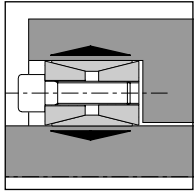


FenLock cone clamping elements are precision made in the finest steel materials to provide a wide, versatile range of keyless shaft/hub fixing assemblies.

They offer

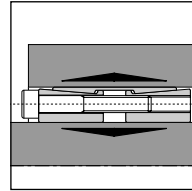
- Simple installation/disassembly
- Resistance to alternating torques
- Increased shaft strength
- High torque transmission capacity
- No backlash
- Axial and angular adjustment capability
- No fretting corrosion
- Simple selection

THE FENLOCK PRODUCT RANGE



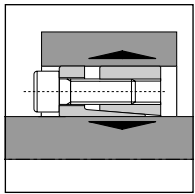
FLK 200

Medium/high torque
Non self centering
Available for shafts 20-900 mm dia.
Max allowable surface finish Rt max 16µm
Tolerances h11 shaft - H11 hub
No axial movement



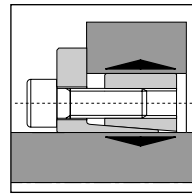
FLK 450

Very high torque
Self centering
Available for shafts 25-400 mm dia.
Max allowable surface finish Rt max 16µm
Tolerances h8 shaft - H8 hub.



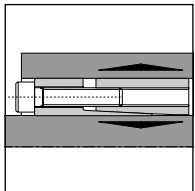
FLK 132

Less screws - quicker installation
Self centering Medium/high torque
Max allowable surface finish Rt max 16µm
Slight axial movement hub/shaft
Available for shafts 20-200 mm dia
Tolerances h8 shaft - H8 hub.



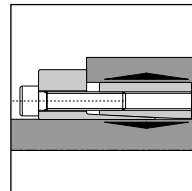
FLK 133

As FLK 132 with larger dia. location collar
Less screws - quicker installation
Medium/high torque Self centering
No axial movement hub/shaft
Available for shafts 20-200 mm dia
Max allowable surface finish Rt max 16µm
Tolerances h8 shaft - H8hub.



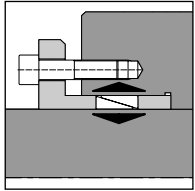
FLK 130

High torque
Self centering
Max allowable surface finish Rt max 16µm
Slight axial movement hub/shaft
Available for shafts 20-180 mm dia
Tolerances h8 shaft - H8 hub.



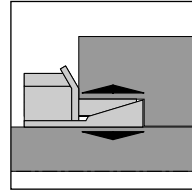
FLK 131

As FLK 130 with larger dia. location collar
High torque
Self centering
No axial movement hub/shaft
Available for shafts 20-180 mm dia
Max allowable surface finish Rt max 16µm
Tolerances h8 shaft - H8 hub.



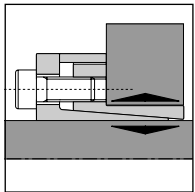
FLK 300

Medium/low torque
Non self centering
Max allowable surface finish Rt max 6µm
Available for shafts 6-300 mm dia
(larger sizes to order)
Tolerances ≥ 40mm dia, h6 shaft - H7 hub
≤ 42mm dia h8 shaft - H8 hub



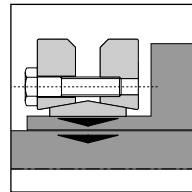
FLK 250L

Similar to FLK 300 with integral single nut fixing
Medium/low torque Self centering
Max allowable surface finish Rt max 16µm
Slight axial movement hub/shaft
Available for shafts 14-60 mm dia
Tolerances h8 shaft - H8 hub.



FLK 110

Few screws - quicker installation
Medium/high torque Self centering
Max allowable surface finish Rt max 16µm
Available for shafts 6-130 mm dia
Tolerances h8 shaft - H8 hub.



FLK 603

'Shrink disc' device for hub clamping
Quick installation
Medium/high torque Self centering
Available for hubs 14-280 mm dia
(larger sizes to order)
Max allowable surface finish Rt max 16µm
Tolerances h8 shaft.

FENLOCK SELECTION

1. Determine the maximum torque (Nm) to be transmitted, including fluctuations and shock loads, and any axial forces (kN) to be withstood.
2. Use the features table above to help determine the type of FenLock device to use.
3. Use the tabulated data on the following pages to establish torque (Mt) and axial load capacity (F) of the chosen unit on the shaft size being used, and that they exceed applicational requirements.

Note: Maximum torque and axial force values are mutually exclusive. For combined torque and axial force applications, consult your local Authorised Distributor.

4. Check dimensional suitability, self centering capability and ease of installation/disassembly.
5. For hub strength calculations or more detailed selection advice - consult your local Authorised Distributor.

INSTALLATION

1. Ensure cleanliness of hub and shaft contact surfaces
2. Screw threads and conical surfaces should be lightly oiled.
3. Tighten fixing screws gradually, in diagonal sequence, up to torque Ms (Nm)
4. For more detailed information - consult your local Authorised Distributor.

FenLock™ Cone Clamping Elements



To Calculate the Minimum Hub Diameter (Dm).

FenLock cone clamping elements create a surface pressure **Pn** between the clamping outer ring and hub bore when fitted. Shaft values are higher than the hub stresses but generally the hub stress level is the critical factor as it must be below the yield stress of the material.

The minimum hub diameter **Dm** is calculated using the following formula

Dm ≥ (D-K)

where

Dm = Minimum hub diameter

D = Outside diameter of clamping element

K = Coefficient K derived from the table below

Use **Pn** from product tables on pages 134 - 138

factor C (see below)

Example

Based on securing a cast iron 50mm wide pulley to a steel shaft using a FenLock 200 80 x 120.

Pulley Material = GG25

C = 0.8 as assembly is as per type 2

Pn = 120 N/mm² as page 134

K = 1,81

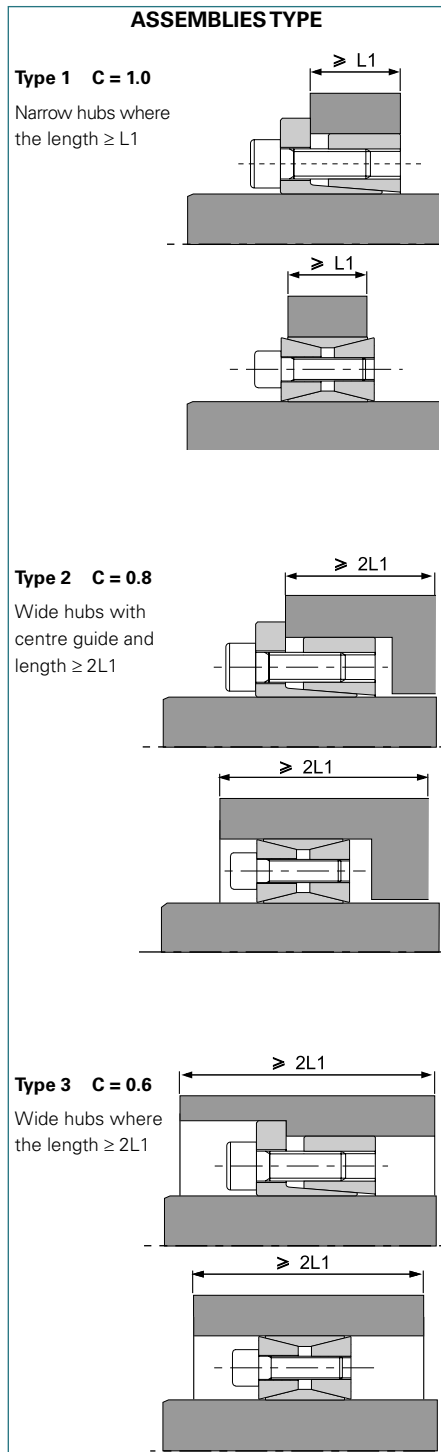
Dm ≥ (D-K)

Dm ≥ (120 x 1.81)

Dm ≥ 217.2mm

Therefore, the minimum hub diameter that can be used is 217.2mm.

FACTOR C



COEFFICIENT K

Pressure generated on the hub	Pn N/mm ²	Application type C	Yield point N/mm ²											
			150	180	200	220	250	270	300	350	400	450	600	
			Material type											
			GG20	GG25 GS38	GG30 GTS35	GS45 ST37-2	GGG40 GS52	ST50-2 C35	GGG50 GS60 ST60-2	GGG60 GS62 ST70-2	GGG70 GS70 C60			
60	C=0.6	1.28	1.25	1.20	1.18	1.15	1.14	1.12	1.10	1.09	1.08	1.06		
	C=0.8	1.39	1.30	1.24	1.23	1.22	1.20	1.18	1.15	1.12	1.11	1.08		
	C=1	1.52	1.42	1.36	1.32	1.28	1.25	1.22	1.18	1.16	1.14	1.10		
65	C=0.6	1.30	1.25	1.22	1.20	1.18	1.15	1.13	1.11	1.10	1.09	1.07		
	C=0.8	1.44	1.35	1.30	1.28	1.24	1.22	1.20	1.16	1.14	1.12	1.09		
	C=1	1.60	1.45	1.40	1.35	1.30	1.28	1.24	1.20	1.18	1.16	1.12		
70	C=0.6	1.34	1.26	1.24	1.22	1.18	1.16	1.15	1.12	1.11	1.10	1.07		
	C=0.8	1.48	1.38	1.34	1.30	1.25	1.23	1.20	1.18	1.15	1.13	1.10		
	C=1	1.65	1.50	1.45	1.40	1.34	1.30	1.26	1.22	1.20	1.17	1.13		
75	C=0.6	1.30	1.28	1.25	1.23	1.20	1.18	1.16	1.14	1.12	1.11	1.08		
	C=0.8	1.52	1.42	1.36	1.32	1.28	1.25	1.22	1.18	1.16	1.14	1.11		
	C=1	1.74	1.55	1.48	1.42	1.36	1.33	1.30	1.25	1.20	1.18	1.13		
80	C=0.6	1.39	1.31	1.28	1.25	1.21	1.20	1.18	1.15	1.13	1.11	1.08		
	C=0.8	1.58	1.45	1.39	1.35	1.30	1.27	1.24	1.20	1.18	1.15	1.11		
	C=1	1.81	1.61	1.53	1.46	1.39	1.36	1.31	1.26	1.22	1.20	1.14		
85	C=0.6	1.42	1.34	1.30	1.27	1.23	1.21	1.19	1.16	1.14	1.12	1.09		
	C=0.8	1.63	1.49	1.42	1.38	1.32	1.29	1.26	1.22	1.19	1.16	1.12		
	C=1	1.90	1.67	1.57	1.50	1.42	1.39	1.34	1.28	1.24	1.21	1.15		
90	C=0.6	1.46	1.36	1.32	1.28	1.25	1.22	1.20	1.17	1.15	1.13	1.09		
	C=0.8	1.69	1.53	1.46	1.40	1.34	1.31	1.28	1.23	1.20	1.18	1.13		
	C=1	2.00	1.73	1.62	1.54	1.46	1.41	1.36	1.30	1.26	1.22	1.16		
95	C=0.6	1.49	1.39	1.34	1.30	1.26	1.24	1.21	1.18	1.15	1.14	1.10		
	C=0.8	1.75	1.57	1.49	1.43	1.37	1.34	1.30	1.25	1.21	1.19	1.14		
	C=1	2.11	1.80	1.68	1.59	1.49	1.44	1.39	1.32	1.27	1.24	1.17		
100	C=0.6	1.53	1.41	1.36	1.32	1.28	1.25	1.22	1.19	1.16	1.14	1.11		
	C=0.8	1.81	1.61	1.53	1.46	1.39	1.36	1.31	1.26	1.22	1.20	1.14		
	C=1	2.24	1.87	1.73	1.63	1.53	1.48	1.41	1.34	1.29	1.25	1.18		
105	C=0.6	1.56	1.44	1.39	1.34	1.29	1.27	1.24	1.20	1.17	1.15	1.11		
	C=0.8	1.88	1.66	1.56	1.50	1.42	1.38	1.33	1.28	1.24	1.21	1.15		
	C=1	2.38	1.95	1.79	1.68	1.56	1.51	1.44	1.36	1.31	1.27	1.19		
110	C=0.6	1.60	1.47	1.41	1.36	1.31	1.28	1.25	1.21	1.18	1.16	1.12		
	C=0.8	1.96	1.71	1.60	1.53	1.44	1.41	1.35	1.29	1.25	1.22	1.16		
	C=1	2.55	2.04	1.86	1.73	1.60	1.54	1.47	1.38	1.33	1.28	1.20		
115	C=0.6	1.64	1.50	1.43	1.36	1.33	1.30	1.26	1.22	1.19	1.17	1.12		
	C=0.8	2.04	1.76	1.64	1.56	1.47	1.43	1.37	1.31	1.26	1.23	1.17		
	C=1	2.75	2.13	1.93	1.79	1.64	1.58	1.50	1.41	1.34	1.30	1.21		
120	C=0.6	1.69	1.53	1.46	1.40	1.34	1.31	1.28	1.23	1.20	1.18	1.13		
	C=0.8	2.13	1.81	1.69	1.60	1.50	1.45	1.39	1.33	1.28	1.24	1.18		
	C=1	3.00	2.24	2.00	1.84	1.69	1.61	1.53	1.43	1.36	1.31	1.22		
125	C=0.6	1.73	1.56	1.48	1.43	1.36	1.33	1.29	1.24	1.21	1.18	1.13		
	C=0.8	2.24	1.87	1.73	1.63	1.53	1.48	1.41	1.34	1.29	1.25	1.18		
	C=1	3.32	2.35	2.08	1.91	1.73	1.65	1.56	1.45	1.38	1.33	1.24		
130	C=0.6	1.78	1.59	1.51	1.45	1.38	1.35	1.30	1.25	1.22	1.19	1.14		
	C=0.8	2.35	1.93	1.78	1.67	1.56	1.50	1.44	1.36	1.30	1.27	1.19		
	C=1	3.74	2.49	2.17	1.97	1.78	1.69	1.59	1.48	1.40	1.35	1.25		
135	C=0.6	1.83	1.62	1.54	1.47	1.40	1.36	1.32	1.27	1.23	1.20	1.15		
	C=0.8	2.48	2.00	1.83	1.71	1.59	1.53	1.46	1.38	1.32	1.28	1.20		
	C=1	4.36	2.65	2.27	2.04	1.83	1.73	1.62	1.50	1.42	1.36	1.26		
140	C=0.6	1.88	1.66	1.56	1.50	1.42	1.38	1.33	1.28	1.24	1.21	1.15		
	C=0.8	2.63	2.07	1.88	1.75	1.62	1.55	1.48	1.39	1.33	1.29	1.21		
	C=1	5.39	2.83	2.38	2.12	1.88	1.78	1.66	1.53	1.44	1.38	1.27		
145	C=0.6	1.94	1.69	1.59	1.52	1.44	1.40	1.35	1.29	1.25	1.22	1.16		
	C=0.8	2.80	2.15	1.94	1.80	1.65	1.58	1.50	1.41	1.35	1.30	1.22		
	C=1	7.68	3.05	2.50	2.21	1.94	1.82	1.69	1.55	1.46	1.40	1.28		
150	C=0.6	2.00	1.73	1.62	1.54	1.46	1.41	1.36	1.30	1.26	1.23	1.16		
	C=0.8	3.00	2.24	2.00	1.84	1.69	1.61	1.53	1.43	1.36	1.31	1.23		
	C=1	—	3.32	2.65	2.30	2.00	1.87	1.73	1.58	1.48	1.41	1.29		
155	C=0.6	2.06	1.77	1.65	1.57	1.48	1.43	1.38	1.31	1.27	1.24	1.17		
	C=0.8	3.25	2.33	2.06	1.89	1.72	1.65	1.55	1.45	1.38	1.33	1.23		
	C=1	—	3.66	2.80	2.40	2.06	1.92	1.77	1.61	1.51	1.43	1.30		
160	C=0.6	2.13	1.81	1.69	1.60	1.50	1.45	1.39	1.33	1.28	1.24	1.18		
	C=0.8	3.55	2.43	2.13	1.94	1.76	1.67	1.58	1.47	1.39	1.34	1.24		
	C=1	—	4.12	3.00	2.52	2.13	1.98	1.81	1.64	1.53	1.45	1.31		
165	C=0.6	2.21	1.86	1.72	1.62	1.52	1.47	1.41	1.34	1.29	1.25	1.18		
	C=0.8	3.96	2.55	2.21	2.00	1.80	1.71	1.60	1.49	1.41	1.35	1.25		
	C=1	—	4.80	3.23	2.65	2.21	2.04	1.86	1.67	1.55	1.47	1.33		