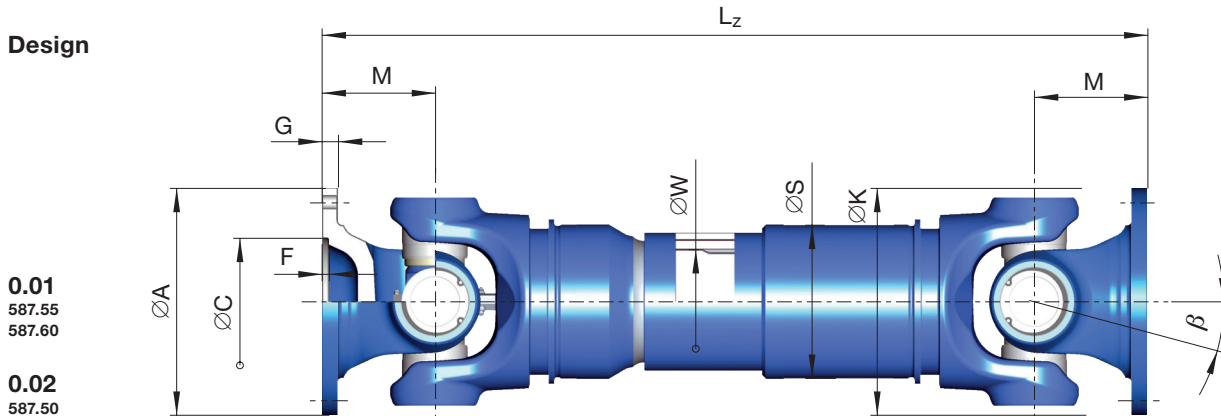


Data sheet series 587

0.01 with length compensation, tubular design
 0.02 with large length compensation, tubular design
 0.03 without length compensation, tubular design

9.01 with length compensation, short design
 9.02 with length compensation, short design
 9.03 with length compensation, short design
 9.04 without length compensation, double flange shaft design

Design



0.01
587.55
587.60

0.02
587.50

Shaft size		587.50		587.55		587.60	
T _{CS}	kNm	43		52		57	
T _{DW}	kNm	13		23 (18*)		23	
L _c	-	1,8		7,8		25,3	
β	°	24	24	20	20	20	20
A	mm	225	250	250	285	285	285
K	mm	215	215	250	250	265	265
B ± 0,1 mm	mm	196	218	218	245	245	245
B _s ± 0,1 mm	mm	-	214	214	-	240	-
C H7	mm	140	140	140	175	175	175
F ¹⁾	mm	4,4	5,4	5,5	6	6	6
G	mm	15	18	18	20	20	20
H + 0,2 mm	mm	16,1	18,1	18,1	20,1	20,1	20,1
H _s H12	mm	-	25	25	-	28	-
I ²⁾	-	8	8	8	8	8	8
I _s ³⁾	-	-	4	4	-	4	-
M	mm	108	108	125	125	135	135
S	mm	144 x 7	144 x 7	167,7 x 9,8	167,7 x 9,8	167,7 x 9,8	167,7 x 9,8
W DIN 5480	mm	90 x 2,5	90 x 2,5	120 x 2,5	120 x 2,5	120 x 2,5	120 x 2,5

* reduced torques for design 9.02 and 9.03

T_{CS} = Functional limit torque*
 If the permissible functional limit torque T_{CS} is to be fully utilized, the flange connection (e.g., with dowel pins) must be reinforced.
 Yield torque 30% over T_{CS}

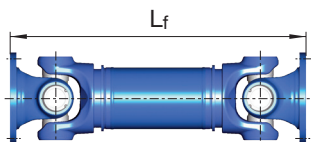
T_{DW} = Reversing fatigue torque*
L_c = Bearing capacity factor*
 * See specifications of driveshafts.
 β = Maximum deflection angle per joint

1) Effective spigot depth
 2) Number of flange holes (standard flange connection)
 3) Number of flange holes (dowel pin connection)

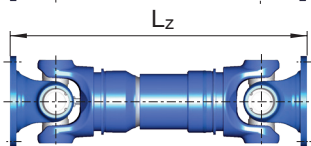
Data sheet series 587

Design

0.03

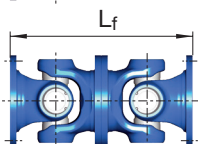


9.01



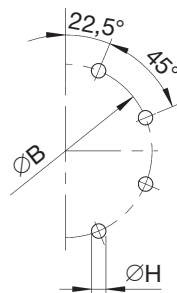
9.02

9.03

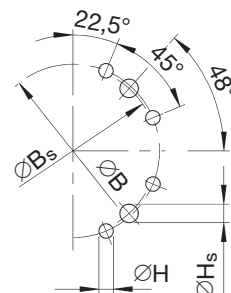


9.04

Standard flange connection



8-hole flange



8-hole flange

Dowel pin connection according to DIN 15451

Design	Shaft size	587.50				587.55				587.60			
0.01	L _{z min}	mm	-	-	840	934	840	934	870	964			
	L _a	mm	-	-	110	140	110	140	110	140			
	G	kg	-	-	131	137	136	142	145	151			
	G _R	kg	-	-	38,2	38,2	38,2	38,2	38,2	38,2			
	J _m	kgm ²	-	-	0,675	0,691	0,755	0,771	0,968	0,984			
	J _{mR}	kgm ²	-	-	0,239	0,239	0,239	0,239	0,239	0,239			
	C	Nm/rad.	-	-	9,41 x 10 ⁵	9,37 x 10 ⁵	9,41 x 10 ⁵	9,37 x 10 ⁵	1,05 x 10 ⁶	1,04 x 10 ⁶			
	C _R	Nm/rad.	-	-	2,43 x 10 ⁶	2,43 x 10 ⁶	2,43 x 10 ⁶	2,43 x 10 ⁶	2,43 x 10 ⁶	2,43 x 10 ⁶			
0.02*	L _{z min}	mm	800	800	1.185	1.185	1.185	1.185	1.215				
	L _{a min}	mm	110	110	300	300	300	300	300				
	G	kg	86	91	165	165	170	170	189				
	G _R	kg	23,7	23,7	38,2	38,2	38,2	38,2	38,2				
0.03	L _f	mm	540	540	610	610	610	610	640				
	G	kg	72	77	88	88	93	93	103				
	G _R	kg	23,7	23,7	38,2	38,2	38,2	38,2	38,2				
	J _m	kgm ²	0,27	0,306	0,547	0,547	0,627	0,627	0,84				
	J _{mR}	kgm ²	0,111	0,111	0,239	0,239	0,239	0,239	0,239				
	C	Nm/rad.	7,2 x 10 ⁵	7,2 x 10 ⁵	9,8 x 10 ⁵	9,8 x 10 ⁵	9,8 x 10 ⁵	9,8 x 10 ⁵	11,5 x 10 ⁵				
	C _R	Nm/rad.	11,33 x 10 ⁵	11,33 x 10 ⁵	2,43 x 10 ⁶	2,43 x 10 ⁶	2,43 x 10 ⁶	2,43 x 10 ⁶	2,43 x 10 ⁶				
9.01	L _{z min}	mm	-	-	813	813	813	813	843				
	L _a	mm	-	-	100	100	100	100	100				
	G	kg	-	-	110	110	115	115	142				
	J _m	kgm ²	-	-	0,64	0,64	0,72	0,72	0,93				
	C	Nm/rad.	-	-	8,8 x 10 ⁵	8,8 x 10 ⁵	8,8 x 10 ⁵	8,8 x 10 ⁵	9,7 x 10 ⁵				
9.02	L _z	mm	-	-	780	780	780	780	810				
	L _a	mm	-	-	65	65	65	65	70				
	G	kg	-	-	108	108	113	113	125				
9.03	L _z	mm	550	600	650	696	550	600	650	696			
	L _a	mm	60	75	90	110	60	75	90	110			
	G	kg	61	66	68	70	66	71	73	75			
9.04	L _f	mm	432				432				500	500	540
	G	kg	58				68				81	91	110

L_{z min} = Shortest possible compressed length
 L_a = Length compensation
 L_{f min} = Shortest fixed length
 L_z + L_a = Maximum operating length

G = Weight of shaft
 G_R = Weight per 1.000 mm tube
 J_m = Moment of inertia
 J_{mR} = Moment of inertia per 1.000 mm tube

C = Torsional stiffness of shaft without tube
 C_R = Torsional stiffness per 1.000 mm tube
 * Larger length compensation available on request