

## **ELBO – Flexible Pin-type Coupling**

### **– a revolutionary design – a new design concept**

**ELBO couplings from REICH-Kupplungen are flexible pin-type couplings and designed to compensate for axial, radial and angular shaft displacements. The ease of assembly due to being axial pluggable, as well as fail-safe and maintenance-free makes the ELBO an innovative flexible pin-type coupling.**

It is used in cable cars, mills, crushers and large compressors, amongst others. It is suitable for ambient temperatures from  $-40\text{ }^{\circ}\text{C}$  to  $+80\text{ }^{\circ}\text{C}$  and has a torque transmission of up to 1,300,000 Nm as standard. The ELBO does not use classic bolts with spherical elastomer elements for torque transmission, instead a special design has been developed. The elastomer is vulcanised onto an inner sleeve and an outer ring. This flexible element is guided by a slide bearing and thus enables axial float with very low restoring forces. At the same time, due to the vulcanisation, the elements are free of play and have reduced settling behaviour. The input and output sides of the coupling are of identical design. The flexible elements are designed and arranged in such a way that, especially for larger dimensions, they enable a considerably lighter and thus more cost-effective solution for the overall coupling compared to conventional designs.

### **D2C – a type to meet the customer's request**

Whilst the ELBO coupling has its own catalogue products, REICH-KUPPLUNGEN also develops special types true to the guiding principle of 'Designed to Customer' (D2C). Although the designs draw on ELBO's largely modular components, they are geared to the individual needs of customers in order to offer them efficient and effective practical solutions. For example, the shaft-hub connection is installed as a key connection in the standard ELBO version. However, connection types such as internally or externally tensioned shrink disk connections are also possible at the request of the customer. The coupling elements are also available in different stiffnesses.

“For one of our customers, we have now developed a particularly large ELBO coupling with an external diameter of 2.2 m, which with values of  $T_{KN} = 2,700,000\text{ Nm}$  and  $TK_{max} = 5,400,000\text{ Nm}$ , goes far beyond our catalogue standard,” reports CEO Dipl.-Ing. Christian Reich. For this customised solution, a clamping set integrated into the flange was used to achieve a very compact and significantly lighter coupling. Compared to the classic solution with a flange, hub and separate clamping set, approximately 40 % of material and thus weight could be saved. “The unique selling point of our ELBO couplings is the built-in slide bearing,” emphasises

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Christian Reich. This leads to lower axial restoring forces and less stress on the elastomer and the bearings of the coupled aggregate.

**REICH couplings are even available in rubber**

Our own rubber compounds are exclusively used in the ELBO couplings, as in all couplings from REICH-Kupplungen. The company's own development and optimisation of the elastomers used as well as the production of all machined components at REICH-KUPPLUNGEN is an essential quality factor for the well-known reliable couplings. "With our own test benches and state-of-the-art production technology, we manufacture high-quality and durable products for our customers' power transmission that will meet not least the high standards of REICH-Kupplungen - today and in the future".

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