

LP5

WITH CLAMPING HUB; SINGLE OR DUAL FLEX 350 - 50,000 Nm

S = single flex design



NEW

D = dual flex design



NEW

PROPERTIES

FEATURES

- ▶ easy installation
- ▶ keyway optional
- ▶ compensates for axial and angular misalignment only

MATERIAL

- ▶ **disc pack:** highly elastic spring steel
- ▶ **hubs:** high strength steel

DESIGN

Two precision machined split clamping hubs mounted to the disc pack by means of high strength screws and bushings for alignment and frictional clamping of the assembly.

From series 25,000 assembly screws/superbolts must be used.

PROPERTIES

FEATURES

- ▶ easy installation
- ▶ keyway optional
- ▶ compensates for axial, angular and lateral misalignment

MATERIAL

- ▶ **disc packs:** highly elastic spring steel
- ▶ **hubs and spacer:** high strength steel

DESIGN

Two precision machined split clamping hubs and spacer plate mounted to the disc packs by means of high strength screws and bushings for alignment and frictional clamping of the assembly.

MODEL LP5 S|D | SIZE 300 - 2600

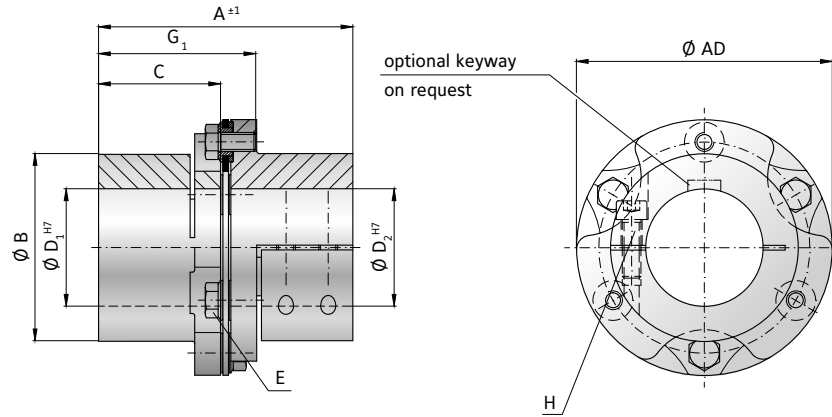
SIZE	300		500		700		1100		1600		2600			
	S	D	S	D	S	D	S	D	S	D	S	D		
Type														
Rated torque* (Nm)	T _{KN}		350		500		700		1,100		1,600		2,600	
Maximum torque* (Nm)	T _{KNmax}		700		1,000		1,400		2,200		3,200		5,200	
Overall length (mm)	A		95	123	113	141	134	172	151	192	178	224	189	236
Outside diameter (mm)	Ø AD		99		109		128		133		150		168	
Hub diameter (mm)	Ø B		72		80		89		95		103		122	
Hub fit length (mm)	C		45		54		64		72		85		90	
Bore diameter available from Ø to Ø H7 (mm)	D _{1/2}		18 - 48		23 - 50		25 - 58		25 - 60		28 - 64		31 - 75	
Assembly screw (ISO 4017) Tensioning nut (DIN 4032)	E		M8		M8		M10		M10		M12		M12	
Tightening torque (Nm)	G		35		40		65		95		150		165	
Distance between hubs (mm)	G		-	33	-	33	-	44	-	48	-	54	-	56
Assembly length (mm)	G ₁		63	50.3	72	50.3	84	61.4	96.8	66.4	114.2	77.5	119	77.5
Clamping screw (ISO 4762)	H		4 x M6		4 x M8		4 x M8		4 x M10		4 x M12		4 x M14	
Tightening torque (Nm)	J _{res.}		18		34		39		73		120		192	
Moment of inertia** (10 ⁻³ kgm ²)	J _{res.}		2	3	4	5	8	11	11	15	20	27	38	50
Weight** (kg)	C ₁		1.9	2.7	3	3.9	4.8	6.0	5.5	7.4	8.4	10.8	12.0	15.1
Torsional stiffness disc packs (kNm/rad)	C ₁		200	100	280	140	470	235	540	270	800	400	1,200	600
Axial ± (mm)	max. values		0.5	1.0	0.6	1.0	0.7	1.5	0.8	1.5	1.0	2.0	1.1	2.0
Lateral ± (mm)	max. values		-	0.2	-	0.2	-	0.3	-	0.3	-	0.4	-	0.4
Angular ± (degree)	max. values		0.7	1.4	0.7	1.4	0.7	1.4	0.7	1.4	0.7	1.4	0.7	1.4
Max. speed (min ⁻¹)			5,800		5,200		4,500		4,300		3,850		3,500	
Max. speed (balanced)*** (min ⁻¹)			13,500		12,300		10,500		10,000		8,950		8,000	

* maximum transmittable torque depends on the bore diameter | ** at maximum bore diameter | *** higher speeds on request

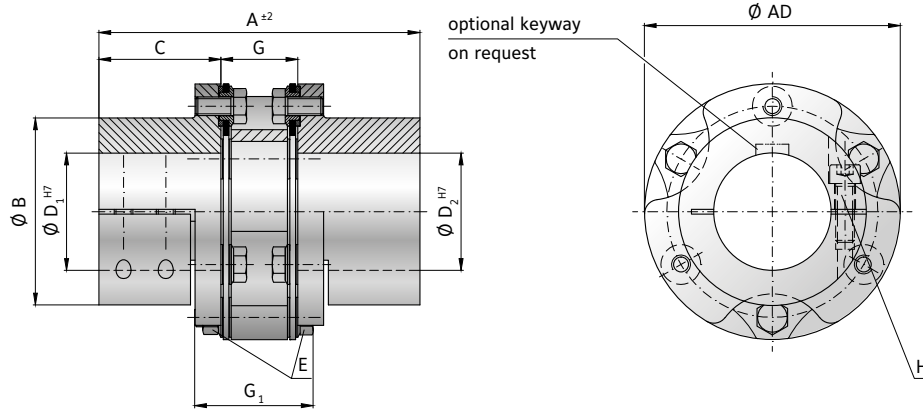
SIZE	Ø18	Ø20	Ø23	Ø25	Ø30	Ø35	Ø40	Ø45	Ø50	Ø55	Ø60	Ø70	Ø80	Ø90	Ø100	Ø120	Ø140	Ø150	Ø160	
300	170	190	220	240	290	340	390	430												
500			310	400	470	530	600	650												
700				390	470	550	630	710	790	870										
1100				590	710	830	950	1070	1190	1300	1430									
1600					980	1150	1310	1470	1640	1800	1970									
2600						1580	1800	2030	2250	2480	2700	3160								
4000								2300	2600	2800	3100	3400	4000	4600	5200					
6000								3200	3600	4100	4500	4900	5700	6500	7300					
8000										5100	8600	6100	7100	8100	9200	10200				
15000													9000	10000	11500	13000	15500	18000	19500	
25000																19000	23000	26500	28500	30500

Higher torque capacity possible with keyway or spline on request.

S = single flex design



D = dual flex design



MODEL LP5 S | D | SIZE 4000 - 25000

SIZE		4000		6000		8000		15000	
Type		S	D	S	D	S	D	S	D
Rated torque*	(Nm) T_{KN}	4,000		6,000		8,000		15,000	
Maximum torque*	(Nm) T_{KNmax}	8,000		12,000		16,000		30,000	
Overall length	(mm) A	217	274	237	302	268	349	324.7	396.4
Outside diameter	(mm) $\varnothing AD$	198		212		238		272	
Hub diameter	(mm) $\varnothing B$	137		151		168		182	
Hub fit length	(mm) C	102		112		126		155	
Bore diameter available from \varnothing to $\varnothing H7$	(mm) $D_{1/2}$	38 - 90		39 - 95		50 - 102		70 - 120	
Assembly screw (ISO 4017) Tensioning nut (DIN 4032)	E	M16		M16		M20		M20	
Tightening torque (Nm)		360		400		755		770	
Distance between hubs (mm)	G	-	70	-	78	-	97	-	86.4
Assembly length (mm)	G_1	142.1	100	152.1	110	176	132.5	205.4	132.5
Clamping screw (ISO 4762)	H	4 x M14		4 x M16		4 x M20		4 x M18	
Tightening torque (Nm)		246		395		615		500	
Moment of inertia** (10^{-3}kgm^2)	$J_{ges.}$	75	103	110	149	208	291	392	530
Weight** (kg)		17.3	22.5	22.5	29	34.1	44.8	49.3	62.8
Torsional stiffness disc packs (kNm/rad)	C_T	2,000	1,000	2,500	1,250	3,600	1,800	7,700	3,850
Axial \pm (mm)		1.3	2.5	1.3	2.5	1.3	2.5	1.5	3.0
Lateral \pm (mm)	max. values	-	0.5	-	0.5	-	0.6	-	0.7
Angular \pm (degree)		0.7	1.4	0.7	1.4	0.7	1.4	0.7	1.4
Max. speed (min^{-1})		2,900		2,700		2,400		2,100	
Max. speed (balanced)*** (min^{-1})		6,700		6,300		5,600		4,900	

* maximum transmittable torque depends on the bore diameter | ** at maximum bore diameter | *** higher speeds on request

ORDERING EXAMPLE	LP5	700	S	133	25.4	40	XX
Model	●						
Size		●					
Type (S or D)			●				
Overall length (mm)				●			
Bore diameter $\varnothing D1 H7$					●		
Bore diameter $\varnothing D2 H7$						●	
Special designation only (e.g. special bore diameter tolerances, balancing, etc.). Contact R+W for more information.							
For custom features place an XX at the end of the part number and describe the special requirements (e.g. LP5 / 700 / S / 133 / 25.4 / 40 / XX - balanced to 10,000 rpm)							