

Labelling and printing while delivering environmental benefits

## Two plants designed by Weber Marking Systems are labelling AdBlue<sup>®</sup> products of the Hoyer corporate group

*The most environmentally harmful thing about Diesel exhaust gases is the nitrogen oxides. In order to reduce these emissions and to meet the statutory provisions on emission protection, most manufacturers have integrated an SCR catalytic converter into their Diesel vehicles. In the process of this Selective Catalytic Reduction (SCR), so-called AdBlue<sup>®</sup> is added to the exhaust gas flow. AdBlue<sup>®</sup> converts the nitrogen oxides into their ecologically friendly components nitrogen and water and thus reduces their emissions by up to 90 percent. The corporate group Hoyer based in the North of Germany is one of the largest manufacturers of AdBlue<sup>®</sup>. The products are labelled by facilities of the company Weber Marking Systems GmbH from Rheinbreitbach.*

AdBlue<sup>®</sup> is a synthetically made, 32.5 percent urea solution. In the company-owned Finke mineral oil plant at Visselhövede in the North of Germany, Hoyer sells about 150 million litres of this solution per year and bottles it into various containers in highly advanced facilities. The bottles and canisters with a storage volume ranging from one to 20 litres are also provided with private labels upon customer request. "2,400 AdBlue<sup>®</sup> products per day must be labelled and coded," Christian Twiefel, AdBlue division manager at Hoyer, reports. "This task is performed using various facilities of Weber Marking Systems."

### Labelling with Geset and Alpha Compact

Hoyer, for instance, uses several Geset 100 labelling systems for double-sided labelling of the passing products. What is special here is that the AdBlue<sup>®</sup> containers must be labelled while they are empty. Otherwise the label would possibly adhere rather poorly or not at all, since parts of the product may run down the sides of the container whilst the container is being filled. Empty containers, however, are very light and do not have a stable foothold. Therefore, the Geset 100 is provided with a headband preventing the products from tilting and reliably securing and transporting them during the labelling process. In order to be able to label different

types of packaging such as round bottles, but also cone-shaped canisters, the dispensing units of the labelling system can be furthermore secured at different angles thanks to the so-called "cardanic" support system. And, in spite of the large variety of angles, the system can reliably process great label formats to up to 200 x 200 millimetres. The robust Geset 100 labelling systems can be flexibly mounted and are easy to handle. In only a few simple steps, operators can set up the machines for a new product.

The space-saving Alpha Compact label dispenser is the centrepiece of the systems. By means of various applicators, which are selected depending on the application in each case, Alpha Compact systems attach pre-printed labels quickly and positionally accurate to products and packages. At Hoyer, wipe-on dispensing tongues are used, "wiping on" the labels to the sides of the swiftly passing products. Other applicators could for instance also blow labels to a variety of surfaces in a contact-free fashion from different directions. The Alpha Compact is also easy to handle: In order to reduce set-up times, different labelling parameters can be saved beforehand. This, for instance, provides for a maximum conversion time of ten minutes for a full system conversion at Hoyer. More-





over, labelling speeds and the feed of individual labels can be adapted during ongoing operation.

### Printed with Markoprint X1JET

After the labelling, at Hoyer, each individual product is provided with a batch number and the date of expiry. "In the past, we have labelled the products with these data," Christian Twiefel explains. "However, this actually did not prove to be feasible, since the labels only adhered very poorly to the partly challenging surface!" Therefore, Hoyer had to search for an alternative and opted for the thermal Markoprint X1JET inkjet printing system designed by the company Weber Marking Systems. Since inks on a water base do not adhere to plastic surfaces, Hoyer uses a solvent-containing ink. It shows excellent adhesion and drying properties. The small Markoprint system constitutes a print head and a control unit all in one and is directly positioned at the line. Print information, fonts and/or logos can be easily created at the PC and transferred via different interfaces (USB, Ethernet or serial interfaces). The internal memory can contain up to nine different print jobs.

### Hoyer corporate group

With more than 1,600 employees, the Hoyer corporate group produces and sells lubricants, gases, and wood pellets, among other things. In order to make all this possible, apart from an in-house power station, also filling systems, workshops, laboratories, warehouses, and a fleet of company-owned trucks are provided. Furthermore, Hoyer operates over 200 company-owned filling stations in Northern Germany and cooperates with more than 800 partners throughout Germany.

- „We have searched for a print system that not only
- withstands the production conditions but the labelling of
- which furthermore reliably adheres to cryogenic sur-
- faces.“

*Thomas Floßbach, Betriebsleiter*



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