Sonderhoff Italia at LAMIERA 2019.

Sonderhoff Italia, part of Henkel AG & Co. KGaA, will present its range of products and services at the international trade fair LAMIERA for the sheet metal processing industry in Milan, from May 15 to 18, 2019. This time, the focus will be on the new 3E dosing cell, the entry-level model for standard applications, the fast-curing Fast-Cure sealing foams for short installation times and the self-adhesive Geko-Spider polyurethane foam seal. In addition, with the SYSTEM3 concept, the company offers its customers the advantage of being able to purchase foam seals, adhesives and potting as well as dosing systems for the fully automatic application of these materials on components from a single source. They also have access to Henkel's extensive adhesive portfolio. Or the customer can opt for contract manufacturing for sealing, gluing and potting his components at Sonderhoff Italia in Oggiono. There he receives the technical expertise and process competence from consulting to sampling of the components up to taking over the series production of small and large series.

When it comes to sealing control cabinets and electrical enclosures, Sonderhoff Italia has the right solution for every production volume. For smaller quantities of components to be sealed, Geko-Spider self-adhesive polyurethane foam seals are a fast and flexible solution. They are supplied on rolls, in sizes from 9x5mm to 14x8mm (width x height). For sheet metal processors who have grown considerably and are therefore considering automating the sealing and bonding of switch cabinet parts, Sonderhoff Italia offers the new 3E dosing cell and the very reactive Fast-Cure sealing foams for short installation times.

Dispensing cell 3E - the Place, Plug & Work entry-level model

The name 3E of the 2-component low pressure dispensing cell stands for economical, efficient and ecological. The 3E machine is built as an entry-level model for standard applications with FIP (Formed-In-Place) sealing technology. FIP is the production standard for the automatic foam sealing, gluing and potting in many

industries. The 2-component polyurethane-based material is applied directly to the part, freely programmable and precise. The CE compliant dispensing cell 3E is delivered fully assembled, in a transport container. The 3E can therefore be put into operation immediately according to the Place, Plug & Work principle. Long set-up times and costs are therefore a thing of the past. For the contour-accurate application of seal foams or adhesives, the mixing head of the dispensing cell moves at a speed of up to 15 m/min, along the contours of switching cabinet parts in a range of 2500 x 1250 mm (width x depth). The height of the parts may be up to 250 mm.

The optionally available shuttle table of the 3E dispensing cell enables processing of parts on two mounting plates working in pendulum mode in one plane. This offers both continuous operation and short cycle times. For larger switch cabinet parts, the two tables can be connected to one large shuttle table.

(Source: Sonderhoff)

Dispensing cell 3E - the Place, Plug & Work entry-level model

Wide range of properties for indoor or outdoor use of switch cabinets

Switch cabinets and electrical enclosures provide the power distribution for industrial production and accommodate the control and safety electronics of highly automated production plants. The polyurethane foam seals Fermapor® K31 from Sonderhoff perfectly seal the control cabinet body and the doors so that moisture, splash water and dust do not penetrate the interior and damage the electronics. Sonderhoff offers manufacturers of switch cabinets a wide range of PU based sealant types with different properties for indoor or outdoor use: low installation and tack free times thanks to the very fast reacting Fast-Cure foams, high flame retardancy according to UL 94 HF-1 fire protection standard as well as good resilience of the foam seals, so

that the sealing effect is maintained even years later when the control cabinet door is always opened and closed again. In the overall design with the switch cabinet, high tightness is achieved according to the NEMA test classifications for North America or the IP classes (penetration protection) in Europe. In addition, the foam seals Fermapor® K31 comply with the US test standards UL 50E for switch cabinets and electronic housings in non-explosion-proof areas.

(Source: Sonderhoff)

Overall design of switch cabinet together with foam sealing achieves high tightness acc. to the NEMA and IP classes for penetration protection.

Fast-Cure foams for shortened installation times save costs

Already when developing sealing formulations, Sonderhoff also takes the specific production concepts of its customers into account. For example, even at the development of 2-component switch cabinet seals, it is important to optimally adapt the reaction behavior and pot life up to the start of foaming as well as the curing time of the foam seal to the production processes of the customers in switch cabinet construction.

In switch cabinet construction, among other things, the installation time is decisive, i.e. the time required for the foam seal to harden and only after which the foamed single parts are assembled to form a switch cabinet. Until final assembly, the

individual control cabinet parts - side panels, rear panel and doors - are usually stored in stacks for complete curing.

By using the very fast reacting polyurethane foam seals Fermapor® K31 Fast-Cure from Sonderhoff, tack free times of approx. 3 minutes and curing times of up to approx. 20 minutes are achieved compared to conventional seals with much longer times. The advantage is that part handling and further processing can start earlier. However, the times stated may vary due to temperature, processing and machine influences.

Thanks to the short installation times due to the use of Fast-Cure foams, individual parts only have to be stacked for a shorter period of time. This saves storage space and storage costs. Thanks to the significantly faster reaction behavior of Fermapor® K31 Fast-Cure foams at room temperature, there is also no need to invest in a furnace as it is necessary for curing 1-component foam seals.