

SP3

WITH EXTERNAL CLAMPING RING

60 – 10,000 Nm

NEW**High speed**

PROPERTIES

FEATURES

- ▶ very high balancing quality due to symmetrical design
- ▶ high operating speeds
- ▶ extremely smooth running

MATERIAL

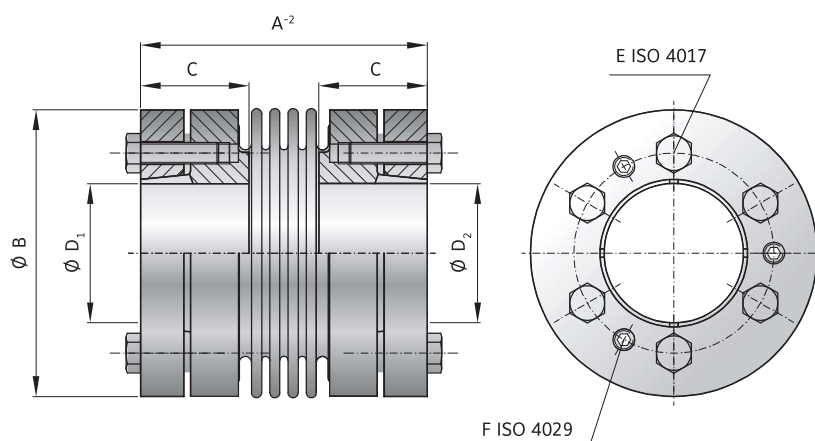
- ▶ **Bellows:** high grade stainless steel
- ▶ **Hubs and clamping ring:** steel

DESIGN

Two precision machined clamping ring hubs mounted concentrically to a flexible bellows. Brief overloads of up to 1.5x the rated torque are acceptable.

FIT CLEARANCE

Overall shaft / hub tolerance
0.01 - 0.025 mm



MODELL SP3

SERIE			60		150		200		300		500		800	1500	4000	6000	10000
Rated torque	(Nm)	T _{KN}	60		150		200		300		500		800	1,500	4,000	6,000	10,000
Overall length	(mm)	A ⁻²	66	76	75	87	76	88	89	103	97	111	117	133	195	250	300
Outside diameter	(mm)	B	66		81		90		110		124		133	157	200	253	300
Fit length	(mm)	C	25		30		32		36		40		40	53	65	86	95
Inside diameter possible from Ø to Ø H7	(mm)	D ₁ /D ₂	14-32		18-35		20-42		22-55		25-60		32-60	42-75	50-100	60-140	70-180
Fastening screw ISO 4017		E	6 x M5		6 x M6		6 x M6		6 x M8		6 x M8		6 x M10	6 x M10	6 x M12	6 x M16	8 x M16
Tightening torque of the fastening screw	(Nm)		8.5		14		14		30		35		50	60	120	260	295
Jack screw ISO 4017		F	3 x M5		3 x M6		3 x M6		3 x M8		3 x M8		3 x M10	3 x M10	3 x M12	3 x M16	4 x M16
Moment of inertia	(10 ⁻³ kgm²)	J _{ges}	0.58	0.60	1.6	1.62	2.42	2.52	6.38	6.56	10.35	10.67	10.9	24.3	107.9	466.2	1187.4
Approximate weight	(kg)		0.9	0.92	1.7	1.8	2.1	2.2	3.52	3.6	4.73	4.83	4.9	7.9	19.0	45.0	80.5
Torsional stiffness	(10 ³ Nm/rad)	C _T	76	55	175	110	191	140	450	350	510	500	780	1,304	3,400	5,700	10,950
Axial	± (mm)	max. values	1.5	2	2	3	2	3	2.5	3.5	2.5	3.5	3.5	3.5	3.5	3.0	3.0
Lateral	± (mm)		0.2	0.25	0.2	0.25	0.25	0.3	0.25	0.3	0.3	0.35	0.35	0.35	0.4	0.4	0.4
Angular	± (degree)		1	1.5	1	1.5	1	1.5	1	1.5	1	1.5	1.5	1.5	1.5	1.5	1.5
Axial spring stiffness	(N/mm)	C _a	72	48	82	52	90	60	105	71	70	48	100	320	565	1,030	985
Lateral spring stiffness	(N/mm)	C _l	1,200	420	1,500	435	2,040	610	3750	1,050	2,500	840	2,000	3,600	6,070	19,200	21,800
Speed standard	(min ⁻¹)	n	22,500		16,500		16,500		13,500		12,500		10,000	8,000	6,000	5,000	3,000

* Recommended fit pairing H7 / k6; H6 / j5 (short spindle); starting at $\emptyset$ 55 G7 / m6

ORDERING EXAMPLE	SP3	150	87	20	32	XX
Model	●					
Size		●				
Overall length mm			●			
Bore D1 H7				●		
Bore D2 H7					●	

For custom features place an XX at the end of the part number and describe the special requirements (e.g. SP3 / 150 / 87 / 20 / 32 / XX)

BELLOWS
COUPLINGS BK