

# OptiFlow™

## SideWings

PROVEN AERODYNAMIC TECHNOLOGY FOR TRAILERS



**WABCO**

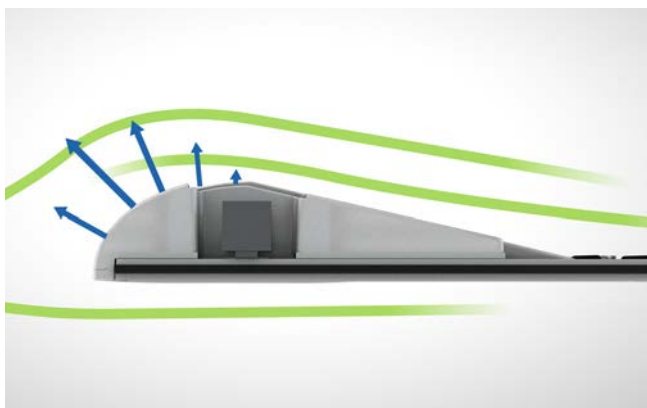
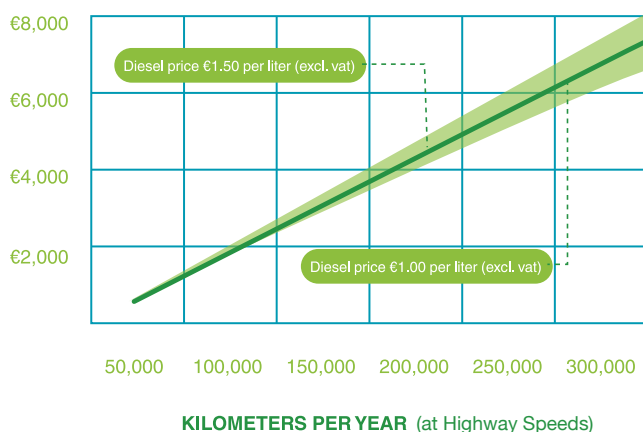
# AERODYNAMIC SOLUTION TO COMBAT RISING FUEL COSTS

## WABCO OPTIFLOW SIDEWINGS

Installing OptiFlow™ SideWings to a trailer significantly reduces fuel consumption. Developed in an aeronautical environment and proven on the road, this unique WABCO-patented flow conductor is specially contoured to minimize drag by better guiding airflow around and behind the truck. At highway speeds, OptiFlow SideWings reduce fuel consumption by around 1.5l/100km, lowering the carbon footprint and generating huge cost-savings over the lifetime of the vehicle. OptiFlow SideWings help to reduce the risk of road accidents, lower vehicle spray and also cover the entire lower extension of the trailer. The durable panels are lighter and have substantially greater impact resistance than the conventional glass-reinforced plastic commonly used in less-effective panels.

At highway speeds, OptiFlow SideWings reduce fuel consumption by around 1.5l/100km

### COST SAVINGS PER YEAR



The patented flow conductor creates an aerodynamic shape that decreases wind resistance and improves fuel economy.

## FUEL & CO<sub>2</sub> SAVINGS

Extensive testing both in controlled conditions and during real world driving cycles has established an improvement in fuel economy of around 1.5l per 100km. This is considerably more effective than the performance of conventional trailer skirts. These savings are independent of trailer type, load capacity or tonnage. They are also unaffected by driving style. Within the current range of diesel prices, the investment in OptiFlow SideWings is expected to pay for itself within one to two years of installation, while leasing OptiFlow SideWings instantly accesses significant cost savings.

Reduced fuel consumption has an associated effect on emissions performance, with the OptiFlow SideWings typically expected to provide CO<sub>2</sub> savings across a fleet of around four percent. This equates to around 3.8 tons of CO<sub>2</sub> per truck, per year.

## UNIQUE DESIGN

Trucks split aerodynamic drag evenly between tractor unit and trailer. Contoured WABCO OptiFlow SideWings will give any trailer a more efficient aerodynamic shape. Originally conceived within the Aerospace Engineering faculty at Delft University of Engineering, the OptiFlow SideWings have been designed to capture and contour airflow to reduce air resistance. A flow conductor mounted on the lower part of the trailer ensures air-flow reattaching behind the truck is managed and converted into thrust for forward motion. Using the OptiFlow SideWings will reduce wind resistance and thereby improve fuel economy.

## EASY TO OPERATE, SIMPLE TO FIT



### INCREASED ROAD SAFETY

OptiFlow SideWings replace existing side guard systems but still provide improved road safety. The OptiFlow SideWings reduce the amount of spray thrown up by the trailer in wet conditions, thus improving visibility for other road users, and by entirely covering the sides of the trailer the SideWings mitigate the occurrence of under-vehicle accidents which are particularly dangerous for cyclists and motorcyclists.

### EASY TO OPERATE

OptiFlow SideWings have been designed for ease of use and compatibility with all trailer types. The flow conductor on one side of the trailer will swing open to allow access to cranks or tanks. All OptiFlow SideWing panels are individually hinged to provide access to cooling systems, pallet holders, spare tires and other under-trailer paraphernalia. The individual panels are built to be click-locked or opened with a single movement. Both, a long and a short version are available.



### LIGHT & ROBUST MATERIAL

OptiFlow SideWings are made from Polydicyclopentadiene (PDCPD), and have the advantage of being both lighter and with higher impact resistance than the material used in most trailer skirts. It has the advantage of being a low-energy material in production, further reducing the lifetime carbon footprint of OptiFlow SideWings. The panels are highly resistant to vibration and the chassis-flex inherent in a fully-loaded trailer. Tested under extreme conditions, the panels are designed for durability.

**OptiFlow SideWings work with any length and type of trailer:  
offering the same level of fuel saving whatever the configuration.**

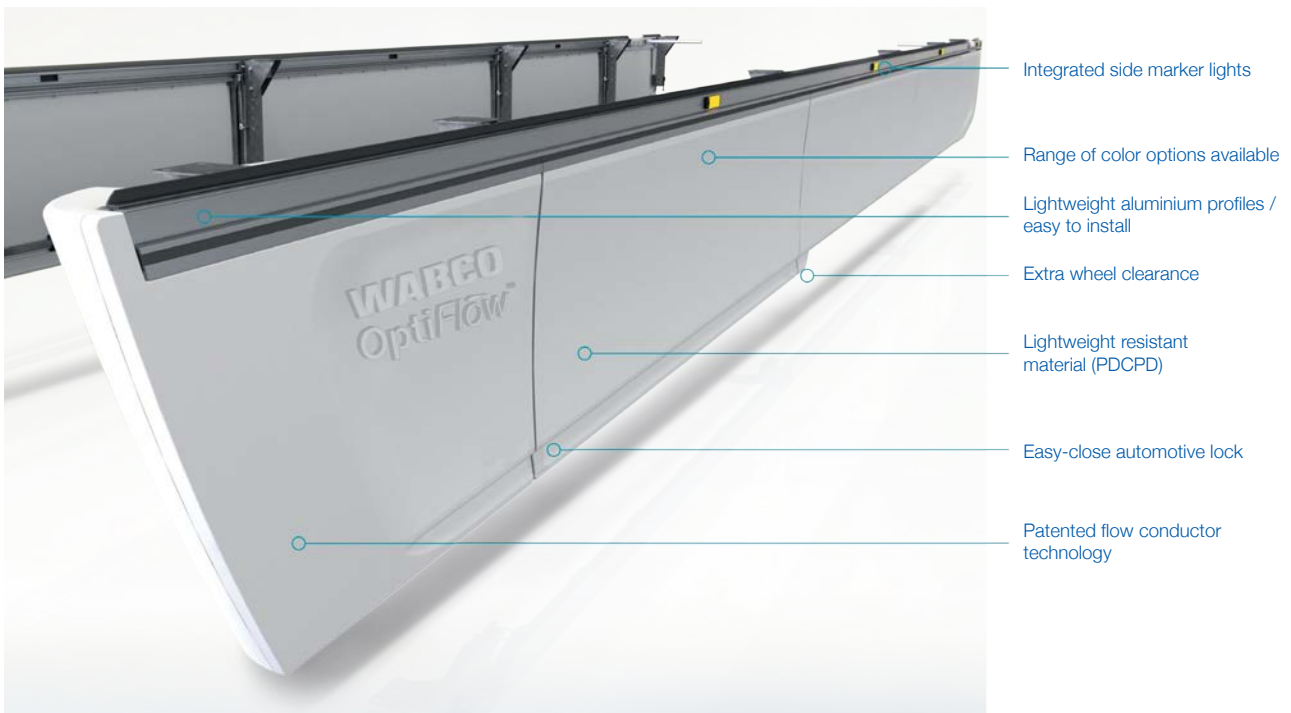


Standard SideWing



Long SideWing

# MODULAR SOLUTIONS



## OPTIFLOW FOR ALL

Close cooperation with trailer manufacturers means OptiFlow SideWings can be economically and conveniently produced for new vehicles, while existing trailers can be fitted with the system in the workshop or by local partners. The modular sections ensure bespoke solutions are available for any size, shape or make of trailer.

Options are available for:

- door holders
- hatches
- steering axle solutions
- colors
- long version

WABCO's global presence ensures a local adviser will be able to assist you.

## ORIGINAL PARTS

Every WABCO part is made of high-grade materials and is rigorously tested by WABCO before leaving our hands. Each is a product of WABCO's 140 year history of innovation and design excellence. There is the assurance that the quality of every WABCO part is reinforced by a powerful customer service network.

## WABCO

**WABCO** (NYSE: WBC) is a leading global supplier of technologies and control systems for the safety and efficiency of commercial vehicles. Founded over 140 years ago, WABCO continues to pioneer breakthrough electronic, mechanical and mechatronic technologies for braking, stability and transmission automation systems supplied to the world's leading commercial truck, bus and trailer manufacturers. With sales of \$2.5 billion in 2012, WABCO is headquartered in Brussels, Belgium.

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