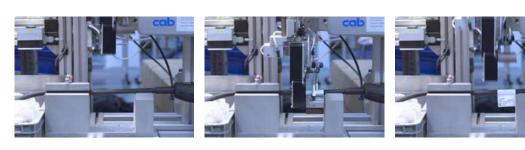
Case study



High voltage at Mennekes Electric vehicle charging cables, explicitly labeled

Welschen Ennest in German Sauerland – this is where the **Mennekes** company manufactures Type 2 plugs. These are charging all electric vehicles in Europe these days. Since 2014, they have been the legally mandated standard. Plugs and cables are subject to information obligation. Those who circulate them must label them in compliance with regulations. At Mennekes, this is reliably put into practice by systems from the cab **Hermes+** series. Each charging cable is accurately applied a label flag, displaying all the required information.







"We have major automotive manufacturers as our customers and directly supply them with our charging cables," says Artur Miller, Business Unit Automotive at Mennekes. These charging cables link a charging station with an electric vehicle. "In the matter of labeling," Mr. Miller continues, "the task was to attach a label to each cable. Such a label must clearly display an article number and a cable id. At this, the label must entirely wrap the cable."

First experiences with cab

Before deciding on the Hermes+ fully automatic printing and labeling system for attaching cable flags, Mennekes had already had positive experiences with other label printers from cab. "We used the A4+ as a barcode printer in customer setups," says Mr. Miller. "The coded labels identify the film packaging in which the charging cables are bagged." Today, the successor models SQUIX are primarily in use at Mennekes for this purpose. The require-

ment for fully wrapping cables with an additional label complements the bag labeling. "At a trade fair, we got in contact with cab again regarding this matter," Mr. Miller shares. "Together, we evaluated all factors. As a result, based



on cab recommendation, we decided for the Hermes+ model with a 4712 flag applicator."





Printer system with a flag applicator

When there is limited space available for label application, systems that work with low tolerances are required. cab Hermes devices meet these requirements. They print and apply labels fully automatically in one operation. For transferring printed labels, a cab applicator can be added. In the case of Mennekes, the 4712 flag applicator was first choice. It was specifically designed for precise labeling of round materials such as cables, hoses, pipes. The label is first precisely adhered at the ends and then pressed onto the round material. The pad of the applicator is set in front of the peel-off plate of the print module. It picks up labels after the have been printed. They are then lifted to the spot of application by a stroke cylinder. A further cylinder wraps the label all around the round material using cam control.

This combination of devices provides various advantages in Mennekes' daily workflow. "It can be ordered as a standard," says Mr. Miller, "so it is not a custom solution." Subsequent to initial setup, Hermes systems can be used flexibly at different workstations. They can be handled by the respective operator. Mr. Miller expresses his entire satisfaction: "The devices are running perfectly. No special technicians are required on site for adjustment during operation."

Reliable information

Each label provides information through text and a 2D code (for scanner reading) about the manufacturer, the article number, and the date a cable has been introduced into the market. A unique identifier enables the tracking of a cable to its origin. The print on a label needs to remain legible during storage and transport. This is achieved through the thermal transfer technology used by Hermes+ for label printing. Such labels have a comparatively long lifespan. High print resolution and excellent contrast enable high scanning rates and facilitate the printing of codes and detailed information.

Flag labels

For automated labeling using the cab flag applicator, cab manufactures labels specifically tailored to the requirements of a print job. The label material, along with the adhesive, has been developed specifically for flag labels to ensure secure and reliable processes. The label fully encloses the product. Once stuck, applied flags remain closed permanently.





World market leader

The innovative cab Hermes system solution aligns with the guiding principles at Mennekes. "We are doers, aiming to improve things and constantly seeking for new solutions," Mr. Miller tells. "Mennekes is a symbol of modern plugs, sockets, socket combination units, and intelligent e-mobility charging solutions. We create secure connections and the infrastructure for the mobility of the future." With the Mennekes Type 2 charging cable, vehicle owners can plug their cars to public charging stations or wall boxes with a charging socket.



"We develop and produce our products ourselves," says Miller, "ensuring they meet our quality standards." Product development, toolmaking, plastics injection molding, contact parts manufacturing, series and custom assembly, as well as a large logistics center, are all in-house parts of the Mennekes group. In the manufacturing steps prior to labeling, the connectors are not only assembled but also measured and tested according to applicable standards. Only products of perfect quality leave Mennekes' production facilities for demanding practical use worldwide.

Briefly introduced

Mennekes Elektrotechnik GmbH & Co. KG was founded in 1935. The company is a leading manufacturer of industrial connectors and e-mobility charging solutions. At present, it is managed in third family generation. Its headquarters are in Kirchhundem, German Sauerland. Subsidiaries and representations included, approximately 1,600 Mennekes employees are these days acting in more than 90 countries worldwide.

www.mennekes.org



Video of this operation: www.cab.de/en/mennekes-video





See flag applicator information on www.cab.de/en/4712