Highly flexible couplings for fire pumps

Fire Pump Engine packages often see the most extreme environmental conditions. During the design and development phase it is imperative to analyze the system and validate the connection between the internal combustion engine and the driven pump. Reich has specifically designed a highly torsionally flexible coupling capable of supporting a drive shaft connection for the Fire Pump Industry.

For Fire Pump Applications driven by a combustion engine, a Reich highly flexible VSK coupling is an integral component for connecting the combustion engine to the right-angle gear drive of the fire pump system. By using the Reich AC-VSK highly flexible coupling, the drive train can be protected from dynamic overload, reduce resonance-induced vibratory torques and provide a convenient connection between the combustion engine and drive shaft.

The selection of the Reich AC-VSK coupling is initially sized based on the power ratings of the combustion engine. Reich offers nine sizes of AC-VSK couplings to cover the complete power range of the Fire Pump Industry. Once the coupling size has been determined, then we suggest that a torsional vibration analysis be performed to validate the coupling selection. Reich-KUPPLUNGEN performs this function as a service to its customers upon availability of the relevant power transmission data.

If the Fire Pump System is an electric driven stationary system, then Reich has the flexible Multi Mont Sella couplings available. The Multi Mont Sella couplings are also torsionally
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tilable but designed to provide a shaft to shaft connection between the electric
motor and driven equipment. The Multi Mont Sella couplings are designed to
cover a wide power range and provide a simple way to replace the rubber inserts.

Whether for Fire Pump application or other combustion engine applications,
REICH-KUPPLUNGEN offers a comprehensive range of couplings from which the
appropriate coupling can be selected for virtually any drive application. Customer-
specific solutions can furthermore be developed, and prototypes manufactured, in
line with the D2C (Designed to Customer) principle.

(Photo: AC-VSK coupling in fire pumps)