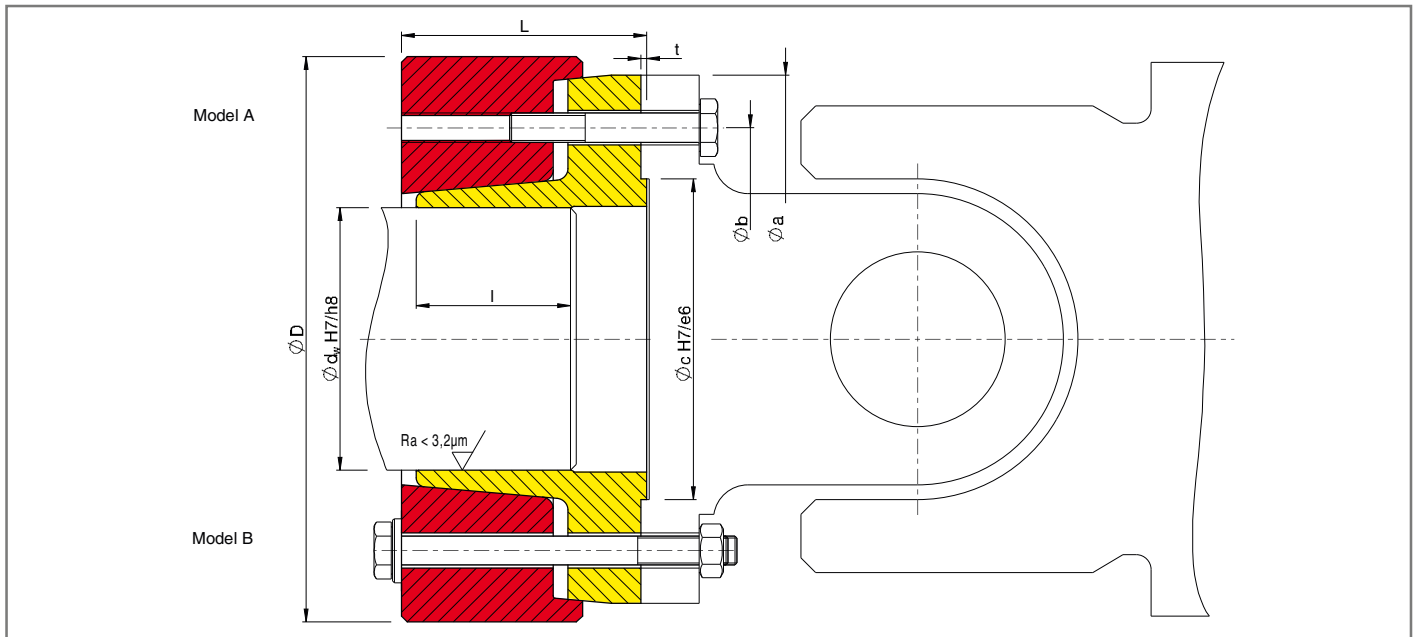


Cardan Shaft Coupling GF Series 21



Dimension L apply to untightened units.

Type	d _w * mm	M _t kNm	D mm	l mm	L mm	a mm	b mm	c mm	t mm	Flange bolts**	M _a Nm	Number of bolts**	kg
G F 58 - 21	20	0,12	60	18	22	58	47	30	1,3	M5 x 16	9	4	0,5
	24	0,17											
	28	0,24											
G F 65 - 21	20	0,16	72	20	24	65	52	35	1,5	M6 x 20	15	4	0,9
	24	0,22											
	30	0,33											
G F 75 - 21	25	0,29	80	22	27	75	62	42	1,8	M6 x 20	15	6	1,2
	30	0,41											
	40	0,66											
G F 90 - 21	30	0,38	100	26	31	90	74,5	47	2	M8 x 25	35	4	2,2
	40	0,59											
	45	0,80											
G F 100 - 21	40	0,80	115	26	32	100	84	57	2	M8 x 25	35	6	2,8
	50	1,17											
	55	1,54											
G F 120 - 21	40	1,73	138	28	34	120	101,5	75	2	M10 x 30	70	8	4,6
	60	3,03											
	70	4,24											
G F 150 - 21	50	4,00	170	39	46	150	130	90	2,5	M12 x 40	120	8	9,4
	70	6,53											
	85	9,52											

Further sizes on request. Technical changes to be reserved without notice.

*Dia d_w can be chosen within given imitations.

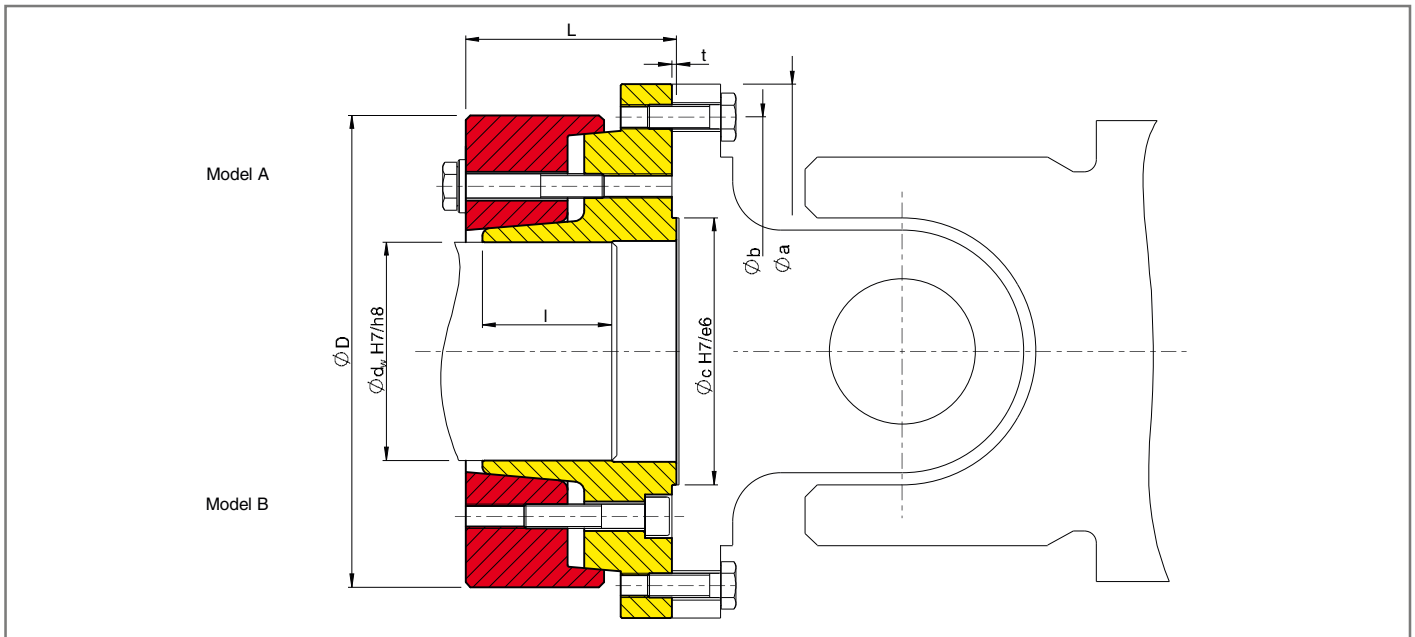
**Flange holes, bolt size and bolt quantity may be variant (dependent on the seller of the cardan shaft).

Flange bolts: Grade 12.9

Model B: M16 and upwards with washers: DIN EN ISO 7416

When ordering please state : e.g. GF 120 - 21 x 60 x A (Type x Ø d_w x model)
additional: flange holes, bolt size and bolt quantity if variant from catalogue

Cardan Shaft Coupling GF Series 22



Dimension L apply to untightened units.

Type	d _w * mm	M _t kNm	Tightening bolts**	M _a Nm	D mm	l mm	L mm	a mm	b mm	c mm	t mm	Flange bolts**	M _a Nm	Quantity of bolts**	kg
G F 180 - 22	65	7	M14	160	170	40	71	180	155,5	110	2	M14 x 40	160	8	12,9
	75	10													
	85	15													
G F 225 - 22	80	12	M16	240	197	51	86	225	196	140	4	M16 x 40	240	8	21,4
	90	17													
	100	24													
G F 250 - 22	90	18	M16	240	215	54	91	250	218	140	4	M18 x 40	340	8	26,4
	100	25													
	110	33													
G F 285 - 22	90	20	M20	470	230	62	101	285	245	175	5	M20 x 40	470	8	34,6
	110	34													
	120	43													
G F 315 - 22	110	37	M24	820	290	73	121	315	280	175	5	M22 x 50	640	8	63,0
	130	58													
	140	71													
G F 350 - 22	130	52	M24	820	340	83	136	350	310	220	7	M22 x 55	640	10	103,5
	160	91													
	180	124													
G F 390 - 22	160	95	M24	820	370	104	153	390	345	250	7	M24 x 60	820	10	130,0
	180	131													
	200	172													
G F 435 - 22	180	136	M27	1210	405	115	170	435	385	280	8	M27 x 70	1210	10	175,3
	200	179													
	220	229													

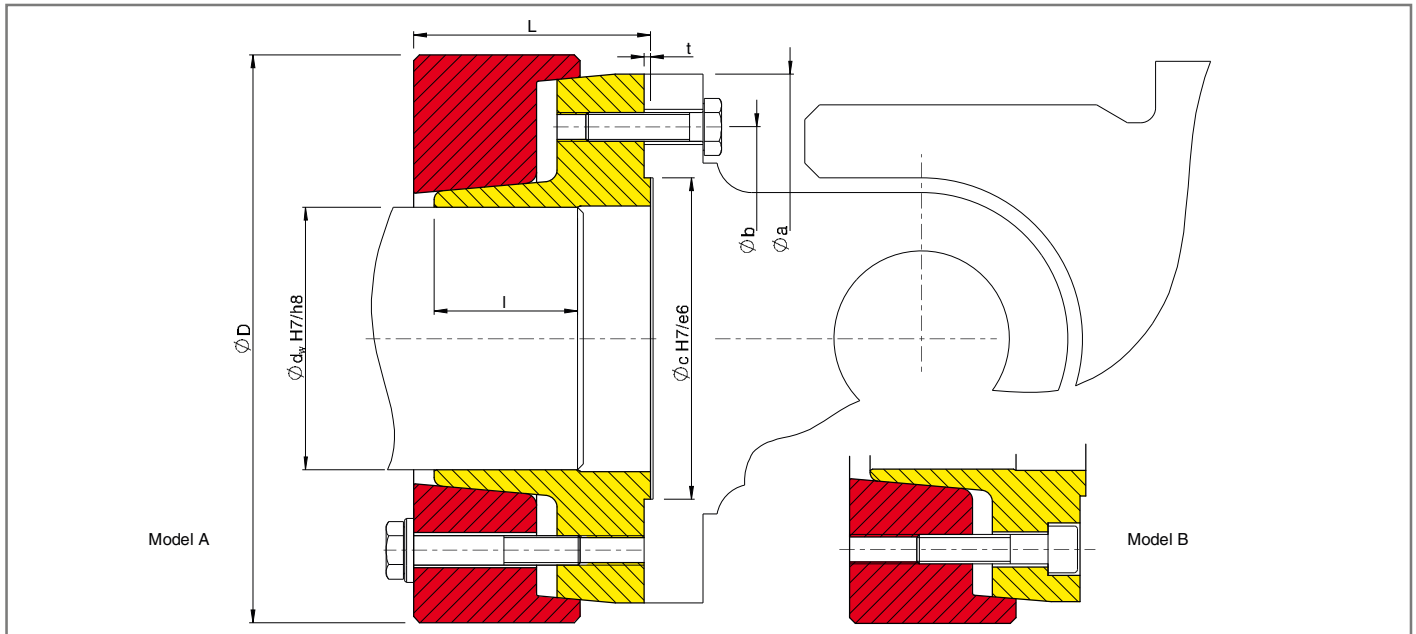
Further sizes on request. Technical changes to be reserved without notice.

* Dia d_w can be chosen within given imitations.

** Grade 10.9; Flange holes, bolt size and bolt quantity may be variant (dependent on the seller of the cardan shaft).
For Model A tightening bolts M16 and upwards are used with washers (DIN EN ISO 7416).

When ordering please state: e. g. GF 225 - 22 x 90 x A (Type x Ø d_w x model)
additional: flange holes, bolt size and bolt quantity if variant from catalogue

Cardan Shaft Coupling GF Series 23



Dimension L apply to untightened units.

Type	d_w^* mm	M_t kNm	Tightening bolts**	M_a Nm	D mm	l mm	L mm	a mm	b mm	c mm	t mm	Flange- bolts**	M_a Nm	Quantity of bolts**	kg
G F 180 - 23	90	13	M14	160	215	42	76	180	155,5	110	2,5	M14 x 30	160	8	21,0
	110	23													
	120	29													
G F 225 - 23	110	26	M16	240	263	50	87	225	196	140	4	M16 x 40	240	8	38,2
	130	41													
	150	60													
G F 250 - 23	120	35	M16	240	300	61	97	250	218	140	5	M18 x 40	340	8	56,5
	150	65													
	170	90													
G F 285 - 23	130	56	M20	470	320	74	115	285	245	175	5	M20 x 40	470	8	74,9
	160	94													
	180	127													
G F 315 - 23	150	81	M24	820	370	88	136	315	280	175	5	M22 x 50	640	8	117,9
	180	131													
	200	171													
G F 350 - 23	190	147	M24	820	430	103	153	350	310	220	7	M22 x 55	640	10	175,3
	220	213													
	240	265													
G F 390 - 23	210	213	M24	820	460	123	175	390	345	250	7	M24 x 60	820	10	226,1
	240	298													
	260	363													
G F 435 - 23	230	262	M27	1210	520	128	192	435	385	280	7	M27 x 70	1210	10	321,1
	260	356													
	300	507													

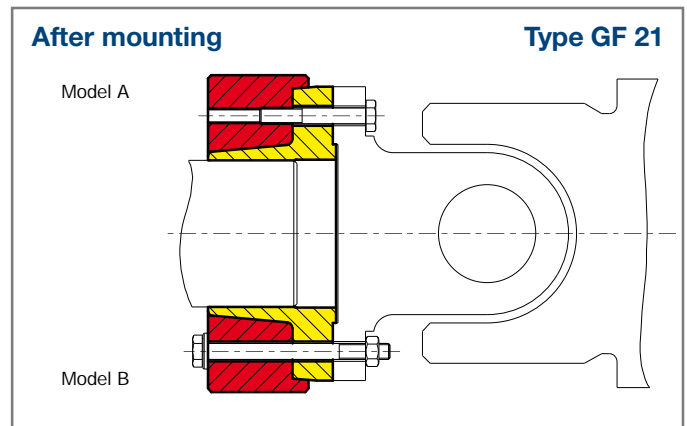
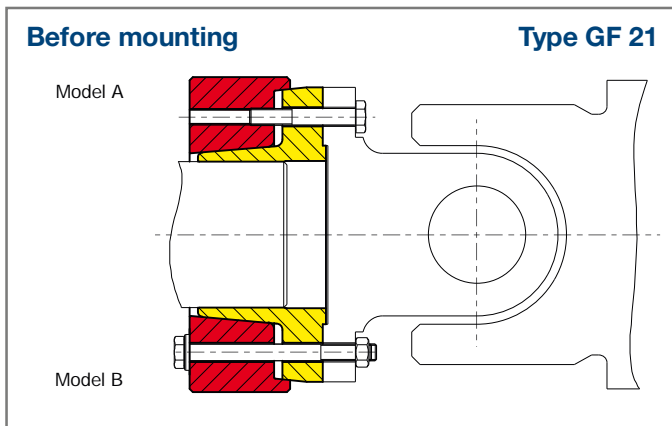
Further sizes on request. Technical changes to be reserved without notice.

* Dia d_w can be chosen within given imitations.

** Grade 10.9; Flange holes, bolt size and bolt quantity may be variant (dependent on the seller of the cardan shaft).
For Model A tightening bolts M16 and upwards are used with washers (DIN EN ISO 7416).

When ordering please state: e. g. GF 250 - 23 x 150 x A (Type x $\varnothing d_w$ x model)
additional: flange holes, bolt size and bolt quantity if variant from catalogue

Mounting and Removal Instructions for Cardan Shaft Coupling



Mounting

The STÜWE® cardan shaft couplings GF are supplied ready to be mounted.

Series 21 with tightening bolts

Series 22 and 23 with tightening bolts, without flange connecting bolts.

Therefore they should not be dismantled prior to employing the unit for the first time.

1. Degrease flange bore, shaft, and front of locking unit and cardan shaft.



Do not tighten the tightening bolts before the shaft is mounted.

2. Push flange onto the shaft.
3. Tighten the tightening bolts. It should consider the following:
 - With series 21 the locking unit and the cardan shaft will be connected in a single pass.
 - With series 22 and 23 all tightening screws have to be tightened in the first pass. In the second pass the cardan shaft has to be mounted with flange connecting bolts.

Approach:

- 3.1 Tighten four bolts evenly distributed over the circumference by reduced torque (approx. 50 to 70 % of maximum tightening torque).
- 3.2 Afterwards tighten all tightening bolts uniformly, one by one, over several revolutions with the maximum torque until the outer ring hits the inner ring and until the bolts can not be tightened with the max. torque anymore.
- 3.3 Check each tightening bolt twice for the required tightening torque.

Dismounting

This is similar to mounting.

1. With series 22 and 23 first remove all flange connecting bolts and the cardan shaft.
2. Loosen all tightening bolts uniformly and one by one, initially not more than a quarter turn per bolt.



Under no circumstances should the locking bolts be completely removed as this could be dangerous and result in injury.

3. Should the outer ring, when loosening the bolts, not slide automatically from the inner ring, this can be assisted by removing those locking bolts adjacent to the tapped holes provided for jacking purposes and screwing them into these tapped holes (only series 22 and 23).
4. Dismount shaft or pull off flange. Remove rust which may have formed on the shaft in front of the locking unit.

Cleaning and greasing

Dismounted cardan shaft connecting flanges do not have to be taken apart and re-lubricated before remounting. The conical surfaces have to be cleaned and regreased only if employed in dirty environment.

Use a solid lubricant with a high content of MoS₂ and a coefficient of friction of $\mu=0,04$ to lubricate the **conical surfaces**.

Examples:

Lubricant	Source
Molykote D 321 R (bonded coating)	Dow Corning
Aema-Sol MO 84-K (bonding coating)	A.C. Matthes
Molykote G Rapid + (paste)	Dow Corning
Aema-Sol M 19 P (paste)	A.C. Matthes

The bolts are lubricated with commercially available bolt lubricants.