



Tilmar

information sheet

Silairo® wind driven fan

- Silairo® wind-driven fan; revolutionary and distinctive
- best extraction through technical optimization
- well-balanced and extremely smooth-running bearing
- patented product
- high-quality plastic for durable outdoor use, no corrosion
- ingenious water barrier
- to support/promote air extraction on ventilation ducts
- natural ventilation; sustainable environmentally friendly solution, no electricity required

The Silairo® wind-driven fan is revolutionary in its kind. Optimal operation is achieved through smart aerodynamic design with a very distinctive appearance. High-quality plastic makes this design possible, while the heart of the fan consists of stainless steel parts and a very smooth-running bearing set. The Silairo® wind-driven fan has been patented because of its unique technical properties. This fan has been designed using extensive wind tunnel testing, where shortcomings of many traditional metal wind driven fans have been analyzed to achieve an optimal shape for maximum air extraction. The following distinguishing features are essential for the best extraction:

- The drive function (by the wind) and the extraction function (ventilation) are separated in the fan in order to create the best blade shape for each function.
- The impact of incoming wind at all angles and wind directions is optimized by the specially shaped drive blades at the top and bottom.

There are three blade sections in the fan. The vanes at the top and bottom are drive vanes. The middle segment contains the carefully designed extraction blades. The internal flow section is aerodynamically shaped to minimize resistance to the exhaust air. The Silairo® wind-driven fan is suitable for installation on ventilation ducts for air extraction from buildings or objects to support or promote the natural flow outside and to prevent air return. Any incoming rainwater is ingeniously drained outside again at the bottom. The high-quality plastic, insensitive to corrosion, has been specially selected for dynamic and sustainable outdoor use and is UV resistant. The fan has a standard connection, with removable spacer ring, for placement over pipes with both outer diameter $\varnothing 110\text{mm}$ and outer diameter $\varnothing 125\text{mm}$.



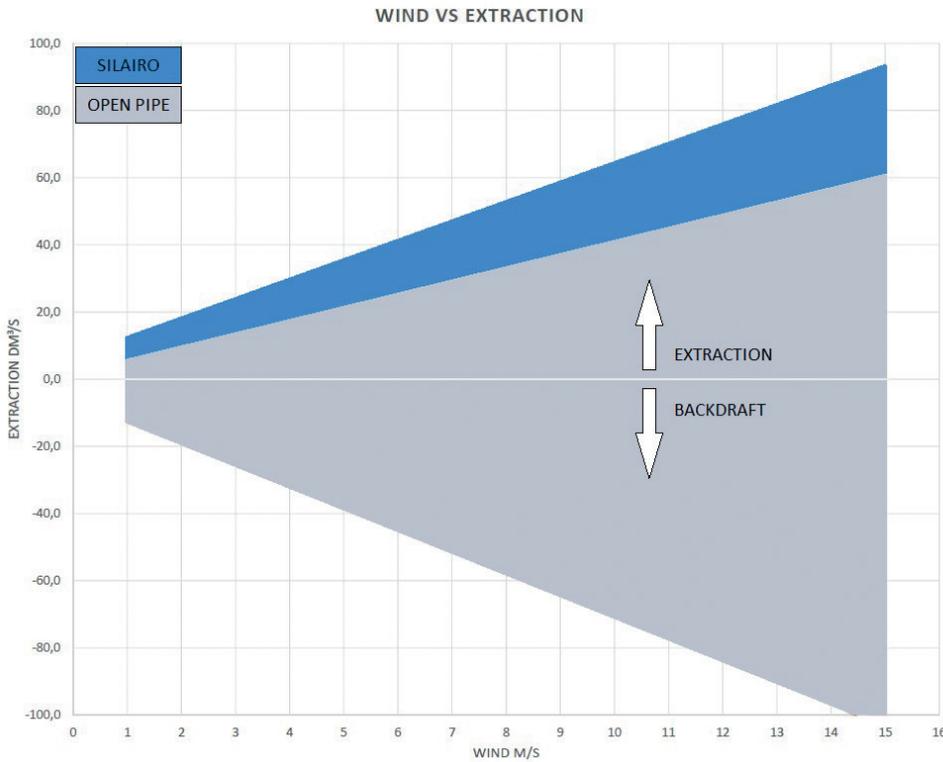
Specifications

Material	: ABS plastic / stainless steel parts
Colour	: RAL-7024 or RAL-9005
Height	: 36 cm
Diameter	: $\varnothing 23$ cm
Connection	: $\varnothing 110$ / $\varnothing 125\text{mm}$
Weight	: 1,3 kg

Attention!

Other products must be used for flue gas discharge or discharge of aggressive industrial fumes.

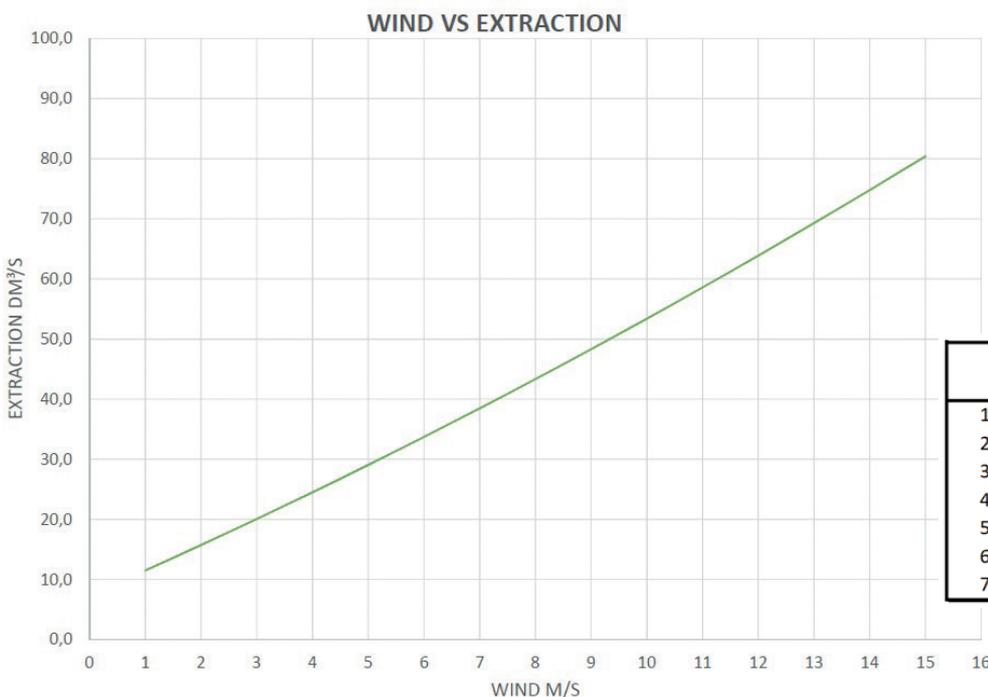




Graphic 1

Illustration of optimal operation of Silairo compared to an open pipe.

The excellent performance of Silairo is illustrated in graphic 1. The gray area is the operating range of an open pipe. Here it is clearly visible that the angle of incidence of the wind can cause an enormous variation in the air volume at any wind speed. An open pipe is also very sensitive to backdraft. With a favorable wind angle, extraction does take place with an open pipe, but with an unfavorable wind angle, enormous unwanted backflow occurs. The blue strip is the operating area of Silairo. With the Silairo there is never any backflow, the variation in air extraction (extraction) is also limited per wind speed; a nice stable image. Moreover, it is clear that the Silairo has a higher extraction capacity than an open pipe.



Graphic 2

Indication graph of the extraction (dm³/s) at different wind speeds (diameter ø125mm)

Windforce (Beaufort)	Windspeed (m/s)
1 light air	0 - 2
2 light breeze	2 - 3
3 gentle breeze	3 - 5
4 moderate breeze	5 - 8
5 fresh breeze	8 - 11
6 strong breeze	11 - 14
7 high wind	14 - 17

