

Press Release

KBK at the Motek 2014

Pluggable miniature metal bellows couplings accelerate assembly- and disassembly processes

On the occasion of the trade fair Motek for automation of production and assembly, KBK introduces its miniature metal bellows couplings with axial pluggable and backlash-free connections for the first time. Like all the other KBK metal bellows couplings, the models of the new series KBP1, KBP2 and KBP3 are maintenance-free, torsion- and fatigue-resistant. On request, they are also available in stainless steel.

The small and extremely compact couplings convince with low inertia moment and a high torsion-resistance. Among others, they are used as interface in small rotary encoders as well as in servo drives that are normally used in micropositioning systems in medical technology or in machinery for semiconductor production.

“With the new, pluggable miniature metal bellows couplings we serve the market demand for ever smaller and more precise automation components with reduced assembly- and service-times. Furthermore, the pluggable couplings reduce stock keeping”, says Sven Karpstein, junior manager of KBK Antriebstechnik GmbH. His company is one of the few on the market that is able to produce this type of coupling cheaply, in a large variant variety and with high precision. Moreover, KBK is in a position, unlike their competitors, to realize very large bores in relation to the size. The bore diameter varies from 3 mm for the smallest and 25 mm for the largest pluggable miniature metal bellows couplings. The outer diameter of these “dwarf-couplings” is between 15,5 mm and 40,5 mm. The new miniature couplings cover a torque range from 0,5 Nm to 10 Nm.

Easy assembly

Thanks to the new pluggable connection, it is possible to work without mounting holes in the cover of motors and gearboxes as well as the complicated screw connection with the bores. After pre-assembly, the components can now be easily plugged together. Thereupon, they can be assembled and disassembled at any time without great effort. Due to fact that the pluggable hubs fit in every bellow body, the customer can minimize the stock keeping for couplings and it is possible to combine pluggable hubs with different bellow bodies according to the requirements.

Like their large “colleagues”, pluggable miniature metal bellows couplings use the axial spring stiffness of the metal bellow, to establish a durable backlash-free connection. This is effected by conical shaped pins located in 60° intervals reaching into their counterparts. For special applications, where an unintentional offset of the coupling for 60° should be excluded, KBK offers a synchronized plugging with a wider pin. Upon request pluggable miniature bellows coupling with keyways are also available.

The pluggable miniature metal bellows couplings are made of high-tensile aluminum. A special surface coating provides a better resistance and durability of the plugging system and optimizes the sliding properties as well. This way KBK does not only guarantee an easy assembly but also a quick and safe disassembly without damaging or destroying the metal bellow.

The new pluggable miniature metal bellows couplings will be exhibited at the Motek in hall 9, stand 9331.

Underline:

KBK now offers its pluggable torsion-resistant metal bellows couplings in a miniature format. The models of the new series KB1P, KB2P and KB3P are torsion-resistant, durable and maintenance-free. Upon request they are also available in stainless steel.

Keywords: KBK Antriebstechnik, miniature metal bellows couplings, easy assembly, automation components.