

# LP3

## WITH CONICAL CLAMPING RING

350 - 5,200 Nm



### PROPERTIES



#### FEATURES

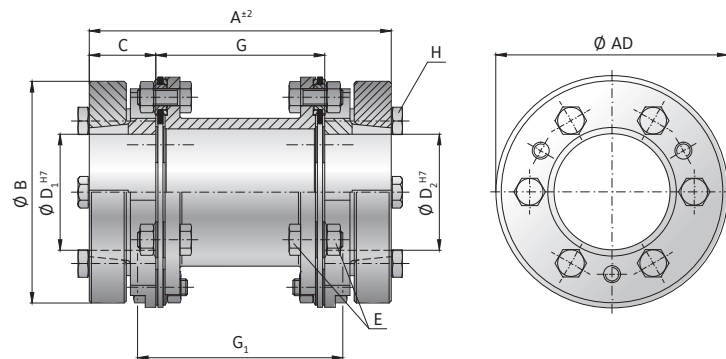
- ▶ high torsional stiffness
- ▶ customer specified length on request
- ▶ good for reversing loads

#### MATERIAL

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

#### DESIGN

Two precision machined coupling hubs with conical clamping ring and spacer mounted to the disc packs 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.



### MODEL LP3 | SIZE 300 - 2600

SIZE			300	500	700	1100	1600	2600
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	151	151	182	188	248	261
Outside diameter	(mm)	$\varnothing AD$	99	109	128	133	150	168
Hub diameter	(mm)	$\varnothing B$	95	105	122	130	146	165
Hub fit length	(mm)	C	35.5	35.5	43.5	46	56	63.5
Bore diameter available from $\varnothing$ to $\varnothing H7$	(mm)	$D_{1/2}$	24 - 50	24 - 55	30 - 65	30 - 65	35 - 70	35 - 85
Assembly screw (ISO 4017) / Tensioning nut (DIN 4032)		E	M8	M8	M10	M10	M12	M12
Tightening torque	(Nm)		35	40	65	95	150	165
Distance between hubs	(mm)	G	80	80	95	96	136	134
Assembly length	(mm)	$G_1$	100	100	121	118	170	166
Clamping screw	(ISO 4017)	H	6 x M8	6 x M8	6 x M10	6 x M10	6 x M12	6 x M12
Tightening torque	(Nm)		20	26	39	61	98	140
Moment of inertia**	( $10^{-3} \text{kgm}^2$ )	$J_{ges.}$	5	7	16	21	41	76
Weight**	(kg)		3.5	4.5	7.0	8.4	13.5	19.1
Torsional stiffness	( $10^3 \text{Nm/rad}$ )	$C_T$	60	80	130	150	210	290
Axial $\pm$	(mm)		1	1	1.5	1.5	2	2
Lateral $\pm$	(mm)	max. values	0.8	0.8	1	1	1.4	1.4
Angular $\pm$	(degree)		1.4	1.4	1.4	1.4	1.4	1.4
Max. speed	( $\text{min}^{-1}$ )		5,800	5,300	4,500	4,300	3,800	
Max. speed (balanced)***	( $\text{min}^{-1}$ )		11,200	10,200	8,700	8,300	7,400	6,600

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

SIZE	Ø24	Ø26	Ø30	Ø35	Ø40	Ø45	Ø50	Ø55	Ø60	Ø70	Ø80	Ø90	Ø100	Ø110	Ø120	Ø130	Ø140	Ø160	Ø180
300	330	360	420	490	560	630	700												
500	430	470	540	640	730	820	910	1000											
700			650	760	870	980	1090	1200	1310										
1100			1020	1190	1370	1540	1710	1880	2050										
1600				1610	1840	2070	2300	2530	2760	3200									
2600				2300	2620	2950	3280	3610	3940	4600	5200								
4000							4000	4400	4800	5600	6400	7200	8000						
6000							5400	6000	6500	7600	8700	9800	10900	12000					
8000								8300	9700	11100	12500	13900	15300						
15000										12000	14000	15500	17500	19000	21000	22500	24500	28000	
25000													28000	30500	33500	36000	39000	44500	50000

Higher torque capacity possible with keyway or spline on request.

# LP3

## WITH CONICAL CLAMPING RING

4,000 – 50,000 Nm



### PROPERTIES

#### FEATURES

- ▶ high torsional stiffness
- ▶ customer specified length on request
- ▶ good for reversing loads

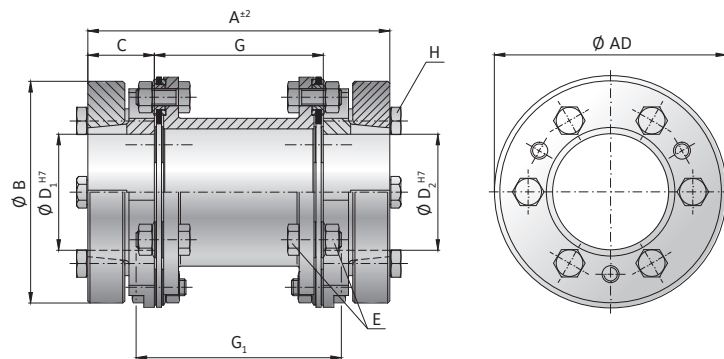
#### MATERIAL

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

#### DESIGN

Two precision machined coupling hubs with conical clamping ring and spacer mounted to the disc packs 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.



### MODEL LP3 | SIZE 4000 - 25000

SIZE			4000	6000	8000	15000	25000
Rated torque*	(Nm)	T <sub>KN</sub>	4,000	6,000	8,000	15,000	25,000
Maximum torque*	(Nm)	T <sub>KNmax</sub>	8,000	12,000	16,000	30,000	50,000
Overall length	(mm)	A	288	321	382	476	on request
Outside diameter	(mm)	Ø AD	198	212	238	299	372
Hub diameter	(mm)	Ø B	184	205	230	285	on request
Hub fit length	(mm)	C	74	80.5	105	123	124
Bore diameter available from Ø to Ø H7	(mm)	D <sub>1/2</sub>	50 - 100	50 - 110	60 - 115	70 - 170	on request
Assembly screw Tensioning nut	(ISO 4017) (DIN 4032)	E	M16	M16	M20	M24	M36
Tightening torque	(Nm)		360	400	755	1,200	72
Distance between hubs	(mm)	G	140	160	172	230	on request
Assembly length	(mm)	G <sub>1</sub>	178	198	226	295	on request
Clamping screw	(ISO 4017)	H	6 x M16	6 x M16	6 x M20	6 x M20	6 x M24
Tightening torque	(Nm)		225	308	490	620	,180
Moment of inertia**	(10 <sup>-3</sup> kgm <sup>2</sup> )	J <sub>ges.</sub>	149	225	456	1,344	on request
Weight**	(kg)		27.9	34.9	57.7	99.9	on request
Torsional stiffness	(10 <sup>3</sup> Nm/rad)	C <sub>T</sub>	470	570	800	1,400	2,960
Axial ±	(mm)		2.5	2.5	2.5	3	4
Lateral ±	(mm)	max. values	1.4	1.5	1.6	2.2	2.6
Angular ±	(degree)		1.4	1.4	1.4	1.4	1.4
Max. speed	(min <sup>-1</sup> )		2,900	2,700	2,400	1,900	1,500
Max. speed (balanced)***	(min <sup>-1</sup> )		5,600	5,200	4,700	3,700	3,000

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

ORDERING EXAMPLE	LP3	6000	321	50.8	75	XX
Model	●					Sonderanfertigungen (z.B. andere Gesamtlänge) on request möglich.
Size		●				
Overall length (mm)			●			
Bore diameter Ø D1 H7				●		
Bore diameter Ø D2 H7					●	

For custom features place an XX at the end of the part number and describe the special requirements (e.g. LP3 / 6000 / 321 / 50.8 / 75 / XX - F7 bore tolerance on D2)