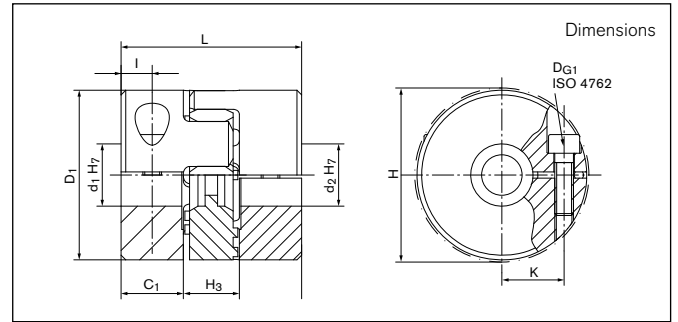


**Backlash-free Servo-Insert Couplings**

# Series GWE 5103



**Dimensions**

**d<sub>1</sub>, d<sub>2min</sub>** = Min. bore diameter

**d<sub>1</sub>, d<sub>2max</sub>** = Max. bore diameter

**d<sub>1</sub>, d<sub>2min</sub>** = Min. bore diameter with keyway

**d<sub>1</sub>, d<sub>2max</sub>** = Max. bore diameter with keyway

**C<sub>1</sub>** = Guided length of shaft boring d<sub>1</sub>

**D<sub>1</sub>** = Outer diameter

**H** = Clearance diameter

**H<sub>3</sub>** = Length of damping part (bellow/elastomer)

**I** = Distance between clamping screw hole and hub end

**K** = Distance shaft axis - clamping screw axis

**L** = Total length of coupling

Size	d <sub>1</sub> ; d <sub>2</sub> min-max		C <sub>1</sub>	D <sub>1</sub>	H	H <sub>3</sub>	I	K	L
	Without keyway	With keyway							
	mm	mm	mm	mm	mm	mm	mm	mm	mm
7	3 - 7	6 - 7	6	14	16,5	8	3	5	20
9	4 - 11	6 - 11	8	19,5	23	10	4	7,5	26
12	4 - 12	6 - 12	7	25	26	12	3,5	8,5	26
14	5 - 15	6 - 15	9,5	29,5	33	13	5	10,5	32
19	8 - 22	8 - 22	17	39,5	43	16	6	15	50
24	10 - 31	10 - 31	20	54,5	56	18	10	20	58
28	14 - 35	14 - 35	21,5	64,5	67	19	11	23,5	62
38	15 - 46	15 - 46	31	79,5	88	23	13	30	85
42	20 - 56	20 - 56	38	94,5	95	26	14	35	102

Moment of inertia and weight (mass) are calculated with reference to the largest bore size.



**Backlash-free Servo-Insert Couplings**
**Series GWE 5103**
**Technical Data**

**T** = Transmissible torque of given  $T_A$   
**H<sub>es</sub>** = Standard hardness of the elastomeric star

**n<sub>max</sub>** = Max. rotation speed  
**J** = Total moment of Inertia  
**Gw** = Weight

**D<sub>G1</sub>** = Thread  
**T<sub>A1</sub>** = Tightened torque of clamping screw

Size	T	H <sub>es</sub>	n <sub>max</sub>	J	Gw	D <sub>G1</sub>	T <sub>A1</sub>
	Nm		1/min	10 <sup>-3</sup> Kgm <sup>2</sup>	kg	mm	Nm
7	1,2	92 SH A	27000	0,0001	0,006	1 x M2	0,35
9	3	92 SH A	19000	0,0002	0,019	1 x M2,5	0,75
12	5	92 SH A	15000	0,00223	0,023	1 x M3	1,5
14	12,5	98 SH A	13000	0,006	0,049	1 x M4	5
19	17	98 SH A	10000	0,029	0,12	1 x M5	10
24	60	98 SH A	7000	0,121	0,28	1 x M6	18
28	160	98 SH A	6000	0,236	0,355	1 x M8	36
38	325	98 SH A	5000	0,797	0,85	1 x M10	84
42	450	98 SH A	4000	1,779	1,5	1 x M10	84

**Bore range / Torque values**

Size	Ø3	Ø4	Ø5	Ø6	Ø8	Ø10	Ø12	Ø14	Ø15	Ø18	Ø20	Ø25	Ø26	Ø28	Ø30	Ø35	Ø40	Ø45	Ø50	Ø55	Ø56
7	0,7	0,9	1,1	1,2	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
9	---	1,7	2,1	2,4	3	3	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
12	---	2,9	3,6	4,2	5	5	5	---	---	---	---	---	---	---	---	---	---	---	---	---	---
14	---	---	9	10,6	12,5	12,5	12,5	12,5	12,5	---	---	---	---	---	---	---	---	---	---	---	---
19	---	---	---	---	17	17	17	17	17	17	17	---	---	---	---	---	---	---	---	---	---
24	---	---	---	---	---	43,9	51,8	60	60	60	60	60	60	60	60	---	---	---	---	---	---
28	---	---	---	---	---	---	---	92	98	115	126	153	159	160	160	160	---	---	---	---	---
38	---	---	---	---	---	---	---	---	191	226	248	302	312	325	325	325	325	325	---	---	---
42	---	---	---	---	---	---	---	---	---	---	250	305	316	337	358	409	450	450	450	450	450

Bore range  $d_1/d_2$  and corresponding transmissible torque values (Nm) of the coupling.

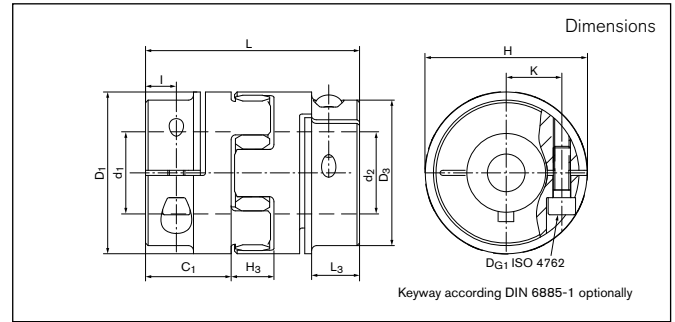
**Ordering example: GWE 5103**

Series/Size	Bore diameter $d_1$	Bore diameter $d_2$	Further details
GWE 5103-42	20	44	*

\* Keyway or stainless steel

**Backlash-free Servo-Insert Couplings**

# Series GWE 5104



**Dimensions**

- |                                                                     |                                                                  |                                                             |
|---------------------------------------------------------------------|------------------------------------------------------------------|-------------------------------------------------------------|
| <b>d<sub>1</sub>, d<sub>2min</sub></b> = Min. bore diameter         | <b>D<sub>1</sub></b> = Outer diameter                            | <b>I</b> = Distance between clamping screw hole and hub end |
| <b>d<sub>1</sub>, d<sub>2max</sub></b> = Max. bore diameter         | <b>D<sub>3</sub></b> = Outer diameter of the hub base            | <b>K</b> = Distance shaft axis - clamping screw axis        |
| <b>d<sub>1k</sub>, d<sub>2kmin</sub></b> = Min. bore diameter       | <b>H</b> = Clearance diameter                                    | <b>L</b> = Total length of coupling                         |
| <b>d<sub>1k</sub>, d<sub>2kmax</sub></b> = Max. bore diameter       | <b>H<sub>3</sub></b> = Length of damping part (bellow/elastomer) | <b>L<sub>3</sub></b> = Section length of hub                |
| <b>C<sub>1</sub></b> = Guided length in shaft boring d <sub>1</sub> |                                                                  |                                                             |

Size	d <sub>1</sub> ; d <sub>2</sub> min-max		C <sub>1</sub>	D <sub>1</sub>	D <sub>3</sub>	H	H <sub>3</sub>	I	K	L	L <sub>3</sub>
	Without keyway	With keyway									
	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm
14	5 - 16	5 - 16	11	30	---	32,2	13	5	11	35	---
19	6 - 20	6 - 20	25	40	---	46	16	12	14,5	66	---
24	10 - 32	10 - 32	30	55	---	57	18	10,5	20	78	---
28	10 - 38	10 - 38	35	65	---	71	20	11,5	24,5	90	---
38	12 - 48	12 - 48	45	80	---	83	24	15,5	30	114	---
42	14 - 54	14 - 54	50	95	85	95	26	18	32,5	126	28
48	15 - 60	15 - 60	56	105	95	106	28	21	37	140	32
55	35 - 74	35 - 74	65	120	---	120	30	26	45	160	---
65	35 - 80	35 - 80	75	135	---	135	35	28	50	185	---
75	30 - 95	30 - 95	85	160	---	160	40	36	60	210	---

Moment of inertia and weight (mass) are calculated with reference to the largest bore size.







**Backlash-free Servo-Insert Couplings**
**Series GWE 5106**
**Technical Data**
**T** = Transmissible torque at given  $T_A$ 
**H<sub>es</sub>** = Standard hardness of the elastomeric star

**n<sub>max</sub>** = Max. rotation speed

**J** = Total moment of inertia

**Gw** = Weight

**D<sub>G1</sub>** = Thread

**T<sub>A1</sub>** = Tightened torque of clamping screw (D<sub>G1</sub>)

Size	T	H <sub>es</sub>	n <sub>max</sub>	J	Gw	D <sub>G1</sub>	T <sub>A1</sub>
	Nm		1/min	10 <sup>-3</sup> Kgm <sup>2</sup>	kg	mm	Nm
14	12,5	98 SH A	13000	0,006	0,042	2 x M3	2
19	17	98 SH A	10000	0,036	0,158	2 x M6	11
24	60	98 SH A	7000	0,15	0,304	2 x M6	15
28	160	98 SH A	6000	0,33	0,505	2 x M8	32
38	325	98 SH A	5000	0,96	0,934	2 x M8	38
42	450	98 SH A	4000	4,92	3,8	2 x M10	84
48	525	98 SH A	3600	8,26	4,9	2 x M12	145
55	685	98 SH A	3150	19,15	10,2	2 x M12	145
65	940	95 SH A	2800	30,72	13,7	2 x M12	145
75	1920	95 SH A	2350	66,68	21,34	2 x M16	295

**Bore range / Torque values**

Size	Ø5	Ø6	Ø8	Ø10	Ø12	Ø14	Ø16	Ø20	Ø25	Ø30	Ø35	Ø40	Ø45	Ø50	Ø55	Ø60	Ø65	Ø70	Ø80	Ø90	Ø95
14	3,7	4,4	5,9	7,4	8,8	10,3	11,8	---	---	---	---	---	---	---	---	---	---	---	---	---	---
19	---	12,6	17	17	17	17	17	17	---	---	---	---	---	---	---	---	---	---	---	---	---
24	---	---	---	29	34	40	46	57	60	60	---	---	---	---	---	---	---	---	---	---	---
28	---	---	---	46	55	65	74	92	116	139	162	---	---	---	---	---	---	---	---	---	---
38	---	---	---	---	66	77	88	110	137	165	192	219	247	---	---	---	---	---	---	---	---
42	---	---	---	---	---	139	159	198	248	298	347	397	446	---	---	---	---	---	---	---	---
48	---	---	---	---	---	---	233	292	364	437	510	525	525	525	525	---	---	---	---	---	---
55	---	---	---	---	---	---	---	---	---	---	510	583	656	685	685	685	685	685	---	---	---
65	---	---	---	---	---	---	---	---	---	---	510	583	656	728	801	874	940	940	940	---	---
75	---	---	---	---	---	---	---	---	---	---	783	895	1007	1119	1231	1343	1455	1567	1790	1920	1920

 Bore range  $d_1/d_2$  and corresponding transmissible torque values (Nm) of the coupling.

**Ordering example: GWE 5106**

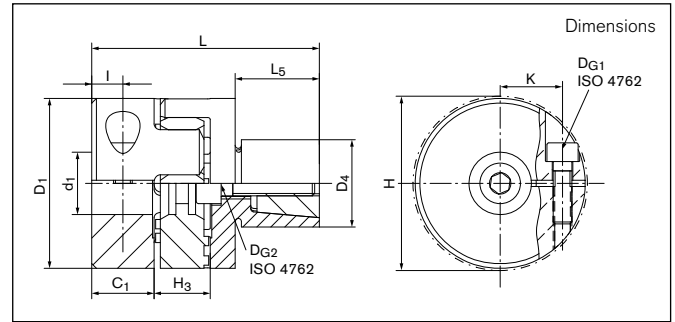
Series/Size	Bore diameter $d_1$	Bore diameter $d_2$	Further details
GWE 5106-42	40	44	*

\* Keyway

Subject to technical changes.

**Backlash-free Servo-Insert Couplings**

# Series GWE 5107



**Dimensions**

- |                                                                     |                                                                  |                                                             |
|---------------------------------------------------------------------|------------------------------------------------------------------|-------------------------------------------------------------|
| <b>d<sub>1min</sub></b> = Min. bore diameter                        | <b>D<sub>1</sub></b> = Outer diameter                            | <b>I</b> = Distance between clamping screw hole and hub end |
| <b>d<sub>1max</sub></b> = Max. bore diameter                        | <b>D<sub>4</sub></b> = Outer diameter of the hub base            | <b>K</b> = Distance shaft axis - clamping screw axis        |
| <b>d<sub>1kmin</sub></b> = Min. bore diameter with keyway           | <b>H</b> = Clearance diameter                                    | <b>L</b> = Total length of coupling                         |
| <b>d<sub>1kmax</sub></b> = Max. bore diameter with keyway           | <b>H<sub>3</sub></b> = Length of damping part (bellow/elastomer) | <b>L<sub>5</sub></b> = Expanding mandrel                    |
| <b>C<sub>1</sub></b> = Guided length in shaft boring d <sub>1</sub> |                                                                  |                                                             |

Size	d <sub>1</sub> min-max		C <sub>1</sub>	D <sub>1</sub>	D <sub>4</sub>	H	H <sub>3</sub>	I	K	L	L <sub>5</sub>
	Without keyway	With keyway									
	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm
9	4 - 11	6 - 11	8	19,5	10-15	22,5	10	4	7,3	34	12
12	4 - 12	6 - 12	7	25	10 - 15	26	12	3,5	8,5	38	12
14	5 - 15	6 - 15	9,5	29,5	13-25	33	13	5	10,5	48	20
19	8 - 22	8 - 22	17	39,5	14-30	43	16	6	15	65	25
24	10 - 31	10 - 31	20	54,5	23-36	56	18	10	20	73	27
28	14 - 35	14 - 35	21,5	64,5	26-42	67	19	11	23,5	83	32

Moment of inertia and weight (mass) are calculated with reference to the largest bore size.

**Backlash-free Servo-Insert Couplings**
**Series GWE 5107**
**Technical Data**

**T** = Transmissible torque at given  $T_A$   
**H<sub>es</sub>** = Standard hardness of the elastomeric star  
**n<sub>max</sub>** = Max. rotation speed

**J** = Total moment of inertia  
**Gw** = Weight  
**D<sub>G1</sub>, D<sub>G2</sub>** = Thread

**T<sub>A1</sub>** = Tightened torque of clamping screw (D<sub>G1</sub>)  
**T<sub>A2</sub>** = Tightened torque of clamping screw (D<sub>G2</sub>)

Size	T	H <sub>es</sub>	n <sub>max</sub>	J	Gw	D <sub>G1</sub>	T <sub>A1</sub>	D <sub>G2</sub>	T <sub>A2</sub>
	Nm		1/min	10 <sup>-3</sup> Kgm <sup>2</sup>	kg	mm	Nm	mm	Nm
9	3	92 SH A	19000	0,002	0,04	1 x M2,5	0,75	1 x M4	4
12	5	92 SH A	15000	0,0046	0,063	1 x M3	1,5	1 x M4	4
14	12,5	98 SH A	13000	0,011	0,11	1 x M4	5	1 x M5	9
19	17	98 SH A	10000	0,045	0,26	1 x M5	10	1 x M6	12
24	60	98 SH A	7000	0,164	0,51	1 x M6	18	1 x M8	32
28	160	98 SH A	6000	0,373	0,83	1 x M8	43	1 x M10	60

**Bore range / Torque values**

Size	Ø4	Ø5	Ø6	Ø8	Ø10	Ø12	Ø14	Ø15	Ø18	Ø20	Ø25	Ø26	Ø28	Ø30
9	1,7	2,1	2,4	3	3	---	---	---	---	---	---	---	---	---
12	2,9	3,6	4,5	5	5	5	---	---	---	---	---	---	---	---
14	---	9	11	12,5	12,5	12,5	12,5	13	---	---	---	---	---	---
19	---	---	---	17	17	17	17	17	17	17	---	---	---	---
24	---	---	---	---	44	52	60	60	60	60	60	60	60	60
28	---	---	---	---	---	---	113	120	141	155	160	160	160	160

Bore range  $d_1/d_2$  and corresponding transmissible torque values (Nm) of the coupling.

**Ordering example: GWE 5107**

Series/Size	Bore diameter $d_1$	Expanding mandrel $d_2$	Further details
GWE 5107-24	25	28	*

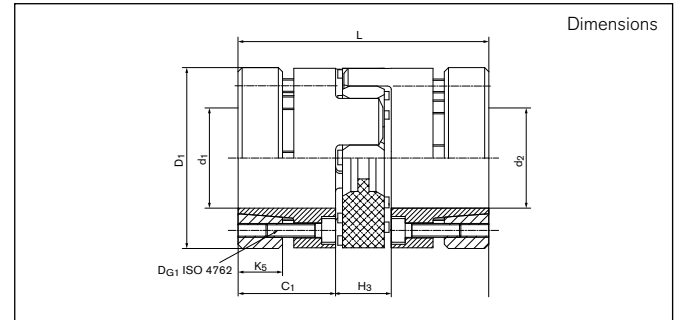
\* Keyway

Subject to technical changes.



**Backlash-free Servo-Insert Couplings**

# Series GWE 5112



**Dimensions**

**d<sub>1</sub>, d<sub>2min</sub>** = Min. bore diameter

**d<sub>1</sub>, d<sub>2max</sub>** = Max. bore diameter

**C<sub>1</sub>** = Guided length in shaft boring d<sub>1</sub>

**D<sub>1</sub>** = Outer diameter

**H<sub>3</sub>** = Length of damping part (bellow/elastomer)

**K<sub>5</sub>** = Wide of clamping ring

**L** = Total length of coupling

Size	d <sub>1</sub> ; d <sub>2</sub> min-max	C <sub>1</sub>	D <sub>1</sub>	H <sub>3</sub>	K <sub>5</sub>	L
	Without keyway					
	mm	mm	mm	mm	mm	mm
14	6 - 14	18,5	32	13	8	50
19	8 - 20	25	40	16	10	66
24	11 - 25	30	55	18	13	78
28	15 - 36	35	65	20	16	90
38	20 - 41	45	80	24	22	114
42	25 - 50	50	95	26	25	134
48	28 - 55	56	105	28	28	140

Moment of inertia and weight (mass) are calculated with reference to the largest bore size.

**Backlash-free Servo-Insert Couplings**
**Series GWE 5112**
**Technical Data**
**T** = Transmissible torque at given  $T_A$ 
**H<sub>es</sub>** = Standard hardness of the elastomeric star

**n<sub>max</sub>** = Max. rotation speed

**J** = Total moment of inertia

**Gw** = Weight

**D<sub>G1</sub>** = Thread

**T<sub>A1</sub>** = Tightened torque of clamping screw (D<sub>G1</sub>)

Size	T	H <sub>es</sub>	n <sub>max</sub>	J	Gw	D <sub>G1</sub>	T <sub>A1</sub>
	Nm		1/min	10 <sup>-3</sup> Kgm <sup>2</sup>	kg	mm	Nm
14	12,5	98 SH A	25400	0,014	0,042	M3	1,8
19	17	98 SH A	19000	0,063	0,158	M4	3
24	60	98 SH A	13800	0,26	0,304	M5	6
28	160	98 SH A	11700	0,63	0,505	M5	6
38	325	98 SH A	9550	1,96	0,934	M6	10
42	450	98 SH A	8050	6,43	3,8	M8	35
48	525	98 SH A	7200	10,54	4,9	M10	69

**Bore range / Torque values**

Size	Ø6	Ø10	Ø11	Ø13	Ø14	Ø15	Ø17	Ø19	Ø20	Ø24	Ø25	Ø27	Ø30	Ø32	Ø36	Ø38	Ø42	Ø44	Ø48	Ø50	Ø55
14	3,6	9	12,5	12,5	12,5	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
19	---	17	17	17	17	17	17	17	17	---	---	---	---	---	---	---	---	---	---	---	---
24	---	---	22	37	46	56	60	60	60	60	60	---	---	---	---	---	---	---	---	---	---
28	---	---	---	---	---	56	68	114	134	160	160	160	160	160	160	---	---	---	---	---	---
38	---	---	---	---	---	---	---	---	134	230	261	325	325	325	325	325	---	---	---	---	---
42	---	---	---	---	---	---	---	---	---	---	260	329	450	450	450	450	450	450	450	450	---
48	---	---	---	---	---	---	---	---	---	---	---	326	450	525	525	525	525	525	525	525	525

 Bore range  $d_1/d_2$  and corresponding transmissible torque values (Nm) of the coupling.

**Ordering example: GWE 5112**

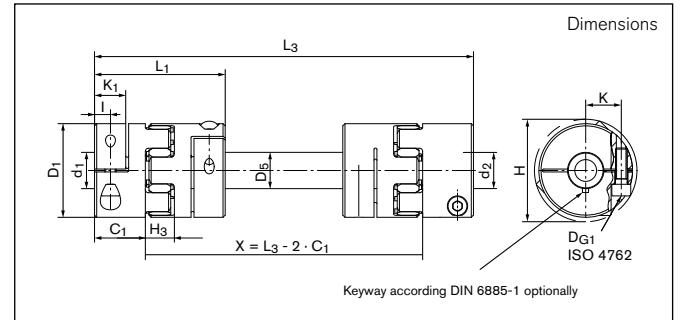
Series/Size	Bore diameter $d_1$	Bore diameter $d_2$	Further details
GWE 5112-42	32	41	*

\* Different spider shore hardness

Subject to technical changes.

Backlash-free Line shafts

# GERWAH® GWZ 5104.1



**Dimensions**

- d<sub>1</sub>, d<sub>2min</sub>** = Min. bore diameter
- d<sub>1</sub>, d<sub>2max</sub>** = Max. bore diameter
- d<sub>1k</sub>, d<sub>2kmin</sub>** = Min. bore diameter with keyway acc. to DIN 6885-1
- d<sub>1k</sub>, d<sub>2kmax</sub>** = Max. bore diameter with keyway acc. to DIN 6885-1
- C<sub>1</sub>** = Guided length in hub boring
- D<sub>1</sub>** = Outer diameter
- D<sub>5</sub>** = Tube diameter
- H** = Clearance diameter
- H<sub>3</sub>** = Length of damping part
- l** = Distance between center screw hole and hub end
- K** = Distance shaft axis - clamping screw axis
- K<sub>1</sub>** = Clamping length
- L<sub>1</sub>** = Length of coupling
- L<sub>3min</sub>** = Min. length of inside shaft
- L<sub>3max</sub>** = Max. length of inside shaft

Size	d <sub>1</sub> ; d <sub>2</sub> min-max		d <sub>1k</sub> ; d <sub>2k</sub> min-max		C <sub>1</sub>	D <sub>1</sub>	D <sub>5</sub>	H	H <sub>3</sub>	l	K	K <sub>1</sub>	L <sub>1</sub>	L <sub>3</sub> min-max
	Without keyway	With keyway	Without keyway	With keyway										
	mm		mm		mm	mm	mm	mm					mm	
14	5 - 16		5 - 16		11	30	16	33	13	5	11	11	35	80 - 2000
19	6 - 20		6 - 20		25	40	20	46	16	12	14,5	25	66	135 - 2000
24	10 - 32		10 - 32		30	55	25	57	18	10,5	20	19	78	160 - 2000
28	10 - 38		10 - 38		35	65	30	71	20	11,5	24,5	21,5	90	185 - 2000
38	12 - 48		12 - 48		45	80	40	83	24	15,5	30	31	114	230 - 2000
42	14 - 54		14 - 54		50	95	40	95	26	18	32,5	32	126	255 - 2000
48	15 - 60		15 - 60		56	105	50	104,5	28	21	36	38	140	290 - 2000

Transmission of the couplings transmissible torque T can not longer be guaranteed for certain with borings < d<sub>min</sub>. Types with borings < d<sub>min</sub>, however, can be supplied.

Moment of inertia and weight (mass) are calculated with reference to the largest bore size.

To continue see next page

**Backlash-free Line shafts**
**GERWAH® GWZ 5104.1**
**Technical Data**

**T** = Transmissible torque at given  $T_A$   
**H<sub>es</sub>** = Hardness of the elastomeric spider

**c (pro m)** = Torsional stiffness of extension tube  
**D<sub>G1</sub>** = Thread diameter

**T<sub>A1</sub>** = Tightened torque of clamping screw (G1)

Size	T	H <sub>es</sub>	C (pro m)	D <sub>G1</sub>	T <sub>A1</sub>
	Nm		Nm/rad	mm	Nm
14	12,5	98 SH A	510	1 x M3	2
19	17	98 SH A	1250	1 x M6	11
24	60	98 SH A	2480	1 x M6	15
28	160	98 SH A	6350	1 x M8	32
38	325	98 SH A	20085	1 x M8	38
42	450	98 SH A	20085	1 x M10	84
48	525	98 SH A	48980	1 x M12	145

**Transmissible torque T [Nm]**

Size	Ø5	Ø6	Ø8	Ø9	Ø10	Ø12	Ø14	Ø15	Ø16	Ø18	Ø20	Ø22	Ø24	Ø25	Ø30	Ø35	Ø40	Ø45	Ø50	Ø55	Ø58
14	4,8	6,0	7,7	8,6	9,4	11	12,5	12,5	12,5	---	---	---	---	---	---	---	---	---	---	---	---
19	---	16	17	17	17	17	17	17	17	17	17	---	---	---	---	---	---	---	---	---	---
24	---	---	---	---	37	43	50	53	56	60	60	60	60	60	60	---	---	---	---	---	---
28	---	---	---	---	61	72	83	88	94	104	114	124	134	138	160	160	---	---	---	---	---
38	---	---	---	---	---	87	100	107	113	126	138	151	163	168	197	225	251	277	---	---	---
42	---	---	---	---	---	---	174	186	197	220	242	264	285	296	348	398	450	450	---	---	---
48	---	---	---	---	---	---	---	---	276	309	343	376	408	424	502	525	525	525	525	525	525

**Ordering example: GWZ 5104.1**

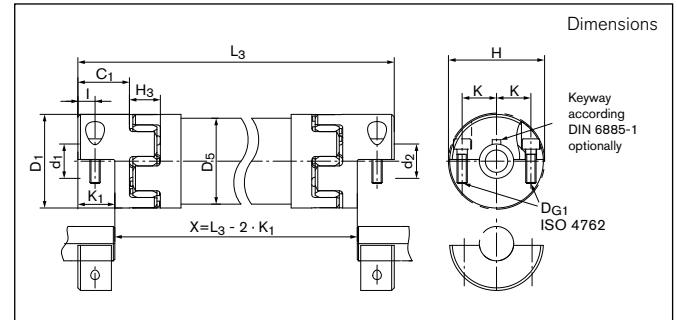
Series/Size	Total length	Bore diameter d <sub>1</sub>	Bore diameter d <sub>2</sub>	Further details
GWZ 5104.1-14	250	10	14	*

\* Keyway

Subject to technical changes.

Backlash-free Line shafts

# GERWAH® GWZ 5106.1



**Dimensions**

- d<sub>1</sub>, d<sub>2min</sub>** = Min. bore diameter
- d<sub>1</sub>, d<sub>2max</sub>** = Max. bore diameter
- d<sub>1k</sub>, d<sub>2kmin</sub>** = Min. bore diameter with keyway acc. to DIN 6885-1
- d<sub>1k</sub>, d<sub>2kmax</sub>** = Max. bore diameter with keyway acc. to DIN 6885-1
- C<sub>1</sub>** = Guided length of hub boring
- D<sub>1</sub>** = Outer diameter
- D<sub>5</sub>** = Tube diameter
- H** = Clearance diameter
- H<sub>3</sub>** = Length of damping part
- I** = Distance between center screw hole and hub end
- K** = Distance shaft axis - clamping screw axis
- K<sub>1</sub>** = Clamping length
- L<sub>3min</sub>** = Min. length of inside shaft
- L<sub>3max</sub>** = Max. length of inside shaft

Size	d <sub>1</sub> ; d <sub>2</sub> min-max		C <sub>1</sub>	D <sub>1</sub>	D <sub>5</sub>	H	H <sub>3</sub>	I	K	K <sub>1</sub>	L <sub>3</sub> min-max
	Without keyway	With keyway									
	mm	mm	mm	mm	mm	mm					mm
14	5 - 16	5 - 16	11	30	30	33	13	5	11	9	85 - 3000
19	6 - 20	6 - 20	25,5	40	40	46	16	7	14,5	13,5	135 - 3000
24	10 - 32	10 - 32	30	55	50	57	18	10,5	20	21	165 - 3000
28	10 - 38	10 - 38	35	65	60	71	20	11	24,5	23,5	205 - 3000
38	12 - 48	12 - 48	45	80	80	83	24	15,5	30	33	250 - 3000
42	14 - 54	14 - 54	50	95	90	95	26	18	32,5	35	265 - 3000
48	15 - 60	15 - 60	57,5	105	108	104,5	28	21	37	41	285 - 3000

Transmission of the couplings transmissible torque T can not longer be guaranteed for certain with borings < d<sub>min</sub>. Types with borings < d<sub>min</sub>, however, can be supplied. Moment of inertia and weight (mass) are calculated with reference to the largest bore size.

To continue see next page

**Backlash-free Line shafts**
**GERWAH® GWZ 5106.1**
**Technical data**

**T** = Transmissible torque at given  $T_A$   
**H<sub>es</sub>** = Hardness of elastomeric the spider

**c (pro m)** = Torsional stiffness of extension tube  
**D<sub>G1</sub>** = Thread diameter

**T<sub>A1</sub>** = Tightened torque of clamping screw (G1)

Size	T	H <sub>es</sub>	C (pro m)	D <sub>G1</sub>	T <sub>A1</sub>
	Nm		Nm/rad	mm	Nm
14	12,5	98 SH A	1526	2 x M3	2
19	17	98 SH A	3244	2 x M6	11
24	60	98 SH A	6631	2 x M6	15
28	160	98 SH A	11815	2 x M8	32
38	325	98 SH A	44929	2 x M8	38
42	450	98 SH A	75797	2 x M10	84
48	525	98 SH A	186714	2 x M12	145

**Transmissible torque T [Nm]**

Size	Ø5	Ø6	Ø8	Ø9	Ø10	Ø12	Ø14	Ø15	Ø16	Ø18	Ø20	Ø22	Ø24	Ø25	Ø30	Ø35	Ø40	Ø44	Ø48	Ø50	Ø58
14	3,7	4,4	5,9	6,6	7,4	8,8	10,3	11,1	11,8	---	---	---	---	---	---	---	---	---	---	---	---
19	---	12,6	17	17	17	17	17	17	17	17	17	---	---	---	---	---	---	---	---	---	---
24	---	---	---	---	29	34	40	43	46	51	57	60	60	60	60	---	---	---	---	---	---
28	---	---	---	---	---	55	65	69	74	83	92	102	111	116	139	162	---	---	---	---	---
38	---	---	---	---	---	66	77	82	88	99	110	121	132	137	165	192	219	247	---	---	---
42	---	---	---	---	---	---	139	149	159	179	198	218	238	248	298	347	397	446	---	---	---
48	---	---	---	---	---	---	---	---	233	262	292	321	350	364	437	510	525	525	525	525	525

**Ordering example: GWZ 5106.1**

Series/Size	Total length	Bore diameter d <sub>1</sub>	Bore diameter d <sub>2</sub>	Further details
GWE 5106.1-14	200	10	14	*

\* Keyway

Subject to technical changes.