

VILPE[®] IO

Air intake and exhaust wall elements



- VILPE's IO Wall Element is available for both Air Intake and Air Intake & Exhaust ventilation
- Air Intake & Exhaust option includes adjustable reduction piece for different air flows
- Both versions available for duct sizes Ø 125 - 160 mm, or Ø 200 - 250 mm
- Both versions can be installed in both left- and right-sided air intake / air intake & exhaust configurations
- Exceptional rain rejection
- UV protection prevents colour defects

> [VILPE.COM/IO](https://www.vilpe.com/io)



VILPE® IO Air Intake & Exhaust Wall Elements

The VILPE IO Air Intake Wall Element and Air Intake & Exhaust Wall Element are exterior wall-mounted products which allow an installer to conveniently direct intake air through a building's exterior wall, as well as – in the case of the latter product – combining this with an exhaust air vent contained within a single, state-of-the-art package.

Thanks to the ambidextrous design of these products, the same unit can be used with either a left- or right-sided intake/intake & exhaust configuration. VILPE IO Wall Elements can be installed on a wide range of building types, but are primarily designed for individual apartments within a block. Both products are available in two sizes, one for duct sizes of Ø 125 or 160 mm, the other for duct sizes of Ø 200 or 250 mm. The Air Intake & Exhaust Element also includes a reduction piece in its product box, allowing for adjustment of the exhaust air speed depending on the size of the space being ventilated.

If required by building regulations, this Air Intake & Exhaust Wall Element's exhaust air flow can also be directed sideways at specific angles with a custom-made nozzle. Although more expensive than conventional parts, these nozzles are designed and 3D-printed at our Mustasaari factory to ensure complete accuracy – our design team should be contacted directly if this service is required.

The Air Intake Wall Element and Air Intake and Exhaust Wall Element can also be combined – for example, with an Intake Element on one side of a building or apartment and an Exhaust Element on the other.

Because the VILPE IOs' air intake vents are situated on the underside of the products, water and snow are effectively prevented from entering the wall elements. In rain rejection tests executed by VTT Technical Research Centre of Finland, no measurable amount of water was found in the intake air (ISO 5167-1/2:2003; EN 13030:2001). When moisture in the intake air is minimal, the risk of the IO elements freezing is small. In addition, the VILPE IOs' large air intake areas entail a smaller pressure loss. The recommended face velocity range of use is less than 2 m/s.



DESIGNED FOR LONGEVITY

VILPE IO Wall Elements are made of durable and recyclable polypropylene (PP), an environmentally safe material. The material is UV protected, allowing the products to withstand harsh weather conditions and severe sunshine without their colours deteriorating. Both products tolerate a constant temperature of -30°C to $+80^{\circ}\text{C}$, as well as short periodic temperatures of -40°C to $+120^{\circ}\text{C}$. VILPE provides the products with a 10 year colour guarantee, as well as a 20 year technical guarantee. Besides the standard colours offered on the last page of this brochure, VILPE also offers a range of custom colours if required, although these are more expensive than our standard colours and should be discussed directly with the sales team.

VILPE IO Wall Elements are also designed to keep the exterior of the building they are installed on clean, thanks to the raised molding on their outer surface. This is designed to minimize the problem of dust and dirt accumulating on the ventilation terminal and eventually flowing down the building's exterior wall, creating a grimy and streaky facade. Instead, the molding prevents the accumulated dust and dirt from reaching the wall, maintaining the building's clean appearance.

EASY TO INSTALL

It is quick and easy to install VILPE IO Wall Elements onto exterior walls. All screws and screw plugs are included in the package. Note that, to ensure the proper functioning of the products, nothing should be placed in front of a Wall Element once it has been installed. The table below shows when the reduction piece should be used; this information can also be found in the installation instructions. It should be noted that the IO 125/160 air intake element includes a mounting frame, while the IO 200/250 must instead be mounted directly onto the wall.

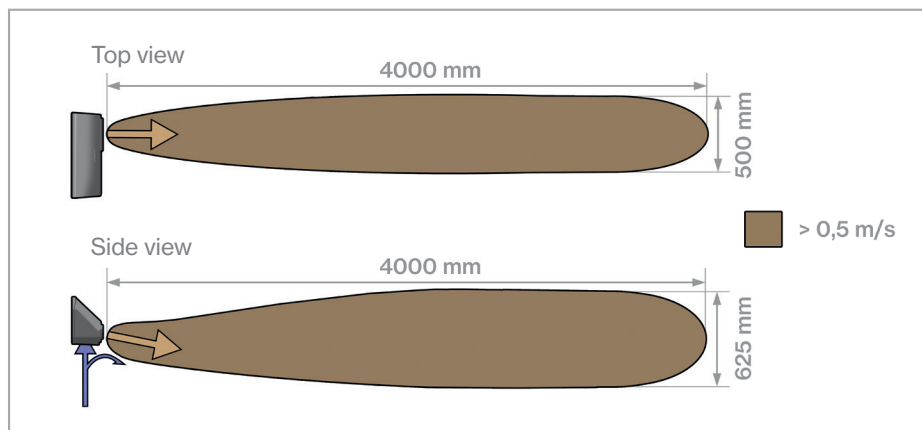
WHEN TO USE THE REDUCTION PIECE

The exhaust airflow needed to reach 5 m/s outflow velocity is listed below.

| VILPE IO | Exhaust airflow, l/s (m ³ /h) | |
|----------|--|---------------------------|
| | Reduction piece needed | No reduction piece needed |
| IO 125 | 18-27 (65-97) | >27 (>97) |
| IO 160 | 30-44 (108-158) | >44 (>158) |
| IO 200 | 48-70 (173-251) | >70 (>251) |
| IO 250 | 72-106 (261-381) | >106 (>381) |

AIRFLOW PATTERN

VILPE IO 125 without the reduction piece. Airflow 30 l/s (108 m³/h).



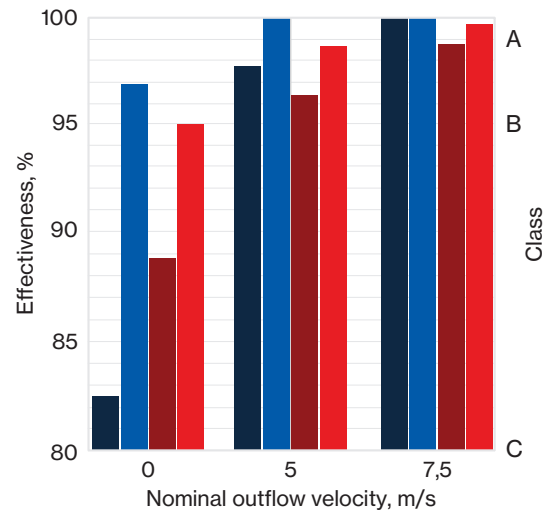
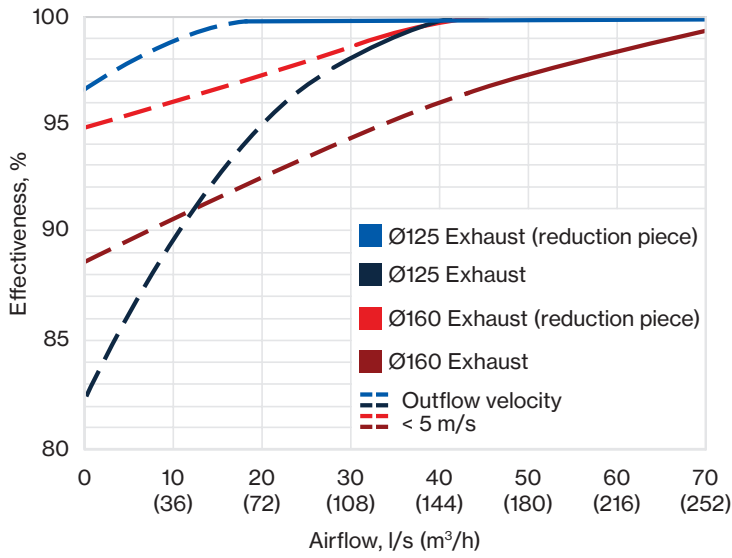
An IO wall element in one of the 'custom colours' mentioned on the left: this is 'Pastel Yellow' (RAL 1034)

RAIN REJECTION

Rain rejection data for exhaust air. No measurable amount of water in the intake air.

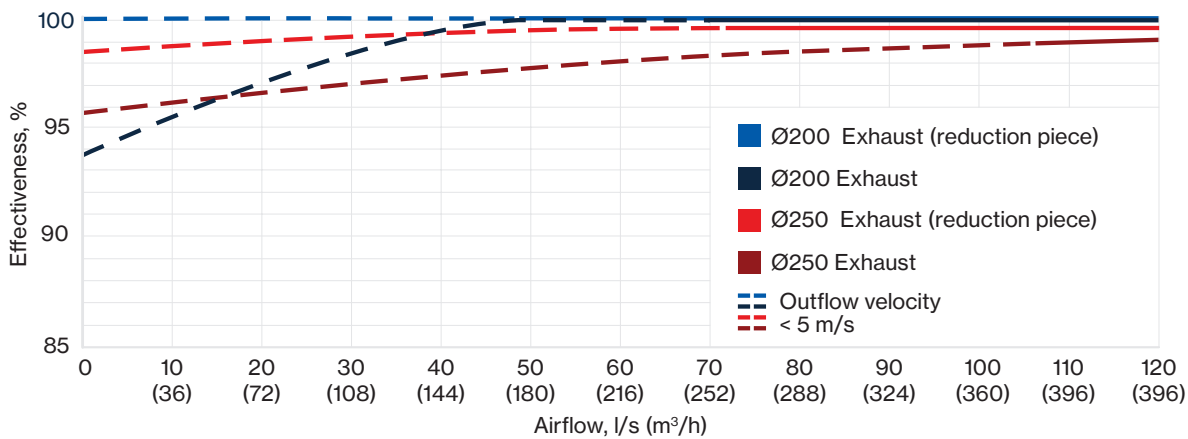
IO 125 and 160

EN 13030:2001
ISO 5167-1:2003
ISO 5167-2:2003

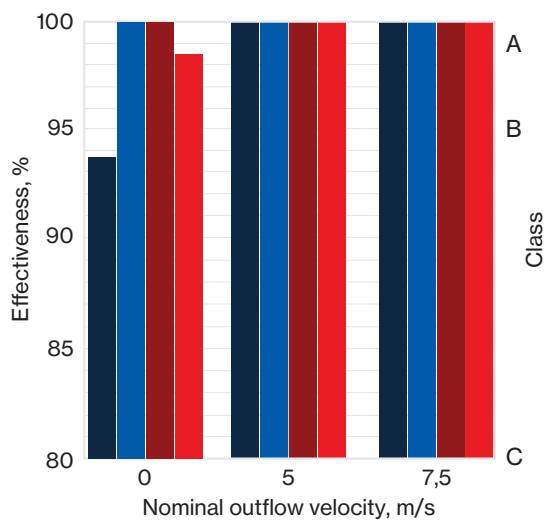


IO 200 and 250

EN 13030:2001
ISO 5167-1:2003
ISO 5167-2:2003



The exhaust air section of the IO Wall Element should be covered if the ventilation unit is switched off or not in use for a longer time period (for instance, in connection with the installation).

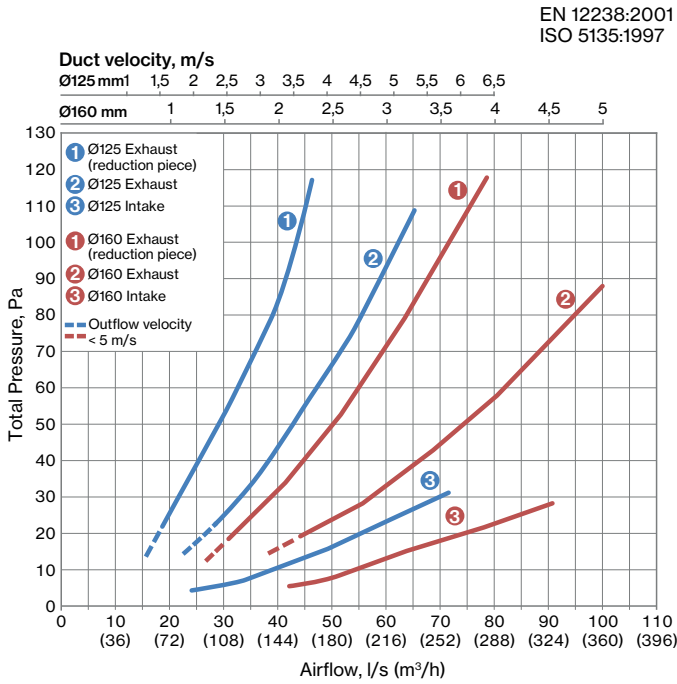


PERFORMANCE AND FLOW DATA

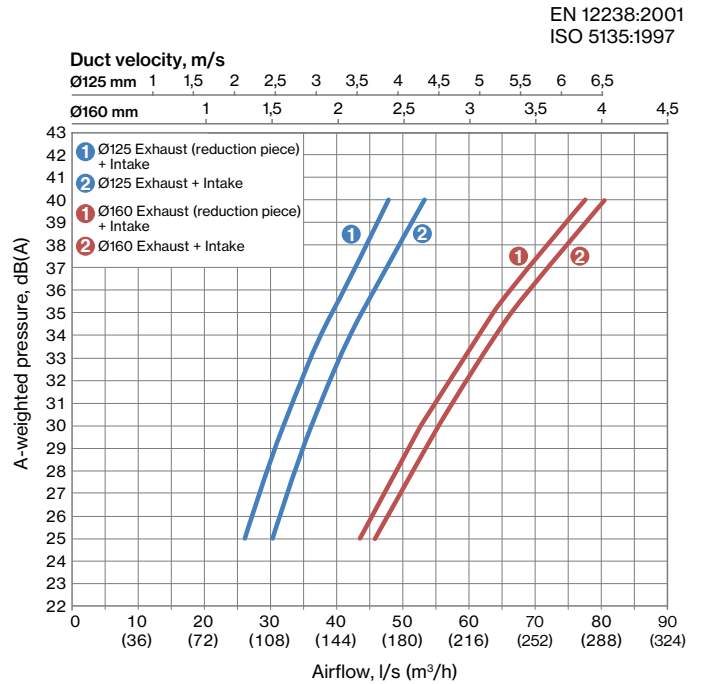
FLOW NOISE

IO 125 and 160

Air flow

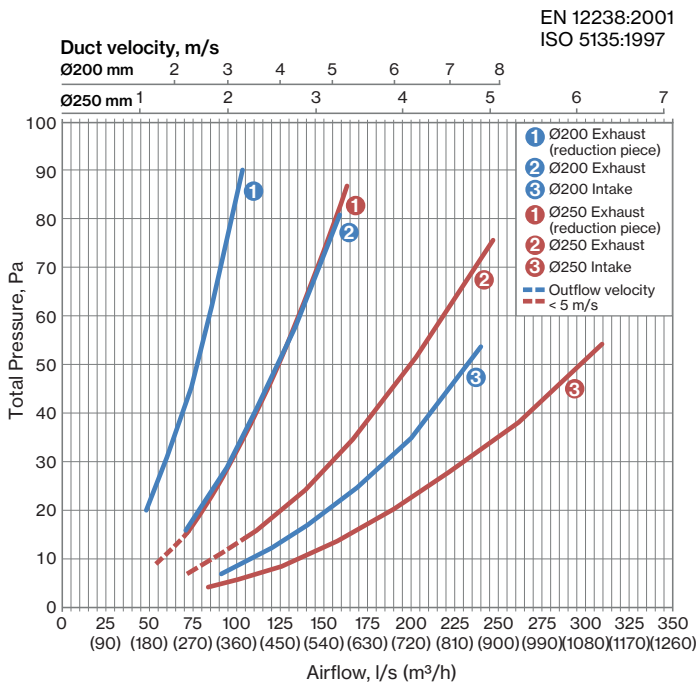


Noise

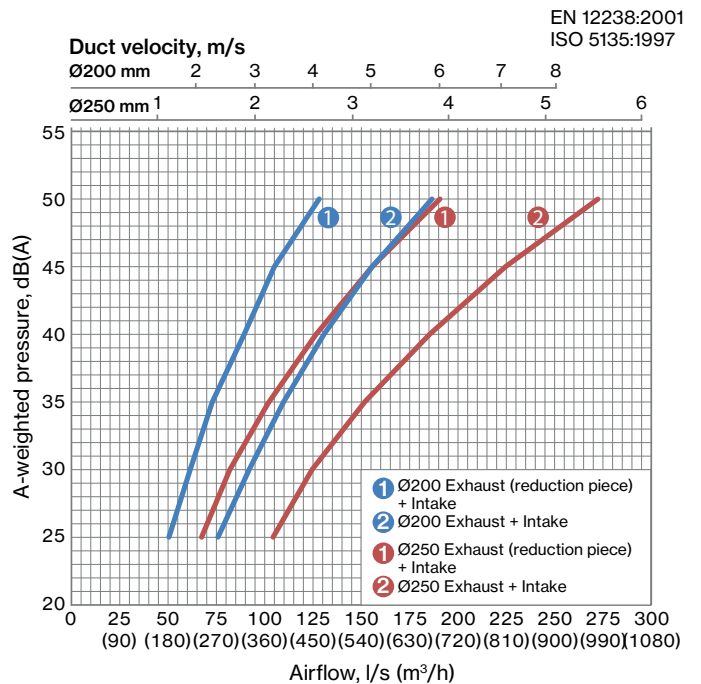


IO 200 and 250

Air flow



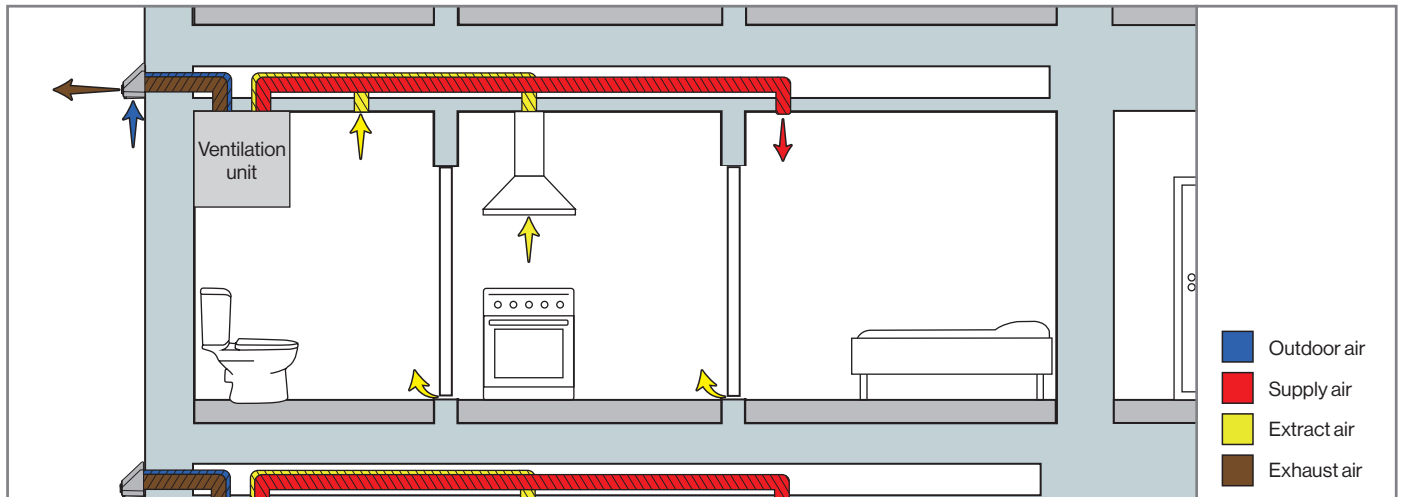
Noise



3 3 For VILPE air intake element, only lines marked with '3' apply.

AIR VENTILATION DIAGRAM

An example of a ventilation system in an apartment with a VILPE IO wall element.



PARTS

VILPE IO 125/160
wall element



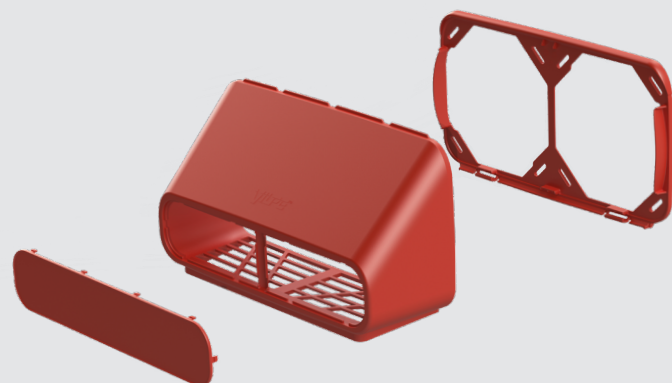
Mounting frame only for IO 125 and 160, larger sizes are mounted directly onto the wall.

In special cases, we can design a nozzle with which the exhaust air flow angle can be re-directed.

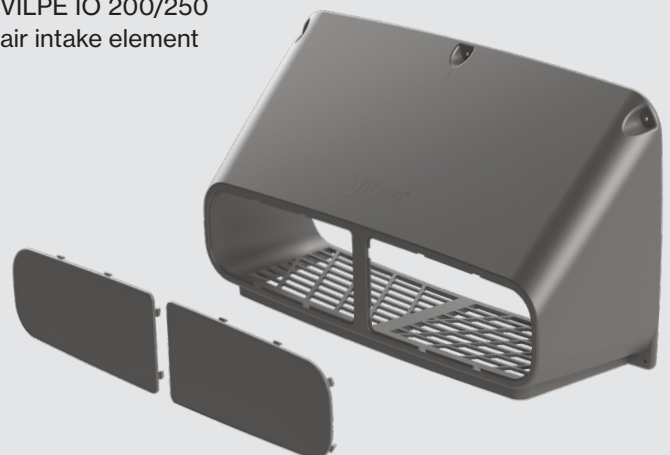
VILPE IO 200/250
wall element



VILPE IO 125/160
air intake element

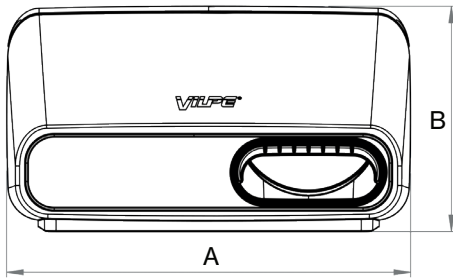


VILPE IO 200/250
air intake element

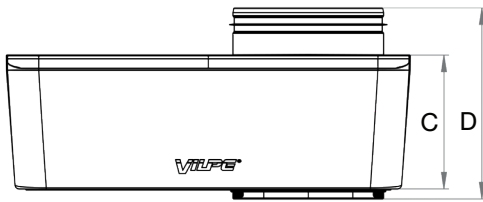


DIMENSIONS

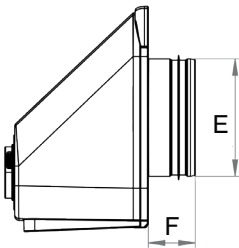
VILPE IO wall element



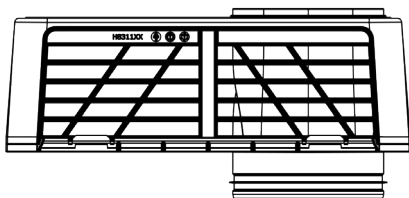
Front view



Top view



Side view

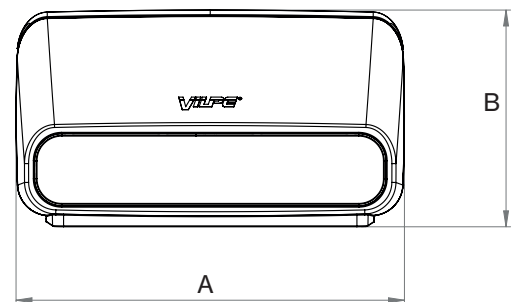


Underside view

| | IO 125 | IO 160 | IO 200 | IO 250 |
|---|--------|--------|--------|--------|
| A | 427 | 427 | 650 | 650 |
| B | 238 | 238 | 367 | 367 |
| C | 141 | 141 | 200 | 200 |
| D | 201 | 201 | 265 | 265 |
| E | 125 | 160 | 199 | 249 |
| F | 50 | 50 | 50 | 50 |

Dimensions of the IO wall elements in millimetres.

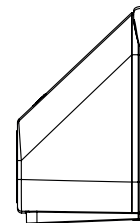
VILPE IO air intake element



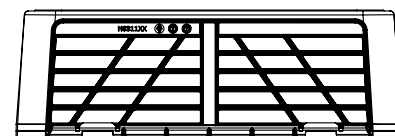
Front view



Top view



Side view



Underside view

PACKAGES

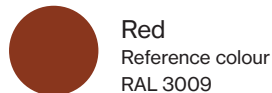
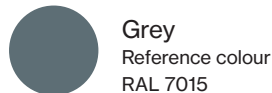
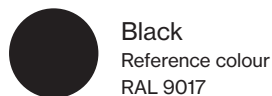
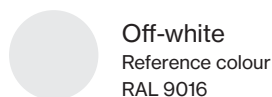
IO wall element package contents:

- VILPE IO wall element with exhaust and reduction pieces
- Screws and screw plugs
- Installation instructions

IO intake air element package contents:

- VILPE IO intake air element
- Screws and screw plugs
- Installation instructions

STANDARD COLOURS



Please inquire about specialised colour options from our sales team.

| NAME | COLOUR | PRODUCT NO. | DELIVERY |
|-------------------------------------|-----------|-------------|----------|
| VILPE IO 125 wall element | off-white | 370000 | Stock |
| | black | 370002 | Stock |
| | grey | 370007 | Stock |
| | red | 370008 | Stock |
| VILPE IO 160 wall element | off-white | 370100 | Stock |
| | black | 370102 | Stock |
| | grey | 370107 | Stock |
| | red | 370108 | Stock |
| VILPE IO 200 wall element | off-white | 370200 | Stock |
| | black | 370202 | Stock |
| | grey | 370207 | Stock |
| | red | 370208 | Order |
| VILPE IO 250 wall element | off-white | 370300 | Stock |
| | black | 370302 | Stock |
| | grey | 370307 | Stock |
| | red | 370308 | Order |
| VILPE IO 125/160 air intake element | off-white | 370120 | Order |
| | black | 370122 | Order |
| | grey | 370127 | Order |
| | red | 370128 | Order |
| VILPE IO 200/250 air intake element | off-white | 370130 | Order |
| | black | 370132 | Order |
| | grey | 370137 | Order |
| | red | 370138 | Order |

Please note that the VILPE IO air intake elements and some of the wall elements are made to order and are not kept in stock. Always check the delivery status with the sales team before placing your order.

