

HITEX COUPLINGS



HBX GEAR COUPLINGS

HITEX
POWER TRANSMISSION COMPONENTS



GEAR COUPLINGS



Specifications

- Torque range
10 - 2.500 Nm
- Curved-tooth
- High torsional stiffness
- Double cardanic
- Maintenance-free

Coupling selection

The HBX gear coupling selection should be made according to DIN 740-2. Proper dimensioning of the coupling should be done to ensure that the permissible coupling load never is exceeded in any operating condition.

The largest possible load produced by rated torque T_N should be used as a basis. Verify the rated torque of the application (T_N) by the following formula:

$$T_N \text{ (Nm)} = 9550 \cdot \frac{P \text{ (kW)}}{n \text{ (rpm)}}$$

The nominal torque of the coupling should be equal or higher to the application torque taking the ambient temperature in consideration.

$$TK_N \geq T_N \cdot S_t$$

The maximum torque of the coupling should be equal or higher to the peak torque of the motor (T_s) multiplied by the servicefactors for temperature (S_t), starting frequency (S_z) and shocks (S_u).

$$T_{Kmax} \geq T_s \cdot S_t \cdot S_z \cdot S_u$$

Servicefactors

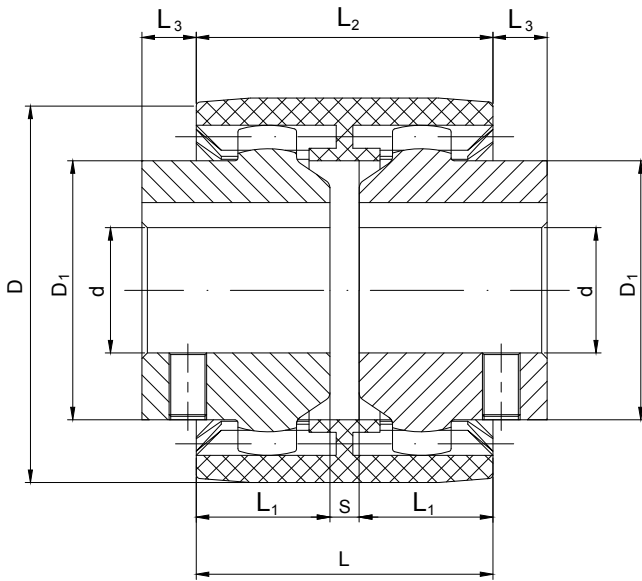
Servicefactor for starting frequency S_z				
Starting frequency per hour	100	200	400	800
S_z	1,0	1,2	1,4	1,6

Servicefactor for temperature S_t				
Temperature range	-30° C +60° C	+70° C	+80° C	+90° C
S_t	1,0	1,2	1,4	1,6

Servicefactor for shocks S_u	
Gentle shock load	1,5
Medium shock load	1,8
Heavy shock load	2,5

Shaft-hub connection

The shaft-hub connection should always be verified by the customer. The maximum torque of the drive should always be lower than the torque which the shaft-hub connection can bear. In case of keyway connection it is recommended to verify the permissible surface pressure of the coupling hub.



Technical			
Size	Displacements (n=1500 rpm)		
	Axial ±	Radial ±	Angular ±
	Δka (mm)	Δkr (mm)	Δkw (°)
14	1	0,30	1,0
19	1	0,30	1,0
24	1	0,35	0,9
28	1	0,35	0,9
32	1	0,35	0,9
38	1	0,40	0,9
42	1	0,40	0,9
48	1	0,40	0,9
65	1	0,45	0,7
80	1	0,45	0,6
100	1	0,45	0,6
125	1	0,45	0,4



HBX																
Size	Rated torque	Max. speed	Finish bore d ₁ ; d ₂		Dimensions (mm)								Weight with max. bore			
	T _{KN} (Nm)	n _{max} (1/min)	Pilot	Max.	D	D ₁	L	L ₁	Lengtened L ₁	L ₂	L ₃	S	Sleeve (kg)	Hub (kg)	Total (kg)	
14	10	14.000		14	40	24	50	23	40	37	6,5	4	0,02	0,06	0,14	
19	16	11.800		19	48	30	54	25	40	37	8,5	4	0,03	0,09	0,21	
24	20	10.600		24	52	36	56	26	50	41	7,5	4	0,04	0,11	0,25	
28	45	8.500		28	66	44	84	40	55	46	19	4	0,07	0,28	0,62	
32	60	7.500		32	76	50	84	40	55	48	18	4	0,09	0,37	0,83	
38	80	6.700		38	83	58	84	40	60	48	18	4	0,11	0,47	1,04	
42	100	6.000		42	92	65	88	42	60	50	19	4	0,14	0,64	1,41	
48	140	5.600		48	95	67	104	50	60	50	27	4	0,16	0,64	1,43	
65	380	4.000		65	132	95	114	55	70	68	23	4	0,39	1,60	3,58	
80	700	3.150	25	80	175	124	186	90	-	93	46,5	6	0,91	5,01	10,93	
100	1.200	3.000	35	100	210	152	228	110	-	102	63	8	1,36	9,06	19,47	
125	2.500	2.120	45	125	270	192	290	140	-	134	78	10	2,97	18,88	40,73	

Standard programme cylindrical finish bore [mm] H7 keyway to DIN 6885 sheet 1 [J9] with thread for setscrew																															
Size	Unbored	Ø8	Ø10	Ø11	Ø12	Ø14	Ø15	Ø16	Ø17	Ø18	Ø19	Ø20	Ø22	Ø24	Ø25	Ø28	Ø30	Ø32	Ø35	Ø38	Ø40	Ø42	Ø45	Ø48	Ø50	Ø55	Ø60	Ø65	Ø70	Ø75	
14	•	•	•	•	•	•	•																								
19	•		•	•	•	•	•	•	•	•	•	•																			
24	•		•	•	•	•	•	•	•	•	•	•	•																		
28	•					•	•	•	•	•	•	•	•	•	•																
32	•									•	•	•	•	•	•	•	•	•													
38	•									•	•	•	•	•	•	•	•	•	•	•											
42	•											•	•	•	•	•	•	•	•	•	•	•									
48	•														•	•	•	•	•	•	•	•	•	•							
65	•																•	•	•	•	•	•	•	•	•	•	•	•	•		
80	•																									•	•	•	•	•	•

PRODUCT GROUPS



Couplings



Locking Assemblies



Universal Joints



Clutches & Brakes



Brakes



Collars

Skilled to get your ideas fulfilled

HITEX is a range of power transmission components dedicated to add value to all OEM industrial creations.

HITEX is produced using the latest technology & rich experience of its factories to provide innovative and cost-effective engineered solutions.

Honored to have the opportunity to serve OEM customers worldwide, HITEX provides prompt and reliable deliveries to meet all aftersales requirements.

Our best technology is human

**European
Transmission
Company**

The **Powerful** Solution

European Transmission Company B.V.
Laan van de Ram 49
7324 BW Apeldoorn
The Netherlands
Tel. +31 (0)881 200 300
info@europeantransmissioncompany.eu
www.europeantransmissioncompany.eu

HITEX

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