

ST4

WITH SIMPLE KEYWAY MOUNTING

2 - 165 KNm



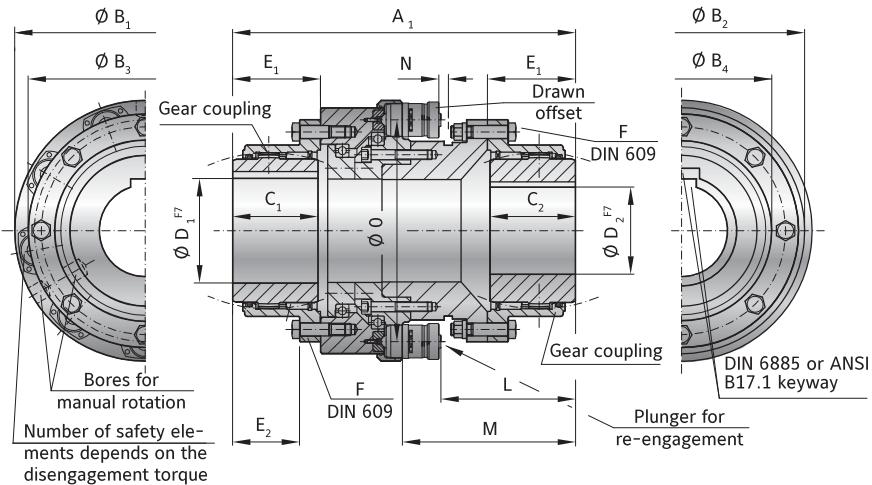
ABOUT

MATERIAL

- **Safety coupling portion:** hardened steel (nitrocarburized surface)
- **Gear coupling portion:** wear resistant high strength alloy steel (nitrocarburized surface)

DESIGN

With keyway connection (spline profile on request). Gear coupling for misalignment compensation. Safety elements evenly spaced around the circumference. Field adjustable within the specified range.



MODEL ST4

SIZE		10	25	60	160								
Adjustment range available from - to	(KNm)	2-6 3 x ST 15	4-12 6 x ST 15	6-18 9 x ST 15	3-8 3 x ST 15	5-16 6 x ST 15	10-25 9 x ST 15	11-20 3 x ST 30	22-40 6 x ST 30	35-60 9 x ST 30	25-55 3 x ST 70	50-110 6 x ST 70	80-165 9 x ST 70
Overall length	(mm)	A ₁ 377										850	
Flange outside diameter (ST portion)	(mm)	B ₁ 270										648	
Mounting flange outside diameter (ST portion)	(mm)	B ₂ 259										618	
Flange outside diameter (gear coupling)	(mm)	B ₃ 234										506	
Hub diameter (gear coupling)	(mm)	B ₄ 181										426	
Fit length/keyway length	(mm)	C _{1/2} 90										220	
Bore diameter Ø bis Ø F7	(mm)	D _{1/2} 40-112*										150-275*	
Length	(mm)	E ₁ 92.5										225	
Length	(mm)	E ₂ 70										196	
Screw DIN 609 12.9	(mm)	F 8 x M16										16 x M24	
Tightening torque	(mm)		280		650		650					1100	
Distance	(mm)	L 146		172		237						320	
Distance	(mm)	M 196		222		306						412	
Actuation path	(mm)	N 4		4		7.5						10	
Mounting diameter - elements	(mm)	O 220		270		376						532	
Moment of inertia (approx.) D max. (10^{-3} kgm 2)			545		1298		7547					39742	
Speed max.	(rpm)		2700		2300		1800					1500	
Approx. weight at D max.	(kg)		69		115		325					870	
Axial	(mm)		4		5		6					8	
Lateral	(mm)		6		7		8					10	
Angular	(Degrees)		1.2		1.2		1.2					1.2	

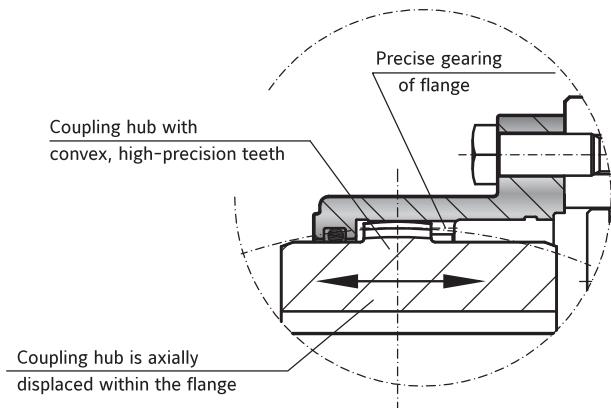
* larger bore diameters upon request.

FUNCTION OF THE GEAR COUPLING

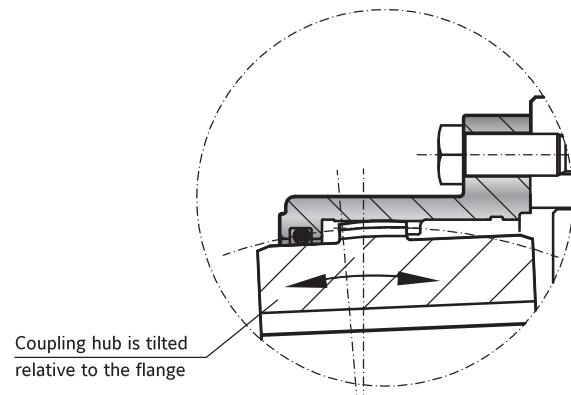
The high precision gearing of the coupling compensates for lateral, angular, and axial misalignment. The gearing transmits torque with minimal backlash and a high degree

of torsional rigidity. The precise geometry of the gearing ensures the performance of the coupling.

Axial misalignment



Angular and lateral misalignment



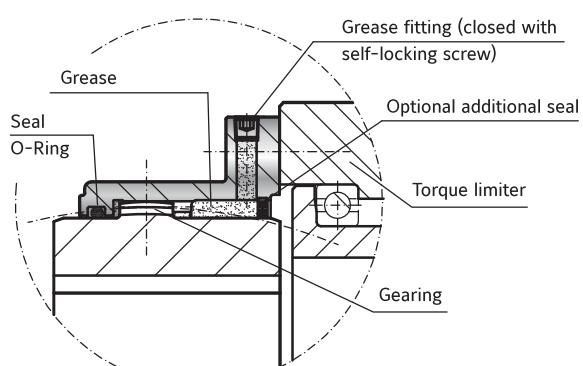
MAINTENANCE AND LUBRICATION

► **Note:** Lubrication of the gearing is very important to the service life of the coupling.
An additional seal (optional) ensures the lubrication of the gearing over a long period of time.

Use only high performance grease

RECOMMENDED LUBRICANTS

Normal speed	High speed
Castrol Impervia MDX	Caltex Coupling Grease
Esso Fibrax 370	Klüber Klüberplex GE 11-680
Klüber Klüberplex GE 11-680	Mobil Mobilgrease XTC
Mobil Mobilux EPO	Shell Albida GC1
Shell Alvania grease EP R-O or ER 1	Texaco Coupling Grease
Total Specis EPG	



For easier handling, the coupling will be shipped unassembled.

ORDERING EXAMPLE	ST4	025	10-25	15	100	120	XX
Model	●						
Size		●					
Adjustment range (KNm)			●				
Disengagement torque (KNm)				●			
Bore Ø D1 F7					●		
Bore Ø D2 F7						●	
For custom features place an XX at the end of the part number and describe the special requirements (e.g. ST4 / 025 / 10-25 / 15 / 100 / 120 / XX)							