eXtended Transport System in stainless steel for use in the food and pharmaceutical industries

**XTS in “Hygienic Design” for compact and highly flexible motion solutions with optimal cleanability**

XTS Hygienic, the stainless steel version of the eXtended Transport System from Beckhoff, opens up a wide spectrum of new applications, first and foremost in the primary food and pharmaceutical industries and for processing and filling liquids in general. Enabling optimal cleanability with the high protection rating of IP 69K, very good chemical resistance and without any hidden corners, edges or undercuts, the version in Hygienic Design offers a lot of potential for innovation in these industries. The advantages of the standard system as a highly flexible motion solution are combined with ease of cleaning, thus enabling process optimisations and maximum production line availability even when the demands made on hygiene are high.
The XTS replaces mechanics with software functionality to allow for a high degree of design freedom in realising completely new machine concepts. As a result, applications with difficult environmental conditions, such as in product handling for the food, pharmaceutical and cosmetic industries and in the production of paints and varnishes, will benefit from the new Hygienic Design.

**Benefits for machine builders and end users**

Through a significant reduction in mechanical engineering requirements, machines can be set up with the XTS more compactly, at a lighter weight and with less wiring. In addition, compared to conventional solutions, the systems are much more flexible, the processes quicker and maintenance needs lower. Thus, machine builders can now offer smaller, more powerful and more efficient systems and the end user benefits accordingly from a smaller footprint, higher productivity and quicker product switchovers.

These advantages become particularly apparent in the Hygienic Design environment because ease of cleaning is one of the highest priorities. With the XTS Hygienic, which is so much easier to clean compared to more complex mechanical systems, the routine cleaning tasks along with those for product switchover – which are optimally supported by the XTS as standard – can be performed much more quickly. And there’s more: up to now, it was virtually impossible to implement mechanical solutions at all in many applications due to their high requirements for cleaning – the XTS Hygienic now allows for the automation of many of these processes as well.

**Developed in close co-operation with the EHEDG**

The XTS Hygienic was developed in close co-operation with the European Hygienic Engineering & Design Group (EHEDG). As a result, it meets all the requirements for system certification according to EL Class I AUX. The most important properties of this stainless steel version include the high IP 69K protection class, which guarantees the highest-possible degree of protection against ingress of dust and water. In addition, it exhibits very good chemical stability so that the surfaces are able to stand up to surfactants, acidic and alkaline cleaning agents, different alcohols and disinfectants and even hydrogen peroxide.

The mechanical components used in the XTS are made of V4A stainless steel, while the seals and covers consist of very resistant plastic materials. In addition, all the joints between the individual components are protected against the ingress of dirt and liquid by a high-quality, elastic joint seal. Once installed, the XTS components form an even, smooth surface together with the machine that is easily accessible in all areas, which also makes it very easy to clean. These properties also apply to the movers, with the rollers placed at such a distance to the mover’s body that the gap can be cleaned with e.g. a finger. The rollers of the mover are sealed against the axis in such a way that it is possible to reliably prevent the ingress of dirt and any leakage of the bearing grease.