



Coperion on K 2010  
Hall 14, Booth B33

**Contact:**  
Kathrin Steimle  
Marketing & Communication  
Coperion GmbH  
Theodorstrasse 10  
70469 Stuttgart / Germany

Phone +49 (0)711 897 25 07  
Fax +49 (0)711 897 39 81  
kathrin.steimle@coperion.com  
www.coperion.com

## Press Release

### ***Coperion – Integrated Degassing Solutions at K 2010***

## **Twin Screw Side Degassing – Higher Output, Better Quality and Lower Costs**

*Stuttgart, August 2010.* – When compounding and processing polymers degassing processes frequently play an important, but often undervalued role. The ZS-EG twin screw degassing unit presented by Coperion GmbH, Stuttgart/Germany, formerly Werner & Pfeleiderer, at K 2010 (Oct. 27 to Nov. 3, 2010 in Düsseldorf, Stand B33, Hall 14) is a representative of their comprehensive degassing solutions for compounding and extrusion processes. This range from the degassing of polymer melts to the manufacture of practically odour free plastic for packaging or vehicle interiors.

ZS-EG twin screw side degassing units have proven themselves in compounding plants over many years as a reliable means of degassing compounding processes. Based on this broad practical experience Coperion has made a number of improvements to its ZS-EG side degassing units: The screw set has been optimised, the standard models of the ZS-EG are designed for an absolute vacuum of up to 50 mbar, lower degassing pressure upon request. Moreover the ZS-EG is standardly equipped with a variable speed screw drive.

Compared to an open vent dome the twin screw side degassing unit offers many advantages. It

- can be fitted at low cost to a combi barrel segment of the ZSK twin screw extruder. By replacing an atmospheric venting barrel with a combi barrel it can be retro-fitted in order to make full use of the performance of ZSK technology,

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- delivers effective degassing, even with high air or moisture content of the bulk material, at acceptable residence times so that plant throughput can be raised by 10 to 15 %,
- improves compound quality and consistency since no material can fall back into the processing unit from the vent,
- lowers production costs through reduced cleaning and maintenance times as well as through lower wear,
- simplifies machine control through simple operation and reduces accident risks, particularly during start-up.

The ZS-EG has deep cut co-rotating twin screws that deliver its high venting capacity. Due to the direction of rotation they keep the product within the processing zone. The large free cross-section of the flow channel ensures low gas velocities. With quick release connections the ZS-EG is very user friendly and can be dismantled easily for cleaning and maintenance.

### **ZS-EG – proven in many applications**

Typical applications for twin screw degassing units include for example the manufacture of glass reinforced or highly filled compounds, wood plastic compounds (WPC) or thermoplastic elastomers (TPE).

Solvay Advanced Polymers in the USA for instance manages higher throughput when processing polyphthalamide (PPA) through the use of a twin screw degassing unit because the gas flow channel is constantly open. In addition the new ZS-EG generation increases plant output due to lower downtimes for cleaning and maintenance.

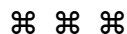
Bayer MaterialScience achieve high and uniform product quality in the manufacture of polycarbonate compounds at its facility in Krefeld using a ZS-EG since material cannot accumulate in the twin screw degassing unit and fall back into the processing zone. Downtime for maintenance and colour changes has dropped while the availability of the compounding plant has increased. Moreover production costs are lower since colour changes are easier,

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quicker and with time exposure for cleaning. On top of this Solvay and Bayer have both benefited from the increased machine safety offered by the current ZS-EG configuration.

Twin screw side degassing has particular advantages in the manufacture of wood plastic compounds (WPC): The moisture contained in the wood flour escapes very quickly due to the high temperatures in the processing section. In order to vent this gas stream safely, WPC plants from Coperion are equipped with both an atmospheric and a vacuum side vent. Degassing takes place safely and without dust formation achieving maximum throughput.

Coperion ([www.coperion.com](http://www.coperion.com)) is the international market and technology leader in compounding systems, bulk materials handling systems and services. Coperion designs, develops, manufactures and maintains systems, machines and components for the plastics, chemicals, food and aluminium industries. With its three Competence Centers Compounding & Extrusion, Materials Handling and Service, 1,700 employees and nearly 30 sales and service companies worldwide, Coperion achieves annual sales of 400 to 600 million euros.

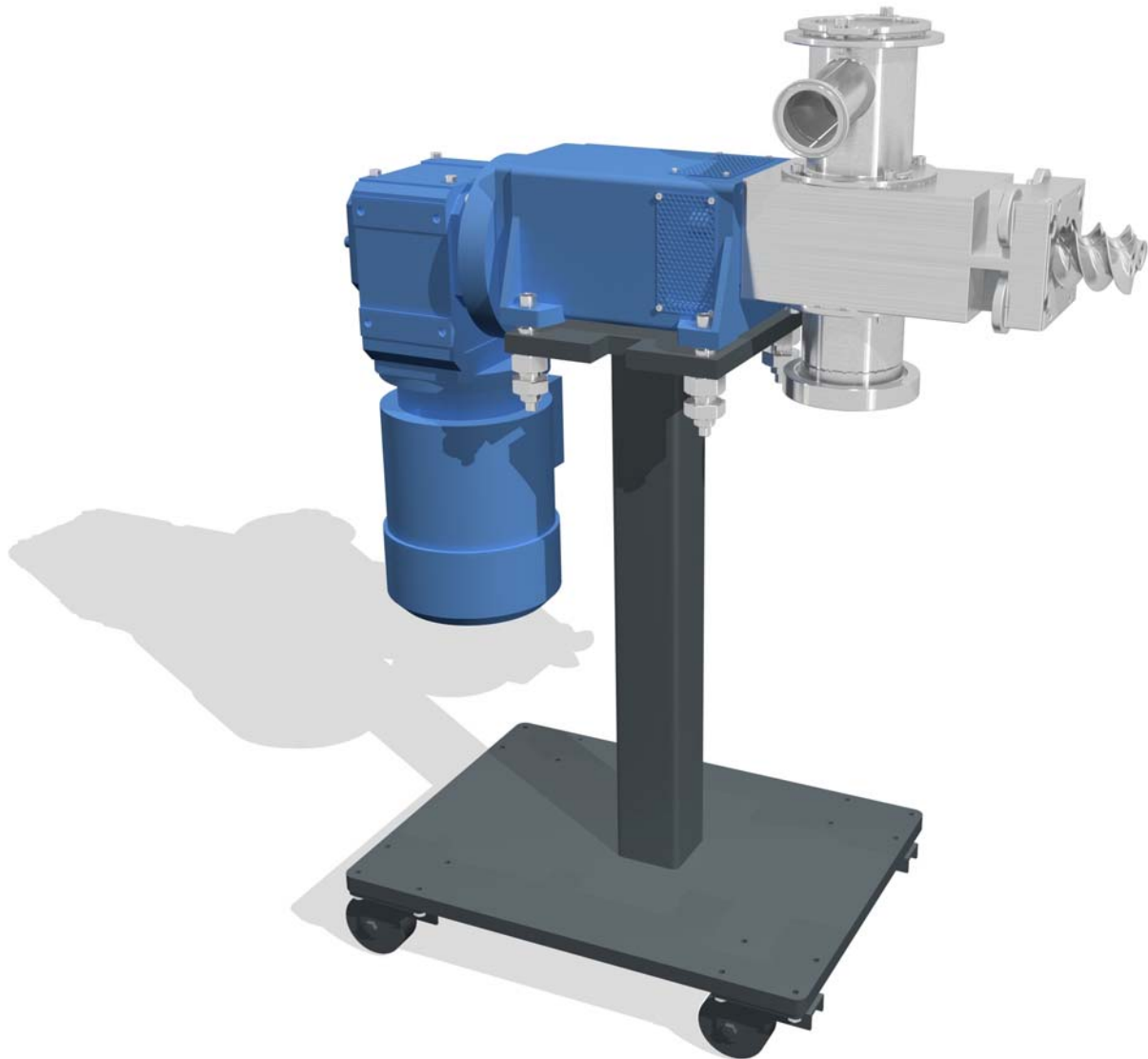


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Editorial contact and voucher copies:

Dr. Diether Burkhardt, KONSENS Public Relations GmbH & Co. KG,  
Hans-Kudlich-Straße 25, D-64823 Groß-Umstadt  
Phone: +49 (0)60 78/93 63-0, Fax: +49 (0)60 78/93 63-20  
E-Mail: [mail@konsens.de](mailto:mail@konsens.de), Internet: [www.konsens.de](http://www.konsens.de)

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*The increased degassing performance of the new ZS-EG twin screw degassing unit is made possible by the optimised deep cut screws.*

*Picture: Coperion, Stuttgart/Germany*