

**PIENAAR ENERGY (PTY) LTD**

# **Wind deflector wind turbine**



## Overview

---

This paper aims to enhance the performance of H-Darrieus Vertical Axis Wind Turbine (VAWT) via introducing upstream deflectors. The impact of this addition has been investigated and discussed through diff.

## Wind deflector wind turbine

---



### **Design and analysis of upstream air deflectors for increasing wind**

This reduces the cut in speed for the wind turbine setup. The present work focuses on simulation for flow over the deflector to study the nature of this setup. The simulation was performed ...

[Get Price](#)

---

### **Effect of upstream deflector utilization on H-Darrieus wind**

...

Finally, a new self-orienting curtain system was suggested by Tartuferi et al. [14] and deployed with Savonius wind turbine. The majority of studies regarding the effect of the deflector on

...



[Get Price](#)

---



### **(PDF) An Innovative Deflector System for Performance ...**

An Innovative Deflector System for Performance Improvement of Drag-Type Savonius Wind Turbine April 2024  
Authors: Arvind Gnanasegaran

[Get Price](#)

---

## (PDF) Recent Development in the Design of Wind

Developments in the design of wind turbines with augmentation are advancing around the globe with the goal of generating electricity close to the user in built-up areas. This is certain to

...

[Get Price](#)



## Recent Development in the Design of Wind Deflectors for

...

Unlike horizontal-axis wind turbines, vertical axis turbines generate not only positive torque but also negative torque during operation. The negative torque generated by the returning blade is a key ...

[Get Price](#)



## Optimization of a vertical axis wind turbine with a deflector

...

However, unsteady wind may cause a vertical axis wind turbine (VAWT) to operate under drag-controlled conditions and reduce its performance. The power coefficient of a VAWT under ...

[Get Price](#)



## Improving vertical-axis wind

## turbine performance through

...



Improving vertical-axis wind turbine performance through innovative combination of deflector and plasma actuator Sarallah Abbasi ; Mohammad Amin Daraee

[Get Price](#)

---

## Effect of upstream deflector utilization on H-Darrieus wind turbine

This paper aims to enhance the performance of H-Darrieus Vertical Axis Wind Turbine (VAWT) via introducing upstream deflectors. The impact of this addition has been investigated and ...

[Get Price](#)



---

## Comparative Study of Deflector Configurations under Variable ...

The demand for clean and sustainable energy has led to the exploration of innovative technologies for renewable energy generation. The Savonius turbine has emerged as a promising ...

[Get Price](#)

---

## Numerical Study of a Vertical Axis Wind Turbine with an Inner



The cylindrical deflector's effectiveness is demonstrated by the 15% increase in power coefficient  $C_p$  that results from its inclusion. These results highlight how an inner cylindrical deflector could be a useful ...

[Get Price](#)



---

## Contact Us

---

For catalog requests, pricing, or partnerships, please visit:  
<https://pienaarshof.co.za>

