

LP5

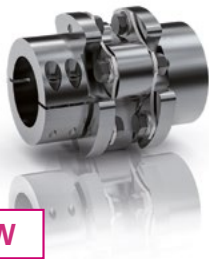
WITH CLAMPING HUB; SINGLE OR DUAL FLEX 350 - 50,000 Nm

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

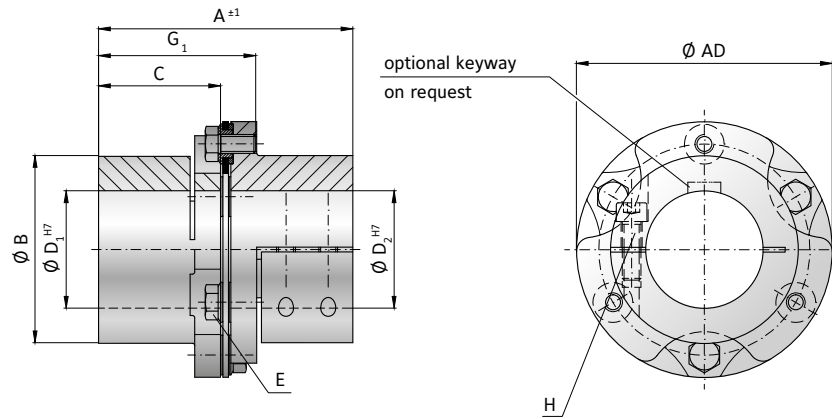
| SIZE | 300 | | 500 | | 700 | | 1100 | | 1600 | | 2600 | | | |
|--|--------------------|---|---------|------|---------|------|---------|------|---------|------|---------|------|---------|------|
| | S | D | S | D | S | D | S | D | S | D | S | D | | |
| Type | | | | | | | | | | | | | | |
| Rated torque* (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

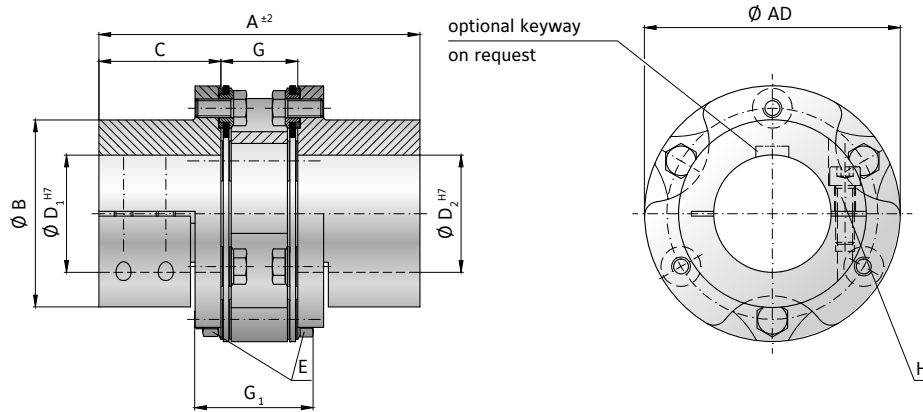
| SIZE | Ø18 | Ø20 | Ø23 | Ø25 | Ø30 | Ø35 | Ø40 | Ø45 | Ø50 | Ø55 | Ø60 | Ø70 | Ø80 | Ø90 | Ø100 | Ø120 | Ø140 | Ø150 | Ø160 | |
|-------|-----|-----|-----|-----|-----|------|------|------|------|------|------|------|------|-------|-------|-------|-------|-------|-------|-------|
| 300 | 170 | 190 | 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) | 4,000 | | 6,000 | | 8,000 | | 15,000 | | |
| Maximum torque* | (Nm) | 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) | Ø AD | 198 | | 212 | | 238 | | 272 | |
| Hub diameter | (mm) | Ø B | 137 | | 151 | | 168 | | 182 | |
| Hub fit length | (mm) | C | 102 | | 112 | | 126 | | 155 | |
| Bore diameter available from Ø to Ø 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 ± (mm) | | | 1.3 | 2.5 | 1.3 | 2.5 | 1.3 | 2.5 | 1.5 | 3.0 |
| Lateral ± (mm) | | max, values | - | 0.5 | - | 0.5 | - | 0.6 | - | 0.7 |
| Angular ± (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 Ø D1 H7 | | | | | ● | | |
| Bore diameter Ø 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) | | | | | | | |