



SIZES FROM 1,300 - 348,000 NM CROWNED GEAR COUPLINGS

GENERAL INFORMATION ABOUT R+W CROWNED GEAR COUPLINGS:

FIT CLEARANCE

Overall shaft / hub clearance of 0.01 - 0.05 mm

TEMPERATURE RANGE

-30 to +100° C; higher temperatures on request



CROWNED GEAR COUPLINGS

SIZES FROM 1,300 - 348,000 Nm

MODEL

FEATURES

BZ1



with keyway mounting

- ▶ high power density
- ▶ very low backlash
- ▶ economically priced
- ▶ low maintenance due to special crowned tooth design

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GENERAL INFORMATION

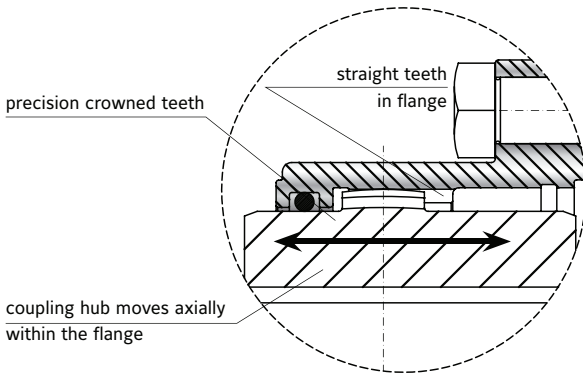
CROWNED GEAR COUPLINGS

FUNCTION OF THE GEAR COUPLING

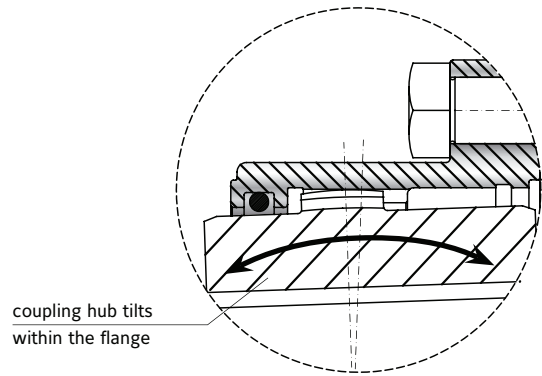
The precise integration of the coupling hub and intermediate flange allow for low backlash and highly rigid torque transmission, while compensating for lateral, axial, and

angular shaft misalignment. The crowned geometry of the gearing allows for a long life, even without the presence of misalignment.

Axial misalignment



Angular and lateral misalignment



BZ1

WITH KEYWAY MOUNTING

1,300 – 348,000 Nm



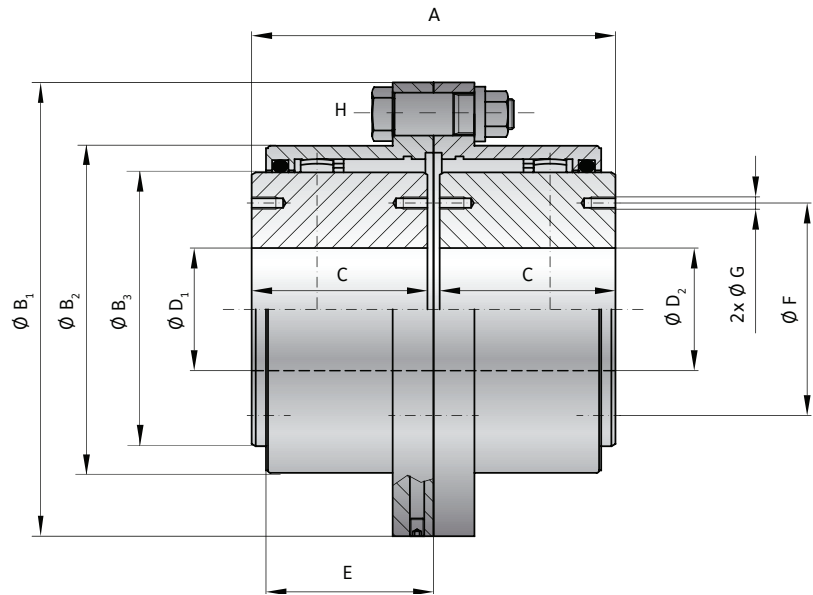
ABOUT

MATERIAL

Coupling made of burnished high strength steel

DESIGN

Hubs with keyway mounting or high precision cylindrical bore for interference fitting. Optional DIN 916 set screw for locking down onto shaft key.



MODEL BZ1

SIZE			10	25	50	100	150	200	300	450	600	800	1100	1700
Rated torque (Nm)	T_{KN}		1,300	2,800	5,000	10,000	16,000	22,000	32,000	45,000	62,000	84,000	115,000	174,000
Maximum torque (Nm)	T_{Kmax}		2,600	5,600	10,000	20,000	32,000	44,000	64,000	90,000	124,000	168,000	230,000	348,000
Overall length (mm)	A		89	103	127	157	185	216	246	278	308	358	388	450
Flange outside diameter (mm)	B_1		111	141	171	210	234	274	312	337	380	405	444	506
Flange hub outside diameter (mm)	B_2		80	103.5	129.5	156	181	209	247	273	307	338	368	426
Shaft hub outside diameter (mm)	B_3		67	87	106	130	151	178	213	235	263	286	316	372
Shaft fit length (mm)	C		43	50	62	76	90	105	120	135	150	175	190	220
Available bore diameters (from-to) H7 (mm)	D_1/D_2		10-45	15-60	25-75	30-95	35-110	50-130	60-155	75-175	85-195	95-215	115-240	145-275
Hub length (mm)	E		41	47	58.5	68.5	82	98	108.5	121	132	151.5	165	183.5
Diameter for handling screws (mm)	F		-	-	-	-	130	155	185	205	226	250	276	330
Handling screw size	G		-	-	-	-	2 x M8	2 x M8	2 x M10	2 x M12	2 x M16	2 x M16	2 x M16	2 x M20
Hex head screw (10.9)	H		6 x M8	8 x M10	6 x M12	6 x M16	8 x M16	8 x M20	8 x M20	10 x M20	10 x M20	14 x M20	14 x M24	16 x M24
Tightening torque (Nm)			33.5	66	112	277	277	537	537	537	537	537	795	795
Moment of inertia (kgm ²)			0.005	0.015	0.04	0.105	0.191	0.43	0.842	1.32	2.448	3.716	5.384	10.872
Approximate weight (kg)			4	7	14	25	37	60	90	118	169	224	277	414
Grease volume (dm ³)			0.05	0.07	0.13	0.21	0.36	0.52	0.8	0.98	1.51	2.02	2.43	3.29
Hub material			Steel	Steel	Steel	Steel	Steel	Steel	Steel	Steel	Steel	Steel	Steel	Steel
Axial misalignment (mm)			3	3	3	5	5	6	6	8	8	8	10	10
Angular misalignment (degrees)			2x0.75	2x0.75	2x0.75	2x0.75	2x0.75	2x0.75	2x0.75	2x0.75	2x0.75	2x0.75	2x0.75	2x0.75
Max. speed (rpm)			7000	6200	5650	5100	4700	4350	4000	3800	3600	3450	3300	3050

ORDERING EXAMPLE	BZ1	50	60.33	50	XX
Model	●				
Size		●			
Bore \varnothing D1 F7			●		
Bore \varnothing D2 F7				●	
Special designation only (e.g. special bore tolerance).					
For custom features place an XX at the end of the part number and describe the special requirements (e.g. BZ1 / 50 / 60.33 / 50 / XX)					

APPROVED LUBRICANTS

► **Note:** Proper lubrication is very important to the service life of the coupling. An optional seal may be included in order to extend lubrication periods.

High performance grease is recommended.

Normal speed and loads		High speed and loads	
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		

MAINTENANCE AND LUBRICATION

