



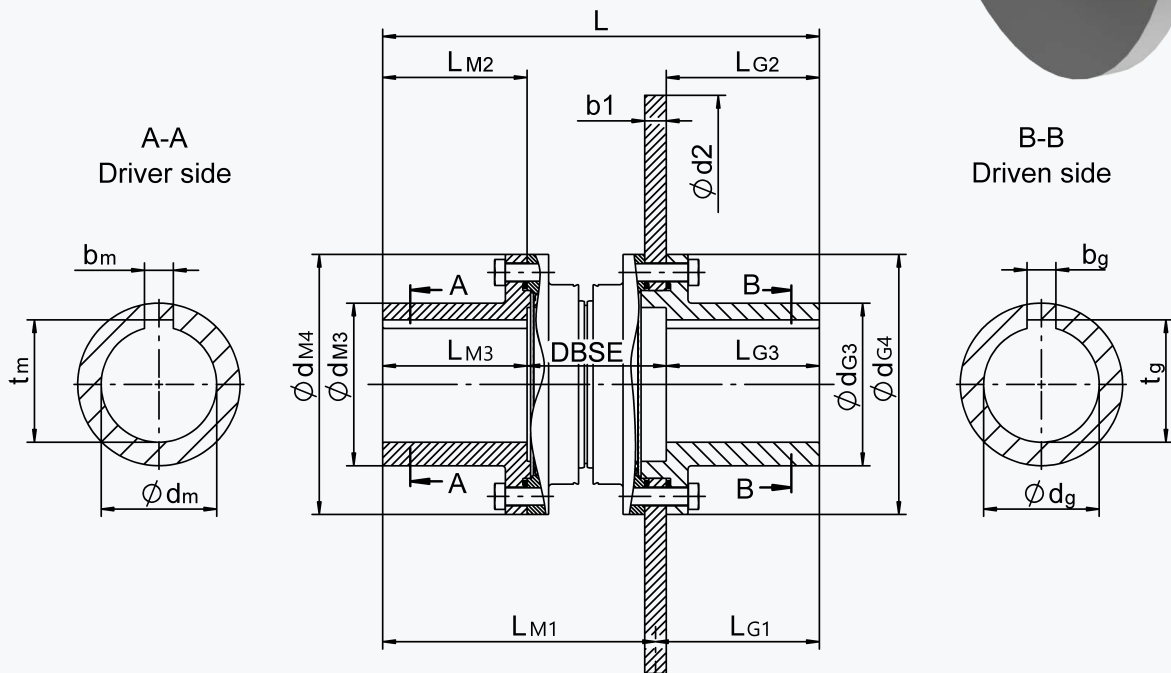
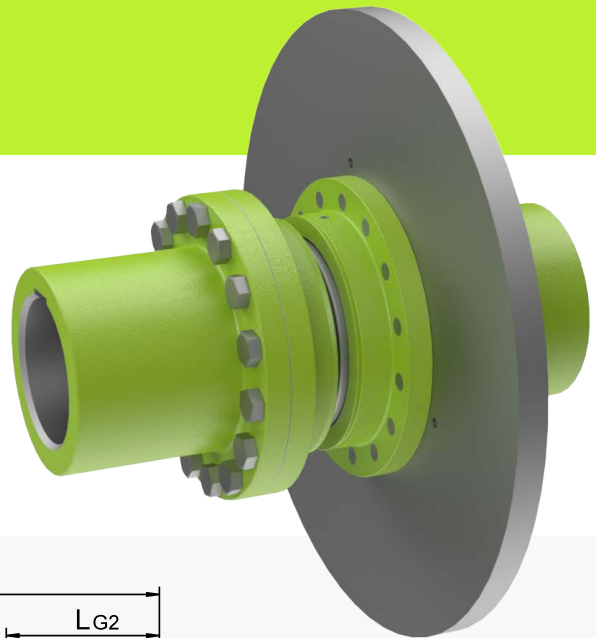
DELLNER BUBENZER

**GEAR COUPLING
TYPE KBSD**

TYPE KBSD

These couplings are for use in machinery where a torsionally rigid torque is required, especially on frequently varying loads and speeds.

T_{Kmax} : 168000 Nm



Key Function of KBSD Coupling

Key part of a gear coupling KBSD is the flexible center part with outer and inner toothing to accommodate misalignment between driver and driven side. Additionally axial displacements can be provided.

To avoid wear and high restoring forces, lubrication is necessary. The quantity and procedure to fill up lubrication is given in the operation manual.

An advantage of the KBSD is the possibility to change center part or brake disc without moving driver and driven machine.

For standard the balancing quality of all KBSD coupling parts are 40 gmm/kg.

The operation temperature is limited by standard grease and sealing from -20°C to 80°C.

Determination of Coupling Size

Crane and hoist are particular applications for gear couplings. Therefore a service factor has to be considered. The service factor depends on motor characteristics and the mass of the driven side. A common factor for crane and hoist application is 2,0 to 2,5, that has to be multiplied on the rated motor torque.

The maximum torque given for the gear coupling is intended to accommodate special torque events for limited occurrence. For more information please contact DELLNER BUBENZER.

After coupling size selection, flange connections of driver and driven side have to be checked. A feather key connection as well as a shrink fit connection is possible. In addition, braking torque and brake disc diameter must be compared with the permissible values. For support contact DELLNER BUBENZER.

Coupling type KBSD coupling size		65	80	100	120	140	170	190	210
T _{KN} *	Nm	3400	5800	9900	13800	21500	35600	52800	67200
T _{Kmax} *	Nm	8500	14500	24750	34500	53750	89000	132000	168000
n _{max} *	1/min	7000	6300	5200	4600	3900	3200	2800	2600
M _{Br} *	Nm	4000	5000	9250	15250	27500	36500	46000	63000
Radial misalignment	mm	±0,75	±0,85	±1,0	±1,1	±1,3	±1,4	±1,5	±1,6
Axial displacement	mm	±3,0	±3,0	±5,0	±6,0	±6,0	±8,0	±8,0	±8,0
d _{M4} / d _{G4}	mm	170	200	230	260	300	360	400	450
d _{m,max} / d _{g,max} **	mm	75	90	110	120	140	160	185	210
d _{M3} / d _{G3}	mm	110	134	160	180	200	225	265	300
L	mm	382	441	474	502	538	605	639	711
LM1	mm	240	259	292	315	351	378	412	456
L _{G1}	mm	142	182	182	187	187	227	227	255
LM2	mm	140	146	165	170	190	200	220	250
L _{G2}	mm	127	167	167	172	172	212	212	240
DBSE	mm	115	128	142	160	176	193	207	221
Lubrication per half	dm ³	0,020	0,025	0,030	0,045	0,075	0,10	0,13	0,18
Brake disc dimension d2 x b1		Weight Moment of inertia of complete coupling with steel brake disc							
355x30 n _{max} =4800 1/min	kg								
	kgm ²								
400x30 n _{max} =4300 1/min	kg	48	61						
	kgm ²	0,65	0,73						
450x30 n _{max} =3800 1/min	kg	56	69						
	kgm ²	1,0	1,1						
500x30 n _{max} =3400 1/min	kg	65	78	90					
	kgm ²	1,5	1,6	1,7					
560x30 n _{max} =3000 1/min	kg		90	102	122				
	kgm ²		2,4	2,5	2,8				
630x30 n _{max} =2750 1/min	kg		105	117	137	163			
	kgm ²		3,8	3,9	4,1	4,6			
710x30 n _{max} =2400 1/min	kg			137	157	182	232	287	
	kgm ²			6,1	6,4	6,8	8,1	9,6	
800x30 n _{max} =2200 1/min	kg				182	207	257	312	386
	kgm ²				9,9	10,4	11,6	13,2	15,8
900x30 n _{max} =1950 1/min	kg						289	343	417
	kgm ²						17,3	18,8	21,5

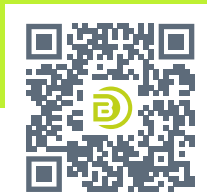
* This value is based on KBS-toothings with standard material and contains no service factor. Screw connection and brake disc limit the transmittable torque to a value M_{Br}.

** Larger bores on request

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DELLNER BUBENZER's trusted team of expert engineers rely on decades of experience to deliver superior products and braking systems for a multitude of industry-specific applications.

From full braking and coupling system design to the assessment and optimization of existing solutions, DELLNER BUBENZER's engineers offer a full suite of services including 3D conceptualization, technical documentation, customized testing, and development of prototypes.



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