Assembly and Service Manual for POSIFLEX Gear Coupling

1. Assembly

1.1. Before assembly check that all parts are complete and remove any traces of preservatives and greases.

1.2. Before alignment can be carried out on couplings with restricted end play, the „zero position" of the machine shaft (the magnetic mean of the rotor where electric motors are concerned) must first be determined and marked on the machine without thrust bearing.

1.3. Lubricate the sealing rings lightly and insert them into the cleaned O-ring grooves in the casings.

1.4. Push the casing halves over the free shaft ends, taking care not to damage the sealing rings.

1.5. Using either an oil or electric furnace, evenly warm the toothed hubs inductively, until they have reached the dimensions required for assembly. (Using standard models ca. 100 °C).

1.6. Mount the hubs in the direction as stipulated in the design drawing, (carefully observing the asymetric toothing position), flush with the shaft ends. O-rings may not come in contact with the hot hubs! Check hub distances E, E1, E2 and adjust in accordance with the dimension sheet or using a scrutinised drawing as a basis. If in doubt, please consult us!

1.7. Align shaft ends carefully. The maximum permitted misalignment of the hubs depends on operating speed (table 1).

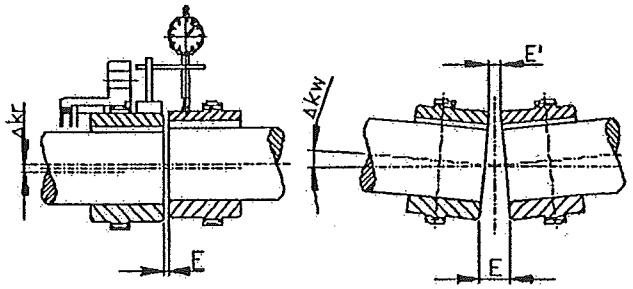
Attention: Do not align to zero! A little radial displacement which causes an angular deflection of about 0,1° is required to assure the lubrification!

1.8. Lubricate the internal and external toothing with a suitable lubricant (table 2) and push the two casing halves over the hubs. Cover threadholes in the hubs with adhesive tape to avoid damage of the sealings.

1.9. Insert sealing material between the casing flanges and tighten hexagon head bolts evenly, applying the exact tightening torque to the nuts (table 3). It must be possible to move freely the coupling casing a distance of dimension E/2 in both directions.

1.10. Unscrew the screw plugs of the casing halves and turn the screw holes on the opposite side horizontally. Using a grease gun inject lubricant into the holes until it comes out on the opposite bore hole. In the case of vertical design, the lubricant should be injected into the upper half of the casing at the position of the lower screw plug until it leaves at the upper ventilation bore. After successfully completing lubrication re-insert all screw plugs.

1.11. In accordance with accident prevention regulations all freely moving parts must be covered by fixed guard plates!



	Operating speed (rpm)									
	0 ... 250		250 ... 500		500 ... 1000		1000 ... 2000		2000 ... 4000	
ZEA ZEAU ZEAUU ZEAF ZEAZ ZEAS ZEAV	Δkr	Δkw= E–E'	Δkr	Δkw= E–E'	Δkr	Δkw= E–E'	Δkr	Δkw= E–E'	Δkr	Δkw= E–E'
Size										
67..130	0,25	0,25	0,25	0,25	0,25	0,25	0,15	0,20	0,08	0,10
151..263	0,50	0,60	0,50	0,60	0,25	0,35	0,15	0,20	0,08	0,10
286..432	0,90	1,00	0,50	0,75	0,25	0,35	0,15	0,20	—	—

Table 1 – also valid for types ZEB, ZEBU, ...

	* Normal speed and load	* Normal speed, heavy load	High speed
Agip	Agip GR MV / EP1		
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		
Pennzol	Multi Purpose 705		
Shell	Alvania grease EP R0 EP1		
Texaco	Marfak 1 / Multifak EP0		
Total	Multi EP1		

• „normal" relates to data given in catalogue

Table 2 – Recommended Lubricant

2. Service

2.1. Check axial backlash of casings after every 3.000 hours of operation (point 1.9) and refill with lubricant (point 1.10).

2.2. After every 8.000 hours of operation or every 2 years the coupling must be opened, the toothing and sealings checked for wear and damage and the alignment examined.

Size of coupling	T (Nm) ungreased	Size of fitting bolt	Size of coupling	T (Nm) ungreased	Size of fitting bolt
67	33,5	M 8x40	235	537	M20x80
87	66	M10x50	263	537	M20x100
106	112	M12x55	286	537	M20x100
130	277	M16x65	316	795	M24x85
151	277	M16x65	372	795	M24x85
178	537	M20x80	394	1855	M30x100
213	537	M20x80	432	1855	M30x110

Table 3 – Tightening torque