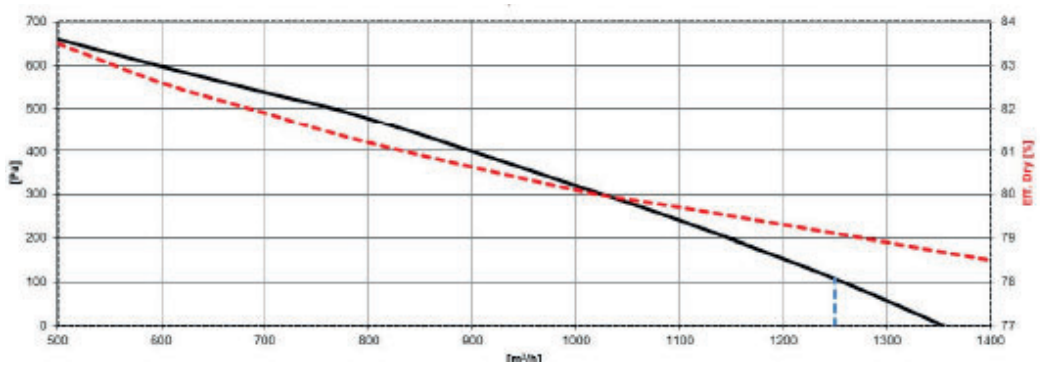
## FXS-FLEX 500



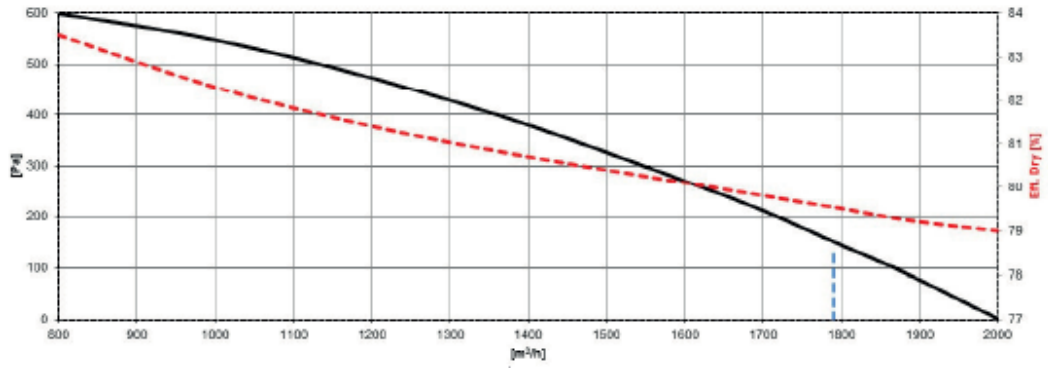
## FXS-FLEX 750



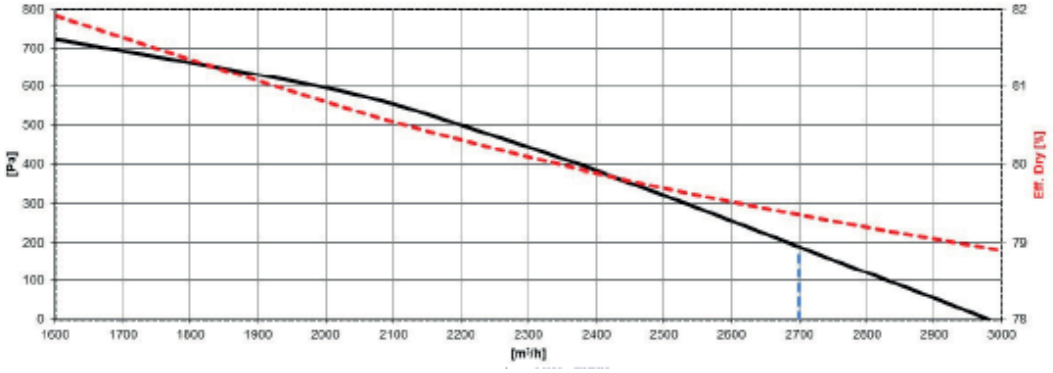

## FXS-FLEX 1100




## FXS-FLEX 1700




## FXS-FLEX 2500




The graphs provide an indication of the useful static pressure (Pa) as the airflow [m 3/h] supplied by the base inlet unit varies. Consult the technical bulletin to check the specific data of the unit's aeraulic performance.