Installation and Operation Instructions for Gear Couplings POSIFLEX-ZEH

1. Installation

1.1. Prior to the installation, check whether all the coupling parts are available and remove corrosion protection products and grease.

1.2. Before aligning couplings with end float limitation, the 'zero position' of the shaft must at first be determined and marked on the machine without axial bearing, (for electric motors this is the 'magnetic mean' of the rotor).

1.3. Apply a thin coat of lubricant to the seal rings and insert them into the cleaned O-ring grooves in the O-ring carriers.

1.4. Slide the O-ring carriers with the paper seals onto the free shaft ends. Take care not to damage the seal rings.

1.5. Inductively heat the hubs in an oil bath or electric oven until the expansion necessary for mounting is reached (for standard models: 100° approx.).

1.6. Mount the hubs in the specified direction (observe asymmetrical position of the teeth) so that they are flush with the shaft ends. Take care that the seal ring in the casing does not contact the hot hub!

1.7. Apply a thin coat of lubricant (table 2) to the inner and outer teeth and slide the toothed sleeve over the longer shaft end.

1.8. Carefully align the shaft ends. The maximum permissible misalignment of the coupling hubs depends on the operation speed (table 1). Check hub distance and adjust it according to the dimension drawing or other approved drawing. Please consult Tschan in case of doubt.

Attention: Do not align to 'zero'! A slight offset is necessary to ensure proper lubrication.

1.9. In order to avoid damaging the seals, cover the setscrew threads in the hubs, if any, with adhesive tape. Slide the sleeve over both hubs. Insert the paper seals in between the sleeve and the O-ring carriers. Tighten the cheese head screws to the proper torque given in table 3. It must be possible to easily move the coupling casing in both directions by the dimension E/2.

1.10. Remove the screw plugs from the casing. Bring the screw openings into horizontal position and use a grease gun to fill in the lubricant until the latter comes out at the opposite bore. Re-install all the screw plugs.

1.11. In compliance with the provisions on the prevention of accidents, all freely moving parts must be covered by stationary protective devices.

2. Maintenance

2.1. Check every 3,000 operation hours whether the casing can easily be moved (item 1.9), and fill up lubricant (item 1.10).

2.2. Every 8.000 operation hours, or after 2 years, open up the coupling, inspect the teeth and the seal rings for wear or damages and check the alignment.
The position of the teeth to each other must not be changed. We recommend to mark the positions of hub and sleeve in order to ensure that the original assembly state is maintained!

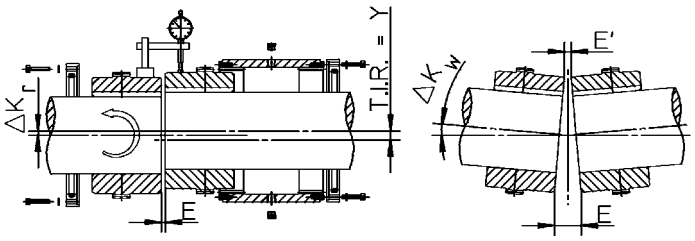

Table 1 – Max. Alignment Values

	Speed (rpm)									
	0 ... 250		250 ... 500		500 ... 1000		1000 ... 2000		2000 ... 4000	
ZEH ZEHU ZEHUU	Y	Δkw= E–E' (mm)	Y	Δkw= E–E' (mm)	Y	Δkw= E–E' (mm)	Y	Δkw= E–E' (mm)	Y	Δkw= E–E' (mm)
Size										
151.. 263	0,50	0,60	0,50	0,60	0,25	0,35	0,15	0,20	0,08	0,10
286.. 372	0,90	1,00	0,50	0,75	0,25	0,35	0,15	0,20	—	—

Table 2 – Recommended Lubricants

	Normal speed * and load	**Normal speed, * heavy load**	**High speeds**
Agip	Agip GR MU / EP1 Autol TOP 2000 W		
Chevron	Polyura grease EP0		
Esso	Fibrax 370		
Fina	Marson EPL1		
Gulf	Gulfcrown EP0		
Klüber	Grafloscon C-SG 500 Plus Klüberlub BVH 71-461	Grafloscon C-SG 500 Plus	Klüberplex GE 11-680
Mobil	Mobilith SHC 1500		
Pennzoil	Multi-Purpose 705		
Shell	Alvania grease EP R-0/EP1		
Texaco	Marfak 1 / Multifak EP0		
Total	Multi EP1		

- acc. to catalogue

Table 3 – Tightening torques for Cheese Head Screws

Coupling size	T (Nm) not lubricated	Screw size	Coupling size	T (Nm) not lubricated	Screw size
151	8	M5	263	13	M6
178	8	M5	286	33	M8
213	8	M5	316	33	M8
235	13	M6	372	33	M8